

Nonprofit Governance: Mechanisms and Outcomes

by

Laurie Corradino, BSBA, MBA

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Approved

Dr. Denton Collins
Chair of Committee

Dr. Matthew Hart

Dr. Juan Manuel Sanchez

Mark Sheridan
Dean of the Graduate School

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ABSTRACT

While governance has been widely explored in for-profit accounting research for well over a decade, the topic has only recently attracted comparable interest in a nonprofit setting. In this dissertation, I contribute to the growing body of literature by studying various facets of nonprofit governance. More specifically, I carry out my study by examining those mechanisms specifically outlined on IRS Form 990 as well as two broader tools: internal controls and executive inside debt.

In Study I, I investigate the factors associated with nonprofits' choice to remediate internal control deficiencies as well as the benefits enjoyed by nonprofits that do remediate. I find that remediation is more likely among nonprofits that are larger, are not at risk of liquidating within the next year (i.e., do not receive a going concern opinion), have lower overall audit risk, have slower growth, have December fiscal year-ends, disclose material weaknesses, have higher scaled surplus, have higher federal expenditures, and that have recently experienced an auditor switch. I also find that remediation provides a number of operational benefits with respect to subsequent spending, public support, implementation of other governance mechanisms, cost of debt, and audit delays.

In Study II, I examine the relationship between the presence of external oversight and the disclosure/adoption of internal governance mechanisms as specifically outlined on Form 990. I generally find that internal governance and external oversight are complements to rather than substitutes for one another and that the presence of a handful of external oversight mechanisms drive the nonprofit to also be well-governed internally. Further, I study the impact of internal governance on a wider range of performance

factors and find that better internally governed nonprofits have better financial reporting quality, more efficient and stable operations, and less costly external debt financing.

Finally, in Study III, I examine contracting as a form of governance measured as executive inside debt (deferred compensation). Based on my examination of the determinants of CEO inside debt, I find that it is more often used and comprises a higher proportion of a CEO's total compensation when the nonprofit is larger, younger, growing, less leveraged, more charitable-oriented, operates in a high income tax state, has a less powerful CEO, and has generally otherwise poor governance. Further, I find that a higher proportion of inside debt in a CEO's pay structure is associated with a higher program ratio, a lower likelihood of program ratio manipulation, a lower probability of a going concern opinion, a lower probability of internal control material weaknesses over financial reporting, and the receipt of higher external credit ratings.

Collectively, the results from my study indicate that nonprofits simultaneously use a number of governance mechanisms. Further, the presence and proper operation of those mechanisms help a nonprofit to improve its performance and better align its operations with the needs and desires of stakeholders.

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CHAPTER I

INTRODUCTION

The nonprofit industry represents a significant component of the U.S. economy. In 2013, tax exempt organizations contributed an estimated \$905.9 billion to the nation's finances equating to 5.4 percent of GDP. Total 2014 giving by individuals, businesses, and foundations to nonprofits was just as substantial at \$358.38 billion (McKeever 2015). Given the sector's impact and support, it is critical to ensure that nonprofits are working toward meeting their missions today as well as being operated in a manner that will ensure that same success well into the future.

This dissertation examines the role that governance plays in achieving that objective. As Brickley and Zimmerman (2010) point out, a universal definition of corporate governance does not exist. However, generally speaking, governance may be viewed as any mechanism that helps to align the interests of organizational decision makers with the interests of stakeholders both inside and outside of the organization and, in so doing, improve the performance of the entity (Denis 2001). In for-profit terms, the aligning of interests is necessary because of the separation of ownership and control and the related agency costs that result (Smith 1776; Coase 1937; Jensen and Meckling 1976). While nonprofits do not have "owners" per se, recipients, donors, communities, etc. are stakeholders with owner-like interests that may differ from those of managers who control the daily operations of the organization. In fact, Brickley and Van Horn (2002) and Glaeser (2002) actually argue that, because of the absence of a residual or ownership claim for managers, the agency problem may actually be more severe for nonprofits.

Therefore, given these possible agency problems, nonprofits need strong governance at least as much as their for-profit counterparts.

While governance has been widely explored in for-profit accounting research for well over a decade, the topic has only recently attracted comparable interest in a nonprofit setting. From an archival standpoint, an increase in data availability has triggered such growing attention. In 2008, the IRS revised tax Form 990¹. The revisions include self-released data concerning management, governance, and disclosure. Those revisions have captured the interest of researchers and nonprofit rating agencies alike. For example, using the new data but focusing only on 2008, Yetman and Yetman (2012) show that governance contributes to better financial reporting quality, at least as measured by fundraising expense levels. With such knowledge, rating agencies like Charity Navigator have added governance to their rating formulas, and Harris et al. (2015b) show that donors do, in fact, positively value such governance implementation.

While the elements captured in the revised Form 990 comprise one facet of governance, the governance concept is multi-dimensional (as its lack of a universal definition indicates). While some authors limit governance to a very narrow subset of mechanisms or desirable outcomes, Gillan (2006) points out that both internal and external governance are interconnected with a number of pieces comprising each. Organizations therefore have many tools from which to choose in mitigating any agency

¹ IRS Tax Form 990 is the informational tax form required to be filed by organizations exempt from income taxes under 501(c), 527, and 4947(a)(1) sections of the IRS Code excluding private foundations, political organizations, and churches and other religious entities. While smaller nonprofits may qualify to complete abbreviated versions of the form, for purposes of this dissertation, I include only 501(c)(3) nonprofits filing the full Form 990.

costs that exist and in ensuring that the organization is best positioned to achieve its mission. In this dissertation, I examine those mechanisms specifically outlined on Form 990 as well as two broader tools: internal controls and executive inside debt. By covering a broad spectrum of governance tools rather than only those elements deemed “governance” on Form 990, I better capture the governance concept as it applies to a nonprofit setting, the interrelated nature of the components of governance, and the impact of governance on nonprofit performance. I also highlight the need for donors and rating agencies to consider governance elements beyond those specifically listed on Form 990.

In Study I, I extend Petrovits et al. (2011) and focus on internal control deficiencies. Research shows that internal control deficiencies, particularly in a nonprofit setting, are associated with fraud, accounting errors, and reduced public donations and governmental grants (ACFE 2014; Burks 2015; Petrovits et al. 2011). With respect to the latter item, donation reductions indicate a misalignment between donors’ desires and actual organizational operations.

Given the potential losses due to fraud as well as those stemming from contribution reductions, I argue that a natural response for nonprofits to take is to remediate the deficiencies and, in the process, attempt to realign interests and regain lost support. I study whether or not that happens in Study I. More specifically, I examine the factors associated with the remediation decision as well as the benefits enjoyed by organizations that do remediate. I find that remediation efforts are undertaken by most nonprofits, with 46 percent of deficiencies corrected within one period following initial disclosure, and 73 percent corrected within three periods. I further find that remediation

is more likely among nonprofits that are larger, are not at risk of liquidating within the next year (i.e., do not receive a going concern opinion), have lower overall audit risk, have slower growth, have December fiscal year-ends, disclose material weaknesses, have higher scaled surplus, have higher federal expenditures, and that have recently experienced an auditor switch. With respect to repercussions and benefits, nonprofits that do remediate have larger increases in (1) officer compensation, (2) scaled administrative expenses, (3) the number of other governance mechanisms used, and (4) subsequent public support. Further, remediating nonprofits exhibit smaller increases in program service expenses, decreases (compared with increases for non-remediating nonprofits) in the cost of debt, and lower audit report delays.

In Study II, I examine the relationship between the presence of external oversight and the disclosure/adoption of internal governance mechanisms as specifically outlined on Form 990. Brickley and Zimmerman (2010) caution against separating governance mechanisms into internal and external categories. They argue that separating the two types of governance results in excessive focus on the source of the mechanism as opposed to the mechanisms' overall firm benefits². However, here I make such distinctions to demonstrate the interrelationships between external oversight and internal governance, an approach advocated by Brickley and Zimmerman (2010) and Gillan (2006).

² Brickley and Zimmerman (2010) note that both internal and external governance mechanisms represent a set of contracts that interact with one another. They argue that "rather than focusing on this artificial distinction, it is likely to be more productive to focus on the important questions of why the particular set of contracts arose, the corresponding consequences, and how exogenous changes might affect the organization." They further note that "an important concern about classifying contracts, as either inside or outside, is that it tends to divert attention away from potentially important and complex interactions among the set of key contracts that comprise the firm" (Brickley and Zimmerman 2010, 237).

In subsequent analyses, I study the relationship between internal governance and performance while controlling for external oversight. While Yetman and Yetman (2012) utilize 2008 data and focus only on reporting quality measured using zero (understated) fundraising expenses and Harris et al. (2015 a, b) focus on the impact of governance on donations and material diversion of assets, I study the impact of internal governance on a wider range of performance factors. More specifically, I create an internal governance index using 14 possible mechanisms listed on Form 990. I categorize nonprofit-years disclosing use of a number of mechanisms that is at or above the median of 13 (i.e., those nonprofit-years with 13 or 14 mechanisms) as high internal governance nonprofit-years. Using that index I then analyze the relationship between high internal governance and (1) financial reporting quality measured as (a) the Trussel program ratio manipulation factor, (b) the likelihood of receiving a qualified audit report, and (c) the likelihood of internal control deficiencies, (2) operating efficiency analyzed using (a) the program ratio, (b) the administrative ratio, (c) the fundraising ratio, and (d) the adequacy of equity ratio, (3) organizational stability measured using (a) revenue concentration, (b) the coefficient of variation of total revenue, and (c) the coefficient of variation of the program ratio, and (4) external debt financing with respect to (a) the cost of debt and (b) credit ratings.

I find evidence suggesting that external oversight and internal governance mechanisms are complements to one another and that the presence of external oversight particularly in the form of A-133 audits, government grants, temporarily restricted net assets, and the availability of public inspection of financial information on a nonprofits' own website help drive the disclosure/adoption of internal mechanisms. With respect to

performance, my results indicate that high internal governance is associated with better nonprofit financial reporting quality, operating efficiency, organizational stability, and less expensive debt financing. In particular, I find a negative relationship between high internal governance and (1) the Trussel program ratio manipulation factor, (2) qualified audit reports, (3) internal control deficiencies, (4) the adequacy of equity ratio, (5) revenue concentration, (6) the coefficient of variation of the program ratio³, and (7) the cost of debt. Alternatively, I find a positive relationship between high internal governance and (1) the administrative ratio, (2) the fundraising ratio, and (3) investment-grade credit ratings.

In Study III, I examine contracting as a form of governance measured as executive inside debt (deferred compensation). For-profit research indicates that the structure of executive compensation can be used as a tool to alter managerial focus and better align the interests of managers with those of outside parties. In particular, Sundaram and Yermack (2007) show that inside debt in a for-profit setting helps to better tie executives to the firm and encourages a less risky, longer-term focus. Such a situation is desired by donors as well as nonprofit external debtholders.

While a large percentage of nonprofits pay their CEOs using some amount of inside debt (CEO inside debt is present in 75.7 percent of my sample's nonprofit-years), there are certain characteristics that make some nonprofits more apt to utilize that form of executive compensation. In particular inside debt compensation is higher when nonprofits are larger, younger, growing, less leveraged, more charitable in nature (but interestingly

³ For the coefficient of variation analysis, I use average IG over a 4-year period rather than the high IG indicator.

receive a lower percentage of total revenues from contributions and government grants), operate in high income tax states, have less powerful CEOs, and have generally otherwise poor governance (e.g., in the form of larger and less independent boards). Further, I find that the use of nonprofit CEO inside debt is associated with (1) higher program ratios, (2) a lower likelihood of program ratio manipulation, (3) a lower probability of a going concern opinion, (4) a lower probability of internal control material weaknesses over financial reporting (with some evidence of a lower incidence of other types of internal control deficiencies as well) and, (5) receipt of higher external credit ratings. All of the outcomes are desirable from a donor and debtor perspective. Thus CEO inside debt appears to help align CEO and stakeholder interests and to improve performance.

Together, my studies show that nonprofits simultaneously use a number of governance mechanisms to reduce the agency problems that likely exist. Those mechanisms are associated with improved reporting quality and financial performance, which, in turn, satisfy the desires of donors and other stakeholders.

The remainder of my dissertation is organized as follows. Chapter II provides details regarding Study I: “To Remediate or Not Remediate Internal Control Deficiencies: An Examination of Nonprofit Response and Benefits.” Chapter III presents Study II: “Why Do Nonprofits Invest in Internal Governance? The Role of External Oversight and Performance Benefits.” Chapter IV provides details concerning Study III: “The Use of Inside Debt Compensation within Nonprofits: Aligning of Executive and Stakeholder Interests.” Finally, Chapter V offers overall concluding remarks and directions for future research.

CHAPTER II

STUDY I: TO REMEDIATE OR NOT REMEDIATE INTERNAL CONTROL DEFICIENCIES: AN EXAMINATION OF NONPROFIT RESPONSE AND BENEFITS

Introduction

In this paper I investigate nonprofits' propensity to remediate internal control deficiencies and some benefits associated with that remediation. Petrovits et al. (2011) find that about 20 percent of the nonprofit-years in their sample experience some type of internal control deficiency. They further show that such deficiencies are associated with decreased public and governmental financial support. Burks (2015) finds that nonprofit internal control deficiencies are also positively related to financial restatements.

An even more significant repercussion is fraudulent activity⁴. Compared with other types of business organizations, there are a handful of factors that make nonprofits more susceptible to fraud arising from the failure to implement or maintain internal controls or management to override those controls in place. Some of those factors are a general climate of trust, the use of volunteer boards and financially inexperienced leaders (inadequate oversight), the presence of fewer employees, the use of frequent cash transactions⁵, and the very organizational mindset of caring more about mission than profit (ACFE 2014; Douglas and Mills 2000; Kirsch 2015; Martin 2014). In its 2014 Report to the Nations, the Association of Certified Fraud Examiners (ACFE), indicated

⁴ A survey of executives found that respondents blamed lax internal controls for 42 (75) percent of fraud cases occurring within corporations (governmental organizations) during the prior year (Accounting Web 2007). Moreover, nonprofit consultants cite poorly designed, understood, and applied internal controls as a primary reason for embezzlements and other types of fraud in nonprofits (Tate 2014).

⁵ Cash donations are a frequent occurrence within nonprofits.

that the median loss due to fraud for nonprofits in 2014 was \$108,000 which is up from \$100,000 in 2012 and \$90,000 in 2010. The nonprofit trend is particularly alarming given that all other business organizations (private companies, public companies, and governmental entities) experienced either a decreasing or constant median fraud loss over the same time period (ACFE 2014). Such statistics suggest that while the steps taken by other types of business organizations to combat fraud have been somewhat successful, actions by nonprofits have been less effective.

While three types of occupational fraud exist (financial statement, corruption, and asset misappropriation), the last is the most prevalent. For nonprofits, that fact is especially troubling since assets are their most important resource (Kirsch 2015). Because of nonprofits' frequent cash dealings and less effective segregation of duties, nonprofit asset diversion is most frequently the result of billing, check tampering, and expense reimbursement schemes followed by cash, payroll, and skimming frauds (ACFE 2014). For example, in 2010 La Salle University reported a diversion of assets by the manager of its food services operations which had extended over a 20-year period and totaled about \$5 million. The manager had created a fake vendor and had submitted invoices to LaSalle for goods/services not actually provided. Another example is St. Joseph's Hospital Health Center which in 2011 reported a diversion of assets by an employee extending back to December 2000 totaling \$884,274. The employee pocketed cash from patient payments and then credited the patients' accounts for amounts lower than that received. In both cases, A-133 audit reports for periods prior to the diversion disclosure indicated cases of

unremediated internal control deficiencies⁶. In response to the weaknesses, both of the nonprofits note a commitment to changing their policies and strengthening their internal controls.

The ACFE (2014) study notes that effective controls have the power to reduce the incidence of fraud by anywhere between 20-60 percent and the duration of fraud by anywhere from 20-50 percent depending on the particular control. Harris et al. (2015a) confirm the survey statistics in a nonprofit setting and show that asset diversions are less likely in the presence of strong internal controls and overall more stringent governance. Further, among nonprofits with a material diversion reported on Form 990 that appear in the Statistics of Income (SOI)⁷ sample from 2008-2012 and that also appear in the A-133 audit database for any year, 40 percent had unremediated internal control issues prior to the year the material diversion was reported⁸.

⁶ Both La Salle University and St. Joseph's Hospital Health Center are nonprofits included in my analysis. In the case of La Salle, internal control (IC) deficiencies over financial reporting were reported in 1997, 1998, 2007, and 2008 with a qualified audit report related to financial reporting in 2008 while IC deficiencies over major programs were reported for the periods 1997-2001 and 2008-2012. St. Joseph's Hospital Health Center reported IC financial reporting deficiencies in 1999 and 2005-2012. Nonprofits in sectors outside education and health have fallen victim to similar frauds with prior unremediated IC deficiencies (e.g., the Smithsonian Institution via its National Air and Space Museum and the Young Women's Christian Association of Seattle).

⁷ The Statistics of Income (SOI) files are produced by the IRS every year and consist of a stratified random sample of nonprofits. The sample is constructed based on nonprofit size (total assets) with the largest nonprofits sampled at 100% and smaller nonprofits sampled at decreasing percentages. Because of the approach, the same nonprofit may be included in the files one year but not the next.

⁸ A material asset diversion is defined as "any unauthorized conversion or use of the organization's assets other than for the organization's authorized purposes, including but not limited to embezzlement or theft" that is "the lesser of (1) \$250,000 or (2) 5% of the organization's gross receipts for its tax year or total assets as of the end of its tax year." Such diversions were not required to be reported on Form 990 until 2008. I find a total of 149 instances of such reports for the 2008-2012 SOI sample with 140 related to unique nonprofits. Of those, 68 instances (61 unique instances) are for a nonprofit that also appears in the A-133 audit database in any prior year. Of those 61 unique cases of fraud, 24 (40%) occurred in nonprofits that had internal control deficiencies in multiple consecutive periods prior to the year of the material diversion report where "prior to" is defined as within the prior 3 years). Note that while the majority of the material diversions were related to internal control problems and were more often associated with unremediated control deficiencies, a small portion of the diversions were related to Bernie Madoff and

Given the potential fraud, reduced support, poor financial reporting quality, and potential other negative effects of poor or absent internal controls, it seems that meaningful corrective action would be taken by nonprofits to correct such control shortcomings. However, whether or not that is actually the case has yet to be empirically determined. As a result of their primary focus on the mission of the organization and their knowledge that donors focus heavily on the program ratio, nonprofit decision makers may overlook such problems and not prioritize remediation unless it directly affects mission accomplishment or program spending (Okten and Weisbrod 2000; Parsons 2003; Parsons 2007; Posnett and Sandler 1989; Tinkelman 1999; Tinkelman 2004; Tinkelman and Mankaney 2007; Trussel and Parsons 2007; Weisbrod and Dominguez 1986; Yetman and Yetman 2013).

In this paper I specifically study (1) whether and how quickly nonprofits remediate the deficiencies and the factors associated with remediation, (2) whether subsequent changes in (a) executive compensation, (b) the three types of functional expenditures (program, administration, and fundraising), and (c) other governance mechanisms differ between remediating and non-remediating nonprofits, and (3) whether nonprofits realize benefits from remediation in the form of recovery of contributions, lower costs of debt, and lower audit delays⁹.

other investment scams. Also note that material diversions reported on Form 990 only include those frauds exceeding a certain dollar threshold and, by design, are self-reported. Therefore, there may be many more cases of fraud associated with unremediated internal control deficiencies that are not detected in the analysis.

⁹ While studying whether the incidence of fraud is reduced following internal control remediation may be a more direct test of benefits received, nonprofits were not required to report material diversions on Form 990 until 2008. Even then only larger frauds are disclosed. Further, the sample size is extremely small for those nonprofits that receive an A-133 audit and have a material diversion.

I find that nonprofits do undertake remediation efforts, with about 46 percent of deficiencies remediated within one period following initial disclosure and 73 percent remediated within three periods. I also find that immediate remediation is more likely among nonprofits that are larger, are not in danger of liquidating within the next year (i.e., do not receive a going concern opinion), have lower overall audit risk, have lower growth, have December fiscal year-ends, report a material weakness, have higher scaled surplus, have higher scaled federal expenditures, and that have recently experienced an auditor switch. The factors that affect the remediation hazard rate over a 3-year timeframe are similar¹⁰. For those nonprofits that do immediately remediate, I find larger percentage increases in officer compensation, larger increases in administrative expenses relative to total expenses, greater increases in the number of other governance mechanisms, and larger percentage increases in subsequent public support. Further, remediation is associated with smaller increases in program service expenses relative to total expenses, decreases (compared with increases for non-remediating nonprofits) in the cost of debt, and lower audit report delays.

While a handful of papers investigate nonprofit governance in the form of mechanisms explicitly listed on Form 990, state regulations, and executive compensation components, similar to Petrovits et al. (2011), my study examines governance (or lack thereof) in the form of internal control deficiencies (hereafter, IC deficiencies) disclosed

¹⁰ A Cox proportional hazard model is estimated where remediation is defined as the “death event” and observations where remediation has not occurred within 3 years (the end of the observation period) are censored. For any given nonprofit characteristic included in the model, the results of the analysis indicate whether the rate of remediation is either higher or lower for a nonprofit with that characteristic compared to one without the characteristic and by what percentage.

during A-133 audits (Balsam and Harris 2015; Desai and Yetman 2015; Harris et al. 2015a; Yetman and Yetman 2012). Unlike Petrovits et al. (2011), however, I look beyond simply the disclosure and focus my attention on nonprofits' response to those disclosures as well as future consequences of their actions. My study thus helps to fill in the current gap in the nonprofit research stream regarding IC deficiencies. In so doing, it adds to the nonprofit body of knowledge while providing information regarding whether or not nonprofits recognize the negative ramifications of IC deficiencies to their operations and reputations. This study also provides information to the IRS and other nonprofit oversight agencies to assess the benefits of IC audits and other SOX-like regulations. Finally, my research can assist nonprofits in determining the extent to which their actions impact the amount and types of financial support received and help them to better align such actions to maximize contribution levels and other forms of financial support.

Background

A-133 audits

As a check on the operations of certain nonprofits, the Office of Management and Budget (OMB) of the federal government requires what is known as a Single Audit under OMB Circular A-133 and the Single Audit Act of 1984 for those nonprofits expending federal grant money in excess of a certain threshold. Until recently, the threshold was \$500,000 (this requirement covers the majority of my sample period), but the threshold has since been raised to \$750,000¹¹ (Tysiac 2013). An A-133 Audit consists of a standard financial audit as well as an evaluation of IC over both financial reporting and major

¹¹ The threshold was raised from \$300,000 to \$500,000 in 2004 and to \$750,000 as of January 1, 2015.

programs¹² (OMB 2007). Grant money is awarded to nonprofits with the expectation of mission fulfillment. As a result, compliance with related guidelines may offer support for a nonprofit's mission-meeting success.

Factors Associated with Internal Control Deficiencies

Prior research shows that certain types of organizations are more prone to IC deficiencies. In a nonprofit setting, Petrovits et al. (2011) find that those nonprofits that (1) obtain funding from a variety of sources, (2) receive going concern opinions or are in positions of deficit, (3) are smaller, and (4) are growing rapidly are more likely to have IC deficiencies. Similar research in for-profit settings finds that IC deficiencies are more likely in firms with complex operations, rapid growth, recent organizational changes, and prior SEC-mandated restatements as well as in those that are smaller, less profitable, younger, and that are audited by larger audit firms (Ashbaugh-Skaife et al. 2007; Doyle et al. 2007; Ge and McVay 2005; Keating et al. 2005).

Negative Repercussions of IC Deficiencies in a For-Profit Setting

For-profit research has also documented that the presence of control deficiencies has potentially serious implications for stakeholders. Chan et al. (2008) find some support linking earnings management through discretionary accruals with IC deficiencies while He (2015) shows IC deficiencies are associated with poor financial reporting quality. Additionally, Feng et al. (2009) provide evidence that IC weaknesses have a negative impact on the accuracy of internal reports and earnings forecasts and thus a variety of

¹² In identifying major programs a risk-based approach is followed. While the selection process is detailed and beyond the scope of this paper, current and prior audit experience, Federal agency and pass-through entity oversight, and inherent risk of the program are all criteria considered in addition to some monetary threshold parameters. (Circular No. A-133 Section 520) (OMB 2007)

management decisions. For-profits' risk levels are also positively associated with IC deficiencies (Hogan and Wilkins 2008; Ashbaugh-Skaife et al. 2009; El-Gazzar et al. 2011). Firms disclosing such deficiencies have higher cost of capital (Ashbaugh-Skaife et al. 2009), higher audit fees (Hogan and Wilkins 2008; Hoitash et al. 2008; Raghunandan and Rama 2006), a higher frequency of auditor resignations (Elder et al. 2009), and both lower bond ratings and higher debt costs (Dhaliwal et al. 2011; Hammersley et al. 2012).

Theory, Prior Literature, and Hypothesis Development

Factors associated with IC deficiency remediation

For-profit setting.

Research suggests that negative repercussions arising from IC deficiencies create incentives for for-profits to remediate their control issues. In fact, Bedard et al. (2012) find that only 3 percent of investigated firms failed to at least partially remediate. Goh (2009) finds similar results with only about 28 percent of material weakness sample firms still reporting those weaknesses two years later.

Additional research involving for-profits identifies a number of factors that influence the decision to remediate and the specific remediation measures undertaken. Bedard et al. (2012) find that firms with fewer resources are less likely to remediate entity-level problems while those with increased corporate governance are more inclined to focus upon and remediate internal control weaknesses related to earnings management. Hammersley et al. (2012) find that firms are more likely to remediate when the material weakness is less pervasive, the audit committee is larger, and the firm is subject to less complex operations. Goh (2009) finds that timeliness of remediation decreases in

deficiency severity and increases with both available financial resources and an effective monitoring mechanism.

Nonprofit setting.

While for-profits publicly disclose only material weaknesses, A-133 audits identify and nonprofits subsequently disclose four “types”¹³ of IC deficiencies. Those types are (1) a reportable condition (significant deficiency¹⁴) over financial reporting, (2) a reportable condition (significant deficiency) over major programs, (3) a material weakness over financial reporting, and (4) a material weakness over major programs. Remediation of any of the four types of deficiencies can occur in the first period following disclosure (t+1), during the second or third periods following disclosure (t+2 or t+3), or in any subsequent period (See Figure 1.1 for an illustration of related time periods). Throughout this paper, I define remediation as the elimination of at least one of these types of IC deficiencies in a subsequent period.

Given the potential for fraudulent activity, reduced financial support, accounting errors, and other possible negative consequences that befall nonprofits with IC deficiencies, I expect them to work toward remediating such issues. However, whether or not the factors associated with for-profits’ inclination to remediate are the same as or similar to those of nonprofits and whether the factors differ based on the remediation period has yet to be empirically examined. Therefore, I begin my study by exploring that issue. Included in my analysis are factors that for-profit research suggests may have an

¹³ I reference these control deficiency “types” in my hypotheses.

¹⁴ The term “reportable condition” was changed to “significant deficiency” for reporting periods 2010 and later. I use the two terms interchangeably throughout this paper.

effect on nonprofits' choice to remediate (e.g., deficiency severity, resource availability, growth, organizational complexity, etc.) as well as factors unique to the nonprofit setting (e.g, federal grant expenditure levels and whether or not the A-133 Audit report identifies questioned costs). My research question follows:

R1: *What are the factors associated with nonprofit IC deficiency remediation?*

Subsequent differences between remediating and non-remediating nonprofits

Officer compensation.

Prior research indicates that some for-profits work toward resolving IC material weaknesses by replacing executives who lack knowledge and skills related to the organization's weaknesses with individuals competent in those areas. Alternatively, some nonprofits displaying material weaknesses punish their current executives by reducing their compensation (Li et al. 2010; Johnstone et al. 2011; Hoitash et al. 2012). Whether or not such executive compensation levels are restored upon remediation, however, has not been empirically investigated. Further, Henry et al. (2011) find that for-profit executives who are paid at levels equivalent to what economic conditions would predict (but not necessarily in excess of such predictions) are more likely to implement and maintain effective IC systems.

While donors negatively respond to excessive nonprofit executive compensation, the debate of whether nonprofit executives are actually underpaid or overpaid is ongoing (Balsam and Harris 2013; Gaver and Im 2014; Guidestar 2004). In a study of 6,000 nonprofits conducted in 2008, 69 percent of nonprofit executives indicated that they did not perceive their pay to be adequate and 75 percent indicated plans to quit within the

next five years (Ewers 2008). Such perceptions suggest that nonprofit executives feel that their pay is below the market-rate and hence exhibit less loyalty to their organizations. Given the findings of Henry et al. (2011), therefore, greater oversight and hence not only remediation of IC deficiencies but ongoing maintaining of proper controls may be encouraged by increases in nonprofit executive compensation. If that is in fact the case, I would expect nonprofits that remediate to have larger increases in executive compensation compared with those that do not remediate¹⁵. A larger subsequent increase in executive compensation for nonprofits that remediate could also indicate that either the old executive(s) was rewarded for taking corrective action or that a new executive(s) was hired to correct the issues¹⁶.

I thus hypothesize that greater increases in officer compensation will be associated with a nonprofit that remediates at least one of its IC deficiency types compared with those nonprofits that do not remediate. My hypothesis, stated in alternative, form follows.

H1: *IC deficiency remediation by nonprofits will be associated with greater increases in executive compensation compared with non-remediation.*

¹⁵ Although not directly tested in this study, termination of an executive(s) and hiring of a more competent one(s) to address internal control deficiencies and achieve remediation would also likely be associated with greater increases in executive compensation. Similarly, hiring of additional executives to eliminate overlapping duties or simply to increase overall oversight and expertise would also be associated with greater increases in executive compensation.

¹⁶ For those nonprofits that do engage in hiring/firing of executives, a greater increase in compensation is more likely to be observed between periods t+1 and t+2 rather than between periods t and t+1 for remediating nonprofits. The hiring/firing and increase in compensation may occur midway through year t+1 and hence not appear significantly different from non-remediating nonprofits until the next reporting period.

Functional expenses.

While donors and other contributors tend to focus either directly or indirectly on fundraising and administrative (overhead) expenses via the program ratio, three main third-party nonprofit evaluation agencies¹⁷ have recently entered a coalition to discourage the exclusive use of the measure (BBB Wise Giving Giving et al. 2013). As Gregory and Howard (2009) note, a vicious starvation cycle exists in which nonprofits feel pressured to cut overhead expenses to meet contributors' expectations with respect to the program ratio which leads to underinvestment in training, systems, and controls. Such costs are reported as part of administrative expenses on Form 990. Inadequate focus and expenditure on those items ultimately causes a nonprofit to have difficulty in fulfilling its mission (Gregory and Howard 2009). Therefore, while it may damage the program ratio in the short-term, spending additional funds on administrative expenses even after initial remediation may be one means of maintaining proper controls and help a nonprofit to be more successful over the long-term.

I thus hypothesize that nonprofits that remediate at least one type of their IC deficiencies will have greater increases in their administrative expenses relative to total expenses. My hypothesis, stated in alternative, form follows.

H2a: *IC deficiency remediation by nonprofits will be associated with greater increases in the proportion of administrative expenses to total expenses compared with non-remediation.*

¹⁷ Those agencies are Guidestar, BBB Wise-Giving Alliance, and Charity Navigator.

Because a proportional change in spending in one functional area necessitates a simultaneous change in one or more other areas, I also hypothesize that smaller increases in program service expenses relative to total expenses will be associated with a nonprofit that remediates at least one of its IC deficiency types compared with those nonprofits that do not remediate. Such action would provide further support that non-remediating nonprofits focus solely on the program ratio even to the detriment of the long-term welfare of the organization. Higher program service expenses relative to total expenses for non-remediating nonprofits could also be an indication of accounting errors (program ratio inflation) associated with control deficiencies (Baber et al. 2001; Burks 2015; Jones and Roberts 2006; Krishnan et al. 2006; Roberts 2005; Tinkelman 1998; Trussel 2003; Yetman and Yetman 2013). My hypothesis, stated in alternative form, follows:

H2b: *IC deficiency remediation by nonprofits will be associated with smaller increases in the proportion of program service expenses to total expenses compared with non-remediation.*

Changes in other governance mechanisms.

As noted previously, one of the primary reasons that nonprofits are particularly susceptible to fraud, weak ICs, and overrides of any ICs in place is a lack of sufficient oversight (ACFE 2014; Douglas and Mills 2000; Kirsch 2015; Martin 2014). Such oversight may be improved and hence IC problems not only remediated but also strengthened through increases in other forms of internal governance. Krishnan (2005) finds that for-profits with independent and financially adept audit committees are less likely to experience IC problems while Krishnan and Visvanathan (2007) find a negative

relationship between the number of audit committee meetings and such problems.

Hoitash et al. (2009) note similar results and show that the incidence of IC deficiencies is lower for for-profits that have an audit committee with members possessing accounting and supervisory experience as well as for those for-profits with stronger boards. Further, Farber (2005) finds that for-profits cited for fraud exhibit overall poor governance in periods prior to the fraud disclosure. However, upon fraud detection, measures are taken to improve governance. Considering that poor ICs are the leading cause of fraud within organizations, such results may also translate into additional governance actions taken to maintain proper ICs following remediation (ACFE 2014).

I thus hypothesize that a greater strengthening of other governance mechanisms will be associated with nonprofits that remediate at least one of their IC deficiencies compared with those nonprofits that do not remediate. My hypothesis (stated in alternative form) follows:

H3: *IC deficiency remediation by nonprofits will be associated with a greater strengthening of other governance mechanisms compared with non-remediation.*

Benefits of remediation

Restoring of trust and contributions.

Petrovits et al. (2011) find that nonprofits that disclose IC problems experience a reduction in public support and governmental grants subsequent to the disclosures. Harris et al. (2015b) show that donations are positively associated with strong governance of which ICs may be considered a part. Given that the cost of equity in for-profit firms (the

best counterpart to nonprofit contributions), increases with IC deficiency disclosure, continues to rise for non-remediation, and then subsequently declines upon remediation¹⁸, I expect nonprofits to also be positively rewarded for remediation (Ashbaugh-Skaife et al. 2009; Gordon and Wilford 2012). More specifically, I hypothesize that nonprofits that remediate will experience a greater increase in subsequent contributions. This leads to my following hypothesis (stated in alternative form).

H4: *IC deficiency remediation by nonprofits will be associated with a greater increase in subsequent contributions compared with non-remediation.*

Lower cost of debt.

While nonprofits prefer to finance their operations via contributions and inside sources of funding, once those sources are exhausted, operations are further subsidized via money from the debt market (i.e., borrowing) (Calabrese and Ely 2015; Yan et al. 2009). As noted above, for-profit research finds a link between the cost of equity and both IC deficiency disclosure and remediation (Ashbaugh-Skaife et al. 2009; Gordon and Wilford 2012). Dhaliwal et al. (2011) and Schneider and Church (2008) note a similar relationship with debt. In particular, Dhaliwal et al. (2011) find a higher cost of public debt for for-profit firms that report an IC deficiency while Schneider and Church (2008) show a negative relationship between IC deficiency disclosure and loan officers' willingness to lend money to for-profit firms in the private debt market. Based on such research, I would expect the change in remediating nonprofits' cost of debt to be smaller

¹⁸ Similarly, returns are lower for non-remediating for-profits (Gordon and Wilford 2012)

than that of non-remediating nonprofits¹⁹. This leads to the following hypothesis (stated in alternative form):

H5: *IC deficiency remediation by nonprofits will be associated with smaller increases or larger decreases in the cost of debt compared with non-remediation.*

Shorter audit delays.

Research from the for-profit sector shows that audit delays may arise for a variety of reasons including the presence of IC weaknesses (Ettredge et al. 2006). Ettredge et al. (2006) find that more severe IC issues are associated with longer audit delays.

Hammersley et al. (2012) find non-remediation to be positively associated with late audit filings. Because non-remediation may not only signify the continued existence of deficiencies previously noted but a general disregard for proper operations, auditors may be inclined to perform additional testing in subsequent audit periods for nonprofits that fail to remediate deficiencies in prior periods leading to a longer audit engagement, or alternatively, a shorter audit engagement for those that do remediate their IC deficiencies. This also follows from the for-profit sector where remediation results in lower audit fees (Munsif et al. 2011). This leads to my final hypothesis (stated in alternative form).

H6: *IC deficiency remediation by nonprofits will be associated with shorter audit delays in the subsequent audit period compared with non-remediation.*

¹⁹ Note that if the cost of debt is lower after remediation compared to before, the calculated change will still be greater in the negative direction (and hence smaller).

Research Design and Model Specification

Sample selection

I collect IC deficiency data for nonprofits subject to a government-mandated Single Audit from the A-133 Single Audit database provided by the Federal Audit Clearinghouse for the years 1999 to 2015. Further, I obtain revenue, expense, and other financial data as well as audit committee, governance, and general information from IRS Form 990 made available through the National Center for Charitable Statistics (NCCS)²⁰. A merge of the A-133 Audit database and IRS 990 files results in 87,851 observations for years 1999-2012. I further restrict my sample to only those observations reporting at least one IC deficiency which reduces my sample to 17,494 observations. Finally, I remove all observations without the necessary data to determine whether or not remediation occurs in the next period, which leaves 15,423 observations from 7,286 unique nonprofits.²¹ Table 1.1, Panel A, provides details regarding the sample selection process. The sample size is further reduced based upon the particular analysis due to missing age, growth, lag/lead variables, and undefined scaled variables.

²⁰ I obtain data from the Statistics of Income (SOI) files for 1998-2012. Because the SOI files contain only a stratified random sample of firms selected by the IRS, I also use the Digitized Data (DD) Revenues and Expense v2005 file to increase the firm-year observations for 1998-2003. My analysis for 2004-2012 is restricted to data present in the SOI files. This follows Petrovits et al. (2011).

²¹ Note that the sample size for some tests is reduced because the reporting of the presence/absence of an audit committee and other governance mechanisms was not required on Form 990 before Tax Year 2008. Additionally, while I collected audit data for 1999-2015 and 990 data for years 1998-2013, most analyses are only based on data for years 1999-2011 because required Form 990 lead data is not currently available after 2012 (or in some cases 2013). Note that some but not all SOI 2013 observations are in the sample. More specifically, those with FYEs early in 2013 reported 2013's results on the 2012 tax form while those with FYEs later in the year did not. Therefore, where only one year of lead data is necessary, 2012 is included in the analysis.

Model specification

R1 – Determinants of remediation.

My research question (R1) explores possible factors associated with the probability of IC deficiency remediation. I first use a probit model to examine potential factors associated with immediate remediation (in period $t+1$). I also utilize a hazard model to examine how those same factors are associated with the remediation rate over a 3-year period.

With respect to factors, I include variables that for-profit research suggests may be associated with the remediation decision including (1) deficiency severity represented as reportable condition vs. material weakness (REP_COND_t and MAT_WEAK_t ^{22,23}), (2) resource availability defined as surplus scaled by total assets ($SURPLUS_SC_t$) and the percentage change in total revenue from the period of deficiency disclosure to the period after such disclosure ($\% \Delta TOT_REVENUE_{t+1}$)²⁴, and (3) whether or not a switch in auditor type took place between the time of deficiency disclosure and the next period ($AUDITOR_SWITCH_{t+1}$). I also include factors more unique to a nonprofit setting including scaled federal expenditures ($FEDEXPENDITURES_SC_t$) and questioned costs ($QUESTIONED_COSTS_t$). Nonprofits that spend more in federal grant money relative to their size may be more fearful of losing such funding and hence be more inclined to remediate. Similarly, nonprofits that have audits that reveal costs that may be disallowed

²² See Appendix A for a more thorough description of all variables.

²³ Definitions for material weaknesses and reportable conditions (significant deficiencies) of ICs over financial reporting are consistent with SAS 115 (AU Section 325) used in auditing for-profit entities. Material weaknesses are the more severe infraction of the two types. (AICPA 2013)

²⁴ The percentage change in total revenue ($\% \Delta TOT_REVENUE_{t+1}$) also serves as a proxy for contributors', and in some cases, customers' change in perceptions of the organization following deficiency disclosure.

and for which money would then need to be returned to the federal government may be more focused on remediating the deficiencies in place. Those nonprofits that receive funding from a variety of sources ($COMPLEXITY_t$) might have similar concerns. I include indicator variables for whether or not a qualified audit report has been issued with respect to financial reporting ($QREPORT_FS_t$) or major programs ($QREPORT_MP_t$) expecting that a qualified report may further promote the need to remediate. Additionally, because nonprofits that are perceived to be at risk of closing ($GOINGCONCERNRISK_t$) and that are growing ($GROWTH_t$) might have needs for funds beyond remediation, they may be less inclined to engage in corrective action. Nonprofits that are deemed to be at high risk ($RISK_t$) have a history of poor audit records. Therefore, the costs necessary for those nonprofits to recover from deficiencies may be higher and hence remediation is less readily achieved. In addition to those factors, I also attempt to distinguish between those nonprofits that remediate versus those that do not by including the following variables in the model: the natural logarithm of age (LOG_AGE_t), the natural logarithm of total assets (LOG_SIZE_t), indicators for busy audit periods proxied as June and December fiscal year-ends ($JUNFYE$ and $DECFYE$), and industry, year, and state fixed effects. My model (Eq. 1.1) follows. The dependent variable, $REMEDiate_{t+1}$, is an indicator variable that is coded 1 if the organization remediates at least one type of internal control deficiency within one year following disclosure, 0 otherwise^{25,26}. Note that all variables aside from changes are measured at the time of deficiency disclosure (period t). The resources and

²⁵ For example, if RC_FS is coded 1 in year 2007 but 0 in 2008, $REMEDiate_{t+1}$ is coded 1 regardless of whether MW_FS is 1 in 2007 and remains 1 in 2008.

²⁶ Note that $REMEDiate_{t+1}$ reflects remediation status at period t+1.

conditions present at that point would be expected to have the greatest impact on the choice to remediate. Variable descriptions are provided in Appendix A.

$$\begin{aligned}
& REMEDIATE_{i,t+1} \\
& = \beta_0 + \beta_1 REP_COND_{i,t} + \beta_2 MAT_WEAK_{i,t} \\
& + \beta_3 FEDEXPENDITURE_SC_{i,t} + \beta_4 QREPORT_FS_{i,t} \\
& + \beta_5 QREPORT_MP_{i,t} + \beta_6 \% \Delta TOT_REVENUE_{i,t+1} + \beta_7 + \beta_8 RISK_{i,t} \\
& + \beta_9 COMPLEXITY_{i,t} + \beta_{10} GROWTH_{i,t} + \beta_{11} LOG_AGE_{i,t} \\
& + \beta_{12} LOG_SIZE_{i,t} + \beta_{13} AUDITOR_SWITCH_{i,t+1} + \beta_{14} SURPLUS_SC_{i,t} \\
& + \beta_{15} QUESTIONED_COSTS_{i,t} + \beta_{16} JUNFYE_i + \beta_{17} DECFYE_i \\
& + \sum \gamma_i INDUSTRY + \sum \delta_i YEAR + \sum \alpha_i STATE \\
& + \varepsilon_{i,t}
\end{aligned} \tag{1.1}$$

As a follow up to my probit regression that only explores the factors associated with immediate remediation, I also estimate a Cox proportional hazards model using the same factors to explore how each impacts the rate of remediation over a 3-year period. In the model, remediation is the event and the time to remediation (*YRTOREM*) is given in years²⁷ (1, 2, or 3). Because my analysis extends only three years following deficiency disclosure, those observations that do not remediate within that time period or lack sufficient data to know whether or not remediation has occurred are censored. The model

²⁷ I use years rather than many traditional hazard models which use days because I have no way of knowing when during a given year remediation is achieved.

is the same as that shown previously except that the dependent variable is years to remediation (*YRTOREM*) where observations with $REMEDIAE_{t+3} = 0$ are censored.

H1 – Remediation and subsequent officer compensation.

In H1, I hypothesize that nonprofits that remediate will observe a greater increase in executive compensation compared with those nonprofits that do not remediate. In order to test that theory, I estimate an ordinary least squares (OLS) regression model shown as Eq. 1.2.

$$\begin{aligned} \% \Delta OFFCOMP_TOTAL_{i,t+2} &= \beta_0 + \beta_1 REMEDIAE_{i,t+1} + \beta_2 \% \Delta TOT_REVENUE_{i,t+2} \\ &+ \beta_3 \% \Delta PROGRAM_SERVICES_{i,t+2} + \beta_4 \% \Delta SIZE_{i,t+2} \\ &+ \sum \gamma_i INDUSTRY + \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t} \end{aligned} \quad (1.2)$$

The dependent variable, $\% \Delta OFFCOMP_{t+2}$, is the change in officer compensation from period t+1 to t+2 divided by officer compensation in period t+1²⁸. The main variable of interest is $REMEDIAE_{t+1}$, which based on prior discussion, I expect to be positive and significant. As control variables, I include $\% \Delta TOT_REVENUE_{t+2}$, $\% \Delta PROGRAM_SERVICES_{t+2}$, and $\% \Delta SIZE_{t+2}$ all measured from period t+1 to t+2. I also

²⁸ I follow Baber et al. (2002) in using percentage changes in this model and continue to do so for other models in the paper. Use of percentage changes allows for a comparison of a single nonprofit against itself and hence controls for firm-specific *OFFCOMP_TOTAL* and the firm-specific portions of other model variables. If I instead scale changes by prior period size of the organization (total assets), results hold for all models other than this one. If I scale by change in size, results hold for all models except this model and the support models.

include industry, year, and state fixed effects. The model follows Baber et al. (2002) who find that the percentage change in officer compensation is a function of a nonprofit's percentage change in total revenue and percentage change in program spending. Variable descriptions are presented in Appendix A.

H2a and H2b – Remediation and subsequent functional expenses.

In order to test H2a, whether nonprofits that remediate exhibit a larger increase in the proportion of administrative expenses to total expenses, I utilize an OLS regression. The model is presented as Eq. 1.3a.

$$\begin{aligned}
 \Delta ADMINSTRATIVE_SC_{i,t+2} &= \beta_0 + \beta_1 REMEDIATE_{i,t+1} + \beta_2 \% \Delta SIZE_{i,t+2} \\
 &+ \beta_3 \% \Delta TOT_REVENUE_{i,t+2} + \beta_4 LOG_AGE_{i,t} + \sum \gamma_i INDUSTRY \\
 &+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t}
 \end{aligned} \tag{1.3a}$$

The dependent variable is $\Delta ADMINSTRATIVE_SC_{t+2}$ defined as the change in administrative expenses between periods t+1 and t+2 scaled by the change in total expenses over that same time period. The main independent variable of interest is $REMEDATE_{t+1}$ defined previously. Because nonprofits that remediate likely realize the benefit of investing in training, controls, etc. even beyond the remediation process, I expect the relationship between the proportional change in administrative expenses and $REMEDATE_{t+1}$ to be positive and significant. One of the controls, $\% \Delta TOT_REVENUE_{t+2}$ is derived from expense prediction models used by prior

researchers and is adjusted for the needs of the current study (Yetman and Yetman 2012, 2013)²⁹. It represents the percentage change in total revenue from periods t+1 to t+2. The $\% \Delta SIZE_{t+2}$, LOG_AGE_t , and industry, state, and year fixed effects are also included.

In H2b, I hypothesize that the increase in proportional administrative spending by remediating nonprofits studied in H2a is offset by a future proportional decrease in program services spending. In order to test the hypothesis, I use OLS regression and a model (Eq. 1.3b) similar to that of the prior analysis.

$$\begin{aligned} \Delta PROGRAM_SERVICES_SC_{i,t+2} &= \beta_0 + \beta_1 REMEDIATE_{i,t+1} + \beta_2 \% \Delta SIZE_{i,t+2} \\ &+ \beta_3 \% \Delta TOT_REVENUE_{i,t+2} + \beta_4 LOG_AGE_{i,t} + \sum \gamma_i INDUSTRY \\ &+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t} \end{aligned} \quad (1.3b)$$

The dependent variable is $\Delta PROGRAM_SERVICES_SC_{t+2}$ defined as the change in program services expense between periods t+1 and t+2 scaled by the change in total expenses over that same time period. The main independent variable of interest is $REMEDiate_{t+1}$ defined previously. Because nonprofits that remediate may invest a higher proportion of their funds in administration to improve their overall control and oversight environment, a smaller proportion may be spent on program-related items. Additionally, those nonprofits with better control systems may have fewer accounting

²⁹ $\% \Delta Total_Revenue$ includes $\% \Delta Public_Support$ and $\% \Delta Gov_Support$. As a result, $\% \Delta Public_Support$ and $\% \Delta Gov_Support$ are not included individually in the model.

errors and have less inflated program ratios. As a result, I expect $REMEDIAE_{t+1}$ to be negative and significant. All controls are the same as that for Eq. 1.3a.

H3 – Remediation and other governance mechanisms.

In H3 I hypothesize that nonprofits that remediate will also exhibit a greater strengthening of other governance mechanisms compared with those nonprofits that do not remediate. I measure nonprofit governance strength using a simple governance index composed of five categories outlined by Harris et al. (2015b). The five categories (number of individual components within each category) are policy (5), compensation (2), management (4), minutes (2), and audit committee (1)³⁰. The measure of interest is the change in the governance index ($\Delta NUM_GOV_MECH_{t+2}$) from period t to $t+2$. To carry out the analysis, I pair $REMEDIAE_{t+1} = 1$ with $REMEDIAE_{t+1} = 0$ observations in a 1:1 with replacement match on LOG_SIZE_t , $SURPLUS_SC_t$, $FEDEXPENDITURE_SC_t$, and $AUDITOR_SWITCH_{t+1}$. Following the match, I determine whether the means of $\Delta NUM_GOV_MECH_{t+2}$ differ between the two groups.

