The Causes and Consequences of Internal Control Problems in Nonprofit Organizations

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Abstract

This study examines the causes and consequences of internal control deficiencies in the nonprofit sector using a sample of 6,572 public charities from 1999 to 2003. We first document that the likelihood of reporting an internal control problem increases for nonprofit organizations which are smaller and in poor financial health. We then present evidence that weak internal controls over financial reporting have a significant negative effect on the amount of subsequent public support received after controlling for the current level of public support and other factors influencing donations. Our results suggest that donors, an important source of capital for nonprofit organizations, react either directly or indirectly to internal control information.

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1. Introduction

The nonprofit sector represents a sizable slice of the United States economy. Nonprofit organizations had over $3.4 trillion in assets under their control and charitable giving to these organizations reached an estimated $295 billion, or 2.2% of gross domestic product, in 2006 (Wing, Pollack and Blackwood, 2008). Several recent financial scandals, involving some household names, have highlighted the significant fiduciary responsibilities of nonprofit managers as well as the relatively weak regulatory oversight of the nonprofit sector.[1] As a result, lawmakers have increased calls for nonprofit organizations to adopt more rigorous corporate governance practices, including improved internal control practices.

Internal control audits are, in fact, not new to the nonprofit sector. Nonprofit organizations that receive federal funding have been subject to audits of internal control since 1990. We make use of this unique setting to investigate the causes of internal control deficiencies and perhaps, more interestingly, the consequences of internal control reporting for these organizations. Specifically, we examine the characteristics of public charities that report internal control problems and the effect of such problems on subsequent contributions received.

Internal control is broadly defined as the process put in place by management to provide reasonable assurance regarding the achievement of effective and efficient operations, reliable financial reporting, and compliance with laws and regulations. Thus, results of internal control audits provide information on the level of risk that a nonprofit organization is not effectively carrying out its mission-related activities and fiduciary responsibilities. For this study, we define an internal control problem as the existence of a reportable condition over financial reporting.

[1] These scandals include the conviction of the CEO of the United Way of America for fraud; the ponzi scheme perpetuated by the Baptist Foundation of Arizona, which an audit by Arthur Anderson failed to detect, that resulted in the largest nonprofit bankruptcy ever; the misuse of funds by the executive director of the NAACP; and the lavish spending of university money by the president of Oral Roberts University, to name a few.

We first model the probability of disclosing an internal control problem as a function of salient characteristics of nonprofit organizations using a sample of 6,572 public charities from 1999 to 2003. We hypothesize that nonprofit organizations that are more complex, in poor financial health, smaller, and/or growing rapidly are more likely to disclose an internal control problem consistent with the findings from prior literature (Ge and McVay, 2005; Keating, Fischer, Gordon and Greenlee, 2005; Doyle, Ge, and McVay, 2007; Ashbaugh-Skaife, Collins and Kinney, 2007). Our results suggest that organizations that are small and/or facing financial distress report more internal control problems than other organizations.

Next, we consider the consequences of disclosure of an internal control problem for nonprofit organizations. Previous research into the consequences of an internal control deficiency has focused predominately on for-profit firms' cost of equity capital, either directly or indirectly through the market's response to the announcement of an internal control problem. The results are not consistent. Some studies have found that the disclosure of an internal control problem is associated with higher costs of equity capital (Ashbaugh-Skaife, Collins, Kinney and LaFond, 2009; Beneish, Billings and Hodder, 2008) and a negative market reaction to the announcement of a problem (Beneish, Billings and Hodder, 2008). However, using a different specification, Ogneva, Raghunandan and Subramanyam (2007) find no relation between internal control deficiencies and cost of equity capital.

Nonprofits organizations do not issue shares and their missions are not to maximize profit. While nonprofit managers are not accountable to shareholders, they are accountable to donors who provide an important source of capital. Nonprofit donors do not have limitless resources and therefore, nonprofit organizations must compete for contributions. In fact, prior research suggests that public charities, and their managers, are rewarded for higher mission-related spending (Weisbrod and Dominguez, 1986; Posnett and Sandler, 1989; Greenlee and Brown, 1999; Baber, Daniel, and Roberts, 2002; Tinkelman, 2004; Tinkelman and Mankaney, 2007). If a nonprofit organization has an internal control problem, donors could choose to contribute to another organization where the capital presumably will be more efficiently used.

Therefore, disclosure of an internal control deficiency could result in lower subsequent contributions. Alternatively, unlike shareholders, donors do not ultimately benefit from a nonprofit organization's strong performance and, thus, may be less likely to monitor the organization. Donors may be unaware of the internal control problem or may not care about the problem and, therefore, the disclosure of an internal control deficiency could be unrelated to subsequent contributions.

We examine whether the disclosure of an internal control problem is associated with subsequent lower contributions received from donors using the Weisbrod and Dominguez (1986) model, which captures the responsiveness of donations to various economic factors. We use a two-stage estimation procedure to control for endogeneity between internal control problems and contributions received. Our results indicate that reportable conditions over financial reporting are negatively associated with future public support, even after controlling for the current level of public support and other drivers of contributions. Organizations that disclose internal control problems receive fewer contributions in the subsequent year. This result appears driven by direct public support, contributions received directly from individuals, corporations and foundations. We find little evidence that indirect public support, contributions received indirectly from solicitation campaigns conducted by federated fundraising agencies (e.g., the United Way and the Combined Federal Campaign), is affected by the disclosure. Furthermore, the results are particularly pronounced for educational institutions and health care providers.

In supplementary tests, we examine mechanisms by which internal control deficiencies can affect contributions received. We find that reportable conditions are negatively associated with the program expense ratio, a relative measure of how much the organization is spending on mission-related activities. We also provide evidence that, under certain circumstances when public support is not a significant source of revenue, internal control problems are associated with relatively high executive compensation. Overall, these results are consistent with the notion that weak internal controls foster organizational inefficiency in the nonprofit sector.