H4 – Remediation and subsequent support.

In order to test whether larger support increases occur for nonprofits that remediate compared with those that do not, I adapt the public support and governmental funding models used by Petrovits et al. (2011) and run an OLS regression analysis. The models are presented as Eqs. 1.4a and 1.4b.

³⁰ The audit category in Harris et al. (2015b) also includes an indicator for whether or not a review or audit has been performed. By sample construction, all nonprofits in my analysis have undergone an audit so I exclude that indicator from my index. Harris et al. (2015b) also include “Access” as a category. In untabulated analyses I analyze financial transparency (disclosure on own website) separately and do not find significant results. A description of individual governance components is in Appendix A.

$$\begin{aligned}
& \% \Delta PUBLIC_SUPPORT_{i,t+2} \\
& = \beta_0 + \beta_1 REMEDIATE_{i,t+1} + \beta_2 RC_FS_{i,t+1} \\
& + \beta_3 RC_GOV_{i,t+1} + \beta_4 MW_FS_{i,t+1} + \beta_5 MW_GOV_{i,t+1} \\
& + \beta_6 \% \Delta GOV_SUPPORT_{i,t+2} + \beta_7 \% \Delta FUNDRAISING_{i,t+2} \\
& + \beta_8 \% \Delta PRICE_{i,t+2} + \beta_9 LOG_AGE_{i,t} \\
& + \beta_{10} \% \Delta PROGRAM_REVENUE_{i,t+2} + \beta_{11} \% \Delta PUBLIC_SUPPORT_{i,t+1} \\
& + \sum \gamma_i INDUSTRY + \sum \delta_i YEAR + \sum \alpha_i STATE \\
& + \varepsilon_{i,t} \tag{1.4a}
\end{aligned}$$

$$\begin{aligned}
& \% \Delta GOV_SUPPORT_{i,t+2} \\
& = \beta_0 + \beta_1 REMEDIATE_{i,t+1} + \beta_2 RC_FS_{i,t+1} \\
& + \beta_3 RC_GOV_{i,t+1} + \beta_4 MW_FS_{i,t+1} + \beta_5 MW_GOV_{i,t+1} \\
& + \beta_6 \% \Delta PUBLIC_SUPPORT_{i,t+2} + \beta_7 \% \Delta FUNDRAISING_{i,t+2} \\
& + \beta_8 \% \Delta PRICE_{i,t+2} + \beta_9 LOG_AGE_{i,t} \\
& + \beta_{10} \% \Delta PROGRAM_REVENUE_{i,t+2} + \beta_{11} GOV_SUPPORT_{i,t+1} \\
& + \beta_{12} \% \Delta LOBBYING_AMT_{i,t+2} + \beta_{13} GDP_{i,t} + \sum \gamma_i INDUSTRY \\
& + \sum \delta_i YEAR + \varepsilon_{i,t} \tag{1.4b}
\end{aligned}$$

The dependent variables, $\% \Delta PUBLIC_SUPPORT_{t+2}$ and $\% \Delta GOV_SUPPORT_{t+2}$ represent the changes in public donations and governmental grants from $t+1$ to $t+2$, respectively. The main independent variable of interest is $REMEDiate_{t+1}$. Because

donors and grantors should favorably view deficiency remediation, I expect $REMEDIA\textit{TE}_{t+1}$ to be positive and significant. Since the presence of new or the continuation of other types of control deficiencies aside from those remediated could have an effect on future contributions, I include RC_FS_{t+1} , MW_FS_{t+1} , RC_GOV_{t+1} , and MW_GOV_{t+1} as controls in the models³¹. Petrovits et al. (2011) also include public (government) support in their government (public) support models so I include $\% \Delta GOV_SUPPORT_{t+2}$ ($\% \Delta PUBLIC_SUPPORT_{t+2}$) in my public (government) support models, respectively. Additional controls adapted from the Petrovits et al. (2011) analysis for the public support model include $\% \Delta FUNDRAISING_{t+2}$, $\% \Delta PRICE_{t+2}$ (the inverse of the program ratio) LOG_AGE_t , and $\% \Delta PROGRAM_REVENUE_{t+2}$. The government support model includes all of the controls from the public support model as well as the $\% \Delta LOBBYINGAMT_{t+2}$ and GDP_t . For both models, $\% \Delta$ s are measured from t+1 to t+2. Industry, year, and state fixed effects are also included in the models as is the change in the dependent variable from period t to t+1. Descriptions for all variables are included in Appendix A.

³¹ I include these additional IC deficiency variables as controls in this but not the other models because prior nonprofit research (i.e., Petrovits et al. 2011) indicates an association between the presence of a deficiency and changes in public/governmental support. No prior nonprofit research finds an association between IC deficiencies and changes in executive compensation nor functional expenses. Further, because $REMEDIA\textit{TE}_{t+1}$ by definition indirectly refers to the presence/absence of deficiencies, including the controls in the models could make interpretations difficult. In untabulated analyses, I include those variables in my models and the results remain generally unchanged. An exception is in the $\% \Delta OFFCOMP_TOTAL$ analysis. When $DEFICIENCY_{t+1}$ is included in that model, that variable and not $REMEDIA\textit{TE}_{t+1}$ is significant and the significance is in the negative direction suggesting that remediation of not just one type but all deficiency types as well as the presence of no new IC deficiencies is necessary to observe the greater increase in officer compensation. I also exclude the individual deficiency type variables from the public/governmental support models and the results are qualitatively unchanged.

H5 – Remediation and the cost of debt.

My H5 analysis investigates whether nonprofits that remediate also experience a positive response from the debt market with respect to the cost of debt measured as interest expense divided by total liabilities. In order to test that possibility, I use the following OLS regression model shown as Eq. 1.5.

$$\begin{aligned}
 \Delta COST_DEBT_{i,t+2} &= \beta_0 + \beta_1 REMEDIATE_{i,t+1} + \beta_2 \Delta LOG_SIZE_{i,t+2} + \beta_3 LOG_AGE_{i,t} \\
 &+ \beta_4 \Delta LEVERAGE_{i,t+2} + \beta_5 \Delta LOG_CASH_{i,t+2} + \beta_6 COST_DEBT_{i,t+1} \\
 &+ \sum \gamma_i INDUSTRY + \sum \delta_i YEAR + \sum \alpha_i STATE \\
 &+ \varepsilon_{i,t}
 \end{aligned} \tag{1.5}$$

My dependent variable in the analysis is the $\Delta COST_DEBT_{t+2}$ which is the change in the cost of debt from t to t+2 (the periods before and after remediation). As in previous analyses, my main independent variable of interest is $REMEDiate_{t+1}$. Because remediating control deficiencies should reduce organizational risk stemming from fraud, accounting, errors, etc., I expect $REMEDiate_{t+1}$ to be negative and significant. Other factors that are expected to impact the cost of debt are adapted from Dhaliwal et al. (2011) and are included in the model. They are ΔLOG_SIZE_{t+2} , $\Delta LEVERAGE_{t+2}$, and ΔLOG_CASH_{t+2} where the change is measured from period t to t+2. The LOG_AGE_t and $\Delta COST_DEBT_{t+1}$ as well as industry, year, and state fixed effects are also included in the model. Variable definitions are provided in Appendix A.

H6 – Remediation and audit delays.

In H6, I hypothesize that remediation is associated with a shorter audit delay in the subsequent period. In order to test that hypothesis, I utilize an OLS regression model and Eq. 1.6.

$$\begin{aligned}
 & AUDIT_DELAY_{i,t+2} \\
 &= \beta_0 + \beta_1 REMEDIATE_{i,t+1} + \beta_2 DEFICIENCY_{i,t+1} \\
 &+ \beta_3 DEFICIENCY_{i,t+2} + \beta_4 FEDEXPENDITURE_SC_{i,t+2} \\
 &+ \beta_5 LOG_SIZE_{i,t+2} + \beta_6 SURPLUS_SC_{i,t+2} \\
 &+ \beta_6 GOINGCONCERNRISK_{i,t+2} + \beta_7 RISK_{i,t+2} + \beta_8 JUNFYE_i \\
 &+ \beta_9 DECFYE_i + \beta_9 AUDITOR_SWITCH_{i,t+2} + \sum \gamma_i INDUSTRY \\
 &+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t}
 \end{aligned} \tag{1.6}$$

The dependent variable, $AUDIT_DELAY_{t+2}$, is measured as the difference in the number of days between a nonprofit's release of its A-133 audit report and its fiscal year-end during period $t+2$. Again, the main independent variable of interest is $REMEDiate_{t+1}$. Because IC deficiency remediation in the prior period should represent a reduction in organizational risk as well as a lower likelihood of future control issues and financial reporting errors, I expect $REMEDiate_{t+1}$ to be negative and significant. Controls are included for other factors expected to impact the timing of audit report releases. They are based on both for-profit research and intuition and include the presence

of a deficiency in the period of the audit ($DEFICIENCY_{t+2}$) which may be either a new deficiency or one not remediated from prior periods, other deficiencies present in period $t+1$ beyond those remediated ($DEFICIENCY_{t+1}$), the amount of scaled federal expenditures for the period ($FEDEXPENDITURE_{SC_{t+2}}$), the organization's size (LOG_SIZE_{t+2}), the amount of scaled income or loss ($SURPLUS_{t+2}$), whether or not the nonprofit receives a going concern opinion and is deemed a high audit risk ($GOINGCONCERNRISK_{t+2}$ and $RISK_{t+2}$), whether or not the audit is conducted during a busy season ($JUNFYE_{t+2}$ or $DECFYE_{t+2}$), and whether or not there is a change in auditor type³² from the prior period ($AUDITOR_SWITCH_{t+2}$) (Ettredge et al. 2006; Masli et al. 2010). Variables are more thoroughly described in Appendix A.

Results

In Table 1.1, Panel B, I classify observations into six industry categories (arts, education, health, human services, public benefit, and other) based on the IRS's National Taxonomy of Exempt Entities (NTEE) codes³³. Human service organizations dominate in frequency. Organizations in that category comprise nearly 40% of the total sample. Table 1.1 Panel B also documents the sample distribution by year. The majority (60%) of sample observations come from 1999 to 2002³⁴.

³² Auditor "type" refers to Big4, Regional, or Other. See Appendix A for definitions.

³³ Based on prior nonprofit research (e.g., Petrovits et al. 2011), nonprofits are classified into industry groups using the beginning character in their NTEE codes according to the following methodology: Arts (A), Education (B), Health (E, F, G, H), Human Services (I, J, K, L, M, N, O, P), Public Benefit (R, S, T, U, V, W), and Other (anything not otherwise covered including C, D, Q, X, Y, and Z).

³⁴ A couple of explanations exist for this skewed sample. First, as noted in footnote 20 and following Petrovits et al. (2011), for the years 1998-2003, I supplemented the smaller 990 SOI files with additional observations from the Digitized Files made available through NCCS only for those years. Second, the A-133 audit threshold was increased from \$300,000 to \$500,000 in 2004 resulting in fewer nonprofits receiving A-133 audits. Because my sample only includes nonprofits with deficiencies, the year distribution could suggest that nonprofits had a higher incidence of IC problems between 1999 and 2002. However,

In Table 1.2, Panel A, I provide descriptive statistics of continuous variables for both the full base sample as well as for the remediation ($REMEDIAATE_{t+1} = 1$) and non-remediation ($REMEDIAATE_{t+1} = 0$) subsamples. A comparison of means and medians indicates that most of the variables are positively skewed. As a result, logged and scaled variables are frequently used throughout the analysis. The mean (median) nonprofit *SIZE* is \$142.1 million (\$5.3 million) in total assets for the full sample and for the remediate and non-remediate subsamples, \$150.1 million (6.6 million) and \$132.8 million (\$4.1 million), respectively. On average, annual federal expenditures are \$18 million while public donations and governmental grants received are an average \$6 million and \$9 million, respectively. A t-test of equal means between the remediate and non-remediate samples suggests differences in *AGE*, *AUDIT_DELAY*, *COMPLEXITY*, *GOV_SUPPORT*, *NUM_GOV_MECH*, *OFFCOMP_TOTAL*, and *PUBLIC_SUPPORT*.

Table 1.2, Panel B, shows descriptive statistics for the study's dichotomous variables. Again, the descriptives are for both the full sample and the remediate and non-remediate subsamples. Comparing the $REMEDIAATE_{t+1} = 1$ and $REMEDIAATE_{t+1} = 0$ categories, the two groups seem to be significantly different in many respects. For example, a t-test comparison of means at the time of deficiency disclosure shows that those nonprofits that immediately remediate have a greater incidence of material weaknesses³⁵ (*MAT_WEAK*: 31.7% vs. 26.3%), auditor switches (*AUDITOR_SWITCH* :

closer examination of all A-133 observations (those that were matched with 990 data and that either did or did not report a deficiency) actually reveals a lower incidence of deficiencies relative to all matched observations for the 1999-2002 period (about 17 percent) compared with later years (about 25-30 percent).³⁵ Note that because I remove all observations that do not report an IC deficiency at time t and because the SF-SAC A-133 data collection form asks the following questions concerning reportable conditions and material weaknesses: (1) "Is a reportable condition disclosed?" and (2) "Is any reportable condition reported as a material weakness?", I would expect to report reportable conditions at a 100% frequency.

4.6% vs. 3.6%), June FYEs (*JUNFYE*: 51.9% vs. 49.9%), questioned costs (*QUESTIONED_COSTS*: 21.6% vs. 19.2%) and use of Big4 (*BIG4*: 12.0% vs. 10.5%) and regional auditors (*REGIONAL*: 14.6% vs. 12.3%). Further, the proportions of nonprofits issued a going concern opinion (*GOINGCONCERNRISK*) as well as those labeled high risk (*RISK*) are lower for nonprofits that immediately remediate.

Interestingly, among those nonprofits that immediately remediate, a smaller proportion have a qualified audit report compared with those nonprofits that do not immediately remediate.

Table 1.3 presents information related to the speed of remediation by type of IC deficiency where the observation timeframe extends three years beyond the year of initial IC deficiency disclosure. Results show that immediate remediation occurs at a higher rate for material weaknesses compared with reportable conditions. Further, for both reportable conditions as well as material weaknesses, IC deficiencies associated with major programs are corrected more quickly than those associated with financial reporting. Overall, about 70% of IC deficiencies are remediated within three periods with the material weakness percentage slightly higher at 74%.

Table 1.4 expands on my univariate analysis of the differences between those nonprofits that immediately remediate and those that do not as well as the rate of remediation by simultaneously studying and controlling for various possible determinants using probit and Cox proportional hazard models, respectively. Model 1 examines the full sample period covering 1999-2012. Results indicate that nonprofits are more likely to

However, a number of instances occur in the A-133 Audit database where a material weakness is identified as present absent a reportable condition.

immediately remediate when they are larger and have more resources (LOG_SIZE_t and $SURPLUS_SC_t$), report a material weakness, (MAT_WEAK_t), and expend a larger amount of federal grant monies relative to their size ($FEDEXPENDITURE_SC_t$). Alternatively, nonprofits' probability of immediately remediating is lower when their percentage change in total revenue from period t to $t+1$ is higher ($\% \Delta TOT_REV_{t+1}$ ³⁶), they are issued a going concern opinion ($GOINGCONCERNRISK_t$), they have been labeled by A-133 auditors as high risk ($RISK_t$), they are growing ($GROWTH_t$), and they have a December fiscal year-end ($DECFYE$). Models 2 and 3 include governance variables first reported in the 2008 tax season and hence consist of observations only for 2008 to 2012. Some factors that are significant in Model 1 change in Model 2 but the governance variable ($\Delta NUM_GOV_MECH_{t+1}$) is not significant. However, defining governance as an addition of an audit committee ($ADD_AUDIT_COMMITTEE_{t+1}$) and the percentage of independent board members at time t ($\%IND_BRD_t$) and adding those variables instead to the base model indicates a possible positive association between $\%IND_BRD_t$ and remediation³⁷.

Unlike in Models 1-3, in Model 4, I estimate a Cox proportional hazard model where the dependent variable is years to remediation ($YRTOREM$) measured during the three-year period following deficiency disclosure. Because my study ceases at $t+3$, death (remediation) is indicated by $REMEDATE_{t+3} = 1$ whereas right censoring occurs for those observations in which $REMEDATE_{t+3} = 0$. I find an increasing "hazard" or

³⁶ Nonprofits that do not experience a decrease in total revenue following an IC deficiency disclosure may not recognize a need to remediate whereas those with decreases in revenue would.

³⁷ Pseudo R^2 s from for-profit literature are comparable. For example, the remediation determinant models in Bedard et al. (2012) have Pseudo R^2 s ranging from 9.8% - 11.3%.

remediation rate over the 3-year period for those nonprofits that report a material weakness (MAT_WEAK_t), have higher scaled federal expenditures ($FEDEXPENDITURE_SC_t$), receive a qualified audit report with respect to major programs ($QREPORT_MP_t$), are larger (LOG_SIZE_t), and have questioned costs ($QUESTIONED_COSTS_t$). However, the remediation rate is lower for those nonprofits that are issued a going concern opinion ($GOINGCONCERNRISK_t$), are labeled as high risk ($RISK_t$), and have a December fiscal year-end ($DECFYE_t$). While the significant differences in “hazard” or remediation rates are fairly modest overall, the highest increase of 17.3% occurs for nonprofits that report a material weakness followed by an increase of 6.3% for those nonprofits issued a qualified opinion over major programs ($QREPORT_MP$). The largest decrease of 14.8% occurs for nonprofits that receive a going concern opinion ($GOINGCONCERNRISK$). The results of Models 1 and 4 are generally consistent with respect to the directional significance of variables although a few exceptions do exist (e.g., significance of questioned costs in Model 4). Therefore, Model 4’s analysis achieves two objectives. First, it suggests that the same factors associated with immediate remediation also appear to impact the rate of remediation over a 3-year period. Second, because remediation or non-remediation data is essentially a case of a survival analysis with censored data, the Cox regression produces results that account for those unique data characteristics. The analysis is also not influenced by non-normally distributed time variables.

As an additional analysis I also examine whether the time to remediation (or lack thereof) differs between nonprofits grouped into different industries. An illustration of the

results appears in Figure 1.2. Based upon the figure and untabulated statistical tests, the Kaplan-Meier survivor functions (and likewise, the hazard rates) do differ by industry. More specifically, arts organizations have the smallest proportion of non-remediating nonprofits at the end of period $t+1$ indicating the highest hazard or remediation rate for that group between periods t and $t+1$. However, at the end of both periods $t+2$ and $t+3$ education nonprofits have the lowest proportion of member organizations not remediating which translates into the highest remediation rate for that sector of nonprofits between periods $t+1$ to $t+2$ and $t+2$ to $t+3$. The rate is significantly higher than statistically expected. Interestingly, by the end of period $t+3$, the arts sector has the greatest proportion of non-remediating nonprofits. Hence, while the industry in aggregate exhibited a quick response to IC deficiencies, those nonprofits in the art sector that did not remediate initially, were even less inclined to do so over subsequent periods compared with other nonprofit sectors. Alternatively, those organizations that remediated initially may have again suffered from deficiencies in later periods for which they then failed to take corrective action³⁸.

Table 1.5 examines the relationship between remediation and the percentage change in subsequent officer compensation ($\% \Delta OFFCOMP_TOTAL_{t+2}$). The analysis utilizes OLS regressions where the main independent variable of interest in Models 1 and 2 is $REMEDIAATE_{t+1}$ while the main variable of interest in Model 3 is $REMEDIAATE_{t+2}$

³⁸ In percentages, survival or non-remediation for the various industries at periods $t+1$, $t+2$, and $t+3$ were the following: (1) Arts (39.8%, 29.7%, 24.8%), (2) Education (45.5%, 27.9%, 19.5%), (3) Health (46.9%, 30.2%, 22.9%), (4) Human Services (46.6%, 29.9%, 22.5%), (5) Public Benefit (47.4%, 30.3%, 22.1%), and (6) Other (46.4%, 30.5%, 22.3%). Alternatively, hazard rates are simply 100% minus the survival rates. Comparison of hazard (remediation) rates by year indicates consistently lower than expected remediation rates for nonprofits disclosing an IC deficiency between years 1999-2006 but higher than expected hazard rates for deficiencies from years 2007-2012. This supports a move toward greater regulation.

(remediation within either 1 or 2 periods). As predicted by H1, in Model 1, I find a positive association between immediate remediation ($REMEDIAATE_{t+1}$) and the percentage change in officer compensation between periods t+1 and t+2 ($\% \Delta OFFCOMP_TOTAL_{t+2}$). Hence, compared with non-remediating nonprofits, remediating nonprofits have a greater increase in subsequent officer compensation. Such results suggest that remediating nonprofits may realize the benefits associated with increasing officer compensation to levels perceived to be more adequate to encourage those officers to maintain the changes in IC recently implemented and also establish new IC measures. The results may also reflect a higher raise in officer pay to reward officers for taking action to correct the IC deficiencies or may be a combination of both explanations³⁹. In Model 2, I add governance variables on a reduced sample and continue to find significance on the main variable of interest (although significance does disappear for the other variables). Further, my results are even stronger in Model 3 where I study the impact on $\% \Delta OFFCOMP_TOTAL_{t+2}$ for remediation in either periods t+1 or t+2. Using a changes model and, more specifically, the percentage change in officer compensation as my dependent variable rather than simply the level of officer compensation at period t+2, I control for endogeneity by effectively including lagged officer compensation in the model. If subsequent officer compensation and the choice to remediate are simultaneously determined, incorporating prior period officer compensation in the model should reduce the likelihood of observing a significant statistical association between $REMEDIAATE_{t+1}$ and officer compensation in period t+2.

³⁹ My results remain unchanged if I substitute a $\Delta YIELD$ variable measured as $PROGRAM_SERVICES_{t+2} / PROGRAM_SERVICES_{t+1}$ for $\% \Delta PROGRAM_SERVICES$ which has been used in some prior research.

Endogeneity is further controlled for by including additional variables in the model that may not only impact the percentage change in officer compensation but also remediation (e.g., $\% \Delta IND_BRD$). In untabulated analyses, I also substitute the percentage change in total salaries (salaries for all employees including officers) as the dependent variable in the model and do not find significant results suggesting that remediation is only associated with greater increases in officer and not lower-level employee pay.

Table 1.6 presents the results of my analysis exploring the relationship between remediation ($REMEDIAE_{t+1}$) and the change in each of the functional expenses from periods $t+1$ to $t+2$ scaled by total expenses. H2 proposes that remediating nonprofits will place a greater importance on training and other administrative functions that will help to maintain proper internal controls in the organization despite the potential negative impact such action may have on the program ratio (whether a real impact or a lowering due to more accurate reporting of the ratio). In accordance with my prediction, I find a positive association between $REMEDIAE_{t+1}$ and the change in scaled administrative expenses ($\Delta ADMINISTRATIVE_SC_{t+1}$) and a negative association between $REMEDIAE_{t+1}$ and the change in scaled program services ($\Delta PROGRAM_SERVICES_SC_{t+1}$ - effectively the change in the program ratio). Hence remediating nonprofits subsequently have greater increases in administrative spending and lower increases in program service expenses⁴⁰ compared with nonprofits that do not remediate. While my changes analyses attempt to control for endogeneity, in untabulated analyses, I also include the lagged version of each

⁴⁰ While a negative coefficient could signify either a lower increase in program services for remediating nonprofits compared with non-remediating nonprofits or a decrease, upon further inspection using a t-test, mean changes for both remediating and non-remediating nonprofits are positive but the mean for remediating nonprofits is smaller.

of the dependent variables in their respective models. The qualitative results remain unchanged. Further, in Model 3, I report the same analysis but substitute the change in scaled fundraising expense ($FUNDRAISING_SC_{t+1}$) as the dependent variable. I find no significant association between remediation and changes in fundraising expense suggesting that administrative and program service expenses are specifically targeted rather than a revamping of functional spending in general.

In Table 1.7, I study H3 in which I hypothesize that those nonprofits that remediate will better understand the benefits of strengthening their overall governance and hence observe a larger change in their number of governance mechanisms from period t to $t+2$. I use a matched sample design in which nonprofits that remediate by the end of period $t+1$ are matched based on size (LOG_SIZE_t), excess resources ($SURPLUS_SC_t$), scaled federal expenditures ($FEDEXPENDITURE_SC_t$), and whether or not they experience an auditor switch during the period t to $t+1$ ($AUDITOR_SWITCH_{t+1}$) in a 1:1 nearest neighbor match. The analysis is for 2008 – 2012 when the governance data is available. Results indicate that while the number of governance mechanisms in place was already higher for remediating nonprofits in period t , the increase in mechanisms from t to $t+2$ is still greater for remediating nonprofits compared to non-remediating ones. H3 is thus supported.

In Table 1.8 I investigate the potential financial benefit that remediation has on nonprofits with respect to subsequent public donations and governmental grants. Petrovits et al. (2011) find that both forms of support decrease upon IC deficiency disclosure. My analysis explores whether, as I hypothesize in H4, the percentage change

in the two forms of funding during period $t+1$ to $t+2$ ($\% \Delta PUBLIC_SUPPORT_{t+2}$ and $\% \Delta GOV_SUPPORT_{t+2}$) is positively associated with $REMEDIA TE_{t+1}$. I find results that partially support H4. While I do find a positive and significant association between $REMEDIA TE_{t+1}$ and the $\% \Delta PUBLIC_SUPPORT_{t+2}$ even after controlling for prior percentage changes in public support ($\% \Delta PUBLIC_SUPPORT_{t+2}$), I do not find a statistical association between $REMEDIA TE_{t+1}$ and $\% \Delta GOV_SUPPORT_{t+2}$ ⁴¹. The results thus indicate that remediating nonprofits have a larger percentage increase in public support compared with non-remediating nonprofits. The results also suggest that remediation is viewed favorably by the public but changes in short-term future government grants do not differ between remediating and non-remediating nonprofits⁴².

Table 1.9 examines another potential benefit of remediation, lower costs of debt. In H5 I hypothesize that nonprofits that remediate will benefit from smaller increases or larger decreases in the future cost of debt compared with nonprofits that do not remediate. In order to investigate that issue, I utilize an OLS regression in the form of a changes model where the dependent variable is the change in the cost of debt from period t to $t+2$ ($\Delta COST_DEBT_{t+2}$). All dependent variables that are expected to impact the cost of debt and thus serve as controls are measured during that same time frame except for the lagged change in the cost of debt ($\Delta COST_DEBT_{t+1}$) which is included in the model

⁴¹ Because of 0 in many of the denominators for the $\% \Delta LOBBYING_AMT$ calculation, the sample size is considerably reduced. Alternatively, I use a dummy variable for the presence of lobbying expenditures in period $t+2$ which leaves 2,867 (rather than 558) for the analysis. Results remain qualitatively unchanged.

⁴² If I instead model the relationship not with percentage changes but with the change in the natural log of support (public or governmental) from period $t+1$ to period $t+2$ or just the log of support at period $t+2$ as the dependent variable with the log of support (public or governmental) in period $t+1$ included as an independent variable, I find evidence suggesting that IC deficiency remediation is positively associated with the amount of the change (as opposed to the percentage change) in governmental support but not public support. Further, including $\% \Delta SIZE$ in the original models does not change the original conclusions.

to control for endogeneity concerns and is measured from period t to $t+1$. As H5 predicts, I find a negative association between $REMEDIAATE_{t+1}$ and $\Delta COST_DEBT_{t+2}$. In other words, subsequent to the opportunity to remediate IC deficiencies, either increases in the cost of debt are lower or decreases in the cost of debt are larger for remediating nonprofits. To better determine the relationship, I perform a t-test which shows that the mean change in the cost of debt for remediating nonprofits is negative while for non-remediating nonprofits the mean change is positive.

My final analysis reported in Table 1.10 studies one additional potential benefit of remediation, reduction in subsequent audit delays ($AUDIT_DELAY_{t+2}$). In H6, I hypothesize that remediation will help to win back auditor confidence and result in lower audit delays for remediating compared with non-remediating nonprofits in the next period. After controlling for a number of other factors expected to impact audit delays, my base model (Model 1) indicates a negative association between $REMEDIAATE_{t+1}$ and $AUDIT_DELAY_{t+2}$ which supports my expectation that IC deficiency remediation has a positive impact on the subsequent audit process. To control for endogeneity, Model 2 includes lagged audit delay as an independent variable ($AUDIT_DELAY_{t+1}$). Results remain qualitatively unchanged. Finally, to further rule out other explanations for lower audit delays, I include the change in the number of governance mechanisms from period $t+1$ to $t+2$ in the model with results again being qualitatively unaffected.

Conclusion

Given that IC failures are cited as a primary determinant of fraud within nonprofits and have a number of other negative ramifications, studying whether

nonprofits recognize the threat and take actions to remediate those problems is important. That issue forms the basis for my study. In particular, I examine the factors that influence whether a nonprofit remediates IC deficiencies. Further, I study future actions taken by remediating nonprofits with respect to changes in officer compensation, changes in functional expenses, and changes in other governance mechanisms. Finally, I investigate whether nonprofits that remediate receive external benefits including higher subsequent financial support, lower costs of debt, and lower audit delays.

My findings indicate that a number of factors are related to the remediation decision and rate of remediation with positive associations between remediation likelihood (and/or rate of remediation) and the size of the organization, scaled federal expenditures, scaled financial surplus, questioned federal expenditures, and a qualified audit report over major programs. Negative associations occur between remediation and going concern opinions, high audit risk, growth, percentage changes in total revenue, and December fiscal year-ends. In my additional analyses, I find support for greater (1) percentage increases in officer compensation, (2) increases in scaled administrative expenses, (3) percentage increases in public support, and (4) increases in other governance mechanisms for remediating nonprofits compared with non-remediating nonprofits. Additionally I find evidence indicating lower (1) increases in scaled program service expenses, (2) decreases in the cost of debt, and (3) lower audit delays for that same group of nonprofits.

My study specifically analyzes behavior among nonprofits receiving grants in excess of \$500,000⁴³ subject to Circular A-133 audits. To the extent that nonprofits outside that category behave and are treated by contributors differently, the study's results may not generalize to the entire nonprofit population. In other words, results may be weaker for nonprofits not subject to such audits. However, if that is the case, the results of the study should provide even more encouragement for increased regulation.

While this study helps to fill a significant gap in the related nonprofit literature, it also leaves much room for future research. While my study gives nonprofits credit for seemingly fixing just one "type" of IC deficiency and labels that remediation, in cases of multiple deficiencies, one or more problems of a particular "type" may have been corrected while one or more other problems within that type category may not have been addressed. Such remediation of the individual items (or partial remediation) has historically gone unnoticed on the A-133 audit report. With changes to the report being continually made, future tracing of individual IC issues through consecutive years may be possible. If so, not only would our general knowledge of the subject be enhanced, but the specific impacts of remediating or not remediating certain categories of IC issues could also be studied.

⁴³ For periods before 2004, the sample consists of nonprofits receiving grants in excess of \$300,000.

CHAPTER III

STUDY II: WHY DO NONPROFITS INVEST IN INTERNAL GOVERNANCE? THE ROLE OF EXTERNAL OVERSIGHT AND PERFORMANCE BENEFITS

Introduction

Prior to 2008 the extent of information related to nonprofit governance disclosed on IRS Tax Form 990 was quite limited. Only four principal items were addressed: (1) the number of voting directors, officers, and trustees, (2) whether related parties occupied key organizational positions, (3) whether a conflict of interest policy existed, and (4) whether changes were made to the nonprofit's organizing or governing document and, if so, whether such changes were reported to the IRS. Following the release of the revised 990 in 2008, however, our understanding of the components comprising a nonprofit's governance structure significantly improved with an entire section of the Form, Part VI "Governance, Management, and Disclosure," devoted to the topic⁴⁴.

Since the new form's release, a handful of studies have briefly examined certain aspects of nonprofit governance. For example, Yetman and Yetman (2012) investigate how a combination of internal and external governance mechanisms impact financial reporting quality. While the majority of their analysis is conducted using pre-2008 data, they do run a separate analysis for 2008. In general, they find that two measures of financial reporting quality, (1) zero fundraising expenses and (2) understated fundraising expenses, are negatively associated with certain internal and external governance

⁴⁴ I will address the particular questions included in that section of the form later in the paper.

mechanisms⁴⁵. A subsequent paper by Harris et al. (2015b) utilizes the governance-based questions from the revised Form 990 to identify seven governance dimensions captured by the questions. The authors name the dimensions, policies, audit, compensation, board, management, access, and minutes. Further, they find that contribution decisions in the form of both public donations and government grants are positively associated with all but the last factor. Finally, Harris et al. (2015a) find a negative association between disclosed governance practices and material diversion of assets.

Those papers tell us that donors are influenced by their perceptions of the strength of a nonprofit's governance structure and less well-governed nonprofits (or at least those that represent themselves as less well-governed on Form 990) are more apt to be plagued by misreporting and fraudulent activities. However, what they do not reveal is whether nonprofits disclose/adopt such internal governance practices only because they realize the opportunity for such benefits or whether the presence or lack thereof of other oversight bodies plays a role in the decision process. Further, while external pressure may be present and might encourage a favorable governance disclosure profile, whether or not most of the disclosure is "window dressing" or actually serves an important purpose to a nonprofit's performance and overall operations has yet to be empirically determined. My study addresses those issues. More specifically, I investigate (1) the determinants of internal governance disclosure/adoption and (2) the organizational outcomes associated with disclosure/adoption.

⁴⁵ Prior literature finds that nonprofits attempt to manipulate their program ratio and one means of doing so is through reporting zero or understated fundraising or administrative expenses (Krishnan et al. 2006).

With respect to the first question, I construct an internal governance (hereafter, IG) index measured as the sum of the presence or absence of fourteen IG mechanisms disclosed on Form 990. Using the IG index, I divide nonprofits into a high governance category and a low governance category based upon whether their index is either (1) at or above or (2) below the median for all sample firm-years⁴⁶. I find that nonprofits are more likely to be in the high governance category when they are larger, older, subject to a completed A-133 audit, publicly disclose their financial statements on their own website, and receive funding from government grants and temporarily restricted donations. However, a high governance classification is less likely in the presence of permanently restricted donations and when an independent auditor (performing work less in-depth as an A-133 Audit) either is in charge of compiling the financial statements or reviewing or auditing them. To further investigate the association between IG measures and external oversight, I also perform changes analyses. I find that going from the absence of external oversight bodies in one year to their presence in the subsequent year is positively associated with an increase in the number of IG mechanisms over that same time period⁴⁷. That relationship holds for all external oversight mechanisms tested⁴⁸. I thus conclude that nonprofit IG and external oversight are complements to, rather than substitutes for one another.

⁴⁶ The median for each firm-year, 13, is the same as that for all sample firm-years as a whole.

⁴⁷ The same is true for decreases. A disappearance of external oversight is associated with a decrease in IG.

⁴⁸ External oversight bodies included in the analysis are A-133 auditors, other independent auditors, potential donors and the general public who peruse a nonprofit's website, governmental grant agencies, municipal bondholders, unsecured outside debtholders, secured outside debtholders, sophisticated donors (those placing either temporary or permanent restrictions on their donations), and general donors.

Using the high IG index constructed in the first part of the study, I then examine the relationship between that measure and a number of performance outcomes. In general, after controlling for external oversight and other factors I find a negative relationship between high IG and (1) the Trussel program ratio manipulation factor, (2) qualified audit reports (particularly those over financial reporting), (3) internal control deficiencies, (4) the adequacy of equity ratio, (5) revenue concentration, (6) the coefficient of variation of the program ratio⁴⁹, and (7) the cost of debt. Alternatively, I find a positive relationship between high IG and (1) the administrative ratio, (2) the fundraising ratio, and (3) investment-grade credit ratings. Collectively, my results suggest that a nonprofit with high IG has better financial reporting quality, is more stable and efficient, and can more cheaply raise financing.

With respect to changes analyses, I find both expected and unexpected results. First, an increase in the IG index is associated with the presence of a new qualified audit report over major programs. To help better explain that result, I also find a positive relationship between the change in the IG index and the appearance of both internal control reportable conditions and material weaknesses over major programs. Audits over major programs are designed to test whether the directives of grant-providing agencies are followed so the negative relationship with IG is interesting. One possible explanation for such results is that the implementation of additional IG mechanisms in a given year leads to greater organizational confusion and hence less attention to the specific details attached to expended grants. However, more in accordance with expectations, I do find

⁴⁹ For the coefficient of variation analysis, I use average IG over a 4-year period rather than the high IG indicator.

that a decrease in IG is positively associated with new internal control material weaknesses over financial reporting and that changes in IG are negatively associated with changes in the Trussel program ratio manipulation factor. For the efficiency tests, I find results that suggest that changes in IG are negatively related to the adequacy of equity ratio, negatively related to the program ratio, negatively related to changes in the administrative ratio, and positively associated with changes in the fundraising ratio. For the revenue concentration and cost of debt changes analyses, I generally find results consistent with my prior conclusions. Changes in IG are negatively associated with each of those measures. Finally, I find evidence that an increase in IG is associated with a decrease in external credit ratings. One possible explanation for that result is that IG 990 disclosures do not fully reflect creditors' governance and overall organizational concerns⁵⁰.

The results from this study extend research regarding current governance practices among nonprofits. They help to identify reasons why nonprofits may be more inclined to disclose/adopt IG measures. Further the study highlights the value-added benefits of disclosure/adoption as well as identifies some unexpected associations. In general, the results offer support for donors' and evaluation agencies' use of the IG measures in assessing and distinguishing between nonprofits but highlight why the use of IG measures are useful for that purpose. Unlike Yetman and Yetman (2012) who restrict their analysis to 2008 and earlier when governance disclosures are minimal, I utilize data for periods 2008 to 2013. Further, compared to the Harris et al. (2015a, b) studies which

⁵⁰ Another possible explanation for the unexpected result is simply my small sample size.

only examine donations and material diversion of assets, my study is much more comprehensive and focuses on overall nonprofit operations and performance.

Theory, Prior Literature, and Hypothesis Development

Changes to Form 990

Prior to 2008, governance disclosures on Form 990 were minimal consisting of information related only to voting directors, related parties, conflict of interest policies, and document changes. As of 2008, however, the IRS revamped the form to include an entire section on governance. Part VI divides the topic into three subsections: (1) Governing Body and Management, (2) Policies, and (3) Disclosure. Items in the Governing Body and Management section consist of the original questions concerning voting directors, related parties, and document changes as well as additional questions related to management outsourcing and meeting minutes. In addition to conflict of interest inquiries, the Policies section also requests that a nonprofit disclose whether or not it provides the board of directors with a copy of the 990 before filing, if a whistleblower or document retention policy exists, and whether executive compensation decisions are evaluated by independent parties. The Disclosure section asks a nonprofit to identify the manner in which it makes its Form 990 available (e.g. via its own website or via the website of another organization). Finally, nonprofits indicate whether or not they have an audit committee in Part XI.

External oversight

In addition to those internal governance (IG) mechanisms reported in the governance sections on Form 990, nonprofits are subject to oversight from a number of

external bodies. The following provides a more in-depth description of each of those bodies and the source of their supervisory power.

A-133 audits.

The Office of Management and Budget (OMB) under OMB Circular A-133 and the Single Audit Act requires nonprofits expending government grant money in excess of a certain monetary threshold to undergo an A-133 Audit on an annual basis. The requirement was instituted in 1984, and threshold revisions were made in 1996, 2004, and 2015⁵¹ (OMB 2007; Tysiac 2013)

As part of the audits, external auditors review the financial reports and internal controls related to financial reporting. Additionally, they assess the extent to which nonprofits are in operating and contractual compliance with federal agencies from whom they receive funds.

Government grants not meeting A-133 thresholds.

While larger nonprofits are more likely to meet the monetary threshold requirements for an A-133 Audit, smaller organizations may also be federal grant recipients. Further, both large and small nonprofits receive state and local monetary awards. In fact, according to a 2012 survey, over 70 percent of nonprofit respondents received government grant funding (Pettijohn 2014).

Grant-providing agencies may require an audit or request to review records and results (Tysiac 2013). According to the survey, 95 percent of respondents were subject to

⁵¹ The original threshold was \$250,000 which was subsequently increased to \$300,000 in 1996, \$500,000 in 2004, and \$750,000 in 2015. As a result of the most recent changes, an estimated 5,000 fewer nonprofits will be subject to requirements (OMB 2007; Tysiac 2013).

the latter requirement, while 50 percent were subject to overhead spending restrictions (Pettijohn 2014).

Debt in capital structure.

Similar to for-profits, nonprofits are subject to agency problems. Because contributors do not “own” the nonprofits that they financially support and many times do not receive any direct benefits from their gifts, agency costs may be particularly high in a nonprofit setting. Debt, as suggested by Jensen and Meckling (1976), is one mechanism available to curb executives’ actions by reducing risk taking activities.

Wedig et al. (1996) note that the issuance of debt by nonprofits subjects them to external oversight. For example, nonprofits are prohibited from issuing bonds directly. Therefore, a governmental intermediary must agree to back the issue. Further, the Securities and Exchange Commission (SEC) under Rule 15c2-12, requires issuing organizations (in this case, nonprofits) to provide annual financial condition updates (SEC 2010). By reviewing the tax exempt status of bonds or evaluating credit worthiness, the IRS and credit rating agencies, respectively, also provide external oversight to nonprofits with outstanding external debt.

Restricted donations.

An individual or institutional donor may choose to provide funds to a nonprofit. However, the use of those funds may be limited by time or purpose restrictions. Research shows that such constraints serve as a general oversight mechanism. For example, Calabrese (2011) finds nonprofits that receive restricted donations are more likely to use GAAP-approved accrual accounting methods as opposed to cash-based ones. Yetman and

Yetman (2013) find that more sophisticated donors (proxied as donors who place restrictions on their donations) tend to discount low-quality accounting information at higher rates than general donors. Further, Balsam and Harris (2013) find a negative relationship between executive compensation and donations but only for nonprofits with restricted contributions. Together, the results suggest that restricted donors serve an additional oversight role.

Transparent disclosures.

A nonprofit subjects itself to potential scrutiny whenever it discloses information. Such disclosures serve as an accountability mechanism. Saxton et al. (2014) show that donors perceive value in web disclosures. Further, Balsam and Harris (2013) find a negative association between media disclosure of executive compensation and changes in donations. Together, these results suggest website and other electronic disclosures serve as a proxy for public external oversight.

External audits.

Government grants, debt contracts, or even state regulations may mandate an external audit for a nonprofit under certain circumstances. In fact, 26 of the 50 states have a related policy. Massachusetts, for instance, instituted a two-tiered financial statement auditing requirement for nonprofits in the 1970s. The current law mandates an audit for organizations with revenue exceeding \$500,000 with reviews (or audits) being necessary for those nonprofits earning revenues between \$200,000 and \$500,000 (Mead 2008; National Council of Nonprofits 2016)⁵². Further, even if not required, a nonprofit may

⁵² In addition to certain total revenue or total contribution thresholds which are often used to determine audit requirements, states in which nonprofits must register before beginning operations may also require

still voluntarily obtain the service. Audits keep a nonprofit in-check particularly with respect to financial reporting accuracy.

IG determinants

Prior nonprofit research suggests that external oversight may encourage IG adoption. Based on a survey, Iyer and Watkins (2008) find that nonprofits undergoing either an internal or external audit are more likely to have an established code of conduct and procedures in place to evaluate internal controls. Vermeer et al. (2006) conclude from a different survey that government grants are positively associated with the presence of a financial expert on the audit committee. Further, using 990 data, Blackwood et al. (2014) find a positive association between the receipt of government grants and the presence of an audit committee as well as conflict of interest, whistleblower, document destruction, and executive compensation evaluation policies.

Additional support comes from for-profits. Becher and Frye (2011) show that external regulation and internal governance are complements not substitutes for one another. They find that firms with more effective external regulation also have larger boards and greater director oversight. Carcello et al. (2011) note that strong governance in the form of board and audit committee characteristics are also related to stronger external auditing. Of key interest, though, is that the opposite is also true. When external regulation is weak or has recently decreased, other internal governance practices also tend to be weaker (Becher and Frye 2011).

audited financial statements as part of the initial registration process and at the time of yearly renewal of their charitable status within the state (24 states are documented as having this requirement) (National Council of Nonprofits 2016).

Some evidence exists for a substitution effect, however. Both Hay et al. (2008) and Boo and Sharma (2008) generally find lower audit fees (suggesting less in-depth audits and hence less external oversight) in the for-profit sector for firms with stronger internal governance (e.g., in the form of audit committees and both larger and more independent boards). Membership in a regulated industry, though, weakens the relationship (Boo and Sharma 2008).

Although prior for-profit research is a bit mixed with respect to the impact that external governance has on IG choices, pre-2008 nonprofit surveys, limited post-2008 nonprofit studies, and the majority of for-profit research seems to support a positive association⁵³. Therefore, I predict a positive relationship between the presence of external oversight mechanisms and high nonprofit IG. I operationalize high IG using a simple index formed from the sum of the presence/absence of 14 items reported on Form 990 [(1) a written conflict of interest policy, (2) enforcement of conflicts of interest, (3) disclosure of any officers' conflicts of interest, (4) a whistleblower policy, (5) a document retention policy, (6) a CEO salary policy, (7) an officer salary policy, (8) no family or business relationships, (9) no delegation of management duties to others, (10) no changes to organizational documents from the prior period, (11) no officer without listed contact information, (12) board minutes recorded, (13) individual committee minutes recorded, and (14) an audit committee]. The factors reflect those used in prior nonprofit studies (e.g., Harris et al. 2015b). The index thus ranges from 0 to 14 and a

⁵³ Those survey studies used limited samples subject to response bias to make inferences. Here I utilize a larger sample of nonprofits and rely on archival data. I also look at years 2008 and beyond whereas the survey studies focus on time periods prior to 2008.

nonprofit receives 1 point for each item disclosed as present or applicable. High governance nonprofits are distinguished from low governance ones based on the median for all of the firm-years in the sample which is calculated as 13. Therefore, the high governance group ($HIGH_INT_GOV = 1$) consists of those nonprofit-years that report 13 or all 14 IG practices as present or applicable while the low group ($HIGH_INT_GOV = 0$) contains all other nonprofit-years. My prediction is stated in alternative form as H1a.

H1a: *External oversight mechanisms will be positively associated with high IG.*

I acknowledge that the high IG indicator does not do a very good job of capturing variation in IG. Therefore, I perform a changes analysis to more closely capture the movement of IG in response to movements in external oversight. Therefore I make the following hypothesis, stated in alternative form:

H1b: *Changes in external oversight mechanisms will be positively associated with changes in the number of IG mechanisms.*

IG and financial reporting/internal control quality

Donors, government agencies, creditors, and other stakeholders rely on the accuracy of nonprofits' financial reports. Yetman and Yetman (2012) find a positive association between certain governance factors and financial reporting quality measured as non-zero or non-understated fundraising expenses. While those measures of nonprofit reporting quality are common, they may not capture the full spectrum of reporting quality. Further, they only study reporting quality as it refers to the program ratio, a performance measure that is becoming less and less important to donors when compared with actual mission-related performance (Pyzdrowski 2014). While I do examine the

relationship between IG and one similar measure, the Trussel program ratio manipulation factor (or the probability of program ratio manipulation), I also study two broader proxies of financial reporting quality: audit opinions and internal control deficiencies⁵⁴.

A number of accounting for-profit studies examine the relationship between financial reporting quality (measured using a handful of proxies including internal control strength) and corporate governance. While some exceptions do exist (e.g., Larcker et al. 2007) those studies generally find a positive association between the two sets of measures (e.g., Bedard et al. 2004; Carcello 2009; Dhaliwal et al. 2010; Krishnan 2005; Zhang et al. 2007). Further, findings from Rich and Zhang (2014) show that among governmental entities (specifically municipalities), the presence of audit committees (an IG measure) results in decreased internal control problems.

Financial statement audit opinion.

For nonprofits undergoing an external audit, the financial statement opinion provided by an independent third-party offers information regarding the quality of the organization's financial reports. For those organizations receiving an unqualified opinion, their financial statements can be assumed to be free from material error or omission. However, for nonprofits receiving a lower-grade opinion such as adverse or qualified, indicators are present to suggest that misstatements have occurred and that they either do or do not have a pervasive effect on the financial statements, respectively.

⁵⁴ While a financial statement audit opinion and the absence of internal control deficiencies may act as broader measures of financial reporting quality, not all organizations undergo audits. For those that do, data is only readily available for larger nonprofits that expend greater amounts of government grant funds and are hence subject to A-133 Audits. Such issues may make results less generalizable to all nonprofits.

Internal control reportable conditions and material weaknesses.

Auditors evaluate internal controls as part of A-133 Audits. The Committee of Sponsoring Organizations (COSO) notes that one of the primary purposes of internal controls is to provide reasonable assurance regarding the reliability of an entity's financial reporting quality and resulting reports (COSO 1992). If a problem is identified with regard to internal controls, it can be classified into one of two categories, a reportable condition or a material weakness. For nonprofits receiving an A-133 Audit, testing of internal controls over both financial reporting and major programs occurs. While a material weakness is the more severe of the two categories, either a reportable condition or a material weakness could negatively impact an organization's financial reporting quality. As Burks (2015) shows, a negative relationship exists between nonprofit internal control quality and financial restatements. Such results are similar to a number of for-profit studies which also find a negative relationship between various proxies of financial reporting quality and internal control deficiencies (Chan et al. 2008; Feng et al. 2009; Hoitash et al. 2009). Further, because internal controls over major programs test the extent to which an organization is complying with the terms of a grant and because such grants are normally awarded to assist a nonprofit in helping to fulfill its mission, the presence or absence of internal control problems in that area may be a proxy for actual mission-related performance. As support for that idea, Petrovits et al. (2011) finds that the presence of internal control problems are, in fact, associated with decreased public donations and government grants.

Based on the prior discussion, nonprofits with *HIGH_INT_GOV* seem less likely to manipulate their program ratios, receive a qualified or adverse audit opinion, and to have internal control problems. To investigate those theories, I propose hypotheses 2, 3, and 4 stated in alternative form below.

H2: *Nonprofits with high internal governance will be less likely to manipulate their program ratio measured as the Trussel program ratio manipulation factor.*

H3: *Nonprofits with high internal governance will be less likely to receive a qualified or adverse audit opinion.*

H4: *Nonprofits with high internal governance will be less likely to have internal control deficiencies.*

Relationship between IG and efficiency

Nonprofits report expenses in three functional categories: program services, administration, and fundraising. While donors and other evaluators have traditionally focused solely on the program ratio in their donation and rating decisions and, by definition, program services should best represent a nonprofit's mission commitment, recent efforts by nonprofit advocates have encouraged a broader evaluation strategy (BBB Wise Giving et al. 2013). In addition to frequent manipulation of the program ratio, another argument for the new approach is that continually increasing program spending to the detriment of controls and training (items most likely included in administrative expenses) can actually be quite harmful to a nonprofit's long-term success. Further, under-spending in the fundraising category can preclude a nonprofit from adequately

spreading awareness concerning its cause or, if the underspending is simply a reporting manipulation, can simply reflect poor financial reporting quality.

IG and the program, administrative, and fundraising ratios.

Given the importance of the interrelationships between spending in the various categories, I expect that a nonprofit's IG is somehow associated with such spending choices. Because arguments can be made that higher and lower spending in each of the categories is "better," however, and because the sample's average program ratio is already quite high, I refrain from making a directional prediction and simply carry out the analysis as a research question stated as R1:

R1: *What, if any, relationship exists between high IG (changes in IG) and the three functional expense categories: program services, administration, and fundraising?*

IG and the adequacy of equity ratio.

With respect to other measures of efficiency, while Trussel and Parsons (2007) and Carroll and Stater (2009) classify the adequacy of equity ratio as a measure of stability, I argue that, to a certain extent, it may be more a gauge of efficiency. Measured as the ratio of net assets to total revenue, Trussel and Parsons (2007) contend that the ratio represents the extent to which a nonprofit has reserves available to meet its ongoing needs particularly in financially difficult years. While the measure can provide information regarding the number of years that the nonprofit can survive with no new revenue, at a certain point an extremely large adequacy of equity ratio can indicate a nonprofit's failure to efficiently serve its mission. Research by Marudas (2004) and

Parsons and Trussel (2008) supports that claim with donors reducing their donations in response to higher adequacy of equity ratios. Therefore, I hypothesize that nonprofits with higher IG will have lower adequacy of equity ratios. The hypothesis is stated in alternative form as H5.

H5: *Nonprofits with high IG will have lower adequacy of equity ratios.*

Relationship between IG and organizational stability

To be more willing to provide funds, donors and other financial supporters must perceive that a nonprofit is a low-risk social investment and will be able to continue its mission pursuits well into the future. In order to capture nonprofit stability, I analyze one measure suggested by Trussel and Parsons (2007) and two additional measures that utilize scaled variation or the coefficient of variation (CV). Those sets of measures are (1) revenue concentration and (2) the CV of total revenue and the CV of the program ratio.

Revenue concentration.

A nonprofit may obtain funding from a variety of sources including program revenues, investment income, public contributions, and government grants. Too large of a reliance on any one of those sources puts a nonprofit in a vulnerable position (Greenlee and Trussel 2000). Results from a 2012 survey show 30 to 40 percent of nonprofits have experienced a reduction in both grant revenues and other forms of funding. Those additional funding sources include individual public donations, private foundation donations, corporate donations, and investment income (Pettijohn 2014). Such a trend suggests a need to place even greater importance on funding diversification. On average, Parsons and Trussel (2008) find that lower revenue concentration is associated with

higher donations. Such an association is consistent with a crowding-in effect. Further, Carroll and Stater (2009) offer support for the notion that revenue diversification is in fact associated with greater nonprofit stability. Based on that I expect a nonprofit with high IG to have lower revenue concentration. I present my hypothesis as H6a which is stated in alternative form.

H6a: *Nonprofits with high IG will have lower revenue concentration.*

Total revenue CV and program ratio CV.

In general, the coefficient of variation is a measure that captures the relative dispersion of individual sets of data across a data set. It is calculated as the standard deviation of a measure across observation points divided by the mean of those same data points and is hence standardized. A nonprofit with less variation in operations, particularly in total revenue generated and mission support provided, should represent an organization with more stable operations and therefore one with a more positive future outlook (Roberts and Ling 2015). I therefore hypothesize a negative relationship between governance and the CV measures. Given that Roberts and Ling (2015) find that 25 percent of their nonprofit firm-years do not experience program ratio changes, I should be precluded from finding a significant association between program ratio CV and governance unless governance truly does help. My formal hypothesis is stated in alternative form as H6b.

H6b: *Nonprofits with a higher average number of governance mechanisms over the past 4 years will have a lower total revenue CV (program ratio CV).*

Relationship between IG and cost of debt and external credit ratings

As noted previously, it is becoming more and more common for nonprofits to seek additional financing from sources outside of public contributions, government grants, and program revenue. One of the sources of that funding is the debt market. Because a well-governed nonprofit should be more stable and hence less risky, creditors should be less concerned about the organization defaulting on its obligations and be more willing to provide funding at a cheaper rate. For-profit research confirms that better governed firms do in fact benefit from lower bond yields and higher credit ratings (Ashbaugh-Skaife et al. 2006; Bhojraj and Sengupta 2003; Elbannan 2009). I thus state my final hypotheses in alternative form as H7a and H7b.

H7a: *Nonprofits with high IG will be more likely to have a lower cost of debt.*

H7b: *Nonprofits with high IG will be more likely to have a higher credit rating.*

Research Design and Model Specification

Sample selection

My study covers the period from 2009 to 2013⁵⁵. Data for most of the analyses comes from two main sources. Financial and governance data is collected from IRS Form 990 using the Statistics of Income (SOI) files. I begin the sample with 66,119 firm-year observations. Because of missing age data for 303 of the observations, that size is reduced to 65,816. The size is further reduced by 6,386 observations because of missing

⁵⁵ 2008 is the first year in which all of the governance data was disclosed on Form 990. As such, it is included in the study but only with respect to lagged observations.

prior-year (lagged) data which results in a base sample of 59,430 firm-years covering 16,922 unique nonprofits⁵⁶.

Data related to audit opinions and internal control evaluations is collected from A-133 Audit reports available from the Federal Audit Clearinghouse. A merge of the A-133 and SOI files results in 14,140 firm-year observations. However, missing deficiency and audit report data results in a sample size for most of the related analyses of 13,172.

Additionally, for my credit rating analysis, a merge of the 990 data and available Moody's credit ratings results in a sample size of 2,050. Similar to the other analyses, that size is further reduced because of missing model variables for certain observations.

Measures of IG

My study utilizes two primary IG measures and one additional IG measure. The first is a high IG indicator (*HIGH_INT_GOV*) constructed from an index ranging from 0-14 with those firm-years with an index at or above the median of 13 coded 1 as previously described and all other firm-years coded 0. The second is a variable representing the change in the number of IG mechanisms over the prior year calculated as $NUM_GOV_MECH_t$ less $NUM_GOV_MECH_{t-1}$. The additional third measure is $AVG_INT_GOV_t$ defined as the average NUM_GOV_MECH over a 4-year time period used in the coefficient of variation analyses.

⁵⁶ Most of the analyses have sample sizes that are further reduced because of missing variables that vary by analysis.

Models*H1 – IG determinants.*

In order to explore H1 which proposes that the presence of external oversight is associated with a higher likelihood of having high IG, I utilize a probit regression model. The dependent variable is $HIGH_INT_GOV_t$ constructed as previously described. The main independent variables of interest are indicators for the presence of each of the external regulatory oversight mechanisms discussed earlier in the paper measured during the prior period: (1) $A_133_PERF_{t-1}$, (2) $IND_AUDITOR_{t-1}$, (3) $FIN_TRANS_OWN_WEBSITE_{t-1}$, (4) GOV_GRANTS_{t-1} , (5) $MUNI_BONDS_{t-1}$, (6) $UNSECURED_OUTSIDE_DEBT_{t-1}$, (7) $SECURED_OUTSIDE_DEBT_{t-1}$, (8) $TEMP_RSTRD_NASSETS_{t-1}$, (9) $PERM_RSTRD_NASSETS_{t-1}$, and (10) $PUBLIC_SUPPORT_{t-1}$. All variables are coded 1 if they are present, 0 otherwise. In addition to the independent variables of interest, LOG_SIZE_{t-1} (defined as the natural log of total assets) and LOG_AGE_t (defined as the the natural log of the difference between the current year and the year of nonprofit formation) are included as control variables. I also include industry⁵⁷, year, and state fixed effects. Definitions for each of the independent variables of interest are included in Appendix B. I expect positive and significant coefficients on each of the external oversight variables. The model is presented as Eq. 2.1.

⁵⁷ Industry refers to one of the six nonprofit categories (Arts, Education, Health, Human Services, Public Benefit, and Other).

$$\begin{aligned}
HIGH_INT_GOV_{i,t} &= \beta_0 + \beta_1 A_133_PERF_{i,t-1} + \beta_2 IND_AUDITOR_{i,t-1} \\
&+ \beta_3 FIN_TRANS_OWN_WEBSITE_{i,t-1} + \beta_4 GOV_GRANTS_{i,t-1} \\
&+ \beta_5 MUNI_BONDS_{i,t-1} + \beta_6 UNSECURED_OUTSIDE_DEBT_{i,t-1} \\
&+ \beta_7 SECURED_OUTSIDE_DEBT_{i,t-1} \\
&+ \beta_8 TEMP_RSTRD_NASSETS_{i,t-1} + \beta_9 PERM_RSTRD_NASSETS_{i,t-1} \\
&+ \beta_{10} PUBLIC_SUPPORT_{t-1} + \beta_{11} LOG_SIZE_{i,t-1} + \beta_{12} LOG_AGE_{i,t} \\
&+ \beta_{13} HIGH_INT_GOV_{i,t-1} + \sum \gamma_i INDUSTRY + \sum \delta_i YEAR \\
&+ \sum \alpha_i STATE + \varepsilon_{i,t} \tag{2.1}
\end{aligned}$$

In a subsequent analysis, I substitute the change in the number of governance mechanisms from period t-1 to period t ($\Delta NUM_GOV_MECH_i$) for the dependent variable. I also redefine all independent variables (except *AGE*) in the same manner. I then use an OLS regression to estimate the effect that changes in the external oversight measures have on the change in IG⁵⁸.

H2 – H4: IG and financial reporting quality.

To study the impact of IG on financial reporting quality and to address H2, H3, and H4, I use three separate models.

⁵⁸ Because the models deal with indicator variables, changes refer to (a) going from not having the external oversight mechanism in period t-1 (0) to having it in period t (1) which results in a change of +1, (b) going from having the external oversight mechanism in period t-1 (1) to not having it in period t (0) which results in a change of -1, or (c) remaining the same with respect to external oversight during the period (1-1 or 0-0) which results in a change of 0.

First, to model H2, whether nonprofits that have high IG in the prior period ($HIGH_INT_GOV_{t-1} = 1$) have a lower Trussel program ratio manipulation factor, I run an OLS regression with $TRUSSEL_MANIP_t$ (defined more thoroughly in Appendix B) as my dependent variable and $HIGH_INT_GOV_{t-1}$ as my main independent variable of interest. I expect a negative coefficient on $HIGH_INT_GOV_{t-1}$. As controls, I also include LOG_SIZE_t , LOG_AGE_t , an indicator for whether or not the observation refers to a more charitable-oriented entity based on relative revenue sources ($CHARITABLE_t$ – defined in Appendix B), the prior period manipulation probability ($TRUSSEL_MANIP_{t-1}$), and prior period indicators for all of the external oversight mechanisms. Industry, year, and state fixed effects are also included. My model is shown as Eq. 2.2.

$$\begin{aligned}
TRUSSEL_MANIP_{i,t} &= \beta_0 + \beta_1 HIGH_INT_GOV_{i,t-1} + \beta_2 LOG_SIZE_{i,t} + \beta_3 LOG_AGE_{i,t} \\
&+ \beta_4 CHARITABLE_{i,t} + \beta_5 TRUSSEL_MANIP_{i,t-1} \\
&+ \beta_{6-15} EXTERNAL_OVERSIGHT_{i,t-1} + \sum \gamma_i INDUSTRY \\
&+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t}
\end{aligned} \tag{2.2}$$

To study H3, whether high IG nonprofits are less likely to receive a qualified audit report, I run a probit regression with $QREPORT_FS_t$ ($QREPORT_MP_t$), an indicator for the presence (1) or absence (0) of a qualified audit report over financial reporting (major programs) as my dependent variable and $HIGH_INT_GOV_{t-1}$ as my main independent variable of interest. I expect a negative and significant coefficient on

$HIGH_INT_GOV_{t-1}$ which would suggest that a higher IG environment is associated with a lower likelihood of a nonprofit receiving a qualified or adverse audit opinion over financial reporting (major programs). Control variables are also included for LOG_AGE_t , LOG_SIZE_t , surplus scaled by total assets ($SURPLUS_SC_t$), the presence/absence of a qualified audit report in the prior period ($QREPORT_FS_{t-1}$ or $QREPORT_MP_{t-1}$), and prior period indicators for each of the external oversight mechanisms. I also include industry, year, and state fixed effects. The model is presented as Eq. 2.3.

$$\begin{aligned}
 QREPORT_FS_{i,t} \text{ (} QREPORT_MP_{i,t} \text{)} \\
 &= \beta_0 + \beta_1 HIGH_INT_GOV_{i,t-1} + \beta_2 LOG_AGE_{i,t} + \beta_3 LOG_SIZE_{i,t} \\
 &+ \beta_4 SURPLUS_SC_{i,t} + \beta_5 QREPORT_FS \text{ (} QREPORT_MP \text{)}_{i,t-1} \\
 &+ \beta_{6-15} EXTERNAL_OVERSIGHT_{i,t-1} + \sum \gamma_i INDUSTRY \\
 &+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t}
 \end{aligned} \tag{2.3}$$

To conduct my analysis of H4, whether high IG is associated with a lower likelihood of disclosing an internal control deficiency, I again use a probit regression. My dependent variable is an indicator labeled $DEFICIENCY_t$ coded 1 if an internal control deficiency is present, 0 otherwise. My main independent variable of interest is $HIGH_INT_GOV_{t-1}$ and I expect a negative relationship between it and deficiency disclosure. In subsequent analyses, I test variations of the dependent variable as (1) RC_FS_t (reportable condition over financial reporting), (2) RC_GOV_t (reportable condition over major programs), (3) MW_FS_t (material weakness over financial

reporting), and (4) MW_GOV_t (material weakness over major programs). Control variables are similar to those used in the Petrovits et al. (2011) models to predict the likelihood of an internal control problem: $COMPLEXITY_t$, $GOINGCONCERNRISK_t$, $SURPLUS_SC_t$, LOG_SIZE_t , $GROWTH_t$, $RISK_t$, $NEWGRANTEE_t$, $BIG4_t$, and $REGIONAL_t$ and are more thoroughly defined in Appendix B. I also include indicators for the prior period external oversight mechanisms and the presence of a deficiency in the prior period ($DEFICIENCY_{t-1}$) as well as industry, year, and state fixed effects. The model is presented as Eq. 2.4.

$$\begin{aligned}
 DEFICIENCY_{i,t} &= \beta_0 + \beta_1 HIGH_INT_GOV_{i,t-1} + \beta_2 COMPLEXITY_{i,t} \\
 &+ \beta_3 GOINGCONCERNRISK_{i,t} + \beta_4 SURPLUS_SC_{i,t} + \beta_5 LOG_SIZE_{i,t} \\
 &+ \beta_6 GROWTH_{i,t} + \beta_7 RISK_{i,t} + \beta_8 NEWGRANTEE_{i,t} + \beta_9 BIG4_{i,t} \\
 &+ \beta_{10} REGIONAL_{i,t} + \beta_{11} DEFICIENCY_{t-1} \\
 &+ \beta_{12-20} EXTERNAL_OVERSIGHT_{i,t-1} + \sum \gamma_i INDUSTRY \\
 &+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t}
 \end{aligned} \tag{2.4}$$

I also re-estimate models 2.2, 2.3, and 2.4 using OLS and changes in both the dependent and independent variables. Rather than using $HIGH_INT_GOV_{t-1}$ as my main independent variable of interest, I instead use $\Delta NUM_GOV_MECH_t$ as previously

defined. The changes models should more accurately describe how the dependent variables change in response to a change in IG.

R1 and H5: IG and efficiency

To study the relationship between IG and efficiency and address R1 and H5, I run a handful of models. First, with respect to R1, I separately examine the relationship between $HIGH_INT_GOV_{t-1}$ and (1) the program ratio, (2) the administrative ratio, and (3) the fundraising ratio. For the program ratio model, I include the same controls as those used for the *TRUSSEL_MANIP* analysis plus an indicator for no reported fundraising expense ($ZERO_FUNDRAISING_t$). The models for the administrative ratio and fundraising ratio are similar to that of the program ratio but include $LOG_TOTAL_REVENUE_t$ and do not include indicators for charitable status nor zero fundraising. The models are presented as Eqs. 2.5a-c.

$PROGRAM_RATIO_{i,t}$

$$\begin{aligned}
 &= \beta_0 + \beta_1 HIGH_INT_GOV_{i,t-1} + \beta_2 LOG_SIZE_{i,t} + \beta_3 CHARITABLE_{i,t} \\
 &+ \beta_4 LOG_AGE_{i,t} + \beta_5 ZERO_FUNDRAISING_{i,t} \\
 &+ \beta_6 PROGRAM_RATIO_{i,t-1} + \beta_{7-16} EXTERNAL_OVERSIGHT_{i,t-1} \\
 &+ \sum \gamma_i INDUSTRY + \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t} \quad (2.5a)
 \end{aligned}$$

$$\begin{aligned}
& ADMIN_RATIO_{i,t} (FUNDRAISING_RATIO_{i,t}) \\
&= \beta_0 + \beta_1 HIGH_INT_GOV_{i,t-1} + \beta_2 LOG_SIZE_{i,t} \\
&+ \beta_3 LOG_TOTAL_REVENUE_{i,t} + \beta_4 LOG_AGE_{i,t} \\
&+ \beta_5 ADMIN_RATIO_{i,t-1} (FUNDRAISING_RATIO_{i,t-1}) \\
&+ \beta_{6-15} EXTERNAL_OVERSIGHT_{i,t-1} + \sum \gamma_i INDUSTRY \\
&+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t} \tag{2.5b, c}
\end{aligned}$$

To examine H5, whether high IG nonprofits are more likely to have lower adequacy of equity ratios, I calculate $ADEQ_EQUITY_RATIO_t$ following Trussel and Parsons (2007) as net assets divided by total revenue. The main independent variable of interest is $HIGH_INT_GOV_{t-1}$ which is coded the same as in previous models. It is expected to be negatively related to the $ADEQ_EQUITY_RATIO_t$. As control variables I include LOG_SIZE_t , LOG_AGE_t , $SURPLUS_SC_t$, $ADEQ_EQUITY_RATIO_{t-1}$, indicators for prior year external oversight mechanisms, and industry, year, and state fixed effects. Variable definitions are included in Appendix B. The model is presented as Eq. 2.6.

$$\begin{aligned}
& ADEQ_EQUITY_RATIO_{i,t} \\
&= \beta_0 + \beta_1 HIGH_INT_GOV_{i,t-1} + \beta_2 LOG_SIZE_{i,t} + \beta_3 LOG_AGE_{i,t} \\
&+ \beta_4 SURPLUS_SC_{i,t} + \beta_5 ADEQ_EQUITY_RATIO_{i,t-1} \\
&+ \beta_{6-15} EXTERNAL_OVERSIGHT_{i,t-1} + \sum \gamma_i INDUSTRY \\
&+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t} \tag{2.6}
\end{aligned}$$

H6a and H6b: IG and stability.

To investigate H6a and H6b, whether nonprofits that have high IG are more likely to have (1) lower revenue concentration and (2) lower coefficients of variation (CVs) for total revenue and the program ratio, I use a couple of different models. First, for the revenue concentration analysis, I use REV_CONCEN_t as the dependent variable calculated according to Trussel and Parsons (2007) as the sum of each revenue source divided by total revenue for the organization squared, $\sum \left(\frac{Revenue\ Source}{Total\ Revenue} \right)^2$. By definition, the ratio should range from 0 to 1. Therefore, to not bias the results, I exclude from the analysis any observations reporting a ratio higher than 1⁵⁹. I again use an OLS regression and my main independent variable of interest is $HIGH_INT_GOV_{t-1}$. I predict a negative coefficient on $HIGH_INT_GOV_t$ suggesting that a greater IG presence is associated with lower revenue concentration within the organization and hence more diversified funding. I also include two control variables in the model, $SIZE_t$ and AGE_t which should help capture a nonprofit's access to a variety of sources of funding. The proposed model is presented as Eq. 2.7.

⁵⁹ One reason that some ratios are greater than 1 is that in some cases streams of revenue are reported as negative numbers. For instance, an investment loss is recorded as a negative amount. Other instances of a ratio greater than 1 may simply be data errors. There are 3,004 cases where $REV_CONCEN_t > 1$ and those observations are deleted from the analysis.

$$\begin{aligned}
REV_CONCEN_{i,t} &= \beta_0 + \beta_1 HIGH_INT_GOV_{i,t-1} + \beta_2 LOG_SIZE_{i,t} + \beta_3 LOG_AGE_{i,t} \\
&+ \beta_4 REV_CONCEN_{i,t-1} + \beta_{5-14} EXTERNAL_OVERSIGHT_{i,t-1} \\
&+ \sum \gamma_i INDUSTRY + \sum \delta_i YEAR + \sum \alpha_i STATE \\
&+ \varepsilon_{i,t}
\end{aligned} \tag{2.7}$$

For the CV analyses, I again use an OLS regression where the dependent CV variables are measured as the standard deviation of total revenue (the program ratio) over a 4-year period divided by the mean of total revenue (the program ratio) over that same 4-year period. My independent variable of interest is *AVG_INT_GOV* which is the mean number of governance mechanisms reported by the nonprofit over that same 4-year time period. I carry out the regression for 2012 and only for those nonprofits with data for every year from 2009 – 2012. I expect a nonprofit with a larger average IG to have less variation in its total revenue and program ratio over that time period and hence predict a negative coefficient on *AVG_INT_GOV*. I include controls for the nonprofit's average size (*AVG_SIZE*), the average number of external oversight mechanisms (*AVG_EXT_MECH*), and industry and state fixed effects in the total revenue CV (*CV_TOTAL_REVENUE*) analysis and add *CV_TOTAL_REVENUE* as a control for the *CV_PROGRAM_RATIO* test. My models are presented as Eqs. 2.8a and 2.8b.

$$\begin{aligned}
CV_TOTAL_REVENUE_i & \\
&= \beta_0 + \beta_1 AVG_INT_GOV_i + \beta_2 AVG_EXT_GOV_i + \beta_3 AVG_SIZE_i \\
&+ \beta_4 CHARITABLE_i + \beta_5 LOG_AGE_i + \sum \gamma_i INDUSTRY + \sum \alpha_i STATE \\
&+ \varepsilon_i
\end{aligned} \tag{2.8a}$$

$$\begin{aligned}
CV_PROGRAM_RATIO_i & \\
&= \beta_0 + \beta_1 AVG_INT_GOV_i + \beta_2 AVG_EXT_GOV_i + \beta_3 AVG_SIZE_i \\
&+ \beta_4 CHARITABLE_i + \beta_5 LOG_AGE_i + \beta_6 CV_TOTAL_REVENUE_i \\
&+ \sum \gamma_i INDUSTRY + \sum \alpha_i STATE + \varepsilon_i
\end{aligned} \tag{2.8b}$$

H7: IG and cost of debt / credit rating.

With respect to my final set of hypotheses, I use an OLS model to first examine the relationship between the cost of debt and $HIGH_INT_GOV_{t-1}$. I measure cost of debt as the ratio of interest expense to total liabilities and use it as the dependent variable in my model. While $HIGH_INT_GOV_{t-1}$ is my main independent variable of interest, I also include $SIZE_t$, AGE_t , an indicator for low operating reserves ($LOW_OPER_RESERVE_t$ - a nonprofit with less reserves would be expected to have a higher cost of debt), and prior period cost of debt ($COST_OF_DEBT_{t-1}$) as controls in the model. Industry, year, and state fixed effects are also included. The model is shown as Eq. 2.9a.

$$\begin{aligned}
COST_DEBT_{i,t} &= \beta_0 + \beta_1 HIGH_INT_GOV_{i,t-1} + \beta_2 LOG_SIZE_{i,t} + \beta_3 LOG_AGE_{i,t} \\
&+ \beta_4 LOW_OPER_RESERVE_{i,t} + \beta_5 COST_DEBT_{i,t-1} \\
&+ \beta_{6-15} EXTERNAL_OVERSIGHT_{i,t-1} + \sum \gamma_i INDUSTRY \\
&+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t} \tag{2.9a}
\end{aligned}$$

For the credit rating test, I first examine the relationship between $HIGH_INT_GOV_{t-1}$ and the likelihood of receiving an investment-grade credit rating using a probit regression where the dependent variable is $INVESTMENT_t$, an indicator coded 1 for nonprofits receiving an investment-grade credit rating, 0 otherwise. (See Appendix D for a translation of actual ratings to investment- vs. speculative-grade). In a subsequent model, I run an ordered logistic regression and test the relationship between $HIGH_INT_GOV_{t-1}$ and actual credit rating, $RATING_t$. (Again, see Appendix D). In both cases, I expect a positive coefficient on $HIGH_INT_GOV_{t-1}$. Based upon the limited amount of information provided by Moody's regarding credit rating determinations, I also include LOG_SIZE_t , LOG_AGE_t , $COMPLEXITY_t$, REV_GROWTH_t , $SURPLUS_SC_t$, $LEVERAGE_t$, and $LOW_OPER_RESERVE_t$ as controls in the model. Additionally, indicators for lagged external governance oversight and industry, year, and state fixed effects are also included. My model is presented as Eq. 2.9b.

$$\begin{aligned}
& INVESTMENT_{i,t} (RATING_{i,t}) \\
& = \beta_0 + \beta_1 HIGH_INT_GOV_{i,t-1} + \beta_2 LOG_SIZE_{i,t} + \beta_3 LOG_AGE_{i,t} \\
& + \beta_4 COMPLEXITY_{i,t} + \beta_5 REV_GROWTH_{i,t} + \beta_6 SURPLUS_SC_{i,t} \\
& + \beta_7 LEVERAGE_{i,t} + \beta_8 LOW_OPER_RESERVE_{i,t} \\
& + \beta_{9-18} EXTERNAL_OVERSIGHT_{i,t-1} + \sum \gamma_i INDUSTRY \\
& + \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t} \tag{2.9b}
\end{aligned}$$

Results

In Table 2.1 Panel B, I classify my base sample by industry and year. The majority of the observations are for nonprofits in the health industry followed closely by education and human services. Together, those three industries comprise 79 percent of the sample. With respect to years, the sample is evenly distributed⁶⁰.

Table 2.2 Panels A through C show descriptive statistics for both the full sample and the $HIGH_INT_GOV_{t-1} = 1$ and $HIGH_INT_GOV_{t-1} = 0$ subsets. Panels A and B include continuous and dichotomous variables (excluding IG and external oversight variables), respectively. Panel C describes both the IG and external oversight items. The mean (median) total assets of the sample is \$188 million (\$45 million) with mean (median) total revenue of \$91 million (\$15 million). Comparing the high and low IG subsamples, the high IG nonprofits are slightly larger and generate more revenue.

Interestingly, though, after scaling by size, the low IG group actually has a larger mean

⁶⁰ Year 2013 has fewer observations simply because the other half of FYE 2013 data will be released with Statistic of Income (SOI) files for 2013 which are not yet available.

relative surplus (although the difference is not statistically significant). Further, the *HIGH_INT_GOV_{t-1}* = 0 group is more charitable-oriented and has a slightly higher going concern opinion rate and audit risk.

Given the univariate statistics, based on Table 2.2 Panel C, it appears that those nonprofits with high IG are also generally more likely to have high external oversight. Additionally, comparing only the univariate statistics in Panels A and B, the high IG group has better overall performance (e.g., a lower probability of program ratio manipulation, a lower incidence of qualified audit reports and internal control deficiencies, less revenue concentration, a lower adequacy of equity ratio, and a lower cost of debt).

Table 2.3 presents the composition of nonprofit governance since 2008. The percentages represent the portion of the sample within the given year that report the particular governance mechanism (the board characteristics are an exception and instead *PERC_IND_BRD* and *BOARD_SIZE* indicate the mean percentage of independent board members and the mean board size during the given year, respectively). Overall, the use/reporting of the use of IG mechanisms has increased over time. The same is true for the presence of the external oversight mechanisms. Not surprisingly, as time passes, fewer nonprofits experience an increase in the number of IG mechanisms (once they reach the cap of 14 mechanisms analyzed here, they cannot go any higher). Interestingly, 2010 and 2011 both had a moderate decrease in the number of IG mechanisms used/reported. Also, in recent years fewer nonprofits have had independent auditors

perform compilations and reviews but instead have used independent auditors for full audit services.

Table 2.4 Panels A and B present the results for the determinants of high IG and changes in IG. As Model 1 of Panel A shows, $HIGH_INT_GOV_t$ is positively associated with the performance of an A-133 audit, a nonprofit's disclosure of financial data on its own website, the receipt of government grants, and the presence of temporary restrictions on its net assets all measured as of the prior period. $HIGH_INT_GOV_t$ is also positively associated with the size of the nonprofit (measured as of the end of the prior year) and age. Interestingly, high IG is negatively related to the general use of an independent auditor and the presence of permanent restrictions on its net assets. To better capture the effect of external oversight mechanisms on IG choices, I present Models 2 – 4 using the changes in both types of governance. As Model 2 indicates, increases in the use of each of the external oversight mechanisms⁶¹ is also generally associated with an increase in the number of IG mechanisms and, likewise, decreases in the use of each is associated with decreases in the number of IG mechanisms. Analyzing increases (Model 3) and decreases (Model 4) in IG separately, all external mechanisms except a change in the use of unsecured outside debt are positively related to increases in IG while decreases in IG are less likely with an increase in the use of an A-133 Audit, an independent auditor, public disclosure of financials on a nonprofit's own website, and the presence of municipal bonds, secured outside debt, and temporarily restricted net assets. Panel B

⁶¹ "Increase in the use of" refers to going from a state of that source of oversight not present to a state of it present during the period t-1 to t. Similarly, "decrease in the use of" refers to going from a state of that source of oversight present to a state of it not present during the period t-1 to t.

substitutes the amounts of each of the external oversight mechanisms scaled by lagged total assets for simply their presence. Given the reduced significance compared with Panel A, it appears that the presence/absence of external oversight compared with magnitude is a better predictor of IG. In light of that, the Panel does indicate that the scaled amount of municipal bonds and the scaled amount of permanently restricted net assets may play more of a role in the decision process than other forms of external oversight. Overall, it appears that external oversight mechanisms and IG are complements rather than substitutes to one another with higher external oversight encouraging high IG. The results thus seem to support H1.

In Table 2.5, I present the analysis of the relationship between lagged IG and the Trussel program ratio manipulation factor. As Model 1 shows, the probability of ratio manipulation is lower for high IG ($HIGH_INT_GOV_{t-1} = 1$) nonprofits compared with those not in the high category. Therefore, H2 is supported. Further, as would be expected, larger and older nonprofits that likely have had more of an opportunity to establish themselves are also less likely to manipulate the ratio while nonprofits that rely on donation dollars (those that are more charitable) are more likely to manipulate the ratio. Turning to the changes analyses presented in Models 2 – 4, I find some evidence that an increase in mechanisms is associated with a higher probability of program ratio manipulation. However, the general change in operating environment resulting from governance changes and the associated change in expenses may be driving that result.

With respect to the relationship between IG and qualified audit reports, Table 2.6 Models 1 and 3 indicate that high IG in the prior period is associated with a lower

likelihood of a qualified audit report over both financial reporting and major programs in the current period, respectively. The results thus support H3. As for the changes analyses, limited evidence exists for a positive relationship between the change in IG and the likelihood of a qualified audit report over major programs which is contrary to expectations. In untabulated analyses, I find that the unexpected result is driven by increases and not decreases in IG.

Table 2.7 examines the association between IG and internal control deficiencies. Using the lagged high IG indicator, I find a negative relationship between high IG and the probability of an internal control deficiency, which supports H4. However, studying the relationship using changes analyses, I again find a positive relationship between an increase in the number of IG mechanisms and a change in internal control deficiency status (i.e., an increase in IG is associated with the presence of a new internal control deficiency). In untabulated analyses where I separate deficiency into types of deficiencies, I find that the changes result is driven partially by the positive relationship between changes in IG and the presence of new reportable conditions and material weaknesses over major programs and not internal control deficiencies over financial reporting. However, I also find results that suggest that a decrease in the number of IG mechanisms is associated with the new presence of a material weakness over financial reporting which is more consistent with expectations.

In Tables 2.8 – 2.11, I study the relationship between IG and nonprofit efficiency. Tables 2.8 – 2.10 show results for R1, the relationship between IG and the program ratio, the administrative ratio, and the fundraising ratio, respectively. I find high lagged IG is

not significantly associated with the program ratio but positively related to both the administrative ratio and the fundraising ratio suggesting a possible greater focus on necessary spending for training, controls, etc. as well as spending to promote the organization. The higher associated fundraising expense also suggests less program ratio manipulation. Further, while I do not initially find an association between IG and the program ratio, in changes analyses I do find some evidence suggesting that an increase in the number of IG mechanisms is related to a decrease in the program ratio which may be offset by an increase in the fundraising ratio. Such results again support the notion that better governed nonprofits engage in fewer ratio manipulations.

Table 2.11 displays the association between IG and adequacy of equity measured as the ratio of net assets to total revenue where a higher ratio represents more reserves relative to current year revenue. I find a negative relationship between lagged high IG and the ratio suggesting that better governed nonprofits keep lower reserves and use more current year funding for mission purposes. My results thus support H5. In my changes analyses, I find limited support that changes in the number of IG mechanisms are negatively associated with changes in the adequacy of equity ratio which is consistent with my other results.

I begin my study of the association between IG and a nonprofit's stability with the revenue concentration analysis presented in Table 2.12. In Model 1, I show that prior period high IG is negatively related to revenue concentration in the current period. More specifically, a well-governed nonprofit is more likely to have a diversified stream of revenue sources to shield it against reductions in any one source. Hence H6a is supported.

My subsequent changes analyses do not indicate any relationship between changes in the number of IG mechanisms and changes in revenue concentration, however.

I continue my examination of the relationship between IG and stability in Table 2.13 where I study the coefficient of variation (CV) of total revenue and the program ratio. My analysis measures CV over a 4 year period (2009 – 2012) and only for those nonprofits with data for all 4 years. While I do not find a significant relationship between IG and the CV of total revenue, I do find that higher average external oversight is associated with less variation in total revenue. Consistent with expectations, I also find a negative relationship between average IG and the CV of the program ratio even after controlling for average external oversight and the CV of total revenue. My results thus partially support H6b and the argument that high IG nonprofits are more stable.

Finally in Tables 2.14 and 2.15, I examine the relationship between IG and external financing via the debt markets. In Table 2.14, I find that lagged high IG is associated with a lower cost of debt which supports H7a. Those results are further supported through my changes analyses which suggest that increases in IG are associated with decreases in the cost of debt. As Table 2.15 shows, lagged high IG is also associated with a greater likelihood of receiving an investment-grade credit rating. However, no association is observed between high IG and the numeric credit rating. Thus H7b is partially supported. Interestingly, an increase in the number of IG mechanisms is negatively associated with a change in credit rating. This result may be tied to those found earlier for internal control and qualified report issues related to increases in IG.

Collectively, my results provide two pieces of information to nonprofit governance research. First, IG and external oversight are complements to one another with higher external oversight encouraging greater IG. Second, higher IG is associated with better overall nonprofit performance.

Additional Analyses

Because my IG measures do not include board properties, in untabulated analyses I run additional tests in which I add lagged percentage independent board (*PERC_IND_BRD_{t-1}*) to the *HIGH_INT_GOV* models. In all but the administrative ratio test, results remain qualitatively unchanged and *PERC_IND_BRD_{t-1}* is not significant. For the administrative ratio analysis, while *HIGH_INT_GOV_{t-1}* remains positively and significantly related to *ADMIN_RATIO_t*, *PERC_IND_BRD_{t-1}* is negatively and significantly related as well.

Also in untabulated analyses, I show that different standalone components of IG drive certain results. The components analyzed are (1) compensation, (2) management, (3) policy, (4) minutes, (5) audit, and (6) board⁶². For the qualified audit report, deficiency, and adequacy of equity ratio analyses, compensation appears to be negatively related to each and is the most important factor. Management is the only IG component negatively related to both revenue concentration and the program ratio. With respect to

⁶² Compensation consists of (1) a CEO salary policy and (2) an officer salary policy. Management includes (1) no family or business relationships, (2) no delegation of management duties to others, (3) no changes to organizational documents from the prior period, and (4) no officer without listed contact information. Policy comprises (1) a written conflict of interest policy, (2) enforcement of conflicts of interest, (3) disclosure of any officers' conflicts of interest, (4) a whistleblower policy, and (5) a document retention policy. Minutes consists of (1) board minutes recorded and (2) individual committee minutes recorded. Audit is only an audit committee. Board is the percentage independent board members. For all but board, the individual measures are simply a count of the IG mechanisms present in each of the categories.

the Trussel program ratio manipulation factor, compensation is negatively related while management is positively related. As the Trussel results would suggest, compensation is positively related to the fundraising ratio while management and minutes are negatively related. The cost of debt has the most individual factors related to it with management and minutes having a positive relationship and policy and board a negative one. Finally, it appears that audit (i.e., the presence of an audit committee) drives the positive association between IG and an investment-grade credit rating.

Conclusion

In this study I investigate two issues. First, I study whether nonprofits subject to external oversight have a higher likelihood of also having high IG. I find that high IG is positively associated with a nonprofit's size and age, the performance of an A-133 audit, a nonprofit's disclosure of financial data on its own website, the receipt of government grants, and the presence of temporary restrictions on its net assets all measured as of the prior period. However, the general use of an independent auditor and the presence of permanent restrictions on net assets is negatively related to IG. Therefore, except in a few cases, I find a positive association suggesting a complementary relationship. Further, my changes analyses support that conclusion.

Knowing if external oversight mechanisms are associated with the use of IG practices has implications for future regulatory decisions. As mentioned at the beginning of the paper, as of January 1, 2015, A-133 thresholds were raised likely resulting in fewer nonprofits undergoing the assessments. Since the study's results suggest that A-133

audits encourage better IG, future research could investigate whether reduced thresholds result in a reversal of IG choices.

More important than the determinants of IG choices, however, is whether implementation offers any value to nonprofits. That is the second issue that my study addresses. I find benefits in the form of higher financial reporting quality measured as a lower Trussel program ratio manipulation factor, a lower likelihood of receiving a qualified or adverse audit opinion and a lower likelihood of having an internal control deficiency. With respect to efficiency, I show that nonprofits with high IG have lower adequacy of equity ratios, higher administrative ratios, and higher fundraising ratios. As for stability, I find a negative relationship between revenue concentration and high IG suggesting that IG encourages a more diversified set of funding sources. I also find that while not related to the coefficient of variation of total revenue, high IG is associated with a lower variation in the program ratio over a four-year period. Finally, my results indicate that high IG is negatively related to the cost of debt and positively related to investment-grade credit ratings.

In aggregate, my results provide some details to explain why donors provide greater support to nonprofits with better IG and why nonprofits with poor IG are subject to greater material diversion of assets (Harris et al. 2015a, b). Rating agencies like Charity Navigator and even credit rating firms (e.g. Moody's) use IG as one of their evaluation criteria. My study provides support for that practice and offers information that could help those agencies to better incorporate IG into their rating systems.

The study is subject to a few limitations. First, given the sampling methodology of the IRS in creating the Statistics of Income (SOI) files, organizations that are larger are sampled at rates higher than that of other organizations. As a result, the nonprofits studied may not be completely representative of the entire body of nonprofits. Further, for those analyses involving A-133 Audit data (i.e. quality of financial reporting tests), again the organizations included in those tests may not be representative of the nonprofit sector as a whole⁶³. Second, as noted in the body of the paper, IRS Form 990 disclosures related to IG practices represent only “reported” use of such practices. While a nonprofit may report utilizing a certain mechanism, there is still the possibility that the organization is making a false statement to positively elevate public perceptions. Further research may be warranted to determine how closely reported use corresponds with actual use. Finally, while not determinable given the data currently available, certain contractual provisions, debt covenants, or other regulatory documents may mandate the use of a particular IG mechanism. If that is the case, a positive association between IG and external oversight may be mechanical. However, because no universal mandates have been identified, no adjustments were made to the models for such a possibility and the analysis assumes that, over the long run, any such effects will be eliminated.

While the proposed research helps to answer a handful of questions related to nonprofit governance and its impact on actual reporting and operations, it still leaves room for additional research. First, in my current analysis I use a simple count index to classify nonprofits into high and low IG categories. In future iterations of this paper,

⁶³ Similar studies rely on these data sources.

more sophisticated measures incorporating weights for governance factors or individual governance measures may be used in creating a governance score and identifying nonprofits with high or higher IG based on that score. The score may be similar to the factor analysis used by Harris et al. (2015b) or that used by Charity Navigator in their rating determinations. Second, as more information becomes known about what constitutes good nonprofit operations including mission-based performance, the relationship between IG and those performance characteristics can be examined. Third, although credit rating agencies like Moody's use governance information as inputs into rating calculations for larger nonprofits, smaller nonprofits tend to be ignored. By gaining a better understanding of the role played by governance in the minimization or balancing of risk, credit or overall risk ratings may be developed for smaller nonprofits that fall outside of rating agencies' radars. Finally, while this study concentrates primarily on the existence of IG components, future research could delve deeper into the properties of certain mechanisms (e.g. audit committee and board composition focusing on individual membership and background or investigating specific compensation-related policies) to determine whether the granular details of governance mediums can help differentiate nonprofits from one another.

CHAPTER IV

STUDY III: THE USE OF INSIDE DEBT COMPENSATION WITHIN NONPROFITS: ALIGNING OF EXECUTIVE AND STAKEHOLDER INTERESTS

Introduction

Gifts from individuals, foundations, bequests, and corporations to nonprofits exceeds \$350 billion per year⁶⁴ (NCCS 2012). While benefactors provide support with the intention of better ensuring an organization's long-term continuation and mission implementation, agency problems can be a strong barrier against those objectives (Jensen and Meckling 1976; NCCS 2012). Stories of for-profit executives' lavish personal expenditures (e.g., use of company jets for pleasure) or decisions made for reputational concerns frequently hit the news and research shows an associated negative effect on performance (Yermack 2006). However, the practice is not restricted to for-profit industries. Some nonprofit executives also engage in similar acts.

As an example, the CEO of EduCap Inc., a charity committed to providing non-government backed loans to college students, used excessive loan interest charged by the organization to pay for a number of extravagant perquisites for her, her husband, and their friends. Such benefits included bodyguards, meetings at fancy resorts, expensive gifts such as a cashmere cape, and use of a private jet costing \$31 million. Further, while claiming that additional profits were donated to other charities, the largest gift was to a nonprofit run by her husband who used the \$1.5 million for personal benefit (Attkisson 2009). A more recent scandal involved four related cancer charities prosecuted by all 50

⁶⁴ In 2014, nonprofits received \$358.38 billion. Of that, individuals gave the largest share at \$258.51 billion (72.14%) (NCCS 2012).

states, the District of Columbia, and the Federal Trade Commission (FTC). Those organizations falsely indicated to donors that their \$187 million contributions between 2008 and 2012 were being spent on cancer patients. In reality, few if any donated funds were used in that manner but instead paid for family vacations, college tuition, concert tickets, cars, and even dating website memberships for the perpetrators (FTC 2015).

While the two cases described above are particularly egregious and were flagged by the IRS for further investigation and potential 501(c)(3) status revocation⁶⁵, others are less severe and do not necessarily violate tax-exempt status regulations. For instance, during the wake of Superstorm Sandy, the American Red Cross was deemed to be inefficient in its use of donated funds. The nonprofit is alleged to have reserved up to 40 percent of its logoed trucks to be within view during news conferences rather than at work delivering necessary supplies. Ultimately, the executives' goal of elevating the organization's reputation seems to have trumped mission concerns (Sullivan 2014).

These cases illustrate that agency costs might actually be more severe than those found within publicly traded firms⁶⁶ (Glaeser 2002; Hansmann 1980; Jensen and Meckling 1976; Manne 1999). In public firms, shareholders have both the incentive and

⁶⁵ Revocation of IRS tax-exempt 501(c)(3) status can occur for a variety of reasons including violations in the areas of (1) private benefit/inurement, (2) lobbying, (3) political campaign activity, (4) unrelated business income (UBI), (5) annual reporting obligations, and (6) operations outside state exempt purposes (IRS 2015b). During the period 2008-2011, roughly 560 tax-exempt organizations had their exempt status repealed by the IRS for violations other than failure to report (IRS 2015a). The Pension Protection Act of 2006 currently mandates revocation of exemption status for any nonprofit that is required but fails to file with the IRS for three consecutive years. According to Guidestar (2011), the number of revocations for that reason during the first year the policy was in effect (2011) was 279,595 of which about 159,369 (57%) were 501(c)(3) charities.

⁶⁶ Cases are not limited to those mentioned. Other examples include American University, Kansas City University of Medicine and Biosciences, the Smithsonian Institution, and Community Action of Minneapolis (Matos 2014; Notable nonprofit executive spending scandals 2012). A search of the web for nonprofit executive scandals reveals many others.

power (via financial and voting rights) to oversee the organization and protect their residual claims. As a result, when for-profit executives begin to overstep their bounds and perform poorly, shareholders can at least take action. On the other hand, donors and other nonprofit stakeholders, do not own nonprofits and are prohibited by law from receiving any of the excess funds that are generated⁶⁷ (Brickley and Van Horn 2002; Fama and Jensen 1983; Glaeser 2002; Hansmann 1980; Manne 1999). While nonprofits must ultimately answer to the Internal Revenue Service (IRS) and state governments, oversight by those regulatory bodies is also limited due to their time and financial resource constraints⁶⁸ (Desai and Yetman 2015; Hansmann 1980; Manne 1999; Mulligan 2007; Strom 2011). Collectively, such conditions suggest a weaker governance structure than is found in for-profits.

In this paper, I examine the use of inside debt⁶⁹ for nonprofit CEOs as an alternative or additional form of governance. Specifically, I argue that compensation in the form of inside debt is a governance mechanism that nonprofits can use to ensure that the interests of executives are aligned with those of donors and other stakeholders. Since

⁶⁷ In addition to the absence of financial and voting rights, donors and other contributors also lack control rights and hence have no power to elect and to discipline board members (Glaeser 2002).

⁶⁸ While the IRS has generally faced budget cuts, the Exempt Organizations (EO) division has been particularly hard hit. Between 2010 and 2013, the EO division went from 900 to 824 employees. Hence a small number of agents oversee the 1.6 million charities in existence (Independent Sector 2015).

⁶⁹ Throughout the paper, inside debt refers to amounts reported on IRS Form 990 Schedule J, Part II, column C titled "Retirement and other deferred compensation." According to the IRS, deferred compensation is "compensation that is earned or accrued in, or is attributable to, one year and deferred to a future year for any reason, whether or not funded, vested, or subject to substantial risk of forfeiture." It includes "earned but unpaid incentive compensation deferred pursuant to a deferred compensation plan" and "all current-year deferrals of compensation for the listed person under any retirement or other deferred compensation plan, whether qualified or nonqualified that is established, sponsored, or maintained by or for the organization or a related organization." Further, "the annual increase or decrease in actuarial value, if any, of a defined benefit plan" is included. Note that gains and losses on defined contribution plans, however, are not included (IRS 2009).

accessing inside debt compensation often occurs upon retirement, for-profit research shows that inside debt in the form of pensions and other forms of deferred compensation encourages a more longer-term focus and less risk-taking⁷⁰ (Edmans and Liu 2011; Gerakos 2010; Sundaram and Yermack 2007). Additionally, because inside debt is typically unsecured and unfunded, an executive holding it essentially becomes a debt holder to the organization. Therefore, in the event of bankruptcy or merger with a different nonprofit, an executive's claim on the organization could be forfeited.⁷¹ Such deferred compensation plans should encourage executives holding them to operate organizations more conservatively to increase the likelihood of longer-term success^{72,73} (Cassell et al. 2012; Sundaram and Yermack 2007; Wei and Yermack 2011).

In particular, I examine the determinants and consequences of the use of CEO inside debt in nonprofits. I focus on various proxies of a nonprofit's performance and riskiness including the program ratio (and, alternatively, the Trussel program ratio

⁷⁰ While much deferred compensation is distributed at the time of retirement, as the IRS notes, even if the funds accrued in a plan are somehow protected, rights to funds may not be granted to the employee until vesting has occurred which may be many years in the future (e.g., the IRS gives examples of vesting at 3, 5, 6, and 15 based on various vesting criteria but all necessitating continued employment with the organization (IRS 2009).

⁷¹ Nonprofits excluding churches, are covered under the Employee Retirement Income Security Act (ERISA) of 1974 and hence have some pension protection under the Pension Benefit Guaranty Corporation (PBGC). While general employees likely have their full defined benefit plans protected, highly-paid executives may not. Each year, the PBGC sets a yearly maximum threshold of protection. For the year 2011, that per employee threshold for a 65-year old was \$4,650/month or \$56,000/year (PBGC 2015). Further, defined contribution plans are not protected by the PBGC.

⁷² Additionally, a non-qualified ("ineligible") deferred compensation 457(f) plan may be chosen as an alternative to a 457(b) plan. Unlike 457(b) plans which set yearly contribution limits, 457(f) plans do not impose such limits and tend to be more flexible. While a 457(f) plan is a better means of retaining top talent and is deemed a "golden handcuff" by some, it also requires that the executive perform a set number of additional years of service with the organization in order to defer taxation until after retirement (NACUBO 2008).

⁷³ Sundaram and Yermack (2007) find that 78% of the CEOs in their sample of 237 Fortune 500 companies have pensions while Gerakos (2010) notes that 62-64% of S&P 500 CEOs receive pensions. The percentage of firm-years with CEO inside debt in my sample (75.7%) is thus comparable to for-profit industries.

manipulation factor), the probability of the organization continuing as a going concern, the strength of the internal control environment, and external credit ratings. I conduct my empirical examination in two steps. Using a sample of 45,624 firm-years, I first determine the factors associated with the proportion of nonprofit CEO inside debt. I find that nonprofits that are larger, younger, do not possess positive unrestricted cash, and that are less leveraged are more apt to compensate their CEO with a larger proportion of inside debt. I also find that nonprofits with an audit committee, a lower percentage of independent directors, a larger board, a lack of independent oversight in the preparation or review of financial statements, and that disclose financial information on their own websites have CEOs with a larger proportion of inside debt as do those with less powerful CEOs⁷⁴. With respect to more nonprofit-specific factors, my results indicate that nonprofits that are more charitable⁷⁵ in nature but that receive a lower percentage of total revenues from contributions and government grants are also more likely to pay their CEOs with a greater proportion of inside debt.

I next examine the impact of CEO inside debt on proxies of operational efficiency and risk-taking including the program ratio, the Trussel program ratio manipulation factor, the likelihood of the nonprofit remaining a going concern, internal control status, and credit ratings. I find that, compared to nonprofits without CEO inside debt, those with CEO inside debt tend to have higher program ratios. That relationship is strongest

⁷⁴ Note that relationships are similar for simply the presence of CEO inside debt compared with scaled CEO inside debt. What does differ, though, are a few variables are no longer significant while ROA and state tax rate are more strongly associated with the presence of CEO inside debt. Note that the results suggest that CEO inside debt may be used either in combination with or as an alternative to other forms of governance.

⁷⁵ Charitable is defined here as having a ratio of program service revenue to total revenue that is less than the median for the sample.

for CEOs in the top and middle brackets of scaled inside debt. Moreover, I find that the probability that the program ratio has been manipulated is generally lower for those nonprofits with CEOs with greater scaled inside debt. I find additional evidence that scaled CEO inside debt is related to a lower likelihood of receiving a going concern opinion and a lower likelihood of internal control material weaknesses over financial reporting with some evidence of a lower likelihood of other types of deficiencies as well. Finally, my results indicate that scaled nonprofit CEO inside debt is also associated with higher external credit ratings. Collectively, the results suggest that the use of inside debt compensation is an important vehicle through which agency costs are mitigated in a nonprofit setting.

My study contributes to both the nonprofit and compensation literatures. While prior nonprofit studies have examined total and bonus pay with respect to donations and performance accomplishment (Baber et al. 2002; Balsam and Harris 2013; Balsam and Harris 2015; Brickley and Van Horn 2002; Gaver and Im 2014; Kaden et al. 2015; Sedatole et al. 2015), I focus my analysis on a different pay component, inside debt. Further, while prior studies restrict their analysis to performance factors related to profitability with only limited focus on mission accomplishment, my paper adopts a wider range of performance and risk metrics with less emphasis on a profit objective. As a result, I am better able to study the impact of inside debt in all nonprofit sectors and not just those more commercial in nature. I thus respond to the call by Brickley and Van Horn (2002) to investigate the industry as a whole.

Theory, Prior Literature, and Hypothesis Development

Agency costs in nonprofits and governance mechanisms

While nonprofits differ from for-profits with regard to their primary operating objective (i.e., achievement of a certain mission versus pursuance of a profit), nonprofits need to still generate enough funding to support their mission pursuits (Hansmann 1980). However, any excess must be retained by the organization rather than be distributed to internal or external owners. Despite the absence of an ownership stake and related executive incentives to maximize the residual, manager-donor agency costs still exist. In particular, managers have the opportunity to misappropriate donors' money either through improper use of the funds within the organization or by taking the funds to achieve some type of personal benefit (Fama and Jensen 1983; Jegers 2009). Further, while some nonprofits may generate all of their necessary funding from public donations or government grants, others may still need to borrow money leaving the agency costs of debt, or the mismatching of risk-taking preferences of managers and outside debtholders, as an additional concern⁷⁶ (Calabrese and Ely 2015; Jensen and Meckling 1976; Pettijohn 2014; Yan et al. 2009).

In fact, because of the non-distribution of residual requirement as well as other unique elements of nonprofits' operating environments, agency problems within nonprofits might actually be more severe than those found within publicly-traded firms

⁷⁶ Yan et al. (2009) find that while nonprofits prefer inside sources of funding, once those sources are exhausted, the organizations do enter the debt market. Calabrese and Ely (2015) note that the size of the nonprofit tax-exempt bond market in 2010 was three times its 1993 size. Pettijohn (2014) reports results from a 2012 national survey indicating that 30 to 40 percent of nonprofits have experienced a reduction in grants and public, private foundation, and corporate donations in addition to investment income. With such reductions, bonds and other loans may offer alternative sources of funding.

(Brickley and Van Horn 2002; Fama and Jensen 1983; Glaeser 2002; Hansmann 1980; Manne 1999). For instance, while some influential donors serve on boards, most donors do not. Moreover, donors do not vote to elect board members nor are the individuals who serve on the board accountable to donors (Glaeser 2002). The lack of accountability results in information asymmetry (Manne 1999). Further, Brickley and Van Horn (2002) note that considering that the end goal of nonprofits is to achieve some type of specific charitable mission, it can be especially difficult to evaluate outcomes. An inability to know what outputs are most important or for the public to directly observe such outputs makes contracting much more difficult.

Certain mechanisms may help mitigate the agency costs that exist. Board structure may be one such factor (Aggarwal et al. 2012; Brickley and Van Horn 2002; Callen et al. 2003; Fama and Jensen 1983). Specifically, Fama and Jensen (1983), Brickley and Van Horn (2002), and Callen et al. (2003) argue that nonprofit boards should primarily be composed of outside members such as major donors who have ties to the organization. Supporting that claim, Brickley et al. (2010) show that executive pay is lower for nonprofits overseen by mainly independent boards suggesting lower agency costs for those organizations. Aggarwal et al. (2012) find that, in general, nonprofits with larger boards spend more on programs and have better organizational performance⁷⁷. Moreover, the link between pay and performance is weaker in the presence of larger boards. Using Dutch nonprofit hospitals as a sample, Cardinaels (2009) also shows that agency problems are mitigated when things like the financial or legal expertise of board members

⁷⁷ An exception exists for healthcare nonprofits, a nonprofit sector more similar to for-profits.

is higher. Hallock (2002) further finds that paid compared with unpaid directors may be more diligent. External parties may also help to reduce agency costs and better align executive and stakeholder interests. For example, state governments can institute laws and prosecute nonprofits that violate those laws (Desai and Yetman 2015).

An alternative governance mechanism is to alter the compensation package offered to the CEO and other top executives. Baber et al. (2002) find a positive association between program spending and nonprofit executive pay while Brickley and Van Horn (2002) show a positive relationship between return on assets (ROA) and hospital CEOs' compensation. More recently, Sedatole et al. (2015) find that the positive relationship between profit and compensation is driven by nonprofits with commercial-type operations and that traditional nonprofits actually exhibit a negative relationship between profit and pay. However, for those traditional nonprofits, charitable spending and generated revenue are positively associated with compensation particularly in cases where those metrics are more stable. While those studies primarily study the pay-performance relationship and assume that performance affects compensation, Balsam and Harris (2015) take the opposite approach and investigate the relationship between CEO bonuses and both future revenue sources and net income assuming bonuses affect rather than are affected by performance. I take a similar approach in this paper using inside debt.

Inside debt and managerial incentives in for-profits

In for-profits, compensation contracts are often written to reduce agency costs (Jensen and Meckling 1976). A number of for-profit compensation studies have focused

on the use of equity such as stock and options to encourage operations that favor stockholders and encourage greater risk-taking (Coles et al. 2006; Guay 1999; Low 2009; Rajgopal and Shevlin 2002). However, more recently, research has addressed the role of inside debt in the form of pensions and other types of deferred compensation (Cassell et al. 2012; Edmans and Liu 2011; Sundaram and Yermack 2007; Wei and Yermack 2011).

Sundaram and Yermack (2007) provide a foundational paper concerning for-profit inside debt. They find that CEO pension levels are positively related to firm size, age, leverage, CEO employment tenure, and an external CEO hire and negatively related to a liquidity constraint measured as negative operating income⁷⁸. Gerakos (2010) extends their work and finds that while economic determinants are the main predictive factors, governance variables including CEO/Chair duality (CEO power), board size, and the percentage of insiders on the board also play a role with significant positive, positive, and negative associations, respectively.

With respect to for-profit performance, Sundaram and Yermack (2007) find that inside debt is associated with more conservative (less risky) management. Using distance-to-default as a risk measure, the authors find a negative relationship between inside debt and risk-taking. Cassell et al. (2012) further study the relationship using different risk proxies: the volatility of future stock returns, R&D expenditures, the extent of firm diversification, and firm asset liquidity measured as working capital. They find similar results with inside debt negatively related to the first two measures and positively

⁷⁸ Sundaram and Yermack (2007) report that, on average, the change in for-profit CEO pension value to total compensation in a given year is 11%. In my nonprofit sample, I find the average change in CEO deferred compensation to total compensation in a year is 7%.

related to the latter two. He (2015) notes that CEO inside debt is positively associated with financial reporting quality. Further, in accordance with the notion that inside debt encourages managers to act more in the interests of creditors as well as to take fewer risks and have a longer-term perspective, Wei and Yermack (2011) find that inside debt is associated with higher bond prices, lower equity prices, and lower volatility of both financing forms. However, Chen et al. (2011) find that lower interest rates result for public but not private debt. Anantharaman et al. (2013) and Chava et al. (2010), however, show that the magnitude of inside debt is negatively related to the number of private debt covenants. Chen et al. (2011) further find that inside debt is positively associated with a firm's liquidation value.

Edmans and Liu (2011) explain the lower risk-taking behavior and the desire for a higher liquidation value by noting that while bonuses and pensions are both eliminated at the time of bankruptcy, firm value is also a factor that impacts pensions at the point of default. Because pensions are often not fully funded and money may not have been properly set aside for such payments (i.e. unsecured debt), at the time of default, executives and other employees are subject to the same claims process as outside debtholders. While lower-level employees may be protected by the Public Benefit Guaranty Corporation (PBGC), executive pension benefits are often much larger than the protection threshold. Further, only defined benefit and not defined contribution plans are protected. In accordance with that, Gerakos (2010) finds that for-profit executive pensions do indeed tend not to be bankruptcy-protected.

Inside debt in nonprofits

Similar to for-profits, some nonprofits partially compensate their executives using retirement benefits and other forms of deferred compensation as reported on Form 990. While Lee and Wilkins (2011) cite Barbeito and Bowman (1998) in claiming that fewer nonprofits offer retirement benefits to their employees compared with governmental entities, Hallock (2002) finds that such deferred benefits actually form a substantial fraction of the compensation paid to top nonprofit officers, directors, and trustees.

Because some but not all nonprofits utilize inside debt, it is reasonable to believe that there are certain organizational characteristics that can help predict that choice. Within for-profits, firm size, age, leverage, liquidity and growth are factors positively associated with inside debt (Chen et al. 2011; Sundaram and Yermack 2007). While the factors may be the same or similar for nonprofits, that question has yet to be empirically tested. Moreover, since nonprofits do not have the ability to compensate executives using ownership shares, compensation package decisions may differ. For instance, while public firms counteract liquidity constraints with equity compensation, nonprofits may instead offer inside debt. Although cash payment is necessitated in such cases, payment need not be immediate (Yermack 1996). Therefore, while I base my directional predictions on findings from for-profit research, I conduct my analyses using two-tailed tests to allow for those possible differences. My hypothesis is presented as H1.

***H1:** A nonprofit's size, age, liquidity, leverage, and growth opportunities will be positively associated with the proportion of CEO inside debt compensation⁷⁹.*

⁷⁹ As later defined, the proportion of (or scaled) CEO inside debt is deferred compensation divided by total compensation for the period.

With respect to inside debt and other governance mechanisms, Gerakos (2010) shows that CEO power measured using board size and CEO/chair duality (i.e., poorer governance) is positively related to CEO pension value while a negative relationship exists for inside boards⁸⁰. The former suggests a potential substitution effect between other governance and executive inside debt while the latter implies a potential complementary relationship. As a result, I refrain from making a directional prediction and examine the relationship between other governance and nonprofit CEO inside debt as a research question. My research question is stated as follows:

***RI:** What is the relationship between the presence / extent of other governance mechanisms and the proportion of nonprofit CEO inside debt compensation?⁸¹*

Inside debt and nonprofit incentive alignment

Evidence from for-profit literature suggests that the use of inside debt helps to better align the interests of managers with those of debtholders. In a for-profit setting, the interest of stockholders consists of increasing net income to elevate stock price and hence increase firm and personal wealth while the interest of debtholders is in ensuring that their principal will be repaid along with interest. Preyra and Pink (2001) note that the lack of an equity stake for managers in nonprofits reduces their incentive to only focus on profit to the detriment of other more-mission related performance factors. One of those

⁸⁰ Sundaram and Yermack (2007), Chen et al. (2011), and Gerakos (2010) also include CEO specific variables like CEO tenure, CEO age, CEO hired from outside the firm, etc. and find such variables to also be predictors of the use of inside debt in for-profits. While such factors are more readily available in the for-profit sector, nonprofit data is less granular concerning such executive characteristics. As a result, I have chosen to focus on the role of only firm characteristics and CEO power, measured as the proportion of CEO pay to the pay of all other decision makers listed on Schedule J of Form 990.

⁸¹ As will be described more in depth later, I include variables for the percentage of independent voting directors as well as the presence of an audit committee, formal officer compensation policies, an independent compilation/review, and board size in my base model.

key performance variables that donors and governmental grant agencies are interested in is the program ratio, or the ratio of program service expenses to total expenses. As past research shows, donors primarily rely on the program ratio to ensure that nonprofits are adequately working toward their stated missions and price their donations accordingly (Okten and Weisbrod 2000; Parsons 2003; Parsons 2007; Posnett and Sandler 1989; Tinkelman 1999; Tinkelman 2004; Tinkelman and Mankaney 2007; Trussel and Parsons 2007; Weisbrod and Dominguez 1986; Yetman and Yetman 2013). Hence, a nonprofit that is more aligned with donors and governmental grant agency interests would be one with a higher program ratio. That leads to my second hypothesis stated in alternative form.

***H2a:** Nonprofits with CEOs compensated with inside debt (a larger proportion of inside debt) will have higher program ratios.*

Knowing the importance of the program ratio to donors' decisions, nonprofit CEOs and other decision makers have an incentive to engage in misreporting activities. Such activities include the improper allocation of expenses to program services and the reporting of zero or understated fundraising expenses. Such tactics artificially elevate the program ratio metric (Baber et al. 2001; Jones and Roberts 2006; Krishnan et al. 2006; Roberts 2005; Tinkelman 1998; Trussel 2003). In the case of improper allocations, average donors do not seem to spot improper intentions (Khumawala et al. 2005). However, they do pay attention to zero fundraising expenses and tend to discount donations accordingly (Yetman and Yetman 2013). The Trussel manipulation factor is designed to identify those nonprofits most likely to engage in such deception (Trussel

2003). Because manipulation is undertaken to increase contributions and maintain a nonprofit's reputation in the short-term, I make the following hypothesis (stated in alternative form):

***H2b:** Nonprofits with CEOs compensated with inside debt (a larger proportion of inside debt) will have a lower probability of program ratio manipulation.*

Inside debt and risk management

Another nonprofit stakeholder is external debtholders. As Jegers (2009) notes, debt helps to keep nonprofits accountable by requiring the repayment of borrowed principal along with interest. Similar to donors and other contributors, debtholders seek to ensure that the organization is not incurring excessive risk and will remain a going concern. Two factors considered in audits, the likelihood of an organization remaining a going concern and internal control deficiencies, stand out as good risk proxies.

According to AU-C §570.03, auditors are required to “evaluate whether there is substantial doubt about [an] entity’s ability to continue as a going concern for a reasonable period of time” and “is based on the auditor’s knowledge of relevant conditions or events that exist at, or have occurred prior to, the date of the auditor’s report” (AICPA 2015). Keating et al. (2005) find that only about 1 percent of all nonprofits receive a going concern opinion and, those that do, are less likely to be viewed by A-133 auditors as low risk clients. Feng (2014) comments that such a low percentage of going concern opinion firms is possibly due to lower litigation risk for auditors evaluating nonprofit clients. The low number of firms receiving the designation provides increased support for the conjecture that such firms have been operated in a particularly

risky manner and not in accordance with resource providers' wishes⁸². Considering that inside debt holdings make executives more susceptible to the risk of not receiving the full compensation promised if the organization ceases to exist or they are fired before vesting occurs, it seems that such monetary incentives should serve to discourage managers from operating nonprofits in a manner that leads to a going concern opinion. I therefore present H3 stated in alternative form.

***H3:** Nonprofits with CEOs compensated with inside debt (a larger proportion of inside debt) will be less likely to be issued a going concern opinion.*

Internal control deficiency disclosures may be another measure of organizational risk. Petrovits et al. (2011) find both decreased donor and governmental grant support following such disclosures while Burks (2015) finds a higher incidence of restatements. From a for-profit perspective, Ashbaugh-Skaife et al. (2009) study the association between internal control problems and risk and find that the presence of such issues are associated with higher idiosyncratic and systematic risk as well as higher costs of equity. Hogan and Wilkins (2008) also find that for-profit audit fees are higher in the presence of internal control deficiencies which represents additional auditor compensation for the extra risk assumed in auditing such firms. El-Gazzar et al. (2011) note that the implementation of internal controls reduces the information risk assumed by debtholders by making financial information more transparent. Further, He (2015) finds that in for-profits, larger CEO inside debt holdings are associated with better financial reporting

⁸² While financial theory offers support for why creditors would be concerned with a going concern opinion and an increased likelihood of bankruptcy, Feng (2014) shows that governmental grant agencies also reduce their support when such opinions are disclosed.

quality including a lower likelihood of internal control material weaknesses. In order to reduce the incidence of internal control problems and hence risk in nonprofits, CEOs may be incentivized using inside debt in the form of retirement plans or other forms of deferred compensation. Therefore, I make the following hypothesis (stated in alternative form).

***H4:** Nonprofits with CEOs compensated with inside debt (a larger proportion of inside debt) will be less likely to have internal control deficiencies.*

Outside credit rating agencies

Similar to for-profits, some nonprofits receive credit ratings from outside agencies. With respect to the for-profit setting, Anantharaman et al. (2013), Chen et al. (2011), and Wang et al. (2010) all find results which indicate lower cost of external debt in those for-profits with higher inside debt compensation. Hence, such firms would also be expected to have higher credit ratings. However, Carroll and Niehaus (1998) identify a situation when ratings may be lower despite the presence of inside debt. They find that unfunded pension liabilities reduce credit ratings to a greater extent than pension assets increase such ratings. They explain their results by noting that inside debt in the form of unsecured defined benefit pension plans are additional liabilities that compete with the claims of outside debtholders.

Moody's provides a limited amount of information concerning the factors it considers in making nonprofit credit rating determinations. Six characteristics identified are (1) market position, (2) operating performance, (3) balance sheet and capital investment, (4) governance and management, (5) legal security and debt structure, and

(6) other credit specific considerations (Moody's 2011, 2012, 2014). Similar to for-profits, lower ratings for a nonprofit would suggest greater perceived risk by creditors. Therefore, studying whether there is an association between CEO inside debt and credit ratings provided by outside agencies can provide insight regarding whether risk-reducing measures are taken by nonprofits with CEO inside debt and whether outsiders perceive those nonprofits to be less risky. That leads to my final hypothesis stated in alternative form.

H5: Nonprofits with CEOs compensated with inside debt (a larger proportion of inside debt) will have higher credit ratings.

Research Design and Model Specification

Sample selection

I begin my sample with 80,711 firm-year observations with IRS Form 990 data available from the Statistics of Income (SOI) files for fiscal year-ends (FYE) 2008 – 2012^{83,84}. Because some nonprofits with 2008 FYEs report their 2008 financial data on the 2007 version of Form 990 which is less comprehensive with respect to governance measures and compensation data, my sample is reduced to 73,888 observations. Further, to be included in my sample, a nonprofit must have both the main Form 990 data file as

⁸³ While my SOI data comes from the National Center for Charitable Statistics (NCCS), the same SOI data is also available from the IRS's website. Further, I limit my sample to those organizations that complete the full version of the form as opposed to the 990 EZ version because the latter lacks the governance variables that are included as controls in some of the tests.

⁸⁴ To better reflect growing concerns of accountability and transparency in the nonprofit industry, Form 990 was revised for tax years beginning in 2008 (Guidestar 2008). I restrict my sample to years 2008 and later because expanded compensation and governance disclosures needed for my analysis were not available before that time period.

well as the accompanying Schedule J – Compensation data file available.⁸⁵ I remove all observations not meeting that criteria which leaves 62,020 observations. Additionally, 667 nonprofits listing domicile outside of the U.S. are removed as are 162 observations missing an initial tax-exempt status date used to calculate the age variable. Finally, 711 nonprofits reporting negative revenues and expenses are removed as are 18 observations that report negative CEO deferred compensation and 4 observations in which my CEO power measure (*PAY5_SLICE_t*) is undefined.⁸⁶ My final base sample is 45,624 firm-years.

The sample is further reduced for the remaining analyses. There is insufficient functional expense data (or, in some cases, simply an undefined program ratio after adjustment for compensation) for 63 observations requiring that those observations be removed before running the program ratio tests. Use of lagged variables of interest brings the program ratio sample size to 39,688 (35,187 when the lagged adjusted program ratio is included in the model). Further, missing data needed to calculate the Trussel manipulation factor and required lagged variables results in a sample size for that analysis of 39,688 observations (27,915 when the lagged Trussel factor is included in the model). For the going concern and internal control tests, a merge with the Federal Audit

⁸⁵ Schedule J is only required for nonprofits that have an officer, director, or trustee who is paid in excess of \$150,000 or for those organizations in which (1) a former officer, director, or trustee is listed in Part VII or (2) an officer, director, or trustee listed in Part VII accrued compensation from an unrelated organization or individual for services provided to that individual or entity. As a result of the \$150,000 threshold, my sample includes only larger nonprofits. Hence, generalizability to smaller nonprofits may not be possible. To the extent that larger nonprofits tend to more readily provide executives with inside debt, the generalizability may not be a concern.

⁸⁶ Deferred compensation that equals total compensation for the top 5 executives results in a 0 denominator and subsequently an undefined ratio. Further, without subtracting out deferred compensation, a mechanical relationship would exist between the (dependent) *SC_CEO_DEF_COMP* and (independent) *PAY5_SLICE* variables leading to potentially incorrect inferences.

Clearinghouse's A-133 Audit database is required. Not all organizations that appear in the IRS SOI files receive a government A-133 audit.⁸⁷ Following the merge, the sample size is 12,509. After removing observations with missing data needed for the going concern and internal control analyses and allowing for lags, the sample sizes are 10,347 and 11,446 observations, respectively. Finally, my analysis involving the relationship between CEO inside debt and credit ratings contains data from only a handful of Moody's credit rating reports from years 2009, 2010, 2011, and 2013⁸⁸. After merging with available Moody's ratings, I am left with 2,065 observations. Lagged and missing variables further reduce the sample. See Table 3.1 Panel A for a detailed description of my base sample selection process. Additionally, see Panels B and C for a breakdown of the base sample by industry and year.

Inside debt variables

For-profit studies related to inside debt and risk often focus on the CEO. While the individual who holds that position in nonprofits is not specifically labeled in the NCCS records, nonprofit studies typically make the assumption that the highest paid individual listed is the CEO⁸⁹ (Core et al. 2006; Desai and Yetman 2015; Fisman and Hubbard 2005; Hallock 2002; Sedatole et al. 2015). I follow that practice in my study.

⁸⁷ An A-133 Audit is required for those nonprofits that receive governmental grants and expend funds provided by such grants in excess of \$500,000. Note the threshold was increased to \$750,000 as of January 1, 2015.

⁸⁸ The sample includes data from the median reports for (1) hospitals and healthcare facilities for 2009, 2010, 2011, and 2013, (2) colleges and universities for 2010, 2011, and 2013, and (3) other nonprofits for 2013.

⁸⁹ A box labeled "Highest Compensated Employee" appears on Form 990 Part VII to which Schedule J data is directly matched. However, in some cases a nonprofit fails to check that box for any of the listed individuals. Given that, I ignore the position labels and use the actual monetary compensation listed to identify who is highest paid and designate that individual as the CEO. To further support that the highest paid individual can be considered the CEO, Sedatole et al. (2015) take a random sample of their

For the presence of inside debt, if the CEO has an amount identified in Schedule J, Part II column C “Retirement and other deferred compensation,” the indicator variable *CEO_INSIDE_DEBT* is coded 1, otherwise it is 0. The scaled dollar amount for deferred compensation (*SC_CEO_DEF_COMP*) is used in most of my analyses and is measured as the ratio of current year CEO deferred compensation (*CEO_DEF_COMP*) to current year CEO total compensation (*CEO_TOTAL_COMP*). In order to allow comparisons between nonprofits with and without CEO inside debt compensation but also incorporate the relative magnitude of CEO inside debt into the analysis, I further divide the lagged scaled inside debt into terciles which creates a set of dummy variables for different *SC_CEO_DEF_COMP_{t-1}* brackets where an observation is coded 1 if in the bracket, 0 otherwise.^{90, 91}

Models

H1 and R1 - Inside debt determinants

To investigate the factors considered when deciding whether and how much inside debt to include in a CEO’s compensation package, I utilize the model shown as Eq. 3.1. In the case of *SC_CEO_DEF_COMP_t*, a robust regression model is estimated while a probit regression is used for the presence of inside debt (*CEO_INSIDE_DEBT*). I begin

observations and match them to the 2003 National Center for Charitable Statistics (NCCS) database which explicitly lists CEO compensation. In 99 percent of the observations, the assumption is confirmed.

⁹⁰ For example, observations with CEOs within the lowest bracket of inside debt receive a 1 for *CEO_DEF_BOTTOM*, a 0 for *CEO_DEF_MID*, and a 0 for *CEO_DEF_TOP*. Note that the terciles are created excluding all observation in which the CEO has \$0 deferred compensation. Therefore, the terciles can be interpreted as a comparison of nonprofits with CEOs having a certain bracket of inside debt versus nonprofits without any inside debt.

⁹¹ Use of the terciles also allows for any possible nonlinear relationships between scaled CEO inside debt and the dependent variables used in the analyses.

with models used by Sundaram and Yermack (2007), Chen et al. (2011), and Gerakos (2010) and revise the inputs to better apply to a nonprofit setting.

$$\begin{aligned}
 SC_CEO_DEF_COMP_t &= \beta_0 + \beta_1 LOG_SIZE_{i,t} + \beta_2 LOG_AGE_{i,t} + \beta_3 POS_UNREST_CASH_{i,t} \\
 &+ \beta_4 LEVERAGE1_{i,t} + \beta_5 GROWTH_{i,t} \\
 &+ \beta_6 ROA_{i,t} + \beta_7 PERC_IND_BRD_{i,t} + \beta_8 AUD_COMITTEE_{i,t} \\
 &+ \beta_9 OFFICER_SALARY_PLCY_{i,t} + \beta_{10} LOG_BOARD_SIZE_{i,t} \\
 &+ \beta_{11} COMPILE_REVIEW_{i,t} + \beta_{12} FIN_TRANS_OWN_WEBSITE_{i,t} \\
 &+ \beta_{13} PAY5_SLICE_{i,t} + \beta_{14} STATE_RATE_t + \sum \gamma_i INDUSTRY \\
 &+ \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t}
 \end{aligned} \tag{3.1}$$

In the model, LOG_SIZE_t is measured as the natural log of total assets. Based on research previously cited, I would expect a positive coefficient. Larger nonprofits should be better able to both afford retirement benefits and feel pressure to offer such additional compensation in order to remain competitive in the executive labor market. LOG_AGE_t is the natural log of the number of years since the nonprofit's initial tax-exempt filing. Older nonprofits should possess the stability necessary to make future financial promises to their executives. However, older nonprofits may also have the financial resources available to provide executives with immediate rather than deferred compensation. Hence the relationship may be either positive or negative. $POS_UNREST_CASH_t$ is an indicator coded 1 if the nonprofit's cash plus savings less restricted assets (both temporarily and

permanently restricted) is greater than \$0, 0 otherwise. In for-profits, a liquidity constraint is associated with a lower likelihood of the presence of inside debt. However, as noted earlier the relationship may differ in nonprofits because of the absence of equity compensation. $LEVERAGEI_t$ is the ratio of total debt to total assets. Because more debt necessitates a better aligning of managerial interests with those of debtholders, for-profit research shows a positive relationship between outside and inside debt. However, outside debt in nonprofits may be enough of a governing mechanism to reduce risk. Further, inside debt represents additional claims competing with outside debtholders. As a result, a negative relationship may actually be identified. $GROWTH_t$ ⁹² is measured as the change in assets from the beginning of the year to the end of the year. For-profit research finds that growth is negatively related to the use of inside debt in executive employment contracts. However, again, for-profits operate in a different setting than is encountered in a nonprofit one. For nonprofits, growth might actually increase risk in which case a positive relationship with inside debt would be expected. ROA_t measured as surplus divided by size [(revenues – expenses) / total assets] is also included in the model as a control. Traditional nonprofits lack a profit motive but must still generate a profit to sustain operations. ROA_t that is too high may indicate not enough resources are being allocated to the nonprofit's programs and a need for greater governance. Further, the financial ability of the nonprofit to offer inside debt might be dictated by the presence of reserves. Similar to Cassell et al. (2012), state tax rate ($STATE_RATE_t$) is included as a control. Because deferred compensation is not received until some future period (usually

⁹² In untabulated analyses I alternatively test REV_GROWTH (the change in revenue from the prior year to the current year) as the growth variable. Results remain qualitatively unchanged.

retirement) and is normally not taxed until that time, executives living in high-taxed states may have a greater incentive to receive a larger portion of their compensation as deferred. Upon retirement, not only will they have less income on which to pay taxes but they may also then reside in a lower tax-rate state.

I also examine if any relationship exists between CEO inside debt and various governance mechanisms: $PERC_IND_BRD_t$, $AUD_COMMITTEE_t$, $OFFICER_SALARY_PLCY_t$, $LOG_BOARD_SIZE_t$, $COMPILE_REVIEW_t$, and $FIN_TRANS_OWN_WEBSITE_t$). $PERC_IND_BRD_t$ is measured as the ratio of the number of independent board directors to total board directors as listed on Form 990. $LOG_BOARD_SIZE_t$ is the natural log of the number of board members. $AUD_COMMITTEE_t$, $OFFICER_SALARY_PLCY_t$, $COMPILE_REVIEW_t$, and $FIN_TRANS_OWN_WEBSITE_t$ are all indicator variables coded 1 if an audit committee, formal compensation policy for officers, an independent financial statement or review, or financial information displayed on the nonprofit's own website is present, respectively, and 0 otherwise. Finally, $PAY5_SLICE_t$ is included as a proxy for CEO Power and is calculated as the ratio of the CEO's total compensation to the total compensation for the top 5 executives⁹³ including the CEO listed on Schedule J (both measures exclude deferred compensation). A more powerful CEO may necessitate more governance or be powerful enough to bargain for more immediate forms of compensation. A more thorough description of the variables are provided in Appendix C. In subsequent analyses additional measures are added to the model. Those are also described in Appendix C.

⁹³ In some cases, 5 individuals are not listed. In those cases, CEO_POWER is calculated with the 1-4 records that are available.

H2 - Program ratio and inside debt.

To determine whether CEO inside debt is associated with a higher program ratio and hence better alignment of managerial incentives with stakeholders' interests, the model used in Desai and Yetman (2015) is adapted to include inside debt as well as additional controls. The model is presented as Eq. 3.2a.

$$\begin{aligned}
 &PROG_RATIO_EXCL_COMP_{i,t} \\
 &= \beta_0 + \beta_1 SC_CEO_DEF_TOP_{i,t-1} + \beta_2 SC_CEO_DEF_MID_{i,t-1} \\
 &+ \beta_3 SC_CEO_DEF_BOTTOM_{i,t-1} + \beta_4 SC_CEO_BONUS_COMP_{i,t-1} \\
 &+ \beta_5 LOG_SIZE_{i,t} + \beta_6 LOG_TOTAL_REVENUE_{i,t} + \beta_7 CHARITABLE_{i,t} \\
 &+ \beta_8 LOG_AGE_{i,t} + \beta_9 ZERO_FUNDRAISING_{i,t} + \sum \gamma_i INDUSTRY \\
 &+ \sum \delta_i STATE + \sum \alpha_i YEAR \\
 &+ \varepsilon_{i,t}
 \end{aligned} \tag{3.2a}$$

The dependent variable, $PROG_RATIO_EXCL_COMP_t$, is measured as program service expenses divided by total expenses with adjustments to both the numerator and denominator to remove any compensation-related expenses. The main independent variable(s) of interest is one of the three CEO inside debt measures previously described. A positive coefficient on any of the $SC_CEO_DEF_COMP_{t-1}$ terciles would indicate that at least one bracket of CEO inside debt is associated with a higher program ratio compared with no CEO inside debt and is the result expected. Differences between the

terciles themselves could provide information with respect to relevant significance. Based on Balsam and Harris (2015) who find that CEO bonuses are positively associated with future donations and net income, I include $SC_CEO_BONUS_{t-1}$ as a control. While the relationship between donations and bonuses suggests bonuses are positively related to the program ratio, higher net income may indicate fewer program-related expenses which would translate into a lower program ratio. Because of that conflict, my directional expectation is unclear. Further, the evidence presented in Desai and Yetman (2015) suggests that the specific number of state regulations and the severity of state prosecution of violations are factors positively related to the program ratio. As a result, I include state fixed effects in the regression.

Other controls include factors expected to impact the program ratio and include size (total assets) and total revenue both of which constitute the model used by Desai and Yetman (2015). They find a negative relationship between the program ratio and size and a positive one with total revenue. I also include other factors that prior research suggests may be associated with the program ratio. First, an indicator for charitable nonprofits (coded 1 if the nonprofit's program service revenue ratio (program service revenue divided by total revenue) is less than the sample median indicating a reliance on contributions, grants, and other sources of revenue, 0 otherwise. A nonprofit funded primarily by donations and government grants should feel an increased pressure to allocate more funds to mission-based expenses. Additionally, while a larger program ratio is desirable, research indicates that the amount reported may not always be accurate. Some firms manipulate the figure in order to look more attractive to donors (Baber et al.

2001; Jones and Roberts 2006; Krishnan et al. 2006; Krishnan et al. 2006; Roberts 2005; Tinkelman 1998). To control for that possibility, an indicator variable for zero fundraising expense is included. It is expected to be positively related to the program ratio. More thorough definitions are provided in Appendix C.

Given the possibility that nonprofits may manipulate the program ratio, I also examine the relationship between inside debt and the probability of manipulation measured as the Trussel (2003) factor ($TRUSSEL_MANIP_t$)⁹⁴. The model is shown as Equation 3.2b. As controls, I include LOG_SIZE_t , LOG_AGE_t , $CHARITABLE_t$, $LOG_BOARD_SIZE_t$, $PERC_IND_BRD_t$, and $AUD_COMMITTEE_t$ all as previously defined and included in Appendix C. I predict a negative relationship between any of the CEO inside debt terciles and the probability of program ratio manipulation which would mean that CEO inside debt compared with no CEO inside debt is associated with a lower likelihood of ratio manipulation. I refrain from predicting directional relationships for the control variables. The model is presented as Eq. 3.2b.

⁹⁴ The Trussel (2003) model provides an estimate of the probability of program ratio manipulation and is calculated as $1/(1+e^{-z})$ where $z = -2.807 - 0.702Margin - 1.360DefExp + 0.030 Growth + 0.938DepProg - 2.375 DefRev + 1.326ProgChg$. The specific inputs are defined in Appendix C.

$$\begin{aligned}
TRUSSEL_MANIP_{i,t} &= \beta_0 + \beta_1 SC_CEO_DEF_TOP_{i,t-1} + \beta_2 SC_CEO_DEF_MID_{i,t-1} \\
&+ \beta_3 SC_CEO_DEF_BOTTOM_{i,t-1} + \beta_4 SC_CEO_BONUS_COMP_{i,t-1} \\
&+ \beta_5 LOG_SIZE_{i,t} + \beta_6 LOG_AGE_{i,t} + \beta_6 CHARITABLE_{i,t} \\
&+ \beta_7 BOARD_SIZE_{i,t} + \beta_8 PERC_IND_BRD_{i,t} + \beta_8 AUD_COMITTEE_{i,t} \\
&+ \sum \gamma_i INDUSTRY + \sum \delta_i YEAR + \sum \alpha_i STATE \\
&+ \varepsilon_{i,t} \tag{3.2b}
\end{aligned}$$

H3 - Inside debt and going concern opinion.

To study whether CEO inside debt is associated with a nonprofit's ability to continue in existence, the probit model presented in Eq. 3.3 is utilized and is adapted from Feng (2010).

$$\begin{aligned}
GOINGCONCERNRISK_{i,t} &= \beta_0 + \beta_1 SC_CEO_DEF_TOP_{i,t-1} + \beta_2 SC_CEO_DEF_MID_{i,t-1} \\
&+ \beta_3 SC_CEO_DEF_BOTTOM_{i,t-1} + \beta_4 SC_CEO_BONUS_COMP_{i,t-1} \\
&+ \beta_5 LOW_OPER_RESERVE_{i,t} + \beta_6 CONTRIB_LOSS_{i,t} + \beta_7 PSR_Loss_{i,t} \\
&+ \beta_8 LEVERAGE_{i,t} + \beta_9 VULNEABIITY_{i,t} + \beta_{10} CURRENT_RATIO_{i,t} \\
&+ \beta_{11} LOSS2_{i,t} + \beta_{12} MW_FS_{i,t} + \beta_{13} MATERIAL_NONCOMP_{i,t} \\
&+ \beta_{14} FUNDRAIS_EXP_CONTRIB_{i,t} + \beta_{15} LOG_SIZE_{i,t} \\
&+ \beta_{16} GRANTS_SIG_{i,t} + \beta_{17} PSR_SIG_{i,t} + \beta_{18} GRANTS_SIG \\
&* CONTRIB_LOSS_{i,t} + \beta_{19} PSR_SIG * PSR_LOSS_{i,t} + \sum \gamma_i INDUSTRY \\
&+ \sum \delta_i YEAR + \varepsilon_{i,t} \tag{3.3}
\end{aligned}$$

The dependent variable is an indicator coded 1 if the nonprofit is issued a going concern opinion, 0 otherwise. The main independent variables of interest are the scaled CEO inside debt terciles as previously defined. I expect a negative relationship between the presence and/or proportion of CEO inside debt and the likelihood of receiving a going concern opinion. In general, with the exception of $CURRENT_RATIO_t$, I expect a positive relationship between a going concern opinion and the controls which are defined in detail in Appendix C.

H4 - Inside debt and internal control deficiencies.

To determine if CEO inside debt is related to a lower incidence of internal control deficiencies, I adapt the model from Petrovits et al. (2011). The dependent variable is either $DEFICIENCY_t$, an indicator coded 1 if any deficiency is present and 0 otherwise or

an indicator variable representing the particular type of internal control concern [i.e. RC_FS_t (reportable condition over financial reporting), RC_GOV_t (reportable condition over major programs), MW_FS_t (material weakness over financial reporting), or MW_GOV_t (material weakness over major programs)]. I expect a negative relationship between any of the scaled CEO inside debt terciles and each of those variables. In addition to the variables included in the Petrovits et al. (2011) model, I also include $SC_CEO_BONUS_t$ and $AUD_COMMITTEE_t$ as control variables and expect negative relationships with each. The controls are defined in detail in Appendix C. Based on the results of Petrovits et al. (2011), I expect positive associations with $COMPLEXITY_t$, $GOINGCONCERNRISK_t$, $GROWTH_t$, $RISK_t$, and $REGIONAL_t$ and negative relationships with all other control variables. The model is presented as Eq. 3.4.

$$\begin{aligned}
&DEFICIENCY_{i,t} \\
&= \beta_0 + \beta_1 SC_CEO_DEF_TOP_{i,t-1} + \beta_2 SC_CEO_DEF_MID_{i,t-1} \\
&\quad + \beta_3 SC_CEO_DEF_BOTTOM_{i,t-1} \\
&\quad + \beta_4 SC_CEO_BONUS_COMP_{i,t-1} + \beta_5 COMPLEXITY_{i,t} \\
&\quad + \beta_6 GOINGCONCERNRISK_{i,t} + \beta_7 SURPLUS_{i,t} + \beta_8 LOG_SIZE_{i,t} \\
&\quad + \beta_9 GROWTH_{i,t} + \beta_{10} RISK_{i,t} + \beta_{11} NEWGRANTEE_{i,t} \\
&\quad + \beta_{12} AUD_COMMITTEE_{i,t} + \beta_{13} BIG4_{i,t} + \beta_{14} REGIONAL_{i,t} \\
&\quad + \sum \gamma_i INDUSTRY + \sum \delta_i YEAR + \varepsilon_{i,t}
\end{aligned} \tag{3.4}$$

H5 - Inside debt and external credit ratings.

In order to determine if a nonprofit that utilizes CEO inside debt is recognized by the outside debt market as less risky, I estimate Eq. 3.5. The model is adapted from factors that Moody's suggests are incorporated into the organization's ratings as well as a for-profit model used by Elbannan (2009). Following Ashbaugh-Skaife et al. (2006), the dependent variable is either rating (coded 1-7 with 7 representing the highest rating) or an investment-grade indicator coded 1 if the rating for the nonprofit is considered investment grade, 0 otherwise. A more thorough description of the rating codes are included in Appendix D. The scaled CEO inside debt tercile variables are as previously defined and a positive relationship between them and the dependent variable is expected. All other variables are defined in Appendix C. Control variables expected to improve operations and hence be associated with a more favorable credit rating include *LOG_SIZE_t*, *LOG_AGE_t*, *REV_GROWTH_t*, *SURPLUS_t*, *AUD_COMMITTEE_t*, and *COMPILE_REVIEW_t*. Because more complex operations and a larger proportion of debt could increase the chance for default, I expect a negative relationship with *COMPLEXITY_t* and *LEVERAGE_t*. Finally, a more powerful CEO could indicate either a less governed organization or an organization with a distinct leader. I thus refrain from making a directional prediction for that variable.

$$\begin{aligned}
RATING_t (INVESTMENT_t) &= \beta_0 + \beta_1 SC_CEO_DEF_TOP_{i,t-1} + \beta_2 SC_CEO_DEF_MID_{i,t-1} \\
&+ \beta_3 SC_CEO_DEF_BOTTOM_{i,t-1} + \beta_4 SC_CEO_BONUS_COMP_{i,t-1} \\
&+ \beta_5 LOG_SIZE_{i,t} + \beta_6 LOG_AGE_{i,t} + \beta_7 COMPLEXITY_{i,t} \\
&+ \beta_8 REV_GROWTH_{i,t} + \beta_9 SURPLUS_{i,t} + \beta_{10} PAY5_SLICE_{i,t} \\
&+ \beta_{11} LEVERAGE_{i,t} + \beta_{12} AUD_COMMITTEE_{i,t} \\
&+ \beta_{13} COMPILE_REVIEW_{i,t} + \beta_{14} LOW_OPER_RESERVE_{i,t} \\
&+ \sum \gamma_i INDUSTRY + \sum \delta_i YEAR + \sum \alpha_i STATE + \varepsilon_{i,t} \quad (3.5)
\end{aligned}$$

Results

Descriptive statistics are provided in Table 3.2. Panel A presents information concerning continuous variables used in the study while Panel B focuses upon the dichotomous variables. Both panels provide statistics for the sample as a whole followed by subsets for those firm-years with CEO inside debt and those without CEO inside debt. As the sizes of the subsets suggest, most of the firm-years (75.7%) have a nonprofit CEO with inside debt. Of those that do, deferred compensation is about 7.0% of the CEO's total compensation. Comparing that to nonprofit CEO bonus compensation, it seems that deferred compensation is more prevalent with only 44.3% of the sample reporting an amount of bonus compensation paid to the CEO. However, the proportion of bonus compensation to total compensation is slightly higher at 7.7%. As Panel A shows, the sample is primarily composed of larger and older nonprofits. While an average of about 30% of the nonprofits' revenue comes from public contributions and government grants,

the sample's nonprofits actually generate funding from an average of 3 main sources.

Although the extent of governance present varies based upon the mechanism being analyzed, generally it appears that the sample's nonprofits are fairly well governed with an average of 12.7 of 15 governance mechanisms present.

With respect to performance factors, while the program ratio is generally high for the entire sample, it is slightly higher for the CEO inside debt subsample (0.840) compared with the subsample of no CEO inside debt (0.828). Further, it seems that the probability that the ratio has been manipulated is slightly lower for the CEO inside debt subsample (0.178 versus 0.184). Additionally, as Panel B shows, the likelihood of a going concern opinion is also slightly lower for the CEO inside debt subsample. While the probability of an internal control deficiency in general does not appear to statistically differ between the two groups at least based on univariate statistics, three of the types (*MW_FS*, *RC_FS*, and *RC_GOV*) do differ. While the probability for a deficiency related to the financial statements (*RC_FS* and *MW_FS*) is lower for the CEO inside debt group, interestingly the probability of a reportable condition related to major programs (*RC_GOV*) is actually higher. Finally, without controlling for any other differences, it appears that the CEO inside debt sample also consists of nonprofits more likely to be issued an investment-grade credit rating.

Table 3.3 provides further compensation-related data by prior period (lagged) scaled CEO inside debt group (none, bottom, mid, top). The mean (median) of lagged CEO deferred compensation for the top group at \$208,092 (\$97,120) is considerably larger than that for the bottom and mid groups (means of \$16,226 and \$34,405,

respectively). CEO lagged bonuses, however, for that same group are actually lower on average than the bottom inside debt group and just slightly higher on average with respect to total compensation compared to the bottom group. With regard to scaled CEO inside debt (*CEO_DEF_COMP*), the mid group is comparable to the sample as a whole at 7.10% but for the top group, inside debt represents an average of 20.89% of a CEO's total compensation. Nonprofits that do not offer deferred compensation to their CEOs appear to be generally smaller and pay their CEOs less bonus and total compensation. The amounts are most comparable to the scaled CEO deferred compensation mid group (*SC_CEO_DEF_MID*).

The results for H1 and R1, determinants of CEO inside debt, are presented in Table 3.4. Scaled CEO inside debt (*SC_CEO_DEF_COMP_t*) is the dependent variable in Column 1. Running a robust regression to control for extreme outliers and heteroscedasticity, ten factors are identified as being associated with the proportion of inside debt in a CEO's compensation package. Those factors are *SIZE_t*, *AGE_t*, *POS_UNREST_CASH_t*, *LEVERAGE1_t*, *PERC_IND_BRD_t*, *AUD_COMMITTEE_t*, *LOG_BOARD_SIZE_t*, *COMPILE_REVIEW_t*, *FIN_TRANS_OWN_WEBSITE_t*, and *PAY5_SLICE_t*. While larger nonprofits with an audit committee and a larger board are associated with greater CEO inside debt as is the case in for-profits, *POS_UNREST_CASH_t* (liquidity constraint) and *LEVERAGE1_t* are related to CEO inside debt in a direction opposite that found in for-profits. More specifically, while for-profits with cash shortfalls are less likely to use inside debt since equity compensation is available (Sundaram and Yermack 2007), there is some evidence that nonprofits are more

likely to use inside debt when positive unrestricted cash does not exist. One possible explanation for that response is that while inside debt does require a cash payment at some point, that payment may be deferred until a future period. Further, while the value of CEO inside debt in for-profits is positively related to leverage, in nonprofits, the relationship is a negative one. Intuitively, this makes sense since nonprofits should not want to carry too many liabilities and CEOs holding inside debt act as one more creditor.

Additionally, unlike Gerakos (2010) who finds that for-profit inside boards approve lower amounts of CEO inside debt, I find the opposite with more independent boards granting lower amounts. This suggests a possible substitution of governance mechanisms. Interestingly, a CEO's power proxied for using $PAY5_SLICE_t$ is inversely related to the proportion of his or her compensation paid in the form of inside debt. Such results suggest that nonprofit CEOs would rather receive payment at the time of service rather than wait until a future date which again is contrary to for-profit findings and could also indicate a more complementary role for CEO inside debt as a governance mechanism.

Controlling for prior period scaled CEO inside debt in Column 2, most variables remain significant although $POS_UNREST_CASH_t$, $LOG_BOARD_SIZE_t$, $FIN_TRANS_OWN_WEBSITE_t$, and $PAY5_SLICE_t$ are not. However, $GROWTH_t$, $OFFICER_SALARY_PLCY_t$, and $STATE_RATE_t$ do become significant. With respect to $STATE_RATE_t$, while it appears that nonprofit CEOs generally do not wish to have inside debt, an exception may exist for CEOs who live and work in high income-tax states. That result is consistent with an executive wishing to defer payments to take advantage of

lower taxes in his or her state of retirement. Model 3 adds a few more governance mechanisms and provides similar results as does Model 4 which looks only at the determinants of the presence of CEO inside debt.

Although some variables switch between being significant and not significant across the models, collectively, the results generally suggest that larger, younger, less leveraged, growing, and otherwise less well-governed nonprofits as well as those with CEOs subject to high state income taxes tend to pay their CEOs deferred compensation. That form of compensation also tends to be a higher proportion of total compensation in those cases. Overall, the results provide partial support for H1⁹⁵. With respect to R1, the results further indicate that CEO inside debt compensation may be an alternative as well as additional form of governance.

The relationship between CEO inside debt and the program ratio is presented in Table 3.5. Using robust regression and after controlling for nonprofit size, total revenue, charitable status, age, zero fundraising expense, and the proportion of a CEO's bonus compensation to total compensation, I find in Column 1 that compared with firm-years with no CEO inside debt, those firm-years with lagged CEO inside debt have significantly higher program ratios. The same conclusion can be made even after controlling for the prior period program ratio in Column 2. Further investigation of the significance of the terciles with respect to each other using an F-test reveals that while both the top and middle brackets of scaled CEO inside debt are significant, only the

⁹⁵ Two results in particular suggest a conclusion opposite than that predicted. First, liquidity (*POS_UNREST_CASH_t*) may or may not be significantly related. If it is as Model 1 suggests, it is significant in a negative direction which is opposite than that of for-profits. Leverage is also significant in a negative direction. Those results thus differ from what was hypothesized.

middle bracket differs significantly from the others suggesting that the results are being driven by nonprofits with CEOs falling in that category. Thus H2a is partially supported.

In a given year, a CEO may receive money for some or all of his or her compensation deferred in prior periods. I argue that results should be stronger for those nonprofits with an increasing compared with decreasing CEO inside debt balance. I therefore test the robustness of my results in Models 3 and 4. In Model 3, I restrict my sample to only those firm-years with CEO inside debt in which the sum of current and prior period new inside debt ($CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t$) is larger than received inside debt for the current and prior years⁹⁶ ($CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). In Model 4, I again restrict my sample to only those firm-years with CEO inside debt but with a decreasing inside debt balance (i.e., $CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t < CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). As expected, I find a positive and significant relationship between the adjusted program ratio and CEO inside debt only in Model 3. Compared with the bottom bracket of CEO inside debt, the middle bracket is associated with a significantly higher adjusted program ratio.

Following the program ratio analysis, in Table 3.6 I examine the relationship between CEO inside debt and the probability of program ratio manipulation measured as the Trussel program ratio manipulation factor. In Model 1, I find that, compared with lagged firm-years in which CEO inside debt is 0, those firm-years where lagged scaled CEO inside debt is in the top bracket have a lower likelihood of program ratio manipulation. However, after controlling for the lagged Trussel manipulation factor in

⁹⁶ The amount of earned deferred compensation during the period is obtained from IRS Form 990, Schedule J, Part II, Column F.

Model 2, results are no longer significant. I further investigate increasing versus decreasing inside debt subsamples in Models 3 and 4, respectively. For the decreasing inside debt sample, I find that the manipulation probability is higher for both the top and mid scaled CEO inside debt brackets compared with the bottom bracket. Such results are consistent with my prediction that the effect of inside debt on discouraging the practice of ratio manipulation is not only frowned upon by donors but is also a sign of poor financial reporting quality. Further, the effect is not as strong when CEOs have a net decrease in their deferred compensation balances compared with a net increase. Collectively, the results provide evidence to support H2b.

I study the relationship between CEO inside debt and the likelihood of being issued a going concern opinion using the probit regression models in Table 3.7 Based on Model 1, I find that the going concern opinion probability is lower for CEO inside debt versus no CEO inside debt firm-years. While the top bracket of CEO inside debt seems to exhibit the strongest relationship, analyzing the terciles further using an F-test shows that the coefficients do not significantly differ from one another. After adding a control for lagged going concern opinion, the top and middle bracket of scaled CEO inside debt remain significantly negative. An F-test indicates that the probability of being issued a going concern opinion is significantly lower for the top bracket of lagged CEO inside debt compared with the bottom bracket. Results appear consistent with H3. To test the robustness of my results, I again divide the full sample into increasing and decreasing inside debt subsamples in Models 3 and 4, respectively. However, Model 4's composition is slightly different than that previously used. Rather than only those observations with at

least some CEO inside debt, Model 4 includes the observations with \$0 in CEO inside debt in addition to the observations with decreasing CEO inside debt⁹⁷. To be consistent across Models 3 and 4, I use $SC_CEO_DEF_COMP_{t-1}$ rather than the individual terciles as my main variable of interest. I find significantly negative results for both models. An F-test between models reveals that there is no statistical difference between the coefficients, however⁹⁸.

In Table 3.8, I examine the relationship between CEO inside debt and the probability of an internal control deficiency using probit regressions. Contrary to predictions, I do not find a significant relationship between prior period CEO inside debt and the probability of a deficiency even after dividing the sample into increasing CEO inside debt (Model 3) and decreasing CEO inside debt (Model 4) subsamples. However, using individual types of internal control deficiencies as the dependent variables as shown in Table 3.9 Panel A, I do find a negative relationship between lagged CEO inside debt (top and middle terciles) and the likelihood of MW_FS_t which provides partial support for H4. A CEO may be more fearful of the negative ramifications of a material weakness over financial reporting and its effect on the future of the organization and hence be more inclined to not allow deficiencies in controls to become that severe. Interestingly, I find a positive relationship between lagged scaled CEO inside debt (top tercile) and RC_GOV_t . However, upon further examination in Panel B, I find that the

⁹⁷ Because of the small number of going concern opinion instances, running the regressions consistent with prior analyses resulted in perfectly determined results that did not allow for interpretation.

⁹⁸ Such results, in particular the lack of a difference between Models 3 and 4, may stem from the alternative sample composition for Model 4 compared with prior analyses and the large amount of \$0 $SC_CEO_DEF_COMP_{t-1}$ observations.

decreasing CEO inside debt subsample drives that relationship. In untabulated analyses, I re-estimate the models using current rather than prior period CEO inside debt variables. I find current period scaled CEO inside debt to be negatively related to the probability of a deficiency disclosure ($DEFICIENCY_t$). My results remain even after controlling for the presence of a deficiency in the prior period. My results in that case are thus consistent with H4. Similar to before, I further divide my sample into increasing and decreasing CEO inside debt subsamples. While $SC_CEO_DEF_COMP_t$ is negative and significant for both groups, the coefficients between groups do not statistically differ suggesting that even in a period of declining inside debt, a CEO is still encouraged to operate the organization in a manner that is in its long-term best interests with respect to internal controls. Focusing on individual deficiency types, I find a negative relationship between $SC_CEO_DEF_COMP_t$ and both RC_GOV_t and MW_FS_t where those results are driven by the increasing CEO inside debt subsamples. Overall, my results provide some support for H4.

Finally in Table 3.10, I study the relationship between nonprofit credit ratings and CEO inside debt. Model 1 examines the relationship using a probit regression with an indicator for the presence or absence of an investment-grade credit rating as the dependent variable. I find that, compared with the absence of CEO inside debt, nonprofits with CEO inside debt are more likely to receive an investment-grade credit rating. An F-test on the individual terciles indicates a statistically significant difference in coefficients with the middle bracket having the largest positive effect compared with the no CEO inside debt base. Using a more detailed dependent variable, $RATING_t$ where a rating

factor from 1 – 7 (the higher the rating the better) based on the scale in Appendix D is used in Models 2 – 4. For those models, I use an ordered logistic regression and generally find results consistent with Model 1. However, unlike in Model 1, for Model 2, I only find that the top and middle terciles of CEO inside debt are associated with significantly higher ratings compared with non CEO inside debt nonprofits. Further, an F-test indicates that the coefficient on the top CEO inside debt tercile is the largest. Such results support H5. Similar to prior analyses, I test the robustness of my results by breaking the sample into increasing and decreasing CEO inside debt subsets and re-estimating the models. While I find a significantly larger positive impact on credit rating for firm-years with CEOs in the higher scaled inside debt terciles compared with those in the bottom scaled tercile category for both the increasing and decreasing models, for Model 3 the top tercile is the one that is significant while for Model 4, it is the middle tercile. However, in untabulated analyses, using only $SC_CEO_DEF_COMP_t$ rather than the terciles I find results in which CEO inside debt is significantly related (at the .01 level) to credit rating only for the increasing inside debt sample.

Additional Analyses

I conduct two additional untabulated tests to rule out alternative explanations and to provide better context for my results. First, while I attempt to control for endogeneity concerns using lagged independent variables of interest, other factors could still be driving my results. To address that and rule out bias from unobservable factors, I match nonprofits that provide inside debt to their CEOs with those nonprofits that do not based on organizational size (total assets), industry, and contribution reliance (the ratio of

donations and government grants to total revenues)⁹⁹ (Tucker 2010). The pairing is carried out in a 1:1 match with replacement¹⁰⁰. In general, results are qualitatively similar to those within the main analysis.

Second, although nonprofit research typically assumes that the top paid individual listed on Schedule J is the CEO that may not be the case. The concern is particularly pronounced in the higher education sector where cases may exist in which a college's head football coach is more highly paid than the CEO. To prevent the analysis from being contaminated by such observations, in untabulated analyses I remove all educational institutions from the sample. Except for the program ratio and Trussel manipulation analyses, my results remain qualitatively unchanged when I do so. Analyzing the sample further, the results for the program ratio and Trussel manipulation factor appear to be driven by the education and health sectors (i.e., the more commercialized nonprofits).

Conclusion

Nonprofits can structure compensation to incentivize executives and align their interests with those of outside stakeholders. While prior research finds that CEO bonuses may be used to encourage actions that result in greater profitability and higher donations (Balsam and Harris 2015), in this paper I find that inside debt may be a different type of incentive mechanism. In particular, I study inside debt's role in encouraging CEOs to take a less-risky, longer-term approach in managing nonprofits.

⁹⁹ I adopt matching variables and a matching procedure similar to Harris and Neely (2014).

¹⁰⁰ Note that I was unable to completely eliminate differences in size even after trying a number of alternative matching techniques.

In particular, I first study the factors associated with the proportion of inside debt in a CEO's pay package. Synthesizing results across models, I generally find a positive association between $SC_CEO_DEF_COMP_t$ and the size of the nonprofit, the presence of an audit committee, the size of the board, growth, and state income tax rate. Further, those organizations that are older, that have higher leverage, more independent board members, an officer salary policy, an independent accountant compiling or reviewing the financial statements, and a more powerful CEO have lower scaled CEO inside debt. Additionally, there is some evidence that if liquidity ($POS_UNREST_CASH_t$) is significantly related to scaled inside debt, the relationship is a negative one which is opposite what is observed in for-profits.

Moreover, a number of positive outcomes are associated with the proportion of CEO inside debt. First, after controlling for possible program ratio manipulations and other factors that prior research associates with the program ratio, I find evidence for a positive relationship with CEO inside debt (Desai and Yetman 2015; Yetman and Yetman 2013). Second, I find evidence indicating a negative relationship between inside debt and the probability of program ratio manipulation. Third, my results also indicate that receipt of a going concern opinion (i.e., liquidation risk) may be lower for nonprofits that compensate their CEOs with a larger proportion of inside debt. Fourth, higher proportions of CEO inside debt are associated with a lower likelihood of internal control material weaknesses over financial reporting. Some evidence also exists to suggest a lower likelihood of other internal control deficiencies in the presence of CEO inside debt.

Finally, I find support for a positive relationship between credit ratings and CEO inside debt.

My study is subject to certain limitations. IRS Statistics of Income (SOI) Form 990 data is only available for a select number of nonprofits using a stratified random sampling approach. While not all nonprofits are included in the sample, as Yetman and Yetman (2013) point out, the SOI data does capture over 90% of revenues generated in the sector. However, the data for other factors that I study in relation to inside debt such as internal control deficiencies and external credit ratings does in fact tend to favor larger nonprofits. To the extent that larger nonprofits differ considerably from their smaller counterparts, results may be less generalizable to those organizations. Further, while Schedule J provides data for all executives and directors who are paid in excess of \$150,000, those individuals' names and formal titles are not provided in the NCCS database. Thus, aside from designating the CEO as the highest paid individual, identifying the use of inside debt within more detailed functional roles is not easily possible. Finally, I am unable to observe the level of protection that any given CEO has with respect to his or her deferred compensation nor any details like vesting terms, time until collection, type of plans, etc. In untabulated analyses I did distinguish between nonprofits with known defined benefit versus known defined contribution plans based on Form 5500 data. I generally did not find results when I grouped nonprofits in that manner, however¹⁰¹. In order to partially address the issue, I do identify observations

¹⁰¹ Even if I had found a difference between the two groups, without vesting, funding, etc. terms it would be difficult to confirm that the money was unprotected and that the lead time to receipt was long enough to encourage a long-term focus.

with an increasing versus decreasing CEO inside debt balance and generally find stronger results for the increasing inside debt sample.

While I investigate the relationship between CEO inside debt and various financial reporting measures during a given period, future research could explore how changes to inside debt plans over time impact organizational focus and mission pursuit. In particular, with knowledge of the tenure period of the CEO and other executives, a more cumulative deferred compensation measure could be analyzed. Using a multi-year amount for inside debt would better reflect an executive's long-term financial bond to the organization. If information were available with respect to specific vesting terms of each deferred plan, changes in decision behavior could be studied before and after vesting occurred which would help to better show the changes in decision making and related performance associated with CEO inside debt. Anecdotal and survey evidence indicates that risk is becoming a more important concern for nonprofits. As data becomes more widely available regarding specific nonprofit risks as well as the identities and positions of nonprofit decision makers, the relationship between inside debt and the reduction of risk and aligning of incentives within nonprofits can be more thoroughly explored.

CHAPTER V

CONCLUSION

In this dissertation I contribute to the growing body of nonprofit accounting literature by examining nonprofit governance and the outcomes associated with the use of governance mechanisms. While the revised IRS Form 990 includes the disclosure of a number of internal governance mechanisms, governance extends beyond those items. My dissertation looks at three facets of nonprofit governance. More specifically, while my Study II does investigate internal governance as outlined on Form 990, I also extensively examine internal controls (Study I) and executive inside debt (deferred compensation) (Study III) as forms of nonprofit governance. Prior research and anecdotal evidence shows that properly functioning internal controls enhance financial reporting quality and assist in the prevention of fraud. For-profit research indicates that executive deferred compensation reduces risk-taking within the firm and encourages a longer-term decision focus. Hence both internal controls and executive inside debt serve a potential governance role within nonprofits.

In Study I, I first examine the determinants associated with a nonprofit's propensity to remediate internal control (IC) deficiencies. I then investigate how subsequent spending and governance choices as well as subsequent financial support, cost of debt, and audit timing differ for those nonprofits that do remediate. I find that nonprofits that are larger, growing at a slower rate, have excess resources (i.e., a larger surplus relative to size), report more severe deficiencies (i.e., material weaknesses), expend greater amounts of federal grant money relative to their size, have December

fiscal year-ends, have recently experienced a switch in auditor type, and that are less risky from both a financial and audit perspective are more likely to remediate IC deficiencies within the next period. I further find that, compared with nonprofits that do not remediate IC deficiencies, those that do have larger percentage increases in officer compensation, larger increases in administrative expenses relative to total expenses, smaller increases in program service expenses relative to total expenses, greater increases in the number of other governance mechanisms, larger percentage increases in subsequent public support, decreases (compared with increases) in the cost of debt, and lower audit report delays.

In Study II, I first explore whether nonprofits subject to external oversight also have a higher likelihood of having high internal governance (IG). I find that external oversight in the form of an A-133 audit, financial disclosures on a nonprofit's own website, government grants, and temporary restrictions on net assets are all positively related to high IG. I also find a positive association with the size and age of the nonprofit but a negative relationship with the use of an independent auditor (except in the case of an A-133 audit) and permanent restrictions on net assets. Overall, I conclude that a complementary relationship exists between IG and external oversight.

In the second part of the study, I examine whether and how nonprofits benefit from IG. I find that nonprofits with high IG (1) have higher financial reporting quality (measured as a lower Trussel program ratio manipulation factor, a lower likelihood of receiving a qualified or adverse audit opinion, and a lower likelihood of having an internal control deficiency), (2) are more efficient (measured as a lower adequacy of

equity ratio), (3) are more stable (measured as lower revenue concentration and a lower coefficient of variation in the program ratio), and (4) have less costly external debt financing (measured as a lower cost of debt and higher credit ratings). I also find evidence that high IG is associated with higher administrative and fundraising expenditures relative to total expenditures.

Finally, in Study III, I investigate the role of CEO inside debt (deferred compensation) as a possible form of governance. Similar to my other two studies, I first examine the factors associated with the proportion (use) of nonprofit CEO inside debt. I find that nonprofits that are larger, have an audit committee, a larger board of directors, have higher growth, and have a higher state income tax rate compensate their CEOs with a larger amount of inside debt compensation relative to total compensation. However, those nonprofits that are older and that have higher leverage, more independent board members, an officer salary policy, an independent accountant compiling or reviewing the financial statements, and a more powerful CEO compensate their CEOs with a smaller amount of inside debt compensation relative to total compensation. I also find some evidence of a negative relationship between liquidity and CEO inside debt. Based upon the results, I find that the directional relationship of the factors influencing the use of inside debt compensation in nonprofits differs in some respects from that observed in for-profits. That is particularly true for the leverage, CEO power, and liquidity factors. Additionally, inside debt compensation appears to be used as both an additional and alternative form of governance.

I continue Study III by investigating the association between CEO inside debt and other possible positive organizational outcomes after controlling for scaled CEO bonus compensation. I find evidence indicating that nonprofits with CEOs compensated with a larger proportion of inside debt have higher program ratios, a lower probability of program ratio manipulation, a lower likelihood of receiving a going concern opinion, a lower probability of internal control material weaknesses over financial reporting (with some evidence of a lower probability of internal control deficiencies in general), and higher credit ratings.

My dissertation thus demonstrates that nonprofits use a variety of internal governance mechanisms. Further, use of those mechanisms provides benefits beyond simply increased financial support and a lower incidence of fraud which are two general benefits identified by prior research.

While this dissertation covers a variety of nonprofit governance issues, opportunities for future research are available. Currently, nonprofit disclosures are minimal so research is restricted to governance mechanisms and performance factors that are disclosed. As more information becomes available, benefits of governance with respect to mission-specific performance can be better analyzed. Further, more granular details of governance like board composition and expertise and specific nonprofit CEO characteristics can be studied. As external oversight and other changes in governance occur (e.g., fewer nonprofits receiving A-133 audits), the impacts, if any, on nonprofit performance can also be determined.

My studies examine only 501c (3) organizations. Future research could also investigate the impact of governance on other types of tax exempt entities including other 501c organizations and foundations. Reasons for adopting governance mechanisms and benefits of doing so could differ in those settings.

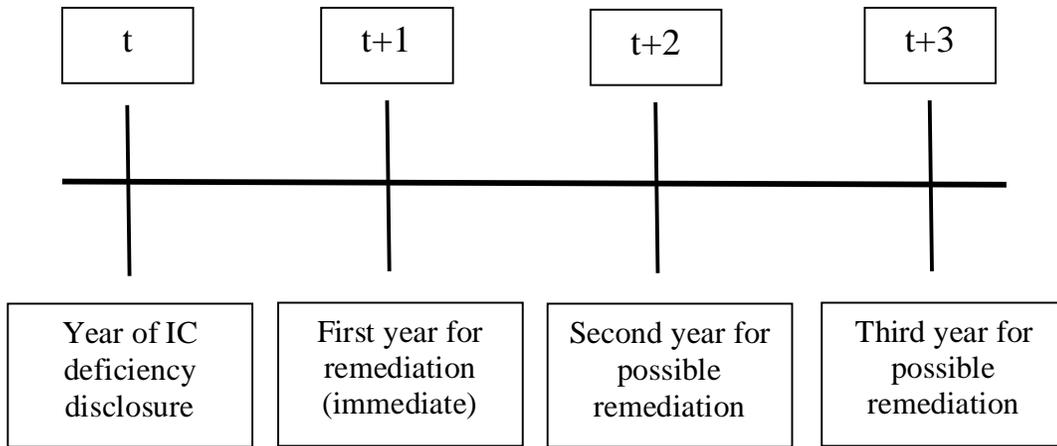


Figure 1.1 Study Timeline

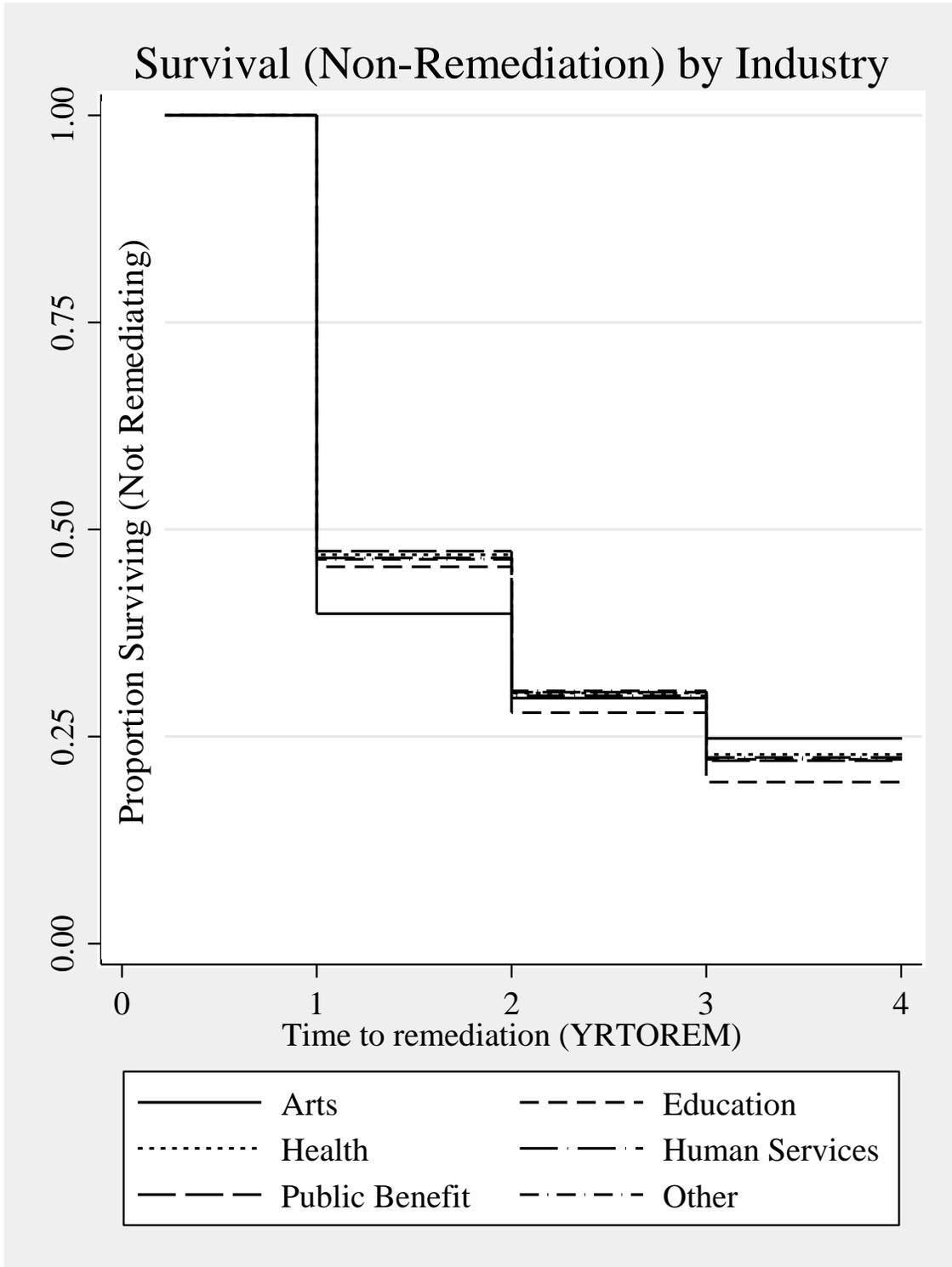


Figure 1.2 Kaplan-Meier Survival Curve by Industry

Table 1.1 Descriptive Statistics – Sample Composition: Study I

Panel A: Sample Selection					
Firm-Year observations					
Merge of Form 990 IRS and A-133 Audit data		87,851			
Less observations without deficiency		(70,357)			
Less observations missing lead audit data		(2,071)			
Base sample		15,423			
Unique nonprofits					
		7,286			
Panel B: Base Sample by Industry and Year					
	Number	Percentage		Number	Percentage
			1999	2,195	14.23%
			2000	2,390	15.50%
			2001	2,624	17.01%
			2002	2,126	13.78%
Arts	226	1.47%	2003	487	3.16%
Education	3,959	25.67%	2004	525	3.40%
Health	3,598	23.33%	2005	435	2.82%
Human Services	6,064	39.32%	2006	90	0.58%
Public Benefit	1,104	7.16%	2007	411	2.66%
Other	472	3.06%	2008	970	6.29%
	15,423	100.00%	2009	848	5.50%
			2010	880	5.71%
			2011	721	4.67%
			2012	721	4.67%
				15,423	100.00%

This table provides details regarding the sample selection process (Panel A) and the composition of the base sample by industry and year (Panel B). For industry and year composition, raw numbers are reported followed by percentages with respect to the full base sample.

Table 1.2 Descriptive Statistics – Means and Medians of Variables: Study I

	Full Sample (n = 15,423)				REMEDIA _{LEV} = 1 (n = 8,277)				REMEDIA _{LEV} = 0 (n = 7,146)			
	N	Mean	Median	Std Dev	N	Mean	Median	Std Dev	N	Mean	Median	Std Dev
ADMINISTRATIVE	15,423	9,962,121	729,997	51,729,634	8,277	10,129,562	893,661	49,731,557	7,146	9,768,178	590,849	53,954,396
AGE	14,884	33.99	27.00	27.87	8,000	35.45	28.00	29.51	6,884	32.29 ***	26.00	25.73
AUDIT_DELAY	15,420	247.20	219.00	190.40	8,275	233.36	214.00	167.36	7,145	263.21 ***	227.00	212.89
COMPLEXITY	15,423	2.39	3.00	0.75	8,277	2.41	3.00	0.75	7,146	2.36 ***	3.00	0.76
COST_DEBT	7,850	0.02	0.02	0.16	4,511	0.03	0.02	0.21	3,339	0.02	0.02	0.03
FEDEXPENDITURE	15,421	18,065,106	2,497,838	125,203,650	8,275	17,683,122	2,752,856	109,130,474	7,146	18,507,439	2,182,927	141,560,696
FUNDRAISING	15,423	767,277	0.00	4,438,075	8,277	877,103	0.00	5,008,695	7,146	640,068	0.00	3,664,057
GOV_SUPPORT	15,423	9,189,352	920,612	73,371,069	8,277	8,974,837	972,749	75,801,483	7,146	9,437,819 ***	865,155	70,455,745
GROWTH	15,302	3.38	1.03	181.66	8,208	3.79	1.03	225.49	7,094	2.90	1.03	111.14
LEVERAGE	7,853	0.50	0.40	2.80	4,511	0.46	0.39	0.37	3,342	0.55	0.41	4.27
LOBBYINGAMT	15,207	13,009	0	106,704	8,175	13,246	0	72,169	7,032	12,734	0	136,267
NUM_GOV_MECH	3,386	12.61	13.00	1.73	2,155	12.67	13.00	1.66	1,231	12.52 **	13.00	1.84
OFFCOMP_TOTAL	15,423	700,313	103,851	2,702,712	8,277	737,761	132,996	1,991,410	7,146	656,938 **	85,394	3,342,100
PRICE	15,228	2.59	1.16	152.02	8,185	1.37	1.16	6.64	7,043	4.01	1.16	223.42
PROGRAM_REVENUE	15,423	67,161,169	1,595,457	505,225,035	8,277	65,434,600	2,005,535	413,950,069	7,146	69,161,003	1,270,674	593,682,286
PROGRAM_SERVICES	15,423	73,187,413	5,572,501	481,929,259	8,277	72,180,210	6,811,104	401,166,234	7,146	74,354,026	4,415,609	561,156,750
PUBLIC_SUPPORT	15,423	6,638,217	210,251	53,023,599	8,277	7,890,177	300,374	66,021,060	7,146	5,188,108 ***	139,640	31,871,239
SIZE	15,423	142,087,781	5,303,088	797,970,953	8,277	150,101,454	6,611,940	815,563,293	7,146	132,805,780	4,119,219	777,050,250
SURPLUS	15,423	4,516,396	45,782.00	54,841,438	8,277	5,040,017	53,892.00	65,981,777	7,146	3,909,901	38,205.00	38,055,795
TOT_REVENUE	15,423	88,543,850	7,023,347	545,120,885	8,277	88,359,032	8,652,143	471,483,493	7,146	88,757,920	5,542,074	619,603,238

Table 1.2 Continued

Panel B: Dichotomous Variables									
Variable	Full Sample (n = 15,423)			<i>REMEDIA</i> _{<i>t+1</i>} = 1 (n = 8,277)			<i>REMEDIA</i> _{<i>t+1</i>} = 0 (n = 7,146)		
	Mean	Median	Std Dev	Mean	Median	Std Dev	Mean	Median	Std Dev
<i>AUDITOR_SWITCH</i>	0.041	0.000	0.199	0.046	0.000	0.209	0.036 ***	0.000	0.187
<i>BIG4</i>	0.113	0.000	0.317	0.120	0.000	0.325	0.105 ***	0.000	0.307
<i>DECFYE</i>	0.231	0.000	0.421	0.221	0.000	0.415	0.242 ***	0.000	0.428
<i>GOINGCONCERNRISK</i>	0.020	0.000	0.141	0.018	0.000	0.133	0.023 **	0.000	0.150
<i>JUNFYE</i>	0.509	1.000	0.500	0.519	1.000	0.500	0.499 **	0.000	0.500
<i>MAT_WEAK</i>	0.292	0.000	0.455	0.317	0.000	0.465	0.263 ***	0.000	0.440
<i>MW_FS</i>	0.239	0.000	0.427	0.253	0.000	0.435	0.224 ***	0.000	0.417
<i>MW_GOV</i>	0.181	0.000	0.385	0.188	0.000	0.390	0.173 **	0.000	0.379
<i>OTHERFIRM</i>	0.751	1.000	0.432	0.734	1.000	0.442	0.772 ***	1.000	0.420
<i>QREPORT_FS</i>	0.040	0.000	0.196	0.035	0.000	0.183	0.046 ***	0.000	0.210
<i>QREPORT_MP</i>	0.186	0.000	0.389	0.191	0.000	0.393	0.181	0.000	0.385
<i>QUESTIONED_COSTS</i>	0.205	0.000	0.404	0.216	0.000	0.412	0.192 ***	0.000	0.394
<i>RC_FS</i>	0.705	1.000	0.456	0.681	1.000	0.466	0.731 ***	1.000	0.443
<i>RC_GOV</i>	0.667	1.000	0.471	0.678	1.000	0.467	0.654 ***	1.000	0.476
<i>REGIONAL</i>	0.135	0.000	0.342	0.146	0.000	0.353	0.123 ***	0.000	0.328
<i>REP_COND</i>	0.976	1.000	0.152	0.969	1.000	0.174	0.985 ***	1.000	0.120
<i>RISK</i>	0.577	1.000	0.494	0.555	1.000	0.497	0.602 ***	1.000	0.490

This table reports descriptive statistics (means and medians). Panel A reports descriptive statistics for the study's continuous variables. Columns 1-4 refer to the full sample while columns 5-8 and 9-12 refer to sample subsets where *REMEDIA*_{*t+1*} = 1 and *REMEDIA*_{*t+1*} = 0, respectively. Panel B reports descriptive statistics for the study's dichotomous variables. Columns 1-3 refer to the full sample while columns 4-6 and 7-9 refer to sample subsets where *REMEDIA*_{*t+1*} = 1 and *REMEDIA*_{*t+1*} = 0, respectively. All variables are defined in Appendix A. A t-test for equal variable means between the *REMEDIA*_{*t+1*} = 1 and *REMEDIA*_{*t+1*} = 0 subsets are reported in columns 10 (Panel A) and 7 (Panel B) where significant results (i.e., statistically unequal means) are reported as *** p < 0.01, ** p < 0.05, and * p < 0.1.

Table 1.3 Time to Remediation by Internal Control Deficiency Type

<i>RC_FS</i>		<i>RC_GOV</i>		<i>RC_ANY</i>	
Total	10,867 100.00%	Total	10,288 100.00%	Total	15,059 100.00%
Less: Remediate within 1 period	-4,582 -42.16%	Less: Remediate within 1 period	-4,712 -45.80%	Less: Remediate within 1 period	-6,010 -39.91%
Less: Remediate in period 2	-1,861 -17.13%	Less: Remediate in period 2	-1,876 -18.23%	Less: Remediate in period 2	-2,627 -17.44%
Less: Remediate in period 3	-983 -9.05%	Less: Remediate in period 3	-980 -9.53%	Less: Remediate in period 3	-1,447 -9.61%
Fail to Remediate within 3 periods	<u>3,441 31.66%</u>	Fail to Remediate within 3 periods	<u>2,720 26.44%</u>	Fail to Remediate within 3 periods	<u>4,975 33.04%</u>
<i>MW_FS</i>		<i>MW_GOV</i>		<i>MW_ANY</i>	
Total	3,691 100.00%	Total	2,792 100.00%	Total	4,500 100.00%
Less: Remediate within 1 period	-1,792 -48.55%	Less: Remediate within 1 period	-1,403 -50.25%	Less: Remediate within 1 period	-2,163 -48.07%
Less: Remediate in period 2	-657 -17.80%	Less: Remediate in period 2	-493 -17.66%	Less: Remediate in period 2	-789 -17.53%
Less: Remediate in period 3	-303 -8.21%	Less: Remediate in period 3	-259 -9.28%	Less: Remediate in period 3	-397 -8.82%
Fail to Remediate within 3 periods	<u>939 25.44%</u>	Fail to Remediate within 3 periods	<u>637 22.82%</u>	Fail to Remediate within 3 periods	<u>1,151 25.58%</u>

This table presents descriptive statistics for the time to remediation by internal control deficiency type where remediation refers to the disclosure of a deficiency in one period and the absence of it in a subsequent period. Types of deficiencies are (1) *RC_FS* - a reportable condition over financial reporting, (2) *MW_FS* - a material weakness over financial reporting, (3) *RC_GOV* - a reportable condition over major programs, (4) *MW_GOV* - a material weakness over major programs, (5) *RC_ANY* - the combination of *RC_FS* and *RC_GOV*, and (6) *MW_ANY* - the combination of *MW_FS* and *MW_GOV*.

Table 1.4 Probit Regression Analysis for Factors Associated with Remediation

	DV: <i>REMEDIA</i> _{<i>t+1</i>}						DV: <i>YRTOREM</i>	
	Model 1		Model 2		Model 3		Model 4	
	coef	p-value	coef	p-value	coef	p-value	Hazard	p-value
<i>REP_COND</i> _{<i>t</i>}	-0.228 ***	0.007	-0.069	0.560	0.001	0.993	0.936	0.174
<i>MAT_WEAK</i> _{<i>t</i>}	0.211 ***	0.000	0.433 ***	0.000	0.461 ***	0.000	1.173 ***	0.000
<i>FEDEXPENDITURE_SC</i> _{<i>t</i>}	0.000 ***	0.008	0.041 **	0.042	-0.055	0.146	1.000 ***	0.000
<i>QREPORT_FS</i> _{<i>t</i>}	-0.025	0.708	0.087	0.763	-0.102	0.644	0.991	0.853
<i>QREPORT_MP</i> _{<i>t</i>}	0.008	0.809	0.063	0.531	-0.008	0.921	1.063 ***	0.009
<i>%ΔTOT_REVENUE</i> _{<i>t+1</i>}	-0.001 ***	0.001	-0.020	0.726	0.010 **	0.019	1.000	0.292
<i>GOINGCONCERNRISK</i> _{<i>t</i>}	-0.187 **	0.038	-0.452	0.122	-0.486 **	0.023	0.852 **	0.026
<i>RISK</i> _{<i>t</i>}	-0.134 ***	0.000	-0.005	0.934	-0.075	0.152	0.907 ***	0.000
<i>COMPLEXITY</i> _{<i>t</i>}	0.018	0.336	0.094 *	0.095	0.063	0.170	1.022	0.174
<i>GROWTH</i> _{<i>t</i>}	-0.003 ***	0.008	-0.219	0.179	-0.212 *	0.060	0.998	0.189
<i>LOG_AGE</i> _{<i>t</i>}	-0.029	0.113	0.017	0.727	-0.010	0.807	0.979	0.135
<i>LOG_SIZE</i> _{<i>t</i>}	0.032 ***	0.000	0.013	0.530	0.015	0.409	1.026 ***	0.000
<i>AUDITOR_SWITCH</i> _{<i>t+1</i>}	0.110 *	0.070	-0.147	0.228	0.003	0.975	1.058	0.114
<i>SURPLUS_SC</i> _{<i>t</i>}	0.032 *	0.057	0.465	0.192	0.509 **	0.045	1.009	0.110
<i>QUESTIONED_COSTS</i> _{<i>t</i>}	0.032	0.299	-0.156 **	0.032	-0.172 ***	0.004	1.037 *	0.106
<i>JUNFYE</i>	-0.030	0.327	-0.020	0.795	-0.064	0.312	0.974	0.286
<i>DECFYE</i>	-0.112 ***	0.003	-0.025	0.820	-0.018	0.841	0.894 ***	0.000
<i>ΔNUM_GOV_MECH</i> _{<i>t+1</i>}			0.050	0.140				
<i>ADD_AUDIT_COMMITTEE</i> _{<i>t+1</i>}					0.177	0.111		
<i>%ΔND_BRD</i> _{<i>t</i>}					0.168 *	0.062		
<i>INTERCEPT</i>	-0.213	0.384	-0.009	0.988	-0.332	0.509	N/A	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	11,388		2,004		2,934		11,388	
Wald (Likelihood Ratio) Chi ²	557.69 ***		129.75 ***		162.76 ***		550.45 ***	
Pseudo R ²	0.035		0.049		0.042			

Table 1.4 Continued

This table reports results for the analysis of the determinants of nonprofit IC deficiency remediation. Models 1 - 3 are probit models where the dependent variable is $REMEDIAE_{t+j}$. Model 1 includes observations with all of the necessary variables for the full sample period (i.e., 1999-2012). Models 2 and 3 add additional governance variables to the analysis. Because those governance variables are not reported on Form 990 until 2008, reduced sample sizes result. Model 4 is a Cox proportional hazard model where the dependent variable is $YRTOREM$ measured as the time to remediation in years during the three-year period following deficiency disclosure and death (censoring) is calculated as $REMEDIAE_{t+3} = 1$ ($REMEDIAE_{t+3} = 0$). All variables are defined in Appendix A. All models are calculated using robust standard errors clustered by nonprofit (ein). All tests are two-tailed where *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.

Table 1.5 Regression Analysis for the Association between the Percentage Change in Subsequent Officer Compensation and Remediation

	<i>DV: %ΔOFFCOMP_TOTAL</i>					
	Model 1		Model 2		Model 3	
	coef	p-value	coef	p-value	coef	p-value
<i>REMEDiate</i> _{t+1} (<i>REMEDiate</i> _{t+2})	0.075 *	0.080	0.042 **	0.046	0.099 ***	0.014
% Δ <i>TOTAL_REVENUE</i> _{t+2}	-0.196 ***	0.002	0.010	0.623	-0.346 ***	0.000
% Δ <i>PROGRAM_SERVICES</i> _{t+2}	0.961 ***	0.000	0.068	0.153	0.961 ***	0.000
% Δ <i>SIZE</i> _{t+2}	0.000 ***	0.012	0.069	0.295	0.000 **	0.031
<i>ADD_AUDIT_COMMITTEE</i> _{t+1}			-0.062	0.114		
% Δ % <i>IND_BRD</i> _t			0.025	0.783		
<i>INTERCEPT</i>	0.483	0.360	0.049	0.785	0.436	0.395
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included	
N	5,755		1,588		6,028	
Adjusted R ²	0.980		0.011		0.980	

This table reports results for the analysis of the association between the remediation of at least one type of IC deficiency and the percentage change in officer compensation during subsequent periods (*% Δ OFFCOMP_TOTAL*). Models 1 and 2 use remediation by the end of the next period (t+1) as the main independent variable of interest while Model 3 uses remediation within either 1 or 2 periods (t+2). Model 1 and 2 are the same except Model 2 adds two change in governance variables which reduces the available sample. All models use OLS regression and cluster standard errors by nonprofit (ein). All variables are defined in Appendix A. The main tests (on *REMEDiate*_{t+1} and *REMEDiate*_{t+2}) are one-tailed while all other tests are two-tailed where *** p < 0.01, ** p < 0.05, and * p < 0.1.

Table 1.6 Regression Analysis for the Association between the Scaled Change in Subsequent Functional Expenses and Remediation

	Model 1		Model 2		Model 3	
	$\Delta\text{ADMINISTRATIVE_SC}_{t+2}$		$\Delta\text{PROGRAM_SERVICES_SC}_{t+2}$		$\Delta\text{FUNDRAISING_SC}_{t+2}$	
	coef	p-value	coef	p-value	coef	p-value
<i>REMEDiate</i> _{t+1}	0.453 **	0.051	-0.417 *	0.068	-0.023	0.525
% Δ SIZE _{t+2}	0.008	0.296	-0.001	0.245	0.000	0.290
% Δ TOTAL_REVENUE _{t+2}	0.000	0.705	0.000	0.832	0.000	0.135
LOG_AGE _t	-0.324 *	0.089	0.344 *	0.073	-0.014	0.430
INTERCEPT	3.492 **	0.023	-2.606 *	0.090	-0.060	0.465
INDUSTRY FIXED EFFECTS	Included		Included		Included	
YEAR FIXED EFFECTS	Included		Included		Included	
STATE FIXED EFFECTS	Included		Included		Included	
N	7,525		7,525		7,525	
R ²	0.008		0.008		0.006	

This table reports results for the analysis of the association between the remediation of at least one type of IC deficiency and the scaled change in functional spending during the subsequent period (t+1 to t+2) where the expenses in each functional category are scaled by total expenses. The dependent variable in Model 1 is the $\Delta\text{ADMINISTRATIVE_SC}_{t+2}$, in Model 2 it is the $\Delta\text{PROGRAM_SERVICES_SC}_{t+2}$, and in Model 3 it is the $\Delta\text{FUNDRAISING_SC}_{t+2}$. All models use OLS regression and cluster standard errors by nonprofit (ein). All variables are defined in Appendix A. The main hypothesized tests (on *REMEDiate*_{t+1} for Models 1 and 2) are one-tailed while all other tests are two-tailed where *** p < 0.01, ** p < 0.05, and * p < 0.1.

Table 1.7 Matched Pair Analysis for the Difference between Changes in Governance for Remediating and Non-Remediating Nonprofits

		Model 1			Model 2			Model 3			Model 4		
		<i>NUM_GOV_MECH_t</i>			<i>NUM_GOV_MECH_{t+1}</i>			<i>NUM_GOV_MECH_{t+2}</i>			Δ <i>NUM_GOV_MECH_{t+2}</i>		
		<i>n = 3,382</i>			<i>n = 2,325</i>			<i>n = 3,027</i>			<i>n = 3,027</i>		
		Remediate	Non-Remediate	p-value	Remediate	Non-Remediate	p-value	Remediate	Non-Remediate	p-value	Remediate	Non-Remediate	p-value
<i>GOV VARIABLE</i>	U	12.671	12.517	0.012 ***	12.622	12.445	0.009 ***	15.311	14.979	0.002 ***	2.628	2.443	0.012 ***
	M	12.671	12.543	0.017 **	12.622	12.395	0.000 ***	15.311	14.975	0.000 ***	2.628	2.422	0.002 ***
<i>LOG_SIZE_t</i>	U	17.943	17.918	0.719	18.030	18.056	0.752	18.076	18.013	0.366	18.076	18.013	0.366
	M	17.943	17.905	0.499	18.030	18.031	0.990	18.076	18.04	0.541	18.076	18.013	0.541
<i>SURPLUS_SC_t</i>	U	0.033	0.043	0.440	0.034	0.027	0.142	0.032	0.047	0.324	0.032	0.047	0.324
	M	0.033	0.031	0.570	0.034	0.036	0.708	0.032	0.024	0.022 **	0.032	0.024	0.022 **
<i>FEDEXPENDITURE_SC_t</i>	U	0.453	0.451	0.965	0.449	0.393	0.345	0.422	0.433	0.822	0.422	0.433	0.822
	M	0.453	0.454	0.976	0.449	0.395	0.234	0.422	0.471	0.222	0.422	0.471	0.222
<i>AUDITOR_SWITCH_{t+1}</i>	U	0.060	0.061	0.954	0.064	0.073	0.400	0.061	0.059	0.807	0.061	0.059	0.807
	M	0.060	0.060	0.949	0.064	0.068	0.713	0.061	0.053	0.299	0.061	0.053	0.299

This table reports results for the analysis of the association between the remediation of at least one type of IC deficiency and the number of governance mechanisms used by the nonprofit. Models 1, 2, and 3 use *NUM_GOV_MECH* at times *t*, *t+1*, and *t+2*, respectively. Model 4 is based on the change in the number of governance mechanisms from period *t* to *t+2*. The analysis is carried out using a 1:1 nearest-neighbor matched design using the variables listed in the table. All variables are defined in Appendix A. The hypothesized test (Model 4) is one-tailed while all other tests are two-tailed where *** *p* < 0.01, ** *p* < 0.05, and * *p* < 0.1.

Table 1.8 Regression Analysis for the Association between Remediation and the Percentage Change in Subsequent Support

	<u>%ΔPUBLIC_SUPPORT_{t+2}</u>		<u>%ΔGOV_SUPPORT_{t+2}</u>	
	coef	p-value	coef	p-value
<i>REMEDIATE</i> _{t+1}	0.288 **	0.037	0.188	0.202
<i>RC_FS</i> _{t+1}	-0.097	0.350	0.001	0.997
<i>RC_GOV</i> _{t+1}	0.192	0.246	0.293	0.362
<i>MW_FS</i> _{t+1}	-0.155	0.136	-0.620	0.436
<i>MW_GOV</i> _{t+1}	-0.254	0.206	0.039	0.911
% Δ GOV_SUPPORT _{t+2} (% Δ PUBLIC_SUPPORT _{t+2})	0.000	0.816	0.003	0.428
% Δ FUNDRAISING _{t+2}	0.000	0.328	-0.001	0.254
% Δ PRICE _{t+2}	0.070	0.919	-2.281	0.590
<i>LOG_AGE</i> _t	-0.082	0.397	0.017	0.882
% Δ PROGRAM_REVENUE _{t+2}	-0.001	0.273	-0.001	0.558
% Δ PUBLIC_SUPPORT _{t+1} (% Δ GOV_SUPPORT _{t+1})	-0.692 ***	0.000	-0.001	0.757
% Δ LOBBYINGAMT _{t+2}			0.000	0.992
<i>GDP</i>			0.000	0.424
<i>INTERCEPT</i>	1.854 **	0.023	-0.574	0.362
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Not Included	
N	2,940		558	
Adjusted R ²	0.560		0.035	

This table reports results for the analysis of the association between the remediation of at least one type of IC deficiency and funding support (i.e., contributions and grants) in the subsequent period. Model 1 examines the percentage change in public support (% Δ PUBLIC_SUPPORT_{t+2}) while Model 2 examines the percentage change in governmental support (% Δ GOV_SUPPORT_{t+2}). All independent change variables are from the period prior to that listed (e.g., a variable with a subscript t+1 represents the change from t to t+1). Both models use OLS regression and cluster standard errors by nonprofit (ein). All variables are defined in Appendix A. The main tests (on *REMEDIATE*_{t+1}) are one-tailed while all other tests are two-tailed where *** p < 0.01, ** p < 0.05, and * p < 0.1.

Table 1.9 Regression Analysis for the Association between Remediation and the Cost of Debt

	$\Delta COST_DEBT_{t+2}$	
	coef	p-value
<i>REMEDiate</i> _{t+1}	-0.002 **	0.053
ΔLOG_SIZE_{t+2}	0.006 ***	0.009
<i>LOG_AGE</i> _t	-0.001	0.413
$\Delta LEVERAGE_{t+2}$	0.000 **	0.030
ΔLOG_CASH_{t+2}	-0.219 ***	0.003
$\Delta COST_DEBT_{t+1}$	0.959 ***	0.000
<i>INTERCEPT</i>	-0.001	0.823
<i>INDUSTRY FIXED EFFECTS</i>	Included	
<i>YEAR FIXED EFFECTS</i>	Included	
<i>STATE FIXED EFFECTS</i>	Included	
<hr/>		
N	4,663	
Adjusted R ²	0.304	
<hr/>		

This table reports results for the analysis of the association between the remediation of at least one type of IC deficiency and the change in the cost of debt from the time of deficiency disclosure to the period subsequent to possible remediation ($\Delta COST_DEBT_{t+2}$). All independent change variables with t+2 subscripts are measured from period t to t+2 while the change variable with a t+1 subscript is measured from period t to t+1. The analysis is based on OLS regression with standard errors clustered by nonprofit (ein). All variables are defined in Appendix A. The main test (on *REMEDiate*_{t+1}) is one-tailed while all other tests are two-tailed where *** p < 0.01, ** p < 0.05, and * p < 0.1.

Table 1.10 Regression Analysis for the Association between Remediation and Audit Delays

	<i>DV: AUDIT_DELAY_{t+2}</i>					
	<i>MODEL 1</i>		<i>MODEL 2</i>		<i>MODEL 3</i>	
	coef	p-value	coef	p-value	coef	p-value
<i>REMEDiate</i> _{t+1}	-14.626 ***	0.001	-7.513 **	0.039	-7.458 **	0.060
<i>DEFICIENCY</i> _{t+1}	4.498	0.293	-0.059	0.988	-2.205	0.641
<i>DEFICIENCY</i> _{t+2}	22.529 ***	0.000	15.243 ***	0.000	14.427 ***	0.000
<i>FEDEXPENDITURE_SC</i> _{t+2}	0.012	0.240	0.011 *	0.084	4.871	0.265
<i>LOG_SIZE</i> _{t+2}	5.587 ***	0.000	2.530 **	0.024	4.163 ***	0.003
<i>SURPLUS_SC</i> _{t+2}	0.113	0.270	0.105 *	0.098	-36.747 *	0.069
<i>GOINGCONCERNRISK</i> _{t+2}	60.603 ***	0.000	34.449 ***	0.006	46.366	0.181
<i>RISK</i> _{t+2}	17.847 ***	0.000	5.901 **	0.051	6.216	0.125
<i>JUNFYE</i>	1.598	0.752	0.308	0.934	1.096	0.797
<i>DECFYE</i>	-12.929 **	0.025	-7.231 *	0.093	8.802	0.213
<i>AUDITOR_SWITCH</i> _{t+2}	-0.521	0.940	-2.147	0.710	2.382	0.738
<i>AUDIT_DELAY</i> _{t+1}			0.410 ***	0.000	0.380 ***	0.000
Δ NUM_GOV_MECH _{t+2}					-1.546 *	0.080
<i>INTERCEPT</i>	128.166 ***	0.000	79.545 ***	0.000	30.493	0.366
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included	
N	7,866		7,866		1,218	
Adjusted R ²	0.082		0.266		0.424	

This table reports results for the analysis of the association between the remediation of at least one type of IC deficiency and audit delays in the subsequent period (*AUDIT_DELAY_{t+2}*). The analysis is based on an OLS regression with standard errors clustered by nonprofit (ein). All variables are defined in Appendix A. Model 2 is the same as Model 1 except it also includes lagged audit delay. Effectively, the coefficient on *REMEDiate_{t+1}* in that case can be interpreted as the effect of remediation on the change in audit delays from the prior period. Model 3 adds a control for the change in the number of governance mechanisms from t+1 to t+2. The main tests (on *REMEDiate_{t+1}*) are one-tailed while all other tests are two-tailed where *** p < 0.01, ** p < 0.05, and * p < 0.1.

Table 2.1 Descriptive Statistics – Sample Composition: Study II

Panel A: Sample Selection					
Firm-Year observations					
Form 990 Data FYEs 2009 - 2013				66,119	
Less observations missing age				(303)	
Less observations missing lagged data				(6,386)	
Base sample				59,430	
Unique nonprofits				16,922	

Panel B: Base Sample by Industry and Year					
	Number	Percentage		Number	Percentage
Arts	3,509	5.90%	2009	13,083	22.01%
Education	13,773	23.18%	2010	12,787	21.52%
Health	18,910	31.82%	2011	12,430	20.92%
Human Services	14,233	23.95%	2012	12,906	21.72%
Public Benefit	5,294	8.91%	2013	8,224	13.84%
Other	3,711	6.24%		59,430	100.00%
	59,430	100.00%			

This table provides details regarding the sample selection process (Panel A) and the composition of the base sample by industry and year (Panel B). For industry and year composition, raw numbers are reported followed by percentages with respect to the full base sample.

Table 2.2 Descriptive Statistics – Means and Medians of Variables: Study II

Panel A: Continuous Variables												
	Full Sample (n = 59,430)				HIGH INT GOV _{it} = 1 (n = 28,556)				HIGH INT GOV _{it} = 0 (n = 30,874)			
	N	Mean	Median	Std Dev	N	Mean	Median	Std Dev	N	Mean	Median	Std Dev
ADEQ_EQUITY_RATIO	59,424	9.413	2.148	667.062	28,555	4.567	1.903	90.032	30,869	13.896 *	2.511	921.445
ADMIN_RATIO	59,317	0.148	0.120	0.141	28,531	0.145	0.124	0.116	30,786	0.150 ***	0.117	0.161
AGE	59,430	51.307	33.000	171.269	28,556	53.407	39.000	157.989	30,874	49.366 ***	28.000	182.676
COMPLEXITY	59,430	3.570	4.000	1.124	28,556	3.826	4.000	1.013	30,874	3.333 ***	3.000	1.168
COST_DEBT	56,885	0.019	0.009	0.054	28,374	0.018	0.011	0.044	28,511	0.020 ***	0.006	0.062
FUNDRAISING_RATIO	59,317	0.027	0.001	0.062	28,531	0.028	0.004	0.060	30,786	0.026 ***	0.000	0.065
GROWTH	59,406	1.134	1.027	12.787	28,555	1.071	1.041	0.372	30,851	1.192	1.012	17.741
LEVERAGE	59,372	0.426	0.302	2.808	28,544	0.419	0.338	0.455	30,828	0.432	0.256	3.872
PROGRAM_RATIO	59,317	0.826	0.854	0.153	28,531	0.827	0.850	0.127	30,786	0.824 **	0.860	0.174
RATING	2,050	4.810	5.000	1.076	1,426	4.788	5.000	1.083	624	4.861	5.000	1.058
REV_CONCEN	56,885	0.738	0.788	0.218	27,971	0.731	0.784	0.218	28,914	0.744 ***	0.791	0.218
REV_GROWTH	57,855	0.054	0.000	8.603	27,978	0.103	0.000	3.690	29,877	0.009	0.000	11.427
SIZE	59,430	188,817,519	44,969,789	935,534,803	28,556	237,614,892	67,794,832	1,066,835,986	30,874	143,683,820 ***	24,502,604	792,363,868
SURPLUS_SC	59,372	0.078	0.014	19.643	28,544	0.018	0.019	0.274	30,828	0.134	0.008	27.259
TOTAL_REVENUE	59,430	90,992,991	14,637,384	443,173,072	28,556	119,804,088	27,676,413	469,045,223	30,874	64,345,014 ***	6,432,758	416,055,011
TRUSSEL_MANIP	51,880	0.181	0.177	0.084	26,663	0.176	0.176	0.071	25,217	0.186 ***	0.179	0.096

Table 2.2 Continued

Panel B: Dichotomous Variables												
	Full Sample (n = 59,430)				<i>HIGH_INT_GOV_{t-1}</i> = 1 (n = 28,556)				<i>HIGH_INT_GOV_{t-1}</i> = 0 (n = 30,874)			
	N	Mean	Median	Std Dev	N	Mean	Median	Std Dev	N	Mean	Median	Std Dev
<i>BIG4</i>	14,140	0.158	0.000	0.365	8,191	0.174	0.000	0.379	5,949	0.136 ***	0.000	0.343
<i>CHARITABLE</i>	59,430	0.368	0.000	0.482	28,556	0.326	0.000	0.469	30,874	0.406 ***	0.000	0.491
<i>DEFICIENCY</i>	14,140	0.266	0.000	0.442	8,191	0.252	0.000	0.434	5,949	0.285 ***	0.000	0.451
<i>GOINGCONCERNRISK</i>	14,140	0.008	0.000	0.088	8,191	0.008	0.000	0.087	5,949	0.008	0.000	0.089
<i>INVESTMENT</i>	2,050	0.920	1.000	0.272	1,426	0.924	1.000	0.266	624	0.910	1.000	0.286
<i>LOW_OPER_RESERVE</i>	59,430	0.647	1.000	0.478	28,556	0.635	1.000	0.482	30,874	0.658 ***	1.000	0.474
<i>MW_FS</i>	14,140	0.066	0.000	0.249	8,191	0.057	0.000	0.232	5,949	0.079 ***	0.000	0.270
<i>MW_GOV</i>	14,140	0.042	0.000	0.200	8,191	0.037	0.000	0.189	5,949	0.048 ***	0.000	0.213
<i>NEWGRANTEE</i>	14,140	0.031	0.000	0.173	8,191	0.027	0.000	0.161	5,949	0.037 ***	0.000	0.188
<i>OTHERFIRM</i>	14,140	0.626	1.000	0.484	8,191	0.589	1.000	0.492	5,949	0.677 ***	1.000	0.468
<i>QREPORT_FS</i>	14,140	0.008	0.000	0.090	8,191	0.006	0.000	0.080	5,949	0.011 ***	0.000	0.102
<i>QREPORT_MP</i>	14,140	0.038	0.000	0.191	8,191	0.033	0.000	0.178	5,949	0.045 ***	0.000	0.206
<i>RC_FS</i>	14,140	0.143	0.000	0.350	8,191	0.124	0.000	0.329	5,949	0.170 ***	0.000	0.375
<i>RC_GOV</i>	14,140	0.153	0.000	0.360	8,191	0.145	0.000	0.352	5,949	0.164 ***	0.000	0.370
<i>REGIONAL</i>	14,140	0.216	0.000	0.411	8,191	0.237	0.000	0.425	5,949	0.187 ***	0.000	0.390
<i>RISK</i>	14,140	0.313	0.000	0.464	8,191	0.293	0.000	0.455	5,949	0.342 ***	0.000	0.474
<i>ZERO_FUNDRAISING</i>	59,430	0.479	0.000	0.500	28,556	0.410	0.000	0.492	30,874	0.543 ***	1.000	0.498

Table 2.2 Continued

Panel C: Governance Variables										
	Full Sample (n = 59,430)			HIGH_INT_GOV_{t-1} = 1 (n = 28,556)			HIGH_INT_GOV_{t-1} = 0 (n = 30,874)			
	Mean	Median	Std Dev	Mean	Median	Std Dev	Mean	Median	Std Dev	
External Mechanisms										
<i>A_133_PERF</i>	0.277	0.000	0.448	0.337	0.000	0.473	0.222 ***	0.000	0.416	
<i>COMPILE_REVIEW</i>	0.052	0.000	0.222	0.028	0.000	0.165	0.074 ***	0.000	0.262	
<i>FIN_TRANS_OWN_WEBSITE</i>	0.114	0.000	0.318	0.149	0.000	0.356	0.082 ***	0.000	0.274	
<i>GOV_GRANTS</i>	0.427	0.000	0.495	0.489	0.000	0.500	0.370 ***	0.000	0.483	
<i>GOV_GRANTS_AMT</i>	5,829,030	0	59,914,766	7,279,835	0	70,710,974	4,487,151 ***	0	47,767,880	
<i>IND_AUDIT</i>	0.862	1.000	0.345	0.972	1.000	0.165	0.761 ***	1.000	0.427	
<i>IND_AUDITOR</i>	0.888	1.000	0.315	0.980	1.000	0.140	0.803 ***	1.000	0.398	
<i>MUNI_BONDS</i>	0.305	0.000	0.460	0.385	0.000	0.487	0.230 ***	0.000	0.421	
<i>MUNI_BONDS_AMT</i>	28,146,895	0	144,946,835	36,284,097	0	160,436,044	20,620,630 ***	0	128,519,969	
<i>PERM_RSTRD_NASSETS</i>	0.443	0.000	0.497	0.513	1.000	0.500	0.378 ***	0.000	0.485	
<i>PERM_RSTRD_NASSETS_AMT</i>	17,124,115	0	135,579,003	21,591,967	25,000	166,762,971	12,991,706 ***	0	98,114,147	
<i>PUBLIC_SUPPORT</i>	0.794	1.000	0.404	0.831	1.000	0.374	0.760 ***	1.000	0.427	
<i>PUBLIC_SUPPORT_AMT</i>	8,226,959	573,002	52,000,000	10,200,000	1,074,757	54,700,000	6,398,258 ***	293,928	49,200,000	
<i>SECURED_OUTSIDE_DEBT</i>	0.465	0.000	0.499	0.498	0.000	0.500	0.434 ***	0.000	0.496	
<i>SECURED_OUTSIDE_DEBT_AMT</i>	9,062,449	0	114,362,163	8,646,266	0	77,099,451	9,447,384 ***	0	140,276,643	
<i>TEMP_RSTRD_NASSETS</i>	0.641	1.000	0.480	0.734	1.000	0.442	0.555 ***	1.000	0.497	
<i>TEMP_RSTRD_NASSETS_AMT</i>	19,262,316	267,181	267,704,833	24,467,862	810,920	303,180,071	14,447,600 ***	44,288	229,974,460	
<i>UNSECURED_OUTSIDE_DEBT</i>	0.105	0.000	0.307	0.113	0.000	0.317	0.098 ***	0.000	0.298	
<i>UNSECURED_OUTSIDE_DEBT_AMT</i>	2,471,302	0	75,781,207	3,309,826	0	88,468,764	1,695,734 ***	0	61,759,695	

Table 2.2 Continued

	Full Sample (n = 59,430)			<i>HIGH_INT_GOV</i> _{t-1} = 1 (n = 28,556)			<i>HIGH_INT_GOV</i> _{t-1} = 0 (n = 30,874)		
	Mean	Median	Std Dev	Mean	Median	Std Dev	Mean	Median	Std Dev
Internal Mechanisms									
<i>AUD_COMMITTEE</i>	0.828	1.000	0.377	0.966	1.000	0.181	0.701 ***	1.000	0.458
<i>BOARD_SIZE</i>	19.413	15.000	108.289	21.541	16.000	141.981	17.445 ***	12.000	62.609
<i>CEO_SALARY_PLCY</i>	0.775	1.000	0.417	0.977	1.000	0.150	0.589 ***	1.000	0.492
<i>CH_NUM_MECH</i>	1.759	0.000	4.190	(0.073)	0.000	0.654	3.453 ***	1.000	5.237
<i>CONFLICT_ENFORCE</i>	0.848	1.000	0.359	0.991	1.000	0.096	0.717 ***	1.000	0.451
<i>DEC_NUM_MECH</i>	0.098	0.000	0.297	0.138	0.000	0.345	0.060 ***	0.000	0.238
<i>INC_NUM_MECH</i>	0.314	0.000	0.464	0.107	0.000	0.309	0.506 ***	1.000	0.500
<i>MINUTES_COMM</i>	0.926	1.000	0.262	0.986	1.000	0.118	0.871 ***	1.000	0.335
<i>MINUTES_GOV</i>	0.982	1.000	0.132	0.999	1.000	0.030	0.966 ***	1.000	0.180
<i>NO_DELEGATE</i>	0.920	1.000	0.271	0.958	1.000	0.201	0.886 ***	1.000	0.318
<i>NO_DOC_CHANGES</i>	0.942	1.000	0.234	0.939	1.000	0.240	0.945 ***	1.000	0.228
<i>NO_RELATIONS</i>	0.777	1.000	0.416	0.819	1.000	0.385	0.739 ***	1.000	0.439
<i>NO_UNREACHABLE_OFF</i>	0.980	1.000	0.141	0.992	1.000	0.088	0.968 ***	1.000	0.176
<i>NUM_MECH</i>	11.975	13.000	2.418	13.449	14.000	0.732	10.612 ***	11.000	2.626
<i>OFFICER_SALARY_PLCY</i>	0.659	1.000	0.474	0.894	1.000	0.308	0.442 ***	0.000	0.497
<i>OFFICERS_CONFLICT_DSC</i>	0.861	1.000	0.346	0.992	1.000	0.091	0.741 ***	1.000	0.438
<i>PERC_IND_BRD</i>	0.867	0.984	1.389	0.886	0.964	0.807	0.850 ***	1.000	1.763
<i>RET_PLCY</i>	0.796	1.000	0.403	0.967	1.000	0.178	0.638 ***	1.000	0.480
<i>WHISTL_PLCY</i>	0.780	1.000	0.414	0.974	1.000	0.160	0.601 ***	1.000	0.490
<i>WR_CONFLICT_PLCY</i>	0.898	1.000	0.302	0.997	1.000	0.054	0.807 ***	1.000	0.395

Table 2.2 Continued

This table reports descriptive statistics (means and medians). Panel A reports descriptive statistics for the study's continuous variables (excluding governance variables). Panel B reports descriptive statistics for the study's dichotomous variables (excluding governance variables). Panel C reports descriptive statistics for the study's internal and external governance variables. For Panels A and B, columns 1-4 refer to the full sample while columns 5-8 and 9-12 refer to sample subsets where $HIGH_INT_GOV_{t-1} = 1$ and $HIGH_INT_GOV_{t-1} = 0$, respectively. For Panel C, columns 1-3 refer to the full sample while columns 4-6 and 7-9 refer to sample subsets where $HIGH_INT_GOV_{t-1} = 1$ and $HIGH_INT_GOV_{t-1} = 0$, respectively. Variable definitions are provided in Appendix B. Note that $COST_DEBT$ is winsorized at 1% and 99%. A t-test for equal variable means between the $HIGH_INT_GOV_{t-1} = 1$ and $HIGH_INT_GOV_{t-1} = 0$ subsets are reported in column 10 in Panels A and B and Column 7 of Panel C where significant results (i.e., statistically unequal means) are reported as *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.

Table 2.3 Nonprofit Internal Governance over Time

	2008	2009	2010	2011	2012	2013
Number of Observations	14,577	14,792	14,849	13,609	14,020	8,849
<u>IG Index</u>						
<i>NUM_MECH</i>	11.0	11.5	11.8	11.9	12.0	12.2
<i>DEC_NUM_MECH</i>		14.5%	23.6%	19.9%	17.6%	17.0%
<i>INC_NUM_MECH</i>		68.4%	25.1%	14.8%	12.8%	12.2%
<u>Audit</u>						
<i>AUD_COMMITTEE</i>	59.0%	71.7%	83.2%	83.4%	83.5%	87.0%
<u>Compensation</u>						
<i>CEO_SALARY_PLCY</i>	70.2%	75.1%	76.2%	76.5%	75.4%	77.7%
<i>OFFICER_SALARY_PLCY</i>	59.5%	63.2%	64.7%	65.1%	64.3%	65.5%
<u>Management</u>						
<i>NO_RELATIONS</i>	78.6%	79.2%	78.8%	77.7%	77.4%	77.9%
<i>NO_DELEGATE</i>	92.5%	92.9%	91.8%	91.8%	91.6%	92.1%
<i>NO_DOC_CHANGES</i>	93.3%	93.5%	94.1%	94.4%	94.8%	94.7%
<i>NO_UNREACHABLE_OFF</i>	95.8%	97.3%	97.7%	98.0%	98.3%	98.7%
<u>Policy</u>						
<i>WR_CONFLICT_PLCY</i>	81.5%	86.4%	88.2%	89.0%	89.5%	91.8%
<i>CONFLICT_ENFORCE</i>	73.8%	79.5%	82.8%	84.1%	85.0%	87.9%
<i>OFFICERS_CONFLICT_DSC</i>	75.7%	81.3%	84.1%	85.6%	86.4%	89.0%
<i>WHISTL_PLCY</i>	65.2%	71.1%	75.4%	77.4%	78.8%	82.1%
<i>RET_PLCY</i>	67.6%	74.2%	77.8%	78.5%	80.0%	82.9%
<u>Minutes</u>						
<i>MINUTES_COMM</i>	88.0%	90.9%	91.9%	92.0%	92.1%	93.4%
<i>MINUTES_GOV</i>	95.1%	97.0%	97.6%	97.9%	98.0%	98.9%
<u>Board</u>						
<i>PERC_IND_BRD</i>	86.2%	88.8%	87.8%	85.2%	86.0%	86.9%
<i>BOARD_SIZE</i>	17.8	18.3	18.1	19.1	21.0	20.6
<u>External Oversight</u>						
<i>A_133_PERF</i>	17.7%	24.7%	26.5%	26.5%	26.6%	30.9%
<i>COMPILE_REVIEW</i>	9.3%	7.4%	6.0%	5.2%	4.8%	3.6%
<i>FIN_TRANS_OWN_WEBSITE</i>	9.5%	9.7%	10.4%	11.3%	11.9%	12.5%
<i>GOV_GRANTS</i>	33.9%	40.2%	42.3%	42.2%	42.0%	45.5%
<i>IND_AUDIT</i>	22.0%	74.7%	86.9%	86.7%	86.9%	91.1%
<i>IND_AUDITOR</i>	66.5%	78.0%	90.0%	89.6%	89.8%	92.9%
<i>MUNI_BONDS</i>	22.2%	26.7%	27.7%	29.7%	28.7%	31.8%
<i>PERM_RSTRD_NASSETS</i>	34.2%	41.3%	41.1%	42.2%	42.0%	47.5%
<i>PUBLIC_SUPPORT</i>	27.0%	78.7%	79.1%	79.3%	79.3%	80.8%
<i>SECURED_OUTSIDE_DEBT</i>	42.9%	46.1%	45.9%	45.1%	44.8%	47.4%
<i>TEMP_RSTRD_NASSETS</i>	55.0%	61.2%	61.4%	61.9%	62.3%	66.5%
<i>UNSECURED_OUTSIDE_DEBT</i>	9.7%	10.6%	10.5%	10.0%	10.4%	10.8%

This table provides details regarding the trend of nonprofit governance over time. All percentages except those for Board and *NUM_MECH* represent the proportion of the sample by year that discloses use of the mechanism. *PERC_IND_BRD* is the actual mean percentage of independent board members.

Table 2.4 Determinants of Nonprofit Internal Governance

Panel A: Presence of External Oversight									
	Δs ANALYSIS								
	<u>DV: HIGH_INT_GOV_t</u>		<u>DV: CH_NUM_MECH_t</u>		<u>DV: INC_NUM_MECH_t</u>		<u>DV: DEC_NUM_MECH_t</u>		
	Model 1		Model 2		Model 3		Model 4		
	coef	p-value	coef	p-value	coef	p-value	coef	p-value	
*For Models 2 - 4 Δs in Below Variables									
<i>A_133_PERF_{t-1}</i>	0.083 ***	0.000	0.368 ***	0.000	0.125 ***	0.000	-0.072 *	0.055	
<i>IND_AUDITOR_{t-1}</i>	-0.397 ***	0.000	1.440 ***	0.000	1.428 ***	0.000	-1.210 ***	0.000	
<i>FIN_TRANS_OWN_WEBSITE_{t-1}</i>	0.199 ***	0.000	0.619 ***	0.000	0.192 ***	0.000	-0.135 ***	0.007	
<i>GOV_GRANTS_{t-1}</i>	0.068 ***	0.000	0.525 ***	0.000	0.056 **	0.035	-0.039	0.204	
<i>MUNI_BONDS_{t-1}</i>	0.030	0.110	1.090 ***	0.000	0.281 ***	0.000	-0.154 ***	0.004	
<i>UNSECURED_OUTSIDE_DEBT_{t-1}</i>	-0.035	0.178	0.180 ***	0.000	0.013	0.666	-0.019	0.584	
<i>SECURED_OUTSIDE_DEBT_{t-1}</i>	0.004	0.811	0.711 ***	0.000	0.071 ***	0.004	-0.056 **	0.049	
<i>TEMP_RSTRD_NASSETS_{t-1}</i>	0.175 ***	0.000	1.160 ***	0.000	0.144 ***	0.000	-0.064 *	0.103	
<i>PERM_RSTRD_NASSETS_{t-1}</i>	-0.041 ***	0.040	0.824 ***	0.000	0.218 ***	0.000	0.051	0.418	
<i>PUBLIC_SUPPORT_{t-1}</i>	-0.032	0.114	1.264 ***	0.000	0.142 ***	0.000	-0.032	0.310	
<i>LOG_SIZE_{t-1}</i>	0.116 ***	0.000	-0.955 ***	0.001	0.291	0.107	-0.227	0.380	
<i>LOG_AGE_t</i>	0.112 ***	0.000	0.196 ***	0.000	0.071 ***	0.000	-0.052 ***	0.000	
<i>HIGH_INT_GOV_{t-1} (NUM_MECH_{t-1})</i>	2.357 ***	0.000	-0.409 ***	0.000	-0.141 ***	0.000	0.092 ***	0.000	
<i>INTERCEPT</i>	-2.734 ***	0.000	5.238 ***	0.000	0.784 ***	0.000	-2.048 ***	0.000	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included		
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included		
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included		
N	59,430		59,402		59,402		59,402		
Wald (Likelihood Ratio) Chi ²	18850.78 ***				14455.00 ***		1726.13 ***		
Pseudo R ²	0.459				0.400		0.102		
Adjusted R ²			0.858						

Table 2.4 Continued

	Panel B: Changes in Amount of External Oversight					
	<i>DV: CH_NUM_MECH_t</i>		<i>DV: INC_NUM_MECH_t</i>		<i>DV: DEC_NUM_MECH_t</i>	
	Model 1		Model 2		Model 3	
	coef	p-value	coef	p-value	coef	p-value
$\Delta A_{133_PERF}_{t-1}$	0.085 ***	0.005	-0.006	0.895	-0.119 **	0.025
$\Delta IND_AUDITOR_{t-1}$	0.835 ***	0.000	1.498 ***	0.000	-1.424 ***	0.000
$\Delta FIN_TRANS_OWN_WEBSITE_{t-1}$	0.103 ***	0.013	0.127 **	0.063	-0.070	0.373
$\Delta LOG_GOV_GRANTS_AMT_SC$	0.000	0.997	0.013	0.907	0.055	0.630
$\Delta LOG_MUNI_BONDS_AMT_SC$	0.117 **	0.017	0.002	0.977	-0.101	0.304
$\Delta LOG_UNSECURED_OUTSIDE_DEBT_AMT_SC$	-0.052	0.129	-0.006	0.925	0.010	0.873
$\Delta LOG_SECURED_OUTSIDE_DEBT_AMT_SC$	0.003	0.922	-0.035	0.518	0.006	0.910
$\Delta LOG_TEMP_RSTRD_NASSETS_AMT_SC$	-0.014	0.826	-0.103	0.209	0.066	0.511
$\Delta LOG_PERM_RSTRD_NASSETS_AMT_SC$	-0.154 **	0.026	0.176	0.192	0.316 **	0.026
$\Delta LOG_PUBLIC_SUPPORT_AMT_SC$	0.009	0.840	-0.009	0.916	-0.090	0.326
$\% \Delta LOG_SIZE$	0.216	0.443	0.772	0.133	0.446	0.548
LOG_AGE_t	0.035 ***	0.000	0.088 ***	0.000	-0.007	0.671
NUM_MECH_{t-1}	-0.119 ***	0.000	-0.168 ***	0.000	0.103 ***	0.000
<i>INTERCEPT</i>	1.605 ***	0.000	1.114 ***	0.000	-2.347 ***	0.000
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included	
N	21,329		21,329		21,329	
Adjusted R ²	0.153					
Wald (Likelihood Ratio) Chi ²			2487.88 ***		520.78 ***	
Pseudo R ²			0.161		0.063	

Table 2.4 Continued

This table reports results of the analysis of the determinants of nonprofit internal governance (IG) disclosure/adoption particularly with respect to external oversight mechanisms. Panel A examines external oversight as potential determinants measured using indicator (0 - absent, 1 - present) variables while Panel B (where appropriate) examines external oversight using amounts of the external oversight scaled by lagged total assets. Panel A Model 1 uses $HIGH_INT_GOV_t$ as the dependent variable coded 1 for nonprofit-years where the number of IG mechanisms is at or above the median of 13, 0 otherwise. The analysis is carried out using a probit regression. Model 2 uses ΔNUM_MECH_t as the dependent variable which is the change in the number of IG mechanisms from t-1 to t. The analysis is performed using OLS regression. Models 3 and 4 use $INC_NUM_MECH_t$ and $DEC_NUM_MECH_t$, respectively which are indicator variables where ΔNUM_MECH_t is either > 0 or < 0 , respectively. The analysis is performed using probit regression. For Panel A Models 2-4, all independent variables except AGE_t and $HIGH_INT_GOV_{t-1}$ (NUM_MECH_{t-1}) are measured as changes. Panel B Model 1 uses OLS and the ΔNUM_MECH_t as the dependent variable while Models 2 and 3 use probit regression and $INC_NUM_MECH_t$ and $DEC_NUM_MECH_t$ as the dependent variables, respectively where those variables are the same as previously defined. All independent variables except AGE_t and NUM_MECH_{t-1} are measured as changes. All variables are defined in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). Tests are two-tailed where *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.

Table 2.5 The Relationship between Nonprofit IG and the Trussel Program Ratio Manipulation Factor

	<i>DV: TRUSSEL_MANIP_t</i>				<i>DV: ΔTRUSSEL_MANIP_t</i>			
	Model 1		Model 2		Model 3		Model 4	
	<i>HIGH_INT_GOV_{t-1}</i>		<i>ΔNUM_GOV_MECH_t</i>		<i>INC_NUM_MECH_t</i>		<i>DEC_NUM_MECH_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>INTERNAL GOVERNANCE MEASURE</i>	-0.002 ***	0.003	0.000	0.750	0.002 *	0.102	0.002	0.143
<i>LOG_SIZE_t</i> (%Δ <i>LOG_SIZE</i>)	-0.001 ***	0.000	-0.705 ***	0.000	-0.705 ***	0.000	-0.705 ***	0.000
<i>LOG_AGE_t</i>	-0.004 ***	0.000	-0.006 ***	0.000	-0.006 ***	0.000	-0.006 ***	0.000
<i>CHARITABLE_t</i> (Δ <i>CHARITABLE</i>)	0.007 ***	0.000	-0.019 ***	0.000	-0.019 ***	0.000	-0.019 ***	0.000
<i>TRUSSEL_MANIP_{t-1}</i>	0.384 ***	0.000	-0.605 ***	0.000	-0.605 ***	0.000	-0.605 ***	0.000
<i>INTERCEPT</i>	0.128 ***	0.000	0.114 ***	0.000	0.114 ***	0.000	0.114 ***	0.000
<i>EXTERNAL OVERSIGHT CONTROLS</i> (Δ <i>S</i>)	Included		Included		Included		Included	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	51,473		37,197		37,197		37,197	
Adjusted R ²	0.184		0.387		0.387		0.387	

This table presents results for the analysis of the association between internal governance (IG) and the Trussel program ratio manipulation factor. Model 1 uses *TRUSSEL_MANIP_t* as the dependent variable (See Appendix B for a description of the variable's construction). Models 2 - 4 use *ΔTRUSSEL_MANIP_t* as the dependent variable measured as the change in the Trussel manipulation factor over the period t-1 to t. Model 1 presents an OLS regression and *HIGH_INT_GOV_{t-1}* is the main independent variable of interest where *HIGH_INT_GOV_{t-1}* is coded 1 for firm-years where the period t-1 number of IG mechanisms is either at or above the median of 13, 0 otherwise. Models 2 - 4 also present OLS regressions. Model 2 uses *ΔNUM_MECH_t* as the main independent variable of interest measured as the change in the number of governance mechanisms from period t-1 to t. Models 3 and 4 use *INC_NUM_MECH_t* and *DEC_NUM_MECH_t*, respectively, where *INC_NUM_MECH_t* (*DEC_NUM_MECH_t*) is an indicator variable coded 1 if the number of governance mechanisms increases (decreases) from period t-1 to t, 0 otherwise. All models include each of the external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). The test on *HIGH_INT_GOV_{t-1}* (Model 1) is one-tailed while all other tests are two-tailed where *** p < 0.01, **p < 0.05, and * p < 0.1.

Table 2.6 The Relationship between Nonprofit IG and Qualified Audit Reports

	<u>DV: QREPORT_FS_t</u>		<u>DV: ΔQREPORT_FS</u>		<u>DV: QREPORT_MP_t</u>		<u>DV: ΔQREPORT_MP</u>	
	Model 1		Model 2		Model 3		Model 4	
	<u>HIGH_INT_GOV_{t-1}</u>		<u>ΔNUM_GOV_MECH_t</u>		<u>HIGH_INT_GOV_{t-1}</u>		<u>ΔNUM_GOV_MECH_t</u>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>INTERNAL GOVERNANCE MEASURE</i>	-0.279 ***	0.010	-0.001	0.797	-0.108 **	0.028	0.002 *	0.104
<i>LOG_AGE_t</i>	-0.006	0.935	0.000	0.996	-0.016	0.686	-0.002	0.361
<i>LOG_SIZE_t (%ΔSIZE)</i>	-0.024	0.417	-0.059	0.452	-0.022	0.189	-0.347	0.125
<i>SURPLUS_SC_t (ΔSUPRLUS_SC)</i>	-0.135	0.246	-0.006	0.223	-0.209 *	0.098	0.000	0.990
<i>QREPORT_FS_{t-1}</i>	3.361 ***	0.000	-0.353 ***	0.000	1.755 ***	0.000	-0.009 ***	0.000
<i>INTERCEPT</i>	-2.362 ***	0.000	0.006	0.263	-1.268 ***	0.002	0.077 **	0.032
<i>EXTERNAL OVERSIGHT CONTROLS_{t-1} (Δs)</i>	Included		Included		Included		Included	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	10,536		13,172		13,029		13,172	
Wald (Likelihood Ratio) Chi ²	1328.52 ***				1008.23 ***			
Pseudo R ²	0.558		0.195		0.244			
Adjusted R ²			0.190				0.325	

This table presents the results of the analysis of the association between internal governance (IG) and qualified audit reports. Models 1 and 2 refer to qualified audit reports related to the financial statements while Models 3 and 4 refer to qualified audit reports related to major programs. The first of each (i.e., Models 1 and 3) use an indicator variable for the presence (1) or absence (0) of a qualified report at time t for the dependent variable while the second of each (i.e., Models 2 and 4) use changes in the variable (i.e. change in presence/absence status from period t-1 to t). Models 1 and 3 use probit regression with the main independent variable of interest of *HIGH_INT_GOV_t* coded 1 for firm-years where the number of IG mechanisms is at or above the median of 13 for all firm-years, 0 otherwise. Models 2 and 4 use OLS with the main independent variable of interest of *ΔNUM_MECH_t* which is the change in the number of IG mechanisms from period t-1 to t. All models include each of the external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). Tests on the main IG variables in Models 1 and 3 are one-tailed and all other tests are two-tailed where *** p < 0.01, ** p < 0.05, and * p < 0.1.

Table 2.7 The Relationship between Nonprofit IG and Internal Control Deficiencies

	<i>DV: DEFICIENCY_t</i>		<i>DV: ΔDEFICIENCY</i>					
	Model 1		Model 2		Model 3		Model 4	
	<i>HIGH_INT_GOV_{t-1}</i>		<i>ΔNUM_GOV_MECH_t</i>		<i>INC_NUM_MECH_t</i>		<i>DEC_NUM_MECH_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>INTERNAL GOVERNANCE MEASURE</i>	-0.056 **	0.043	0.000	0.991	0.018 *	0.070	-0.006	0.624
<i>COMPLEXITY_t (ΔCOMPLEXITY)</i>	0.056 ***	0.004	-0.001	0.926	-0.002	0.805	-0.001	0.916
<i>GOINGCONCERNRISK_t (ΔGOINGCONCERNRISK)</i>	0.291 **	0.035	0.030	0.649	0.029	0.650	0.029	0.653
<i>SURPLUS_SC (ΔSURPLUS_SC)</i>	-0.129 *	0.100	-0.015	0.370	-0.015	0.384	-0.015	0.372
<i>LOG_SIZE_t (%ΔLOG_SIZE)</i>	-0.015	0.177	0.332	0.418	0.330	0.421	0.336	0.412
<i>GROWTH_t</i>	-0.009	0.741						
<i>RISK_t (ΔRISK)</i>	0.469 ***	0.000	-0.001	0.928	-0.001	0.932	-0.001	0.929
<i>NEWGRANTEE_t</i>	0.372 ***	0.000	omitted		omitted		omitted	
<i>BIG4_t</i>	0.181 ***	0.000	0.018 **	0.045	0.018 **	0.044	0.018 **	0.044
<i>REGIONAL_t</i>	0.293 ***	0.000	0.056 ***	0.000	0.056 ***	0.000	0.056 ***	0.000
<i>DEFICIENCY_{t-1}</i>	1.085 ***	0.000	-0.557 ***	0.000	-0.558 ***	0.000	-0.557 ***	0.000
<i>INTERCEPT</i>	-0.970 ***	0.000	0.188 ***	0.000	0.182 ***	0.000	0.189 ***	0.000
<i>EXTERNAL OVERSIGHT CONTROLS ((Δs)</i>	Included		Included		Included		Included	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	14,140		13,172		13,172		13,172	
Wald (Likelihood Ratio) Chi ²	2394.22							
Pseudo R ²	0.187							
Adjusted R ²			0.242		0.242		0.242	

This table presents results for the analysis of the association between internal governance (IG) and internal control deficiencies. Model 1 uses *DEFICIENCY_t* as the dependent variable coded 1 if an internal control deficiency is present, 0 otherwise. Models 2 - 4 use *ΔDEFICIENCY_t* as the dependent variable measured as the change in the presence (1) / absence (0) of an internal control deficiency over the period t-1 to t. Model 1 represents a probit regression and *HIGH_INT_GOV_{t-1}* as the main independent variable of interest where *HIGH_INT_GOV_{t-1}* is coded 1 for firm-years where the period t-1 number of IG mechanisms is either at or above the median of 13, 0 otherwise. Models 2 - 4 present OLS regressions. Model 2 uses the *ΔNUM_MECH_t* as the main independent variable of interest measured as the change in the number of governance mechanisms from period t-1 to t. Models 3 and 4 use *INC_NUM_MECH_t* and *DEC_NUM_MECH_t*, respectively, where *INC_NUM_MECH_t* (*DEC_NUM_MECH_t*) is an indicator variable coded 1 if the number of governance mechanisms increases (decreases) from period t-1 to t, 0 otherwise. All models include each of the applicable external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). The test on *HIGH_INT_GOV_{t-1}* (Model 1) is one-tailed while all other tests are two-tailed where *** p < 0.01, **p < 0.05, and * p < 0.1.

Table 2.8 Relationship between Nonprofit IG and the Program Ratio

	<i>DV: PROGRAM_RATIO_t</i>				<i>DV: ΔPROGRAM_RATIO</i>			
	Model 1		Model 2		Model 3		Model 4	
	<i>HIGH_INT_GOV_{t-1}</i>		<i>ΔNUM_GOV_MECH_t</i>		<i>INC_NUM_MECH_t</i>		<i>DEC_NUM_MECH_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>INTERNAL GOVERNANCE MEASURE</i>	0.001	0.260	-0.001 *	0.056	-0.002 *	0.079	0.001	0.321
<i>LOG_SIZE_t (%ΔLOG_SIZE)</i>	0.000	0.720	0.014	0.759	0.014	0.762	0.014	0.762
<i>CHARITABLE_t (ΔCHARITABLE)</i>	-0.005 ***	0.000	-0.002	0.481	-0.002	0.477	-0.002	0.482
<i>LOG_AGE_t</i>	0.001	0.204	0.000	0.623	0.000	0.617	0.000	0.610
<i>ZERO_FUNDRAISING_t (ΔZERO_FUNDRAISING)</i>	0.006 ***	0.000	0.013 ***	0.000	0.013 ***	0.000	0.013 ***	0.000
<i>PROGRAM_RATIO_{t-1}</i>	0.858 ***	0.000	-0.121 ***	0.000	-0.121 ***	0.000	-0.121 ***	0.000
<i>INTERCEPT</i>	0.109 ***	0.000	0.097 ***	0.000	0.097 ***	0.000	0.096 ***	0.000
<i>EXTERNAL OVERSIGHT CONTROLS (Δs)</i>	Included		Included		Included		Included	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	57,724		41,344		41,344		41,344	
Adjusted R ²	0.702		0.055		0.055		0.055	

This table presents the results of the analysis of the association between internal governance (IG) and the program ratio. Model 1 uses *PROGRAM_RATIO_t* as the dependent variable measured as the ratio of program service expenses to total expenses. Models 2 - 4 use *ΔPROGRAM_RATIO_t* as the dependent variable measured as the change in the program ratio over the period t-1 to t. Model 1 presents a probit regression and *HIGH_INT_GOV_{t-1}* is the main independent variable of interest where *HIGH_INT_GOV_{t-1}* is coded 1 for firm-years where the period t-1 number of IG mechanisms is either at or above the median of 13, 0 otherwise. Models 2 - 4 use OLS regression. Model 2 uses the *ΔNUM_MECH_t* as the main independent variable of interest measured as the change in the number of governance mechanisms from period t-1 to t. Models 3 and 4 use *INC_NUM_MECH_t* and *DEC_NUM_MECH_t*, respectively, where *INC_NUM_MECH_t* (*DEC_NUM_MECH_t*) is an indicator variable coded 1 if the number of governance mechanisms increases (decreases) from period t-1 to t, 0 otherwise. All models include each of the applicable external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). All tests are two-tailed where *** p < 0.01, **p < 0.05, and * p < 0.1.

Table 2.9 Relationship between Nonprofit IG and the Administrative Ratio

	<i>DV: ADMIN_RATIO_t</i>			<i>DV: ΔADMIN_RATIO</i>					
	Model 1		Model 2		Model 3		Model 4		
	<i>HIGH_INT_GOV_{t-1}</i>			<i>ΔNUM_GOV_MECH_t</i>		<i>INC_NUM_MECH_t</i>		<i>DEC_NUM_MECH_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value	
<i>INTERNAL GOVERNANCE MEASURE</i>	0.003 ***	0.000	0.000	0.279	-0.002	0.131	-0.001	0.699	
<i>LOG_SIZE_t (%ΔLOG_SIZE)</i>	0.002 ***	0.000	-0.038	0.255	-0.036	0.273	-0.036	0.277	
<i>LOG_TOTAL_REVENUE_t (ΔLOG_TOTAL_REVENUE)</i>	-0.004 ***	0.000	0.000	0.296	0.000	0.295	0.000	0.295	
<i>LOG_AGE_t</i>	0.003 ***	0.000	0.002 ***	0.013	0.002 ***	0.012	0.002 ***	0.012	
<i>ADMIN_RATIO_{t-1}</i>	0.763 ***	0.000	-0.320 ***	0.000	-0.320 ***	0.000	-0.320 ***	0.000	
<i>INTERCEPT</i>	0.050 ***	0.000	0.024 **	0.018	0.024 **	0.019	0.023 **	0.023	
<i>EXTERNAL OVERSIGHT CONTROLS (Δs)</i>	Included		Included		Included		Included		
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included		
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included		
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included		
N	58,564		41,326		41,326		41,326		
Adjusted R ²	0.626		0.199		0.199		0.199		

This table presents the results of the analysis of the association between internal governance (IG) and the administrative ratio. Model 1 uses *ADMIN_RATIO_t* as the dependent variable measured as the ratio of administrative expenses to total expenses. Models 2 - 4 use *ΔADMIN_RATIO_t* as the dependent variable measured as the change in the administrative ratio over the period t-1 to t. Model 1 presents an OLS regression and *HIGH_INT_GOV_{t-1}* is the main independent variable of interest where *HIGH_INT_GOV_{t-1}* is coded 1 for firm-years where the period t-1 number of IG mechanisms is either at or above the median of 13, 0 otherwise. Models 2 - 4 also present OLS regressions. Model 2 uses *ΔNUM_MECH_t* as the main independent variable of interest measured as the change in the number of governance mechanisms from period t-1 to t. Models 3 and 4 use *INC_NUM_MECH_t* and *DEC_NUM_MECH_t*, respectively, where *INC_NUM_MECH_t* (*DEC_NUM_MECH_t*) is an indicator variable coded 1 if the number of governance mechanisms increases (decreases) from period t-1 to t, 0 otherwise. All models include each of the external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). All tests are two-tailed where *** p < 0.01, **p < 0.05, and * p < 0.1.

Table 2.10 Relationship between Nonprofit IG and the Fundraising Ratio

	<i>DV: FUNDRAISING_RATIO_t</i>			<i>DV: ΔFUNDRAISING_RATIO</i>					
	Model 1		Model 2		Model 3		Model 4		
	<i>HIGH_INT_GOV_{t-1}</i>			<i>ΔNUM_GOV_MECH_t</i>		<i>INC_NUM_MECH_t</i>		<i>DEC_NUM_MECH_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value	
<i>INTERNAL GOVERNANCE MEASURE</i>	0.001 ***	0.007	0.000	0.230	0.001 **	0.044	0.001	0.355	
<i>LOG_SIZE_t (%ΔLOG_SIZE)</i>	0.000 ***	0.005	-0.045 **	0.021	-0.045 **	0.019	-0.045 *	0.018	
<i>LOG_TOTAL_REVENUE_t (ΔLOG_TOTAL_REVENUE)</i>	-0.001 ***	0.000	0.000 **	0.021	0.000 **	0.021	0.000 **	0.021	
<i>LOG_AGE_t</i>	0.000 ***	0.012	0.001 **	0.019	0.001 **	0.019	0.001 **	0.020	
<i>FUNDRAISING_RATIO_{t-1}</i>	0.806 ***	0.000	-0.231 ***	0.000	-0.231 ***	0.000	-0.231 ***	0.000	
<i>INTERCEPT</i>	0.014 ***	0.000	0.004 *	0.083	0.004 *	0.087	0.004 *	0.059	
<i>EXTERNAL OVERSIGHT CONTROLS (Δs)</i>	Included		Included		Included		Included		
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included		
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included		
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included		
N	58,564		41,326		41,326		41,326		
Adjusted R ²	0.722		0.129		0.129		0.129		

This table presents the results of the association between internal governance (IG) and the fundraising ratio. Model 1 uses *FUNDRAISING_RATIO_t* as the dependent variable measured as the ratio of fundraising expenses to total expenses. Models 2 - 4 use *ΔFUNDRAISING_RATIO_t* as the dependent variable measured as the change in the fundraising ratio over the period t-1 to t. Model 1 presents an OLS regression and *HIGH_INT_GOV_{t-1}* is the main independent variable of interest where *HIGH_INT_GOV_{t-1}* is coded 1 for firm-years where the period t-1 number of IG mechanisms is either at or above the median of 13, 0 otherwise. Models 2 - 4 also present OLS regressions. Model 2 uses *ΔNUM_MECH_t* as the main independent variable of interest measured as the change in the number of governance mechanisms from period t-1 to t. Models 3 and 4 use *INC_NUM_MECH_t* and *DEC_NUM_MECH_t*, respectively, where *INC_NUM_MECH_t* (*DEC_NUM_MECH_t*) is an indicator variable coded 1 if the number of governance mechanisms increases (decreases) from period t-1 to t, 0 otherwise. All models include each of the external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). All tests are two-tailed where *** p < 0.01, **p < 0.05, and * p < 0.1.

Table 2.11 Relationship between Nonprofit IG and the Adequacy of Equity Ratio

	Model 1		Model 2		Model 3		Model 4	
	<i>HIGH_INT_GOV_{t-1}</i>		Δ <i>NUM_GOV_MECH_t</i>		<i>INC_NUM_MECH_t</i>		<i>DEC_NUM_MECH_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>INTERNAL GOVERNANCE MEASURE</i>	-7.448 **	0.022	-0.571 *	0.100	-2.440	0.337	0.416	0.902
<i>LOG_SIZE_t</i> (% Δ <i>LOG_SIZE</i>)	3.980 *	0.077	-77.101	0.358	-74.553	0.373	-74.173	0.372
<i>LOG_AGE_t</i>	-1.448	0.299	-1.927	0.015	-1.917 *	0.014	-1.900 **	0.016
<i>SURPLUS_SC_t</i> (Δ <i>SURPLUS_SC</i>)	0.005	0.196	0.007	0.691	0.007	0.713	0.007	0.708
<i>ADEQ_EQUITY_RATIO_{t-1}</i>	0.220	0.199	-0.778 ***	0.000	-0.778 ***	0.000	-0.778 ***	0.000
<i>INTERCEPT</i>	-56.022	0.191	3.859	0.736	3.214	0.764	2.017	0.858
<i>EXTERNAL OVERSIGHT CONTROLS</i>	Included		Included		Included		Included	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	59,364		59,351		59,351		59,351	
Adjusted R ²	0.002		0.024		0.023		0.023	

This table presents results for the analysis of the association between internal governance (IG) and the adequacy of equity ratio. Model 1 uses *ADEQ_EQUITY_RATIO_t* as the dependent variable measured as the ratio of net assets to total revenue. Models 2 - 4 use Δ *ADEQ_EQUITY_RATIO_t* as the dependent variable measured as the change in the adequacy of equity ratio over the period t-1 to t. Model 1 presents a an OLS regression and *HIGH_INT_GOV_{t-1}* is the main independent variable of interest where *HIGH_INT_GOV_{t-1}* is coded 1 for firm-years where the period t-1 number of IG mechanisms is either at or above the median of 13, 0 otherwise. Models 2 - 4 also present OLS regressions. Model 2 uses Δ *NUM_MECH_t* as the main independent variable of interest measured as the change in the number of governance mechanisms from period t-1 to t. Models 3 and 4 use *INC_NUM_MECH_t* and *DEC_NUM_MECH_t*, respectively, where *INC_NUM_MECH_t* (*DEC_NUM_MECH_t*) is an indicator variable coded 1 if the number of governance mechanisms increases (decreases) from period t-1 to t, 0 otherwise. All models include each of the applicable external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). The test on *HIGH_INT_GOV_{t-1}* (Model 1) is one-tailed while all other tests are two-tailed where *** p < 0.01, **p < 0.05, and *p < 0.1.

Table 2.12 Relationship between Nonprofit IG and Revenue Concentration

	Model 1		Model 2		Model 3		Model 4	
	<i>HIGH_INT_GOV_{t-1}</i>		Δ NUM_GOV_MECH _t		<i>INC_NUM_MECH_t</i>		<i>DEC_NUM_MECH_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>INTERNAL GOVERNANCE MEASURE</i>	-0.002 **	0.053	-0.003	0.627	0.000	0.747	-0.001	0.750
<i>LOG_SIZE_t</i> (% Δ LOG_SIZE)	0.000	0.565	0.016	0.302	0.016	0.305	0.016	0.305
<i>LOG_AGE_t</i>	0.000	0.542	-0.004 ***	0.000	-0.004 ***	0.000	-0.004 ***	0.000
<i>REV_CONCEN_{t-1}</i>	0.826 ***	0.000	-0.142 ***	0.000	-0.142 ***	0.000	-0.142 ***	0.000
<i>INTERCEPT</i>	0.123 ***	0.000	0.089 ***	0.000	0.089 ***	0.000	0.089 ***	0.000
<i>EXTERNAL OVERSIGHT CONTROLS (Δs)</i>	Included		Included		Included		Included	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	47,573		47,549		47,549		47,549	
Adjusted R ²	0.772		0.088		0.088		0.088	

This table presents the results of the analysis of the association between internal governance (IG) and revenue concentration. Model 1 uses *REV_CONCEN_t* as the dependent variable measured as the sum of the squared ratio of each revenue source to total revenue where revenue sources include: (1) federated campaigns, (2) membership dues, (3) fundraising events, (4) related organizations revenue, (5) government grants, (6) all other contributions, and (7) program service revenue. Models 2 - 4 use Δ *REV_CONCEN_t* as the dependent variable measured as the change in revenue concentration over the period t-1 to t. Model 1 presents an OLS regression and *HIGH_INT_GOV_{t-1}* is the main independent variable of interest where *HIGH_INT_GOV_{t-1}* is coded 1 for firm-years where the period t-1 number of IG mechanisms is either at or above the median of 13, 0 otherwise. Models 2 - 4 also present OLS regressions. Model 2 uses Δ NUM_MECH_t as the main independent variable of interest measured as the change in the number of governance mechanisms from period t-1 to t. Models 3 and 4 use *INC_NUM_MECH_t* and *DEC_NUM_MECH_t*, respectively, where *INC_NUM_MECH_t* (*DEC_NUM_MECH_t*) is an indicator variable coded 1 if the number of governance mechanisms increases (decreases) from period t-1 to t, 0 otherwise. All models include each of the external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). The test on *HIGH_INT_GOV_{t-1}* (Model 1) is one-tailed while all other tests are two-tailed where *** p < 0.01, **p < 0.05, and * p < 0.1.

Table 2.13 Relationship between Nonprofit IG and Coefficient of Variation of Total Revenue and the Program Ratio

	<u>DV: CV_TOTAL_REVENUE</u>		<u>DV: CV_PROGRAM_RATIO</u>	
	Model 1		Model 2	
	coef	p-value	coef	p-value
<i>AVG_INT_GOV</i>	0.004	0.115	-0.003 ***	0.000
<i>AVG_EXT_GOV</i>	-0.061 ***	0.000	-0.008 ***	0.000
<i>AVG_SIZE</i>	0.000	0.283	0.000	0.440
<i>CHARITABLE_t</i>	0.154 ***	0.008	0.033 ***	0.000
<i>LOG_AGE_t</i>	-0.108 ***	0.003	-0.011 ***	0.000
<i>CV_TOTAL_REVENUE</i>			0.001 *	0.088
<i>INTERCEPT</i>	0.718	0.195	0.130 ***	0.000
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included	
N	9,745		9,693	
Adjusted R ²	0.010		0.040	

This table presents the results of the analysis of the association between internal governance (IG) and the coefficient of variation of total revenue (Model 1) and program ratio (Model 2) for 2012. Each CV is measured as the variables' standard deviation divided by its mean over the prior 4 years (2009 - 2012). Both models use OLS regression and *AVG_INT_GOV* as the independent variable of interest measured as the average number of IG mechanisms over the same 4 year period. Both models include each of the external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors. The tests on *AVG_INT_GOV* are one-tailed while all other tests are two-tailed where *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$

Table 2.14 Relationship between Nonprofit IG and the Cost of Debt

	<i>HIGH_INT_GOV_{t-1}</i>		Δ <i>NUM_GOV_MECH_t</i>		<i>INC_NUM_MECH_t</i>		<i>DEC_NUM_MECH_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>INTERNAL GOVERNANCE MEASURE</i>	-0.001 **	0.045	-0.001 ***	0.000	-0.001 ***	0.014	0.000	0.672
<i>LOG_SIZE_t</i> (% Δ <i>LOG_SIZE</i>)	-0.001 ***	0.000	-0.185 ***	0.001	-0.180 ***	0.001	-0.180 ***	0.001
<i>LOG_AGE_t</i>	-0.001 ***	0.001	-0.001 **	0.015	-0.001 **	0.023	-0.001 **	0.025
<i>LOW_OPER_RESERVE_t</i> (Δ <i>LOW_OPER_RESERVE</i>)	0.001 *	0.102	-0.006 ***	0.000	-0.008 ***	0.000	-0.008 ***	0.000
<i>COST_DEBT_{t-1}</i>	0.024 ***	0.000	-0.960 ***	0.000	-0.963 ***	0.000	-0.963 ***	0.000
<i>INTERCEPT</i>	0.025 ***	0.000	0.019 ***	0.000	0.016 ***	0.000	0.015 ***	0.000
<i>EXTERNAL OVERSIGHT CONTROLS</i> (Δ s)	Included		Included		Included		Included	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	56,556		56,549		56,549		56,549	
Adjusted R ²	0.039		0.981		0.981		0.981	

This table presents results for the analysis of the association between internal governance (IG) and the cost of debt. Model 1 uses *COST_DEBT_t* as the dependent variable measured as interest expense divided by total liabilities winsorized at 1% and 99%. Models 2 - 4 use Δ *COST_DEBT_t* as the dependent variable measured as the change in the cost of debt (winsorized at 1% and 99%) over the period t-1 to t. Model 1 represents an OLS regression and *HIGH_INT_GOV_{t-1}* is the main independent variable of interest where *HIGH_INT_GOV_{t-1}* is coded 1 for firm-years where the period t-1 number of IG mechanisms is either at or above the median of 13, 0 otherwise. Models 2 - 4 also present OLS regressions. Model 2 uses Δ *NUM_MECH_t* as the main independent variable of interest measured as the change in the number of governance mechanisms from period t-1 to t. Models 3 and 4 use *INC_NUM_MECH_t* and *DEC_NUM_MECH_t*, respectively, where *INC_NUM_MECH_t* (*DEC_NUM_MECH_t*) is an indicator variable coded 1 if the number of governance mechanisms increases (decreases) from period t-1 to t, 0 otherwise. All models include each of the external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). The test on *HIGH_INT_GOV_{t-1}* (Model 1) is one-tailed while all other tests are two-tailed where *** p < 0.01, ** p < 0.05, and * p < 0.1.

Table 2.15 Relationship between Nonprofit IG and External Credit Ratings

	<i>DV: INVESTMENT_t</i>		<i>DV: RATING_t</i>		<i>DV: ΔRATING</i>					
	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>HIGH_INT_GOV_{t-1}</i>		<i>HIGH_INT_GOV_{t-1}</i>		<i>ΔNUM_GOV_MECH_t</i>		<i>INC_NUM_MECH_t</i>		<i>DEC_NUM_MECH_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>INTERNAL GOVERNANCE MEASURE</i>	0.354 ***	0.005	0.161	0.150	0.005	0.549	-0.087 ***	0.007	-0.019	0.687
<i>LOG_SIZE_t (%ΔLOG_SIZE)</i>	0.846 ***	0.000	1.561 ***	0.000	4.611 ***	0.002	4.447 ***	0.003	4.546 ***	0.002
<i>LOG_AGE_t</i>	-0.147	0.340	-0.083	0.593	0.004	0.889	0.001	0.975	0.003	0.912
<i>COMPLEXITY_t (ΔCOMPLEXITY)</i>	-0.192 *	0.060	-0.206 **	0.032	0.045	0.132	0.059 **	0.037	0.530 *	0.064
<i>REV_GROWTH_t</i>	0.042	0.752	0.073	0.398	-0.023	0.214	-0.025	0.184	-0.022	0.226
<i>SURPLUS_SC_t (ΔSURPLUS_SC)</i>	-0.296	0.752	-2.670 *	0.059	-0.109	0.641	-0.121	0.593	-0.129	0.569
<i>LEVERAGE_t (ΔLEVERAGE)</i>	-0.115	0.724	-0.793	0.221	-0.154	0.105	-0.151 *	0.096	-0.151 *	0.102
<i>LOW_OPER_RESERVE_t (ΔLOW_OPER_RESERVE)</i>	-0.605 **	0.012	-1.393 ***	0.000	-0.086 **	0.031	-0.078 **	0.049	-0.082 **	0.039
<i>INTERCEPT</i>	-9.097 ***	0.000	N/A		-0.098	0.754	0.032	0.920	-0.065	0.834
<i>EXTERNAL OVERSIGHT CONTROLS (Δs)</i>	Included		Included		Included		Included		Included	
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included		Included	
N	1,645		2,034		1,194		1,194		1,194	
Wald (Likelihood Ratio) Chi ²	882.92 ***									
Pseudo R ²	0.354		0.270							
Adjusted R ²					0.084		0.088		0.084	

This table presents the results of the analysis of the association between internal governance (IG) and external credit ratings. Model 1 uses *INVESTMENT_t* as the dependent variable which is an indicator variable coded 1 if the nonprofit receives an investment-grade credit rating (See Appendix D), 0 otherwise. The analysis for Model 1 is carried out using a probit regression. Model 2 uses *RATING_t* as the dependent variable which is the actual credit rating for the nonprofit for the year translated into a numerical score where a higher number represents a better credit rating (See Appendix D). The analysis for Model 2 is carried out using an ordered logistic regression. The main independent variable of interest for both Models 1 and 2 is *HIGH_INT_GOV_{t-1}* which is an indicator variable coded 1 for firm-years where the period t-1 number of IG mechanisms is either at or above the median of 13, 0 otherwise. Models 3 - 5 present OLS regressions with the *ΔRATING_t* (the change in the credit rating from period t-1 to t) as the dependent variable. Model 3 uses *ΔNUM_MECH_t* as the main independent variable of interest measured as the change in the number of governance mechanisms from period t-1 to t. Models 4 and 5 use *INC_NUM_MECH_t* and *DEC_NUM_MECH_t*, respectively, where *INC_NUM_MECH_t* (*DEC_NUM_MECH_t*) is an indicator variable coded 1 if the program ratio increases (decreases) from period t-1 to t, 0 otherwise. All models include each of the external oversight indicators from the determinants model. Variables are more thoroughly described in Appendix B. All models are calculated using robust standard errors clustered by nonprofit (ein). The tests on *HIGH_INT_GOV_{t-1}* (Models 1 and 2) are one-tailed while all other tests are two-tailed where *** p < 0.01, ** p < 0.05, and * p < 0.1.

Table 3.1 Descriptive Statistics – Sample Composition: Study III

Panel A: Sample Selection	
Firm-Year observations	
All SOI 2008 - 2013 FYE observations	80,711
Less: Observations with 2008 FYE but on 2007 Tax form	(6,823)
Less: Observations with no Schedule J match	<u>(11,868)</u>
	62,020
Less: Observations from outside U.S.	(667)
Less: Observations with missing age	(162)
Less: Observations reporting negative total expenses	(16)
Less: Observations reporting negative total revenue	(695)
Less: Observations reporting \$0 total CEO compensation	(14,834)
Less: Observations with reporting negative CEO deferred compensation	(18)
Less: Observations with undefined Pay5_Slice (total and deferred comp equal for top 5 execs)	<u>(4)</u>
Base Sample	<u>45,624</u>
Unique Nonprofits	
With CEO Inside Debt	7,961
With Top5 Inside Debt	8,352

Panel B: Base Sample by Industry and Year					
	Number Percentage			Number Percentage	
Arts	2,142	4.69%	2008	2,741	6.01%
Education	10,225	22.41%	2009	8,695	19.06%
Health	19,580	42.92%	2010	9,378	20.55%
Human Services	8,195	17.96%	2011	9,053	19.84%
Public Benefit	3,436	7.53%	2012	9,396	20.59%
Other	2,046	4.48%	2013	6,361	13.94%
	<u>45,624</u>	<u>100.00%</u>		<u>45,624</u>	<u>100.00%</u>

This table provides details regarding the sample selection process (Panel A) and the composition of the base sample by industry and year (Panel B). For industry and year composition, raw numbers are reported followed by percentages with respect to the full base sample.

Table 3.2 Descriptive Statistics – Means and Medians of Variables: Study III

Panel A: Continuous Variables												
Variable	Full Sample (n = 45,624)				CEO_INSIDE_DEBT = 1 (n = 34,550)				CEO_INSIDE_DEBT = 0 (n = 11,074)			
	n	Mean	Median	Std Dev	n	Mean	Median	Std Dev	n	Mean	Median	Std Dev
AGE	45,624	54.708	41.000	56.015	34,550	56.307	42.000	55.388	11,074	49.719 ***	37.000	57.643
BOARD_SIZE	45,624	19.886	16.000	23.004	34,550	20.155	16.000	18.685	11,074	19.048 ***	15.000	33.017
CEO_BONUS_COMP	45,624	97,321	0	308,523	34,550	120,694	500	344,022	11,074	24,399 ***	0	126,076
CEO_DEF_COMP	45,624	67,731	15,613	203,915	34,550	89,441	23,936	230,147	11,074	0 ***	0	0
CEO_DEF_EARNED	45,624	80,564	0	365,676	34,550	86,081	0	386,641	11,074	63,353 ***	0	290,049
CEO_TOTAL_COMP	45,624	691,134	389,010	930,541	34,550	787,147	453,170	1,005,554	11,074	391,579 ***	253,233	542,526
COMPLEXITY	45,624	3.074	3.000	0.873	34,550	3.073	3.000	0.882	11,074	3.076	3.000	0.844
CONTR_GRANTS_TOTREV	45,605	0.306	0.066	6.716	34,547	0.299	0.052	7.713	11,073	0.329	0.125	0.448
CURRENT_RATIO	45,064	167.020	1.339	25,276.780	34,162	205.249	1.283	29,012.040	10,902	47.226	1.556	1,866.763
FUNDRAIS_EXP_CONTRIB	40,620	0.516	0.029	19.416	34,547	0.517	0.032	19.011	9,970	0.512	0.021	20.610
GOVT_GRNTS	45,624	6,193,068	0	56,977,147	34,550	6,750,290	0	62,859,145	11,074	4,454,579 ***	0	32,301,736
GROWTH	45,624	2.778	0.034	349.224	34,550	3.44	0.04	400.40	11,074	0.71	0.02	47.71
LEVERAGE	45,592	0.208	0.123	0.272	34,522	0.200	0.120	0.256	11,070	0.233 ***	0.132	0.317
LEVERAGE1	45,624	0.449	0.363	0.552	34,550	0.444	0.364	0.537	11,074	0.465 ***	0.361	0.598
NUM_MECH2	45,624	12.736	13.000	1.601	34,550	12.838	13.000	1.447	11,074	12.419 ***	13.000	1.973
PAYS_SLICE	45,624	0.519	0.399	0.279	34,550	0.484	0.375	0.259	11,074	0.630 ***	0.551	0.308
PER_IND_BRD	45,624	0.851	0.944	0.408	34,550	0.843	0.933	0.446	11,074	0.875 ***	1.000	0.249
PROGRAM_RATIO_EXCL_COMP	45,561	0.837	0.863	0.137	34,498	0.840	0.865	0.136	11,063	0.828 ***	0.855	0.141
REV_GROWTH	45,624	102.732	0.036	21030.650	34,550	132.779	0.039	24162.560	11,074	8.988	0.027	832.156
ROA	45,624	0.014	0.017	0.315	34,550	0.017	0.019	0.313	11,074	0.005 ***	0.012	0.323
SC_CEO_BONUS_COMP	45,624	0.077	0.000	0.126	34,550	0.089	0.001	0.131	11,074	0.039 ***	0.000	0.101
SC_CEO_DEF_COMP	45,624	0.070	0.040	0.095	34,550	0.092	0.060	0.100	11,074	0.000 ***	0.000	0.000
SIZE	45,624	238,808,292	68,730,466	1,034,642,791	34,550	282,255,187	79,446,405	1,168,680,935	11,074	103,257,431 ***	41,641,712	353,349,702
STATE_RATE	45,624	5.711	5.930	3.130	34,550	5.753	5.930	3.092	11,074	5.582 ***	5.900	3.244
SURPLUS	45,624	5,721,723	808,737	43,103,419	34,550	7,058,091	1,072,688	46,615,200	11,074	1,552,361 ***	297,404	29,189,976
TOTAL_REVENUE	45,624	123,353,874	29,451,812	528,936,782	34,550	145,762,251	36,462,654	599,946,132	11,074	53,441,520 ***	17,171,084	152,421,758
TRUSSEL_MANIP	38,501	0.180	0.177	0.080	29,420	0.178	0.176	0.078	9,081	0.184 ***	0.178	0.087

Table 3.2 Continued

Panel B: Dichotomous Variables												
Variable	Full Sample (n = 45,624)				CEO_INSIDE_DEBT = 1 (n = 34,550)				CEO_INSIDE_DEBT = 0 (n = 11,074)			
	n	Mean	Median	Std Dev	n	Mean	Median	Std Dev	n	Mean	Median	Std Dev
AUD_COMMITTEE	45,624	0.890	1.000	0.313	34,550	0.900	1.000	0.300	11,074	0.858 ***	1.000	0.349
BIG4	12,509	0.187	0.000	0.390	9,574	0.213	0.000	0.410	2,935	0.103 ***	0.000	0.303
BONDS	45,624	0.397	0.000	0.489	34,550	0.425	0.000	0.494	11,074	0.445 ***	0.000	0.497
CEO_BONUS	45,624	0.443	0.000	0.497	34,550	0.508	1.000	0.500	11,074	0.242 ***	0.000	0.428
CHARITABLE	45,624	0.420	0.000	0.494	34,550	0.398	0.000	0.490	11,074	0.489 ***	0.000	0.500
COMPILE_REVIEW	45,624	0.024	0.000	0.153	34,550	0.017	0.000	0.129	11,074	0.046 ***	0.000	0.209
CONTRIB_LOSS	45,624	0.436	0.000	0.496	34,550	0.434	0.000	0.496	11,074	0.445 **	0.000	0.497
DEFICIENCY	45,624	0.077	0.000	0.266	34,550	0.077	0.000	0.267	11,074	0.074	0.000	0.261
FIN_TRANS_OWN_WEBSITE	45,624	0.122	0.000	0.327	34,550	0.123	0.000	0.329	11,074	0.118	0.000	0.322
GOINGCONCERNRISK	12,509	0.009	0.000	0.096	9,574	0.007	0.000	0.081	2,935	0.018 ***	0.000	0.132
GRANTS_SIG	45,624	0.085	0.000	0.279	34,550	0.071	0.000	0.258	11,074	0.127 ***	0.000	0.332
LOSS2	45,624	0.191	0.000	0.393	34,550	0.180	0.000	0.384	11,074	0.228 ***	0.000	0.420
LOW_OPER_RESERVE	45,624	0.657	1.000	0.475	34,550	0.644	1.000	0.479	11,074	0.699 ***	1.000	0.459
MW_FS	12,509	0.064	0.000	0.244	9,574	0.056	0.000	0.230	2,935	0.088 ***	0.000	0.283
MW_GOV	12,509	0.043	0.000	0.203	9,574	0.043	0.000	0.202	2,935	0.045	0.000	0.207
NEWGRANTEE	12,509	0.030	0.000	0.172	9,574	0.028	0.000	0.165	2,935	0.038 ***	0.000	0.192
OFFICER_SALARY_PLCY	45,624	0.773	1.000	0.419	34,550	0.788	1.000	0.408	11,074	0.723 ***	1.000	0.448
POS_UNREST_CASH	45,624	0.602	1.000	0.489	34,550	0.598	1.000	0.490	11,074	0.616 ***	1.000	0.486
PSR_LOSS	45,624	0.244	0.000	0.430	34,550	0.235	0.000	0.424	11,074	0.275 ***	0.000	0.446
PSR_SIG	45,624	0.733	1.000	0.442	34,550	0.745	1.000	0.436	11,074	0.697 ***	1.000	0.460
RC_FS	12,509	0.147	0.000	0.354	9,574	0.139	0.000	0.346	2,935	0.175 ***	0.000	0.380
RC_GOV	12,509	0.163	0.000	0.369	9,574	0.169	0.000	0.375	2,935	0.142 ***	0.000	0.349
REGIONAL	12,509	0.246	0.000	0.431	9,574	0.269	0.000	0.444	2,935	0.171 ***	0.000	0.377
RISK	12,509	0.300	0.000	0.458	9,574	0.287	0.000	0.452	2,935	0.345 ***	0.000	0.476
VULNERABILITY	45,624	0.150	0.000	0.357	34,550	0.140	0.000	0.347	11,074	0.181 ***	0.000	0.385
WR_CONFLICT_PLCY	45,624	0.971	1.000	0.169	34,550	0.979	1.000	0.143	11,074	0.944 ***	1.000	0.230
ZERO_FUNDRAISING	45,624	0.467	0.000	0.499	34,550	0.467	0.000	0.499	11,074	0.467	0.000	0.499

Table 3.2 Continued

This table reports descriptive statistics (means and medians). Panel A reports descriptive statistics for the study's continuous variables. Columns 1-4 refer to the full sample while columns 5-8 and 9-12 refer to sample subsets where *CEO_INSIDE_DEBT* = 1 and *CEO_INSIDE_DEBT* = 0, respectively. Panel B reports descriptive statistics for the study's dichotomous variables. Columns 1-4 refer to the full sample while columns 5-8 and 9-12 refer to sample subsets where *CEO_INSIDE_DEBT* = 1 and *CEO_INSIDE_DEBT* = 0, respectively. All variables are defined in Appendix C. A t-test for equal variable means between the *CEO_INSIDE_DEBT* = 1 and *CEO_INSIDE_DEBT* = 0 subsets are reported in column 10 of both panels where significant results (i.e., statistically unequal means) are reported as *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.

Table 3.3 Descriptive Statistics – Compensation by CEO Group

Prior Period Deferred Compensation by Group						
	N	Mean	Median	Std Dev	Lower Quartile	Upper Quartile
<i>CEO_NO_INSIDE_DEBT_{t-1}</i>	9,643	0	0	0	0	0
<i>CEO_DEF_BOTTOM_{t-1}</i>	10,410	16,226	10,751	24,321	6,589	18,517
<i>CEO_DEF_MID_{t-1}</i>	10,410	34,405	23,078	46,202	15,959	34,699
<i>CEO_DEF_TOP_{t-1}</i>	10,410	208,092	97,120	346,292	46,794	223,961
	<u>40,873</u>					
Prior Period Bonus Compensation by Group						
	N	Mean	Median	Std Dev	Lower Quartile	Upper Quartile
<i>CEO_NO_INSIDE_DEBT_{t-1}</i>	9,643	22,366	0	128,425	0	0
<i>CEO_DEF_BOTTOM_{t-1}</i>	10,410	124,300	0	386,238	0	103,652
<i>CEO_DEF_MID_{t-1}</i>	10,410	46,838	0	172,029	0	25,000
<i>CEO_DEF_TOP_{t-1}</i>	10,410	109,256	0	277,939	0	107,520
	<u>40,873</u>					
Prior Period Total Compensation by Group						
	N	Mean	Median	Std Dev	Lower Quartile	Upper Quartile
<i>CEO_NO_INSIDE_DEBT_{t-1}</i>	9,643	355,506	237,084	611,414	170,200	371,485
<i>CEO_DEF_BOTTOM_{t-1}</i>	10,410	822,505	480,773	1,112,462	270,996	903,743
<i>CEO_DEF_MID_{t-1}</i>	10,410	477,817	329,685	577,247	234,199	485,658
<i>CEO_DEF_TOP_{t-1}</i>	10,410	845,237	539,926	899,106	304,802	1,035,737
	<u>40,873</u>					
Prior Period Scaled Deferred Compensation by Group						
	N	Mean	Median	Std Dev	Lower Quartile	Upper Quartile
<i>CEO_NO_INSIDE_DEBT_{t-1}</i>	9,643	0	0	0	0	0
<i>CEO_DEF_BOTTOM_{t-1}</i>	10,410	0.0243	0.0251	0.0136	0.0138	0.0351
<i>CEO_DEF_MID_{t-1}</i>	10,410	0.0710	0.0694	0.0165	0.0565	0.0849
<i>CEO_DEF_TOP_{t-1}</i>	10,410	0.2089	0.1707	0.1176	0.1303	0.2461
	<u>40,873</u>					

This table provides descriptive statistics for the scaled CEO deferred compensation groups. The groups are created based upon lagged scaled CEO deferred compensation where observations with no CEO inside debt are placed into a separate category and all other observations are grouped into bottom, mid, and top groups (terciles). Scaled CEO deferred compensation (inside debt) is defined as CEO deferred compensation divided by CEO total compensation.

Table 3.4 Determinants of Nonprofit CEO Inside Debt

	<i>DV: SC_CEO_DEF_COMP_t</i>						<i>DV: CEO_INSIDE_DEBT_t</i>	
	Model 1		Model 2		Model 3		Model 4	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>LOG_SIZE_t</i>	0.0025 ***	0.000	0.0003 ***	0.003	0.0002 **	0.025	0.1213 ***	0.000
<i>LOG_AGE_t</i>	-0.0007 **	0.034	-0.0005 ***	0.006	-0.0003	0.147	-0.0403 ***	0.008
<i>POS_UNREST_CASH_t</i>	-0.0029 ***	0.000	0.0004	0.233	0.0003	0.325	-0.0155	0.547
<i>LEVERAGE1_t</i>	-0.0042 ***	0.000	-0.0009 ***	0.005	-0.0009 ***	0.011	-0.0610 **	0.015
<i>GROWTH_t</i>	0.0000	0.726	0.0018 ***	0.000	0.0018 ***	0.000	0.0014	0.959
<i>ROA_t</i>	-0.0003	0.669	-0.0001	0.794	-0.0001	0.872	0.0479 *	0.087
<i>PERC_IND_BRD_t</i>	-0.0052 ***	0.000	-0.0025 ***	0.000	-0.0022 ***	0.000	-0.0113	0.642
<i>AUD_COMMITTEE_t</i>	0.0036 ***	0.000	0.0045 ***	0.000	0.0044 ***	0.000	0.1320 ***	0.000
<i>OFFICER_SALARY_PLCY_t</i>	-0.0003	0.634	-0.0008 **	0.021	-0.0010 **	0.018	0.0324	0.216
<i>LOG_BOARD_SIZE_t</i>	0.0018 ***	0.000	0.0004	0.173	0.0007 **	0.022	0.0598 ***	0.006
<i>COMPILE_REVIEW_t</i>	-0.0093 ***	0.000	-0.0021 **	0.029	-0.0023 **	0.016	-0.4781 ***	0.000
<i>FIN_TRANS_OWN_WEBSITE_t</i>	0.0018 **	0.022	0.0005	0.292	0.0004	0.353	-0.0238	0.497
<i>PAY5_SLICE_t</i>	-0.0176 ***	0.000	-0.0008	0.170	-0.0012	0.047	-0.5512 ***	0.000
<i>STATE_RATE_t</i>	0.0006	0.170	0.0015 ***	0.000	0.0015 ***	0.000	0.0262 **	0.021
<i>SC_CEO_DEF_COMP_{t-1}</i>			0.8915 ***	0.000	0.8904 ***	0.000	4.5440 ***	0.000
<i>CONTR_GRANTS_TOTREV_t</i>					-0.0018 ***	0.000		
<i>CHARITABLE_t</i>					0.0013 ***	0.000		
<i>NUM_MECH2_t</i>					0.0002	0.148		
<i>BONDS_t</i>					0.0002	0.616		

Table 3.4 Continued

	Model 1		Model 2		Model 3		Model 4	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>INTERCEPT</i>	0.0047	0.443	-0.0373 ***	0.000	-0.0383 ***	0.000	-2.2528 ***	0.000
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	45,623		39,722		39,707		39,722	
Adjusted R ²	0.051		0.913		0.913			
Pseudo R ²							0.145	
Wald Chi ²							2195.35 ***	

This table reports results for the analysis of the determinants of nonprofit CEO inside debt. Models 1 - 3 are robust regression models where the dependent variable is $SC_CEO_DEF_COMP_t$, which is measured as CEO deferred compensation divided by CEO total compensation. Model 1 is a base model and includes the variables hypothesized to be related to $SC_CEO_DEF_COMP_t$. Model 2 adds $SC_CEO_DEF_COMP_{t-1}$ to capture other organization-specific factors not included in the base model and to control for endogeneity. Model 3 includes additional nonprofit oriented governance variables. Model 4 is a probit regression where the dependent variable is $CEO_INSIDE_DEBT_t$, which is an indicator variable coded 1 if the nonprofit's CEO has earned deferred compensation in the current period, 0 otherwise. All variables are defined in Appendix C. Models 1-3 are calculated using robust standard errors (an iterative re-weighting approach). Model 4 is estimated using robust standard errors clustered by nonprofit (ein). Results remain generally unchanged if OLS regression or OLS regression with winsorized variables is used. All tests are two-tailed where *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.

Table 3.5 Regression Analysis for the Association between CEO Inside Debt and the Program Ratio

	<i>DV: PROGRAM_RATIO_EXCL_COMP_t</i>							
	Model 1		Model 2		Model 3		Model 4	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>SC_CEO_DEF_TOP_{t-1}</i>	0.0041 ***	0.001	0.0004 *	0.088	0.0004	0.215	0.0007	0.283
<i>SC_CEO_DEF_MID_{t-1}</i>	0.0018 *	0.069	0.0006 **	0.025	0.0007 **	0.042	0.0003	0.604
<i>SC_CEO_DEF_BOTTOM_{t-1}</i>	0.0040 ***	0.001	0.0000	0.442				
<i>SC_CEO_BONUS_COMP_{t-1}</i>	0.0020	0.598	0.0002	0.857	0.0004	0.757	-0.0010	0.631
<i>LOG_SIZE_t</i>	-0.0003	0.492	-0.0003 **	0.015	-0.0003 **	0.036	-0.0001	0.753
<i>LOG_TOTAL_REVENUE_t</i>	0.0082 ***	0.000	0.0004 ***	0.000	0.0004 ***	0.003	0.0000	0.878
<i>CHARITABLE_t</i>	-0.0016	0.122	-0.0005 *	0.085	-0.0008 **	0.023	0.0002	0.738
<i>LOG_AGE_t</i>	-0.0115 ***	0.000	-0.0001	0.591	-0.0001	0.658	0.0000	0.989
<i>ZERO_FUNDRAISING_t</i>	0.0277 ***	0.000	0.0001	0.724	0.0000	0.876	0.0008	0.219
<i>PROGRAM_RATIO_EXCL_COMP_{t-1}</i>			0.9867 ***	0.000	0.9864 ***	0.000	0.9907 ***	0.000
<i>INTERCEPT</i>	0.811 ***	0.000	0.0137 ***	0.000	0.0165 ***	0.000	0.0197 ***	0.009
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	39,688		35,187		21,901		5,053	
Adjusted R ²	0.098		0.978		0.978		0.982	

Table 3.5 Continued

This table reports results for the analysis of the association between scaled nonprofit CEO inside debt by tercile and a nonprofit's program ratio excluding compensation expense. All analyses are carried out using robust regression to control for outliers and heteroscedasticity. The top ($SC_CEO_DEF_TOP_{t-1}$), middle ($SC_CEO_DEF_MID_{t-1}$), and bottom ($SC_CEO_DEF_BOTTOM_{t-1}$) CEO inside debt tercile variables are coded 1 if the nonprofit's lagged (t-1) CEO deferred compensation divided by lagged CEO total compensation is in the top, middle, or bottom tercile of all nonprofits in the sample reporting deferred compensation greater than zero (i.e., $CEO_DEF_COMP_{t-1} > 0$). Otherwise they are coded 0. The comparison group for the terciles is a nonprofit without CEO inside debt. In addition to my main variables of interest, Model 1 also includes a number of control variables expected to impact the program ratio. Those variables are further defined in Appendix C. Model 2 better controls for endogeneity and also other time invariant organization-specific factors not in Model 1 by including the lagged adjusted program ratio ($PROGRAM_RATIO_EXCL_COMP_{t-1}$). Models 3 and 4 are subsets of Model 2. Model 3 presents the analysis for only those nonprofits with $CEO_DEF_COMP_{t-1} > 0$ and that have CEOs accruing more deferred compensation than they are paid over the period extending from t-1 to t ($CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t > CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). In other words, it includes those observations where there is an increasing CEO deferred compensation balance. Model 4 presents the analysis for the opposite, those nonprofits that have CEO inside debt ($CEO_DEF_COMP_{t-1} > 0$) but show a declining deferred compensation balance ($CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t < CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). Because Models 3 and 4 only include observations with CEO inside debt, $SC_CEO_DEF_BOTTOM_{t-1}$ serves as the comparison category and is thus excluded from the models. The main tests (on the scaled CEO deferred compensation terciles for Models 1 and 2) are one-tailed while all other tests are two-tailed where ***p < 0.01, ** p < 0.05, and * p < 0.1.

Table 3.6 Regression Analysis for the Association between CEO Inside Debt and the Probability of Program Ratio Manipulation

	<i>DV: TRUSSEL_MANIP_t</i>							
	Model 1		Model 2		Model 3		Model 4	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>SC_CEO_DEF_TOP_{t-1}</i>	-0.0007 *	0.081	-0.0003	0.201	-0.0005	0.163	0.0012 *	0.080
<i>SC_CEO_DEF_MID_{t-1}</i>	-0.0004	0.221	-0.0001	0.343	-0.0003	0.392	0.0012 *	0.068
<i>SC_CEO_DEF_BOTTOM_{t-1}</i>	-0.0005	0.171	-0.0001	0.347				
<i>SC_CEO_BONUS_COMP_{t-1}</i>	-0.0023	0.126	0.0006	0.513	-0.0007	0.543	0.0023	0.302
<i>LOG_SIZE_t</i>	-0.0016 ***	0.000	-0.0007 ***	0.000	-0.0006 ***	0.000	-0.0003 *	0.091
<i>LOG_AGE_t</i>	0.0007 ***	0.001	0.0002	0.228	0.0000	0.988	0.0003	0.517
<i>CHARITABLE_t</i>	-0.0020 ***	0.000	-0.0013 ***	0.000	-0.0016 ***	0.000	-0.0020 ***	0.003
<i>BOARD_SIZE_t</i>	0.0000 ***	0.000	0.0000 **	0.018	0.0025 ***	0.001	-0.0015	0.366
<i>PERC_IND_BRD_t</i>	0.0001	0.890	-0.0006	0.280	0.0000 **	0.022	0.0000 ***	0.007
<i>AUDIT_COMMITTEE_t</i>	-0.0007	0.225	0.0009 *	0.091	-0.0005	0.442	-0.0023 *	0.100
<i>TRUSSEL_MANIP_{t-1}</i>			0.8303 ***	0.000	0.8442 ***	0.000	0.8276 ***	0.000
<i>INTERCEPT</i>	0.1909 ***	0.000	0.0397 ***	0.000	0.0353 ***	0.000	0.0424	0.000
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	39,688		27,915		17,312		3,999	
Adjusted R ²	0.098		0.935		0.937		0.939	

Table 3.6 Continued

This table reports results for the analysis of the association between scaled nonprofit CEO inside debt by tercile and a nonprofit's probability of manipulating its program ratio (the Trussel manipulation factor: $TRUSSEL_MANIP_t$). All analyses are carried out using robust regression to control for outliers and heteroscedasticity. The top ($SC_CEO_DEF_TOP_{t-1}$), middle ($SC_CEO_DEF_MID_{t-1}$), and bottom ($SC_CEO_DEF_BOTTOM_{t-1}$) CEO inside debt tercile variables are coded 1 if the nonprofit's lagged (t-1) CEO deferred compensation divided by lagged CEO total compensation is in the top, middle, or bottom tercile of all nonprofits in the sample reporting deferred compensation greater than zero (i.e., $CEO_DEF_COMP_{t-1} > 0$). Otherwise they are coded 0. The comparison group for the terciles is a nonprofit without CEO inside debt. In addition to my main variables of interest, Model 1 also includes a number of control variables expected to impact the probability of program ratio manipulation. Those variables are further defined in Appendix C. Model 2 better controls for endogeneity and also other time invariant organization-specific factors not in Model 1 by including the lagged manipulation factor ($TRUSSEL_MANIP_{t-1}$). Models 3 and 4 are subsets of Model 2. Model 3 presents the analysis for only those nonprofits with $CEO_DEF_COMP_{t-1} > 0$ and that have CEOs accruing more deferred compensation than they are paid over the period extending from t-1 to t ($CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t > CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). In other words, it includes those observations where there is an increasing CEO deferred compensation balance. Model 4 presents the analysis for the opposite, those nonprofits that have CEO inside debt ($CEO_DEF_COMP_{t-1} > 0$) but show a declining deferred compensation balance ($CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t < CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). Because Models 3 and 4 only include observations with CEO inside debt, $SC_CEO_DEF_BOTTOM_{t-1}$ serves as the comparison category and is thus excluded from the models. The main tests (on the scaled CEO deferred compensation terciles for Models 1 and 2) are one-tailed while all other tests are two-tailed where ***p < 0.01, ** p < 0.05, and * p < 0.1.

Table 3.7 Regression Analysis for the Association between CEO Inside Debt and the Likelihood of a Going Concern Opinion

	<i>DV: GOINGCONCERNRISK_t</i>							
	Model 1		Model 2		Model 3		Model 4	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>SC_CEO_DEF_TOP_{t-1}</i>	-1.054 ***	0.000	-0.766 ***	0.010				
<i>SC_CEO_DEF_MID_{t-1}</i>	-0.330 ***	0.014	-0.225 *	0.092				
<i>SC_CEO_DEF_BOTTOM_{t-1}</i>	-0.271 **	0.035	-0.208	0.126				
<i>SC_CEO_DEF_COMP_{t-1}</i>					-3.421 **	0.041	-7.039 ***	0.001
<i>SC_CEO_BONUS_COMP_{t-1}</i>	-1.973 **	0.015	-0.983	0.204	-1.090	0.370	-1.919 *	0.085
<i>LOW_OPER_RESERVE_t</i>	0.731 *	0.067	0.290	0.414	-0.184	0.627	omitted	
<i>CONTRIB_LOSS_t</i>	0.116	0.207	0.058	0.697	0.324	0.184	-0.362	0.222
<i>PSR_LOSS_t</i>	0.149	0.695	0.513	0.161	-6.013 ***	0.000	2.285 ***	0.000
<i>LEVERAGE_t</i>	0.821 **	0.016	0.703 **	0.041	1.292 ***	0.000	1.575 ***	0.000
<i>VULNERABILITY_t</i>	0.644 **	0.054	0.280	0.394	0.823 ***	0.001	-2.897 ***	0.004
<i>CURRENT_RATIO_t</i>	-0.270 ***	0.010	-0.143 **	0.046	-0.184 **	0.023	-0.133	0.165
<i>LOSS2_t</i>	0.553 ***	0.000	0.370 ***	0.009	0.524 ***	0.007	0.451 *	0.055
<i>MW_FS_t</i>	0.636 ***	0.000	0.442 ***	0.008	0.520 **	0.025	0.874 ***	0.000
<i>MATERIAL_NONCOMP_t</i>	0.968 ***	0.002	0.620 **	0.028	0.803 *	0.071	1.276 ***	0.006
<i>FUNDRAIS_EXP_CONTRIB_t</i>	0.000	0.952	0.001	0.742	0.002	0.445	0.029 *	0.087
<i>LOG_SIZE_t</i>	0.003	0.934	-0.067	0.124	-0.137	0.047	-0.059	0.342
<i>GRANTS_SIG_t</i>	-0.598 **	0.051	-0.583	0.197	-6.191 ***	0.000	-0.740	0.105
<i>PSR_SIG_t</i>	-0.077	0.822	0.121	0.691	0.150	0.726	0.625	0.093
<i>GRANTS_SIG*CONTRIB_LOSS_t</i>	0.529	0.133	0.886 *	0.076	6.756 ***	0.000	0.933 *	0.079
<i>PSR_SIG*PSR_LOSS_t</i>	0.392	0.322	-0.015	0.969	6.576 ***	0.000	-1.935 ***	0.001
<i>GOINGCONCERNRISK_{t-1}</i>			3.405 ***	0.000	3.574 ***	0.000	4.373 ***	0.000
<i>INTERCEPT</i>	-3.258 ***	0.004	-1.770 *	0.097	-0.057	0.970	-7.956 ***	0.000

Table 3.7 Continued

	Model 1	Model 2	Model 3	Model 4
<i>INDUSTRY FIXED EFFECTS</i>	Included	Included	Included	Included
<i>YEAR FIXED EFFECTS</i>	Included	Included	Included	Included
N	10,347	9,766	5,897	2,993
Pseudo R ²	0.391	0.691	0.712	0.762
Wald Chi ²	162.310 ***	549.150 ***	958.690 ***	489.550 ***

This table reports results for the analysis of the association between CEO inside debt and the likelihood of a nonprofit receiving a going concern opinion (*GOINGCONCERNRISK_t*). All analyses are conducted using probit regressions with standard errors clustered by nonprofit (ein). Model 1's main variable of interest is scaled nonprofit CEO inside debt broken into terciles. The top (*SC_CEO_DEF_TOP_{t-1}*), middle (*SC_CEO_DEF_MID_{t-1}*), and bottom (*SC_CEO_DEF_BOTTOM_{t-1}*) CEO inside debt tercile variables are coded 1 if the nonprofit's lagged (t-1) CEO deferred compensation divided by lagged CEO total compensation is in the top, middle, or bottom tercile of all nonprofits in the sample reporting deferred compensation greater than zero (i.e., *CEO_DEF_COMP_{t-1}* > 0). Otherwise they are coded 0. The comparison group for the terciles is a nonprofit without CEO inside debt. In addition to my main variables of interest, Model 1 also includes a number of control variables expected to impact the probability of receiving a going concern opinion and are based on prior literature and models. Those variables are further defined in Appendix C. Model 2 better controls for endogeneity and also other time invariant organization-specific factors not in Model 1 by including the lagged going concern risk (*GOINGCONCERNRISK_{t-1}*). Models 3 and 4 are subsets of Model 2. Because of the small variation in the dependent variable and hence greater estimation difficulty, Models 3 and 4 are estimated using the original *SC_CEO_DEF_COMP_{t-1}* variable rather than divided into terciles. Model 3 presents the analysis for only those nonprofits with *CEO_DEF_COMP_{t-1}* > 0 and that have CEOs accruing more deferred compensation than they are paid over the period extending from t-1 to t (*CEO_DEF_COMP_{t-1}* + *CEO_DEF_COMP_t* > *CEO_DEF_EARNED_{t-1}* + *CEO_DEF_EARNED_t*). In other words, it includes those observations where there is an increasing CEO deferred compensation balance. Unlike in prior analyses, Model 4 presents the analysis for nonprofits not falling into the category of those analyzed in Model 3 (i.e, those that either do or do not have CEO deferred compensation and in which *CEO_DEF_COMP_{t-1}* + *CEO_DEF_COMP_t* < *CEO_DEF_EARNED_{t-1}* + *CEO_DEF_EARNED_t*). The main tests on the scaled terciles (for Models 1 and 2) are one-tailed while all other tests are two-tailed where ***p < 0.01, ** p < 0.05, and * p < 0.1.

Table 3.8 Regression Analysis for the Association between CEO Inside Debt and Internal Control Deficiencies

		<i>DV: DEFICIENCY_t</i>							
		Model 1		Model 2		Model 3		Model 4	
		coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>SC_CEO_DEF_TOP_{t-1}</i>		0.013	0.110	0.022	0.191	0.025	0.601	0.032	0.708
<i>SC_CEO_DEF_MID_{t-1}</i>		0.000 ***	0.001	-0.006	0.443	-0.038	0.400	0.111	0.196
<i>SC_CEO_DEF_BOTTOM_{t-1}</i>		0.030	0.238	-0.001	0.495				
<i>SC_CEO_BONUS_COMP_{t-1}</i>		0.180	0.911	0.084	0.571	-0.042	0.821	0.115	0.727
<i>COMPLEXITY_t</i>		0.038	0.199	0.029	0.267	0.023	0.469	-0.038	0.520
<i>GOINGCONCERNRISK_t</i>		0.287 *	0.093	0.250 *	0.090	0.144	0.456	1.267 **	0.015
<i>SURPLUS_t</i>		0.000	0.788	0.000	0.936	0.000	0.368	0.000	0.191
<i>LOG_SIZE_t</i>		-0.002	0.891	-0.007	0.558	-0.014	0.349	0.025	0.328
<i>GROWTH_t</i>		-0.032	0.620	-0.024	0.698	-0.055	0.545	0.022	0.870
<i>RISK_t</i>		0.810 ***	0.000	0.514 ***	0.000	0.517 ***	0.000	0.468 ***	0.000
<i>NEWGRANTEE_t</i>		-0.167 **	0.037	0.322 ***	0.000	0.439 ***	0.000	-0.020	0.939
<i>AUD_COMMITTEE_t</i>		-0.073	0.240	-0.079	0.202	-0.014	0.864	-0.221 *	0.077
<i>BIG4_t</i>		0.222 ***	0.000	0.185 ***	0.000	0.188 ***	0.000	0.208 **	0.018
<i>REGIONAL_t</i>		0.359 ***	0.000	0.312 ***	0.000	0.299 ***	0.000	0.271 ***	0.002
<i>DEFICIENCY_{t-1}</i>				1.072 ***	0.000	1.052 ***	0.000	1.020 ***	0.000
<i>INTERCEPT</i>		-0.924 ***	0.002	-1.087 ***	0.000	-0.831 ***	0.011	-2.172 ***	0.000
<i>INDUSTRY FIXED EFFECTS</i>	Included			Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included			Included		Included		Included	
N		11,446		11,446		7,126		1,987	
Pseudo R ²		0.086		0.167		0.159		0.182	
Wald Chi ²		727.01 ***		Not Estimated		Not Estimated		368.17 ***	

Table 3.8 Continued

This table reports results for the analysis of the association between scaled nonprofit CEO inside debt by tercile and the probability of a deficiency disclosure ($DEFICIENCY_t$) coded 1 when a deficiency is present, 0 otherwise. The top ($SC_CEO_DEF_TOP_{t-1}$), middle ($SC_CEO_DEF_MID_{t-1}$), and bottom ($SC_CEO_DEF_BOTTOM_{t-1}$) CEO inside debt tercile variables are coded 1 if the nonprofit's lagged (t-1) CEO deferred compensation divided by lagged CEO total compensation is in the top, middle, or bottom tercile of all nonprofits in the sample reporting deferred compensation greater than zero (i.e., $CEO_DEF_COMP_{t-1} > 0$). Otherwise they are coded 0. The comparison group for the terciles is a nonprofit without CEO inside debt. All analyses are carried out using probit regression with standard errors clustered by nonprofit (ein). Model 1 includes a number of control variables that prior research finds are associated with internal control deficiencies. Those variables are further defined in Appendix C. Model 2 better controls for endogeneity and also other time invariant organization-specific factors not in Model 1 by including lagged deficiency ($DEFICIENCY_{t-1}$). Models 3 and 4 are subsets of Model 2. Model 3 presents the analysis for only those nonprofits with $CEO_DEF_COMP_{t-1} > 0$ and that have CEOs accruing more deferred compensation than they are paid over the period extending from t-1 to t ($CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t > CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). In other words, it includes those observations where there is an increasing CEO deferred compensation balance. Model 4 presents the analysis for the opposite, those nonprofits that have CEO inside debt ($CEO_DEF_COMP_{t-1} > 0$) but show a declining deferred compensation balance ($CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t < CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). Because Models 3 and 4 only include observations with CEO inside debt, $SC_CEO_DEF_BOTTOM_{t-1}$ serves as the comparison category and is thus excluded from the models.). The main tests (on the scaled CEO deferred compensation terciles for Models 1 and 2) are one-tailed while all other tests are two-tailed where ***p < 0.01, ** p < 0.05, and * p < 0.1.

Table 3.9 Regression Analysis for the Association between CEO Inside Debt and Internal Control Deficiency Types**Panel A: All Deficiency Types**

	<i>RC_FS_t</i>		<i>RC_GOV_t</i>		<i>MW_FS_t</i>		<i>MW_GOV_t</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>SC_CEO_DEF_TOP_{t-1}</i>	-0.043	0.425	0.101 *	0.077	-0.126 *	0.068	0.005	0.954
<i>SC_CEO_DEF_MID_{t-1}</i>	-0.060	0.227	0.068	0.196	-0.130 **	0.036	0.008	0.918
<i>SC_CEO_DEF_BOTTOM_{t-1}</i>	-0.072	0.172	0.055	0.313	0.073	0.250	-0.035	0.670
<i>SC_CEO_BONUS_COMP_{t-1}</i>	-0.047	0.786	-0.003	0.986	-0.185	0.487	0.019	0.941
<i>COMPLEXITY_t</i>	0.044	0.165	0.030	0.363	0.113 ***	0.005	-0.113 **	0.012
<i>GOINGCONCERNRISK_t</i>	0.188	0.216	0.244 *	0.103	0.668 ***	0.000	0.661 ***	0.000
<i>SURPLUS_t</i>	0.000	0.772	0.000	0.245	0.000 ***	0.000	0.000 **	0.049
<i>LOG_SIZE_t</i>	-0.004	0.787	0.002	0.912	-0.044 ***	0.010	0.017	0.413
<i>GROWTH_t</i>	-0.071	0.424	0.002	0.561	0.045	0.687	-0.191	0.223
<i>RISK_t</i>	0.383 ***	0.000	0.044 ***	0.000	0.561 ***	0.000	0.550 ***	0.000
<i>NEWGRANTEE_t</i>								
<i>AUD_COMMITTEE_t</i>	-0.177 ***	0.010	-0.090	0.215	-0.054	0.550	-0.133	0.222
<i>BIG4_t</i>	0.048	0.342	0.192 ***	0.000	-0.167 **	0.028	-0.059	0.484
<i>REGIONAL_t</i>	0.240 ***	0.000	0.172 ***	0.000	0.190 ***	0.000	0.208 ***	0.001
<i>DEFICIENCY TYPE_{t-1}</i>	1.187 ***	0.000	1.220 ***	0.000	1.173 ***	0.000	1.472 ***	0.000
<i>INTERCEPT</i>	-1.249 ***	0.000	-1.621 ***	0.000	-1.607 ***	0.000	-1.768 ***	0.000
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
N	10,763		8,989		10,763		8,989	
Pseudo R ²	0.191		0.194		0.228		0.261	
Wald Chi ²	1365.53 ***		Not Estimated		936.46 ***		672.40 ***	

Table 3.9 Continued

Panel B: Additional Analyses for Significant Deficiency Types

	<i>DV: RC_GOV_t</i>				<i>DV: MW_FS_t</i>			
	<i>MODEL 1</i>		<i>MODEL 2</i>		<i>MODEL 3</i>		<i>MODEL 4</i>	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>SC_CEO_DEF_TOP_{t-1}</i>	0.019	0.745	0.158	0.111	-0.093	0.210	0.163	0.285
<i>SC_CEO_DEF_MID_{t-1}</i>	-0.048	0.388	0.237 **	0.020	-0.077	0.250	0.052	0.745
<i>SC_CEO_BONUS_COMP_{t-1}</i>	0.003	0.989	0.168	0.631	-0.393	0.250	-0.592	0.454
<i>COMPLEXITY_t</i>	0.009	0.823	0.049	0.516	0.092 *	0.084	0.154	0.153
<i>GOINGCONCERNRISK_t</i>	0.124	0.583	1.565 ***	0.000	0.632 ***	0.002	1.147 ***	0.001
<i>SURPLUS_t</i>	0.000	0.352	0.000	0.448	0.000 **	0.016	0.000 ***	0.013
<i>LOG_SIZE_t</i>	0.014	0.470	-0.009	0.746	-0.052 **	0.020	-0.036	0.407
<i>GROWTH_t</i>	-0.064	0.605	0.185	0.199	0.013	0.938	0.367 **	0.032
<i>RISK_t</i>	0.392 ***	0.000	0.352 ***	0.000	0.578 ***	0.000	0.554 ***	0.000
<i>AUD_COMMITTEE_t</i>	0.012	0.899	-0.243 *	0.082	0.125	0.338	-0.405 **	0.033
<i>BIG4_t</i>	0.162 **	0.012	0.245 **	0.020	-0.115	0.218	-0.245	0.194
<i>REGIONAL_t</i>	0.149 ***	0.005	0.238 **	0.022	0.213 ***	0.001	0.211	0.134
<i>DEFICIENCY_{t-1}</i>	1.176 ***	0.000	1.195 ***	0.000	1.117 ***	0.000	1.230 ***	0.000
<i>INTERCEPT</i>	-1.623 ***	0.000	-2.167 ***	0.003	-1.468 ***	0.005	-2.276 **	0.047
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
N	5,438		1,755		6,721		1,850	
Pseudo R ²	0.184		0.212		0.219		0.263	
Wald Chi ²	Not Estimated		346.38 ***		598.370 ***		208.44 ***	

3.9 Continued

Panel A of this table reports results for the analysis of the association between scaled nonprofit CEO inside debt by tercile and the probability of a specific type of deficiency disclosure: (1) reportable condition over financial reporting (RC_FS_t), (2) reportable condition over major programs (RC_GOV_t), (3) material weakness over financial reporting (MW_FS_t), and (4) material weakness over major programs (MW_GOV_t) all coded 1 when present, 0 otherwise. Panel B reports results for the same association but for increasing versus decreasing inside debt subsamples of RC_GOV_t and MW_FS_t . Increasing CEO inside debt (Panel B Models 1 and 3) is defined as $CEO_DEF_COMP_{t-1} > 0$ and $(CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t > CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t)$. Decreasing CEO inside debt (Panel B Models 2 and 4) is defined as $CEO_INSIDE_DEBT_t > 0$ and $(CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t < CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t)$. In both panels, the top ($SC_CEO_DEF_TOP_{t-1}$), middle ($SC_CEO_DEF_MID_{t-1}$), and bottom ($SC_CEO_DEF_BOTTOM_{t-1}$) CEO inside debt tercile variables are coded 1 if the nonprofit's lagged (t-1) CEO deferred compensation divided by lagged CEO total compensation is in the top, middle, or bottom tercile of all nonprofits in the sample reporting deferred compensation greater than zero (i.e., $CEO_DEF_COMP_{t-1} > 0$). Otherwise they are coded 0. All analyses are carried out using probit regression with standard errors clustered by nonprofit (ein). All models include a number of control variables that prior research finds are associated with nonprofit internal control deficiencies. Those variables are further defined in Appendix C. All tests are two-tailed where ***p < 0.01, ** p < 0.05, and * p < 0.1.

Table 3.10 Regression Analysis for the Association between CEO Inside Debt and External Credit Ratings

	Model 1		Model 2		Model 3		Model 4	
	coef	p-value	coef	p-value	coef	p-value	coef	p-value
<i>SC_CEO_DEF_TOP</i> _{t-1}	0.368 **	0.041	0.675 ***	0.001	0.517 ***	0.004	0.279	0.343
<i>SC_CEO_DEF_MID</i> _{t-1}	0.579 ***	0.001	0.408 **	0.019	0.011	0.953	0.573 **	0.039
<i>SC_CEO_DEF_BOTTOM</i> _{t-1}	0.391 **	0.018	0.220	0.118				
<i>SC_CEO_BONUS_COMP</i> _{t-1}	0.179	0.750	0.650	0.164	0.648	0.246	1.953 **	0.048
<i>LOG_SIZE</i> _t	0.915 ***	0.000	1.505 ***	0.000	1.423 ***	0.000	1.637 ***	0.000
<i>LOG_AGE</i> _t	-0.547 ***	0.000	-0.331 **	0.028	-0.472 ***	0.004	-0.179	0.515
<i>COMPLEXITY</i> _t	-0.271 **	0.015	-0.366 ***	0.006	-0.161	0.292	-0.622 **	0.023
<i>REV_GROWTH</i> _t	0.002	0.190	0.002 **	0.060	0.039 ***	0.000	-0.105 **	0.017
<i>SURPLUS</i> _t	0.000 ***	0.000	0.000	0.448	0.000 **	0.026	0.000	0.528
<i>PAY5_SLICE</i> _t	0.393	0.430	-0.128	0.827	-0.537	0.518	1.397	0.146
<i>LEVERAGE</i> _t	-1.272 **	0.020	-2.745 ***	0.000	-2.406 ***	0.001	-3.365 ***	0.002
<i>AUD_COMMITTEE</i> _t	0.185	0.422	-0.097	0.714	-0.537 *	0.071	-0.183	0.736
<i>COMPILE_REVIEW</i> _t	0.000		0.722 *	0.084	1.223 **	0.014	-0.168	0.783
<i>LOW_OPER_RESERVE</i> _t	-0.564 ***	0.013	-1.263 ***	0.000	-1.354 ***	0.000	-0.954 ***	0.009
<i>INTERCEPT</i>	-8.618 ***	0.000						
<i>INDUSTRY FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>YEAR FIXED EFFECTS</i>	Included		Included		Included		Included	
<i>STATE FIXED EFFECTS</i>	Included		Included		Included		Included	
N	1,596		2,012		1,318		464	
Pseudo R ²	0.360		0.280		0.282		0.326	

Table 3.10 Continued

This table reports results for the analysis of the association between scaled CEO inside debt and external credit ratings. Model 1 is carried out using a probit regression with $INVESTMENT_t$ as the dependent variable coded 1 if the nonprofit receives an investment-grade credit rating in the current period, 0 otherwise. Standard errors are clustered by nonprofit (ein). Models 2 - 4 use $RATING_t$ as the dependent variable which is coded from 1-7 based upon the letter credit ratings shown in Appendix D where higher numbers signify a better rating. The analyses are conducted using ordered logit regressions with standard errors clustered by nonprofit (ein). In all models, the main independent variable of interest is scaled nonprofit CEO inside debt broken into terciles. The top ($SC_CEO_DEF_TOP_{t-1}$), middle ($SC_CEO_DEF_MID_{t-1}$), and bottom ($SC_CEO_DEF_BOTTOM_{t-1}$) CEO inside debt tercile variables are coded 1 if the nonprofit's lagged (t-1) CEO deferred compensation divided by lagged CEO total compensation is in the top, middle, or bottom tercile of all nonprofits in the sample reporting deferred compensation greater than zero (i.e., $CEO_DEF_COMP_{t-1} > 0$). Otherwise they are coded 0. The comparison group for the terciles is a nonprofit without CEO inside debt. In addition to my main variables of interest, Model 1 also includes a number of control variables expected to impact credit ratings. Those variables are further defined in Appendix C. Models 3 and 4 are subsets of Model 2. Model 3 presents the analysis for only those nonprofits with $CEO_DEF_COMP_{t-1} > 0$ and that have CEOs accruing more deferred compensation than they are paid over the period extending from t-1 to t ($CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t > CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). In other words, it includes those observations where there is an increasing CEO deferred compensation balance. Model 4 presents the analysis for the opposite, those nonprofits that have CEO inside debt ($CEO_DEF_COMP_{t-1} > 0$) but show a declining deferred compensation balance ($CEO_DEF_COMP_{t-1} + CEO_DEF_COMP_t < CEO_DEF_EARNED_{t-1} + CEO_DEF_EARNED_t$). Because Models 3 and 4 only include observations with CEO inside debt, $SC_CEO_DEF_BOTTOM_{t-1}$ serves as the comparison category and is thus excluded from the models. The main tests (on the scaled CEO deferred compensation terciles for Models 1 and 2) are one-tailed while all other tests are two-tailed where ***p < 0.01, ** p < 0.05, and * p < 0.1.

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APPENDIX A

DEFINITION OF VARIABLES FOR STUDY I*

- ADD_AUDIT_COMMITTEE*: An indicator variable that equals 1 if the nonprofit did not have an audit committee in the prior period but does have one in the current period, 0 otherwise
- ADMINISTRATIVE*: The total amount of administrative (management and general) functional expense listed on Form 990
- Δ *ADMINISTRATIVE_SC*: Administrative expense in the current period less administrative expense in the prior period divided by total expense in the current period less total expense in the prior period
- AGE*: The difference between the observation year (fiscal) and the year of registration with the IRS as an exempt entity
- AUDIT_COMMITTEE*: An indicator variable that equals 1 if the nonprofit reports having an audit committee on Form 990, 0 otherwise
- AUDIT_DELAY*: The number of days between the organization's fiscal year-end and the release of the audit report
- AUDITOR_SWITCH*: An indicator variable that equals 1 if the organization switched between the type of auditor (Big4, Regional, Other) during the period, 0 otherwise
- BIG4*: An indicator variable that equals 1 if the auditor listed on the A-133 audit report is classified as one of the Big4 (Deloitte, E&Y, KPMG, PWC) or Arthur Anderson, 0 otherwise
- CASH*: The amount of current period ending cash and cash equivalents as reported on Form 990
- Δ *CASH*: The amount of current period ending cash less the prior period's ending cash
- COMPLEXITY*: The number of revenue sources included on Form 990 from 0-3 (public support, government contributions, program revenues)
- COST_DEBT*: The amount of current period interest expense divided by total liabilities
- Δ *COST_DEBT*: Current period cost of debt less prior period cost of debt
- DECIFYE*: An indicator variable that equals 1 if the organization has a December fiscal year-end, 0 otherwise
- DEFICIENCY*: An indicator variable that equals 1 if the A-133 audit report indicates any type of IC deficiency (*RC_FS*, *RC_GOV*, *MW_FS*, or *MW_GOV*) for the period, 0 otherwise
- FEDEXPENDITURE*: Amount of expenditures made by the organization using federal money during the fiscal year as shown on the A-133 audit report
- FEDEXPENDITURE_SC*: The amount of expenditures made by the organization using federal money during the fiscal year as shown on the A-133 audit report scaled by ending total assets
- FUNDRAISING*: The total amount of fundraising functional expense listed on Form 990
- $\% \Delta$ *FUNDRAISING*: The amount of current period fundraising expense less the fundraising expense listed in the prior period divided by the prior period's fundraising expense

$\Delta FUNDRAISING_SC$: Fundraising expense in the current period less fundraising expense in the prior period divided by total expense in the current period less total expense in the prior period

GDP : The nominal gross domestic product for the year in billions of dollars

$GOINGCONCERNRISK$: An indicator variable that equals 1 if the A-133 audit report includes a going-concern opinion, 0 otherwise

$GOV_SUPPORT$: Total government contributions received during the year as listed on Form 990

$\% \Delta GOV_SUPPORT$: Total government contributions received during the current year less total government contributions received during the prior year divided by the prior year's total government contributions

$GROWTH$: The growth in assets, measured as the ratio of end-of-year total assets to beginning-of-year total assets as reported on Form 990

$\% IND_BRD$: The percentage of board members that are listed as independent on Form 990

$\% \Delta \% IND_BRD$: The nonprofit's percentage of independent board members in the current period less its percentage of independent board members in the prior period divided by its prior period percentage of independent board members

$JUNFYE$: An indicator variable that equals 1 if the organization has a June fiscal year-end, 0 otherwise

$LEVERAGE$: The amount of current period total liabilities divided by end-of-year total assets as reported on Form 990

$\Delta LEVERAGE$: The amount of current period leverage less prior period leverage

$LOBBYINGAMT$: The amount of lobbying expenditures reported as directly influencing a legislative body in the current period

$\% \Delta LOBBYINGAMT$: The current period's lobbying amount less the lobbying amount in the prior period divided by the prior period's lobbying amount

MAT_WEAK : An indicator variable that equals 1 if any of the reported IC deficiencies are material weaknesses (MW_FS or MW_GOV), 0 otherwise

MW_FS : An indicator variable that equals 1 if the A-133 audit report indicates a material weakness in IC over financial reporting, 0 otherwise

MW_GOV : An indicator variable that equals 1 if the A-133 audit report indicates a material weakness in IC over major programs, 0 otherwise

NUM_GOV_MECH : The number of governance mechanisms reported by the nonprofit on Form 990 as being used from 0-14 ((1) written conflict of interest policy, (2) enforcement of conflicts of interest, (3) disclosure of any officers' conflicts of interest, (4) whistleblower policy, (5) document retention policy, (6) CEO salary policy, (7) officer salary policy, (8) no family or business relationships, (9) no delegation of management duties to others, (10) no changes to organizational document from the prior period, (11) no officer without listed contact information, (12) board minutes recorded, (13) individual committee minutes recorded, (14) audit committee used

- Δ NUM_GOV_MECH: The change in the number of governance mechanisms from the prior period to the current period (unless otherwise noted that the change is from the period of IC deficiency to the current period)
- OFFCOMP_TOTAL: Total compensation paid to the nonprofit's officers during the current period as listed on Form 990
- % Δ OFFCOMP_TOTAL: The current period's total officer compensation less the prior period's total officer compensation divided by prior period's officer compensation
- OTHERFIRM: An indicator variable that equals 1 if the auditor listed on the A-133 audit report is not classified as either a Big4 or Regional firm, 0 otherwise
- PRICE: Current period total expense divided by program service expense (the inverse of the program ratio)
- % Δ PRICE: Current period price less prior period price divided by prior period price
- PROGRAM_REVENUE: The amount of program service revenue, including government fees and contracts, received for the year as listed on Form 990
- % Δ PROGRAM_REVENUE: Program revenue reported for the current year less program revenue from the prior year divided by the prior year's program revenue
- PROGRAM_SERVICES: The total amount of program service functional expense listed on Form 990
- % Δ PROGRAM_SERVICES: The amount of current period program service expense less the program service expense listed in the prior period divided by the prior period's program service expense
- Δ PROGRAM_SERVICES_SC: Program service expense in the current period less program service expense in the prior period divided by total expense in the current period less total expense in the prior period
- PUBLIC_SUPPORT: The amount of public support received for the current year, defined as the sum of direct and indirect support listed on Form 990 (for later years in which public support is not specifically broken into direct and indirect support on Form 990, indirect support is defined as the sum of federated campaign revenue and revenue from related organizations while direct support is the sum of fundraising events and all other contributions)
- % Δ PUBLIC_SUPPORT: The current period's public support less public support for the prior period divided by the prior period's public support
- QREPORT_FS: An indicator variable that equals 1 if the organization was issued a qualified audit report related to financial reporting, 0 otherwise
- QREPORT_MP: An indicator variable that equals 1 if the organization was issued a qualified audit report related to major program, 0 otherwise
- QUESTIONED_COSTS: An indicator variable that equals 1 if the A-133 audit report indicates that the auditor identified costs that he/she questioned due to an audit finding, 0 otherwise
- RC_FS: An indicator variable that equals 1 if the A-133 audit report indicates a reportable condition in IC over financial reporting, 0 otherwise
- RC_GOV: An indicator variable that equals 1 if the A-133 audit report indicates a reportable condition in IC over major programs, 0 otherwise

REGIONAL: An indicator variable that equals 1 if the auditor listed on the A-133 audit report is classified as one of the Regional auditors (following the Big4, the next top 25 firms by revenues), 0 otherwise

REMEDiate: An indicator variable that equals 1 if the nonprofit has remediated at least one type of its IC deficiencies by the period indicated, 0 otherwise

REP_COND: An indicator variable that equals 1 if any of the IC deficiencies listed are reportable conditions (*RC_FS* or *RC_GOV*), 0 otherwise

RISK: An indicator variable that equals 1 if the A-133 audit report indicates a high audit risk for the nonprofit, 0 otherwise

SIZE: The end-of-year total assets as reported on Form 990

Δ *SIZE*: Current period total assets less prior period total assets

$\% \Delta$ *SIZE*: The nonprofit's current period size less its prior period size divided by prior period size (where size is measured as ending total assets)

SURPLUS: Total revenue less total expenses for the year as reported on Form 990

SURPLUS_SC: Surplus scaled by total assets

TOT_REVENUE: Total revenue received for the year as listed on Form 990

$\% \Delta$ *TOT_REVENUE*: Total revenue reported for the current period less total revenue for the prior period divided by the prior period's total revenue

YRTOREM: The number of years to remediation from 1 to 3. Observations in which remediation does not occur within 3 years are excluded (i.e., they are censored)

*Note that Form 990 details (e.g., Parts, Line numbers, etc.) are omitted because the sample spans multiple years over which the exact location of data used in the creation of the variables changed.

APPENDIX B

DEFINITION OF VARIABLES FOR STUDY II

- A_133_PERF*: An indicator variable coded 1 if the nonprofit reports that an A-133 Audit was performed, 0 otherwise (Form 990, Part XI, Line 3b)
- ADEQ_EQUITY_RATIO*: The ratio of net assets (Form 990, Part I, Line 22, Column B) to total revenue (Form 990, Part I, Line 12, Column B)
- ADMIN_RATIO*: The ratio of administrative functional expenses (Form 990, Part IX, Line 25, Column C) divided by total expenses (Form 990, Part IX, Line 25, Column A)
- AGE*: The difference between the observation (fiscal) year and the year of registration with the IRS as an exempt entity
- **AUD_COMMITTEE*: An indicator variable coded 1 if the nonprofit has an audit committee (Form 990, Part XI, Line 2c), 0 otherwise.
- BIG4*: An indicator variable coded 1 if the nonprofit's A133 audit is performed by a Big4 firm (PWC, E&Y, KPMG, or Deloitte), 0 otherwise.
- BOARD_SIZE*: The number of board members listed for the nonprofit (Form 990, Part VI, Line 1b)
- **CEO_SALARY_PLCY*: An indicator variable coded 1 if the nonprofit reports using a policy for establishing its CEO's salary, 0 otherwise (Form 990, Part VI, Line 15a)
- CHARITABLE*: An indicator variable coded 1 if total contributions (Form 990, Part VIII, Line 1h) is greater than program service revenue (Form 990, Part VIII, Line 2g), 0 otherwise
- COMPILE_REVIEW*: An indicator variable coded 1 if the nonprofit reports that an independent auditor performed a compilation or review, 0 otherwise (Form 990, Part XI, Line 2a)
- COMPLEXITY*: A variable coded from 0 to 5 indicating the number of different sources of revenue that the entity utilizes (Public support, government grants, program service revenue, investment income, other income: Form 990, Part VIII, Lines 1 – 3)
- **CONFLICT_ENFORCE*: An indicator variable coded 1 if the nonprofit reports that it enforces its conflict of interest policy, 0 otherwise (Form 990, Part VI, Line 12c)
- COST_DEBT*: The ratio of total interest expense (Form 990, Part IX, Line 20, Column A) to total liabilities (Form 990, Part X, Line 26)
- DEC_NUM_MECH*: An indicator variable coded 1 if the $\Delta NUM_MECH < 0$, 0 otherwise
- FIN_TRANS_OWN_WEBSITE*: An indicator variable coded 1 if the nonprofit reports that it discloses Form 990 and other documents on its own website, 0 otherwise (Form 990, Part VI, Line 18)
- FUNDRAISING_RATIO*: The ratio of fundraising expense (Form 990, Part IX, Line 25, Column D) to total expenses (Form 990, Part IX, Line 25, Column A)

- GOINGCONCERNRISK*: An indicator variable coded 1 if the nonprofit was issued a going concern opinion as shown on the A-133 Audit report, 0 otherwise
- GOV_GRANTS*: An indicator variable coded 1 if the nonprofit reports receipt of government grants greater than \$0, 0 otherwise (Form 990, Part VIII, Line 1e)
- GOV_GRANTS_AMT*: The amount of current period government grants (Form 990, Part VIII, Line 1e)
- GROWTH*: Current period total assets (Form 990, Part I, Line 20, Column 2) less prior period total assets (Form 990, Part I, Line 20, Column 1) divided by prior period total assets (Form 990, Part I, Line 20, Column 1)
- HIGH_INT_GOV*: An indicator variable coded 1 if the nonprofit reports 13 or 14 internal governance mechanisms where internal governance variables are indicated with * in this variable list, 0 otherwise
- INC_NUM_MECH*: An indicator variable coded 1 if the $\Delta \text{NUM_MECH} > 0$, 0 otherwise
- IND_AUDIT*: An indicator variable coded 1 if the nonprofit reports receiving an independent audit, 0 otherwise (Form 990, Part XI, Line 2b)
- IND_AUDITOR*: An indicator variable coded 1 if either *COMPILE_REVIEW* = 1 or *IND_AUDIT* = 1, 0 otherwise
- INVESTMENT*: An indicator variable coded 1 if the nonprofit is issued an investment-grade credit rating (from Moody's), 0 otherwise. See Appendix D for categorization of investment and speculative ratings
- LEVERAGE*: The ratio of long-term debt (bonds + secured mortgages + unsecured debt: Form 990, Part X, Line 20, 23, 24, Column B) to total assets (Form 990, Part X, Line 16, Column B)
- LOW_OPER_RESERVE*: An indicator variable coded 1 if the operating reserve [unrestricted net assets (Form 990, Part X, Line 27, Column B) less PPE (Form 990, Part X, Line 10, Column B) and secured mortgages (Form 990, Part X, Line 24, Column B) divided by total expenses (Form 990, Part IX, Line 25, Column A)] is less than 0.25, 0 otherwise
- **MINUTES_COMM*: An indicator variable coded 1 if the nonprofit reports keeping meeting minutes for each committee, 0 otherwise (Form 990, Part VI, Line 8b)
- **MINUTES_GOV*: An indicator variable coded 1 if the nonprofit reports keeping meeting minutes for the governing body, 0 otherwise (Form 990, Part VI, Line 8a)
- MUNI_BONDS*: An indicator variable coded 1 if the nonprofit reports municipal bonds greater than \$0, 0 otherwise (Form 990, Part X, Line 20, Column B)
- MUNI_BONDS*: The amount of municipal bonds reported by the nonprofit (Form 990, Part X, Line 20, Column B)
- MW_FS*: An indicator variable coded 1 if the nonprofit was issued an internal control material weakness related to its financial statements as shown on the A-133 Audit report, 0 otherwise.
- MW_GOV*: An indicator variable coded 1 if the nonprofit was issued an internal control material weakness related to its major programs as shown on the A-133 Audit report, 0 otherwise.
- NEWGRANTEE*: An indicator variable coded 1 for the first year that a nonprofit is listed in the A-133 Audit database, 0 otherwise.

- **NO_DELEGATE*: An indicator variable coded 1 if the nonprofit did not delegate management responsibility to another party, 0 otherwise (Form 990, Part VI, Line 3)
- **NO_DOC_CHANGES*: An indicator variable coded 1 if the nonprofit reports having no significant document changes since its prior Form 990 was filed, 0 otherwise (Form 990, Part VI, Line 4)
- **NO_RELATIONS*: An indicator variable coded 1 if the nonprofit reports having no family or other business relationship between 2 or more officers, directors, trustees, or key employees, 0 otherwise (Form 990, Part VI, Line 2)
- **NO_UNREACHABLE_OFF*: An indicator variable coded 1 if the nonprofit reports that there are 0 officers, directors, trustees, or key employees who cannot be reached at the organization's mailing address, 0 otherwise (Form 990, Part VI, Line 9)
- NUM_MECH*: The number of governance mechanisms reported by the nonprofit on Form 990 as being used from 0-14 ((1) *AUD_COMMITTEE*, (2) *CEO_SALARY_PLCY*, (3) *CONFLICT_ENFORCE*, (4) *MINUTES_COMM*, (5) *MINUTES_GOV*, (6) *NO_DELEGATE*, (7) *NO_DOC_CHANGES*, (8) *NO_RELATIONS*, (9) *NO_UNREACHABLE_OFF*, (10) *OFFICER_SALARY_PLCY*, (11) *OFFICERS_CONFLICT_DSC*, (12) *RET_PLCY*, (13) *WHISTL_PLCY*, (14) *WR_CONFLICT_PLCY*)
- Δ *NUM_MECH*: The change in *NUM_MECH* reported as used from period t-1 to t
- **OFFICERS_CONFLICT_DSC*: An indicator variable coded 1 if the nonprofit reports that it requires officers, directors, trustees, and key employees to annually disclose conflicts of interest, 0 otherwise (Form 990, Part VI, Line 12b)
- **OFFICER_SALARY_PLCY*: An indicator variable coded 1 if the nonprofit reports using a policy for establishing compensation for its officers or key employees (Form 990, Part VI, Line 15a), 0 otherwise
- OTHERFIRM*: An indicator variable that equals 1 if the auditor listed on the A-133 audit report is not classified as either a Big4 or Regional firm, 0 otherwise
- PERC_IND_BRD*: The ratio of the number of independent board members (Form 990, Part VI, line 1b) to total number of board members (Form 990, Part VI, Line 1a)
- PERM_RSTRD_NASSETS*: An indicator variable coded 1 if the nonprofit reports permanently restricted net assets greater than \$0, 0 otherwise (Form 990, Part X, Line 29, Column B)
- PERM_RSTRD_NASSETS_AMT*: The amount of permanently restricted net assets reported by the nonprofit (Form 990, Part X, Line 29, Column B)
- PROGRAM_RATIO*: The ratio of program service expenses (Form 990, Part IX, Line 25, Column B) to total expenses (Form 990, Part IX, Line 25, Column A)
- PUBLIC_SUPPORT*: An indicator variable coded 1 if revenue from federated campaigns is > \$0 (Form 990, Part VIII, Line 1a) or from fundraising events is > \$0 (Line 1c) or from all other contributions is > \$0 (Line 1e), 0 otherwise
- PUBLIC_SUPPORT_AMT*: The amount of revenue from federated campaigns plus fundraising events plus all other contributions reported by the nonprofit (Form 990, Part VIII, Lines 1a + 1c + 1e)

- QREPORT_FS*: An indicator variable that equals 1 if the organization was issued a qualified audit report related to financial reporting, 0 otherwise
- QREPORT_MP*: An indicator variable that equals 1 if the organization was issued a qualified audit report related to major programs, 0 otherwise
- RATING*: A variable coded from 1 to 7 based on Moody's ratings as shown in Appendix D
- RC_FS*: An indicator variable coded 1 if the nonprofit was issued an internal control reportable condition related to its financial statements as shown on the A-133 Audit report, 0 otherwise.
- RC_GOV*: An indicator variable coded 1 if the nonprofit was issued an internal control reportable condition related to its major programs as shown on the A-133 Audit report, 0 otherwise.
- REGIONAL*: An indicator variable coded 1 if the nonprofit's A-133 audit is performed by a regional firm defined as any one of the next top 25 firms ranked by revenues, 0 otherwise.
- *RET_PLCY*: An indicator variable coded 1 if the nonprofit reports having a document retention and destruction policy, 0 otherwise (Form 990, Part VI, Line 14)
- REV_CONCEN*: The sum of the squared ratio of each revenue source to total revenue (Form 990, Part I, Line 12, Column B) where revenue sources include (Part 990, VIII): (1) federated campaigns (Line 1a), (2) membership dues (Line 1b), (3) fundraising events (Line 1c), (4) related organizations revenue (Line 1d), (5) government grants (Line 1e), (6) all other contributions (Line 1f), (7) program service revenue (Line 2g), and (8) other revenue (Lines 3 + 4 + 5 + 6d + 7d + 8c + 9c + 10c + 11e).
- REV_GROWTH*: Current year total revenue (Form 990, Part I, Line 12, Column 2) less prior year total revenue (Form 990, Part I, Line 12, Column 1) divided by prior year total revenue (Form 990, Part I, Line 12, Column 1)
- RISK*: An indicator variable coded 1 if the nonprofit is not a low-risk auditee as shown on the A-133 Audit report, 0 otherwise.
- SECURED_OUTSIDE_DEBT*: An indicator variable coded 1 if secured outside debt is greater than \$0, 0 otherwise (Form 990, Part X, Line 23, Column B)
- SECURED_OUTSIDE_DEBT_AMT*: The amount of secured outside debt reported by the nonprofit (Form 990, Part X, Line 23, Column B)
- SIZE*: Current year total assets (Form 990, Part X, Line 16, Column B)
- SURPLUS*: Current year total revenues less total expenses (Form 990, Part I, Line 19, Column B)
- SURPLUS_SC*: Surplus scaled by size
- TEMP_RSTRD_NASSETS*: An indicator variable coded 1 if the nonprofit reports temporarily restricted net assets greater than \$0, 0 otherwise (Form 990, Part X, Line 28, Column B)
- TEMP_RSTRD_NASSETS_AMT*: The amount of temporarily restricted net assets reported by the nonprofit (Form 990, Part X, Line 29, Column B)
- TOTAL_REVENUE*: Current year total revenue (Form 990, Part VIII, Line 12, Column A)

TRUSSEL_MANIP: The probability of program ratio manipulation as determined using the Trussel (2003) formula^{**}: $1/(1+e^{-z})$. Where $z = -2.807 - 0.702\text{Margin} - 1.360\text{DefExp} + 0.030\text{RevGrowth} + 0.938\text{DepProg} - 2.375\text{DefRev} + 1.326\text{ProgChg}$

UNSECURED_OUTSIDE_DEBT: An indicator variable coded 1 if unsecured outside debt is greater than \$0, 0 otherwise (Form 990, Part X, Line 24, Column B)

UNSECURED_OUTSIDE_DEBT_AMT: The amount of unsecured outside debt reported by the nonprofit (Form 990, Part X, Line 24, Column B)

**WHISTL_PLCY*: An indicator variable coded 1 if the nonprofit reports having a whistleblower policy, 0 otherwise (Form 990, Part VI, Line 13)

**WR_CONFLICT_PLCY*: An indicator variable coded 1 if the nonprofit has a written conflict of interest policy, 0 otherwise (Form 990, Part VI, Line 12a)

ZERO_FUNDRAISING: An indicator variable coded 1 if the fundraising expense for the nonprofit (Form 990, Part IX, Line 11e, Column A) is listed as \$0, 0 otherwise.

* The variables comprising the IG index

** The Trussel_Manip inputs include the following:

- (1) Margin: The ratio of current year surplus (Form 990, Part I, Line 19, Column B) to total revenue (Form 990, Part VIII, Line 12, Column A)
- (2) DefExp: The sum of prepaid expenses and other deferred charges (Form 990, Part X, Line 9, Column B) and other assets (Form 990, Part X, Line 15, Column B) divided by total assets (Form 990, Part I, Line 20, Column 2)
- (3) RevGrowth: Current year total revenue (Form 990, Part I, Line 12, Column B) less prior year total revenue (Form 990, Part I, Line 12, Column A) divided by prior year total revenue (Form 990, Part I, Line 12, Column A)
- (4) DepProg: Depreciation and depletion related to program services (Form 990, Part IX, Line 22, Column B) divided by the sum of depreciation and depreciation related to program services (Form 990, Part IX, Line 22, Column B) and current year PPE (land, buildings, equip. etc.: Form 990, Part X, Line 10a)
- (5) DefRev: The ratio of deferred revenue (Form 990, Part X, Line 19, Column B) to total assets (Form 990, Part I, Line 20, Column 2)
- (6) ProgChg: Current period program ratio divided by prior period program ratio

APPENDIX C

DEFINITION OF VARIABLES FOR STUDY III*

Compensation Variables

CEO_BONUS: An indicator variable coded 1 if the CEO has bonus (incentive) compensation listed as a component of his or her pay structure (Schedule J, Part II, Column Bii), 0 otherwise. The CEO is assumed to be the highest paid individual listed on Form 990 Schedule J.

CEO_DEF_COMP: The amount of deferred compensation (inside debt) listed for the CEO for the year (Form 990, Schedule J, Part II, Column C)

CEO_DEF_EARNED: The amount of prior deferred compensation (inside debt) received by the CEO during the current year (Form 990, Schedule J, Part II, Column F)

CEO_INSIDE_DEBT: An indicator variable coded 1 if the CEO has deferred compensation (inside debt) listed as a component of his or her pay structure (Schedule J, Part II, Column C), 0 otherwise. The CEO is assumed to be the highest paid individual listed on Form 990 Schedule J.

CEO_TOTAL_COMP: The amount of total compensation listed for the CEO for the year (Form 990, Schedule J, Part II, Column E)

SC_CEO_BONUS_COMP: The ratio of CEO bonus compensation to CEO total compensation for the year (Schedule J, Part II, Column Bii / Column E) where the CEO is assumed to be the highest paid individual listed on Form 990 Schedule J.

SC_CEO_DEF_COMP: The ratio of CEO deferred compensation (inside debt) to CEO total compensation for the year (Schedule J Part II: Column C / Column E) where the CEO is assumed to be the highest paid individual listed on Form 990 Schedule J.

SC_CEO_DEF_BOTTOM: An indicator variable coded 1 if the CEO is paid deferred compensation (inside debt) in the lowest tercile of scaled deferred compensation paid to CEOs in the sample for that period (t or t-1), 0 otherwise. CEOs with \$0 inside debt are excluded from the tercile determinations.

SC_CEO_DEF_MID: An indicator variable coded 1 if the CEO is paid deferred compensation (inside debt) in the middle tercile of scaled deferred compensation paid to CEOs in the sample for that period (t or t-1), 0 otherwise. CEOs with \$0 inside debt are excluded from the tercile determinations.

SC_CEO_DEF_TOP: An indicator variable coded 1 if the CEO is paid deferred compensation (inside debt) in the highest tercile of scaled deferred compensation paid to CEOs in the sample for that period (t or t-1), 0 otherwise. CEOs with \$0 inside debt are excluded from the tercile determinations.

Other Variables

AGE: The difference between the observation (fiscal) year and the first year of nonprofit exemption status according to IRS records

- AUD_COMMITTEE:** An indicator variable coded 1 if the nonprofit has an audit committee (Form 990, Part XI, Line 2c), 0 otherwise.
- BIG4:** An indicator variable coded 1 if the nonprofit's A-133 audit is performed by a Big4 firm (PWC, E&Y, KPMG, or Deloitte), 0 otherwise.
- BOARD_SIZE:** The number of board members listed for the nonprofit (Form 990, Part VI, Line 1b).
- BONDS:** An indicator variable coded 1 if the nonprofit has tax exempt bonds outstanding (Form 990, Part X, Line 20, Column B), 0 otherwise
- CHARITABLE:** An indicator variable coded 1 if program service revenue (Form 990, Part VIII, Line 2b) to total revenue (Form 990, Part VIII, Column A, Line 12) is less than the median for the sample, 0 otherwise
- COMPILE_REVIEW:** An indicator variable coded 1 if the nonprofit's current year financial statements were compiled or reviewed by an independent accountant, 0 otherwise (Form 990, Part XI, Line 2a)
- COMPLEXITY:** A variable coded from 0 to 5 indicating the number of different sources of revenue that the entity utilizes (Public support, government grants, program service revenue, investment income, other income: Form 990, Part VIII, Lines 1 – 3)
- CONTR_GRANTS_TOTREV:** The ratio of total contributions and government grants (Form 990, Part I, Line 9, Column 2) to total revenue (Form 990, Part VIII, Line 12, Column A)
- CONT_GROWTH:** The ratio of current period contributions and government grants to prior period contributions and government grants (Form 990, Part I, Line 9 Column 2 / Line 9 Column 1)
- CONTRIB_LOSS:** An indicator variable coded 1 if the prior year contributions and grants (Form 990, Part I, Line 9, Column 1) are greater than the current year contributions and grants (Form 990, Part I, Line 9, Column 2), 0 otherwise.
- CURRENT_RATIO:** Current assets (Non-interest bearing cash, savings, pledges and grants receivable, accounts receivable, receivables from officers, receivables from disqualified persons, inventory, prepaid expenses and deferred charges) divided by current liabilities (total liabilities less the sum of nontaxable bonds, secured mortgages, and unsecured debt) (Items from Form 990, Part X, Column B)
- DEFICIENCY:** An indicator variable coded 1 if the nonprofit was issued an internal control reportable condition or material weakness related to either the financial statements or major programs as shown on the A-133 Audit report, 0 otherwise
- FIN_TRANS_OWN_WEBSITE:** An indicator variable coded 1 if the nonprofit provides its Form 990 on its own website, 0 otherwise (Form 990, Part VI, Section C, Line 18)
- FUNDRAIS_EXP_CONTRIB:** The ratio of total fundraising expenses (Form 990, Part IX, Column D, Line 25) to total current period contributions and grants (Form 990, Part VIII, Line 1h)
- GOINGCONCERNRISK:** An indicator variable coded 1 if the nonprofit was issued a going concern opinion as shown on the A-133 Audit report, 0 otherwise

- GOVT_GRNTS*: The amount of current period government grants (Form 990, Part VIII, Line 1e)
- GRANTS_SIG*: An indicator variable coded 1 if the ratio of government grants (Form 990, Part VIII, Line 1e) to total revenue (Form 990, Part VIII, Line 12, Column A) is greater than 0.25, 0 otherwise.
- GROWTH*: Current period total assets (Form 990, Part I, Line 20, Column 2) less prior period total assets (Form 990, Part I, Line 20, Column 1) divided by prior period total assets (Form 990, Part I, Line 20, Column 1)
- INVESTMENT*: An indicator variable coded 1 if the nonprofit is issued an investment-grade credit rating (from Moody's), 0 otherwise. See Appendix D for categorization of investment and speculative ratings
- LEVERAGE*: The ratio of long-term debt (bonds + secured mortgages + unsecured debt: Form 990, Part X, Line 20, 23, 24, Column B) to total assets (Form 990, Part X, Line 16, Column B)
- LEVERAGE1*: The ratio of total liabilities (Form 990, Part X, Line 26) to total assets (Form 990, Part X, Line 16, Column B)
- LOSS2*: An indicator variable coded 1 if both prior period and current period surplus (revenues less expenses) is less than \$0 (i.e. negative): Form 990, Part I, Line 19), 0 otherwise
- LOW_OPER_RESERVE*: An indicator variable coded 1 if the operating reserve [unrestricted net assets (Form 990, Part X, Line 27, Column B) less PPE (Form 990, Part X, Line 10, Column B) and secured mortgages (Form 990, Part X, Line 24, Column B) divided by total expenses (Form 990, Part IX, Line 25, Column A)] is less than 0.25, 0 otherwise
- MATERIAL_NONCOMP*: An indicator variable coded 1 if the nonprofit was issued a material noncompliance as shown on the A-133 Audit report, 0 otherwise.
- MW_FS*: An indicator variable coded 1 if the nonprofit was issued an internal control material weakness related to its financial statements as shown on the A-133 Audit report, 0 otherwise.
- MW_GOV*: An indicator variable coded 1 if the nonprofit was issued an internal control material weakness related to its major programs as shown on the A-133 Audit report, 0 otherwise.
- NEWGRANTEE*: An indicator variable coded 1 for the first year that a nonprofit is listed in the A-133 Audit database, 0 otherwise.
- NUM_GOV_MECH2* – The number of governance mechanisms reported by the nonprofit on Form 990 as being used from 0-15 ((1) written conflict of interest policy, (2) enforcement of conflicts of interest, (3) disclosure of any officers' conflicts of interest, (4) whistleblower policy, (5) document retention policy, (6) CEO salary policy, (7) officer salary policy, (8) no family or business relationships, (9) no delegation of management duties to others, (10) no changes to organizational document from the prior period, (11) no officer without listed contact information, (12) board minutes recorded, (13) individual committee minutes recorded, (14) audit committee used, (15) financial statements compiled or reviewed by independent accountant (Form 990, Parts VI & Parts IV)

- OFFICER_SALARY_PLCY*: An indicator variable coded 1 if the nonprofit has a formal compensation setting policy for officers (Form 990, Part VI, Line 15b), 0 otherwise.
- PAY5_SLICE*: The total compensation (excluding deferred compensation) of the CEO divided by the total compensation (excluding deferred compensation) of the CEO plus the next four individuals listed on Schedule J based on total compensation amounts (Form 990, Schedule J, Part II)
- PERC_IND_BRD*: The ratio of the number of independent board members (Form 990, Part VI, line 1b) to total number of board members (Form 990, Part VI, Line 1a)
- POS_UNREST_CASH*: An indicator variable coded 1 if cash plus savings (Form 990, Part X, Lines 1 & 2, Column B) less restricted assets (both temporarily and permanently restricted: Form 990, Part X, Lines 28 & 29, Column B) is greater than \$0, 0 otherwise
- PROGRAM_RATIO_EXCL_COMP*: The ratio of program service expenses (Form 990, Part IX, Line 25, Column B) to total expenses (Form 990, Part IX, Line 25, Column A) excluding all forms of compensation (Form 990, Part IX, Line 5) in both the numerator and denominator.
- PSR_LOSS*: An indicator variable coded 1 if prior year program service revenue (Form 990, Part I, Line 9, Column A) is greater than current year program service revenue (Form 990, Part I, Line 9, Column B), 0 otherwise
- PSR_SIG*: An indicator variable coded 1 if the ratio of program service revenue (Form 990, Part VIII, Line 2g) to total revenue (Form 990, Part VIII, Line 12, Column A) is greater than 0.25, 0 otherwise.
- RATING*: A variable coded from 1 to 7 based on Moody's rating as shown in Appendix D
- RC_FS*: An indicator variable coded 1 if the nonprofit was issued an internal control reportable condition related to its financial statements as shown on the A-133 Audit report, 0 otherwise.
- RC_GOV*: An indicator variable coded 1 if the nonprofit was issued an internal control reportable condition related to its major programs as shown on the A-133 Audit report, 0 otherwise.
- REGIONAL*: An indicator variable coded 1 if the nonprofit's A-133 audit is performed by a regional firm defined as any one of the next top 25 firms ranked by revenues, 0 otherwise.
- REV_GROWTH*: The ratio of current year total revenue (Form 990, Part I, Line 12, Column 2) less prior year total revenue (Form 990, Part I, Line 12, Column 1) to prior year total revenue (Form 990, Part I, Line 12, Column 1)
- RISK*: An indicator variable coded 1 if the nonprofit is not a low-risk auditee as shown on the A-133 Audit report, 0 otherwise.
- ROA*: The ratio of current period revenues less expenses (surplus: Form 990, Line 19, Column B) to total assets (Form 990, Part X, Line 16, Column B)
- SIZE*: Current year total assets (Form 990, Part X, Line 16, Column B)
- STATE_RATE*: The state income tax rate for the given year
- SURPLUS*: Current year total revenues less total expenses (Form 990, Part I, Line 19, Column B)

TOTAL_REVENUE: Current year total revenue (Form 990, Part VIII, Line 12, Column A)

TRUSSEL_MANIP: The probability of program ratio manipulation as determined using the Trussel (2003) formula*: $1/(1+e^{-z})$. Where $z = -2.807 - 0.702\text{Margin} - 1.360\text{DefExp} + 0.030\text{RevGrowth} + 0.938\text{DepProg} - 2.375\text{DefRev} + 1.326\text{ProgChg}$

VULNERABILITY: An indicator variable coded 1 if current period program service expense (Form 990, Part IX, Line 25, Column B) less prior period program service expense (same but lagged) divided by prior period program service expense (same but lagged) is less than -0.25 (i.e. if program service expense decreased by more than 25%), 0 otherwise.

WR_CONFLICT_PLCY: An indicator variable coded 1 if the nonprofit has a written conflict of interest policy (Form 990, Part VI, Line 12a), 0 otherwise.

ZERO_FUNDRAISING: An indicator variable coded 1 if the fundraising expense for the nonprofit (Form 990, Part IX, Line 11e, Column A) is listed as zero, 0 otherwise.

* All Form 990 information comes from the 2009 Form 990. For periods prior to 2008 (in particular for 2008's lagged data coming from 2007, the Part, Line, etc. numbers are different)

** The Trussel_Manip inputs include the following:

- (1) Margin: The ratio of current year surplus (Form 990, Part I, Line 19, Column B) to total revenue (Form 990, Part VIII, Line 12, Column A)
- (2) DefExp: The sum of prepaid expenses and other deferred charges (Form 990, Part X, Line 9, Column B) and other assets (Form 990, Part X, Line 15, Column B) divided by total assets (Form 990, Part I, Line 20, Column 2)
- (3) RevGrowth: Current year total revenue (Form 990, Part I, Line 12, Column B) less prior year total revenue (Form 990, Part I, Line 12, Column A) divided by prior year total revenue (Form 990, Part I, Line 12, Column A)
- (4) DepProg: Depreciation and depletion related to program services (Form 990, Part IX, Line 22, Column B) divided by the sum of depreciation and depletion related to program services (Form 990, Part IX, Line 22, Column B) and current year PPE (land, buildings, equip. etc.: Form 990, Part X, Line 10a)
- (5) DefRev: The ratio of deferred revenue (Form 990, Part X, Line 19, Column B) to total assets (Form 990, Part I, Line 20, Column 2)
- (6) ProgChg: Current period program ratio divided by prior period program ratio

APPENDIX D**EXTERNAL CREDIT RATINGS**

Moody's Rating	Rating	Investment / Speculative
Aaa	7	Investment
Aa1	6	Investment
Aa2	6	Investment
Aa3	6	Investment
A1	5	Investment
A2	5	Investment
A3	5	Investment
Baa1	4	Investment
Baa2	4	Investment
Baa3	4	Investment
Ba1	3	Speculative
Ba2	3	Speculative
Ba3	3	Speculative
B1	2	Speculative
B2	2	Speculative
B3	2	Speculative
Caa1	1	Speculative
Caa2	1	Speculative
Caa3	1	Speculative
Ca	1	Speculative
C	1	Speculative