This paper contributes to the debate over whether or not public charities should adopt more rigorous corporate governance practices, particularly in relation to internal control. Although the Sarbanes-Oxley Act of 2002 primarily addresses for-profit companies, it is substantially shaping expectations about nonprofit governance as well (Ostrower, 2007).[2] Recently policymakers have focused considerable attention on perceived weaknesses in the accountability and transparency of charitable organizations. This increased scrutiny is not necessarily unwarranted due to the recent financial scandals and the size of the nonprofit sector to the economy. Opponents of any increased regulation argue that the current rules are adequate but need to be enforced, that most donors will not use any additional information to make a giving decision, and that nonprofits do not have the funds to comply with burdensome rules (e.g., Irvin, 2005; Mulligan, 2006). Our evidence suggests that internal control information does affect, either directly or indirectly, the donor's giving decision. On average, we estimate that organizations disclosing reportable conditions receive 6.3% less public support in the subsequent year than organizations with no reportable conditions after controlling for other factors which affect giving.

Furthermore, the results of this study are important to nonprofit managers. During difficult economic times, when endowments are falling, government aid is declining, the cost of borrowing is rising and demand for services is skyrocketing, it is essential that nonprofit organizations continue to attract donors. Recognizing that they must maintain the public's trust, nonprofit organizations have been working together to convince policymakers that they can address their own shortcomings without onerous regulations.[3] However, the nonprofit sector has not focused much attention on the issue of internal control. Our evidence is consistent with the notion that improving internal controls not only reduces the risk of monetary loss resulting from

[2] For example, Fitch Ratings (2007) states that an assessment of internal controls similar to the one prescribed by Section 404 of Sarbanes-Oxley is critical in the determination of a nonprofit organization's credit rating.

[3] The most prominent example of self-regulation is the National Panel on the Nonprofit Sector convened by the Independent Sector. This panel proposed extensive changes in nonprofit governance and oversight in a June 2005 report to Congress, "Strengthening Transparency, Governance and Accountability of Charitable Organizations."

fraud or accounting error, but can also increase operating efficiency, thereby attracting more public support.

This paper also contributes to the literature on the consequences of internal control reporting as it provides a more direct measure of capital providers' response to internal control problems. Prior research examines the impact on the cost of equity capital, either directly by inferring an implied cost of capital from market models or indirectly through realized returns. Cost of equity capital could be considered a less direct measure of stakeholder response than donor contributions, in part, because it is inferred from market models under some potentially strong assumptions. In this study, we measure stakeholder response to internal control problems by looking at the change in subsequent contributions.

Finally, understanding the effects of disclosure of internal control problems is important because auditors of nonprofit organizations adopted SAS 112, *Communicating Internal Control Matters Identified in an Audit,* in 2007. This standard changes the manner in which internal control systems are evaluated by external auditors and can affect public perception of nonprofit organizations. PriceWaterhouseCoopers (2006, page 2) notes, "If an auditor identifies an internal control issue, it must be reported to trustees, granting agencies and other regulators under new definitions and in a more public manner than before and, as a result, control deficiencies could be exposed to greater scrutiny by stakeholders." Thus, any consequence from reporting an internal control deficiency during the sample period is likely to be amplified under today's standards.

The next section outlines current nonprofit regulatory oversight, with an emphasis on internal control reporting. Section 3 presents our hypotheses and empirical models. Section 4 describes the sample selection procedures and data. Section 5 reports our results. Section 6 concludes.

2. Background

The nonprofit sector is growing rapidly in size and complexity. Approximately 1.4 million nonprofit organizations operate in the United States today (Wing, Pollack and

Blackwood, 2008). These organizations vary significantly in terms of mission, size and primary revenue source. The Internal Revenue Code defines over twenty-five categories of nonprofits, such as human service organizations, schools, health care providers, cultural institutions, community development corporations, affordable housing, and research labs. Nonprofits exist to provide a public benefit, and therefore, receive preferential tax treatment and other regulatory privileges. Most nonprofit organizations are either public charities or private charitable foundations organized under Section 501(c)(3) of the Internal Revenue Code.[4] Brown (2007) reports that since 1997 the IRS has added to its master-file on average 39,465 exempt organizations per year, or 108 exempt organizations per day.

Until recently, regulatory oversight has not kept pace with the growth in the number of nonprofit organizations. Currently there are two mechanisms by which most nonprofit organizations are monitored: (1) the IRS via the organization's tax return (Form 990), which is required for all organizations receiving at least $25,000 of public support and (2) the nonprofit laws in the state of incorporation, which vary widely from state to state. These mechanisms have been criticized as insufficient to ensure nonprofits are meeting their fiduciary obligations (Hansmann, 1981; Atkinson, 1998; Fishman, 2003; Reiser, 2005). In addition, the IRS acknowledges a lack of enforcement presence (Brown, 2007).

Congress passed the Sarbanes-Oxley Act of 2002 in an attempt to improve the accountability and oversight of public companies. Most of the provisions of the Sarbanes-Oxley Act do not apply to nonprofit organizations and there is currently no federal equivalent of the Act for nonprofits.[5] Nevertheless, Sarbanes-Oxley has influenced attitudes about corporate governance in the nonprofit community. Policymakers at both the state and federal levels are

[4] Private foundations generally receive funding from a single source (i.e., a family or corporation), earn significant investment income, and make grants to other organizations. Public charities, as defined in Section 509(a), receive substantial support from the general public or government and actively conduct charitable operations. Private foundations are subject to various excise taxes and restrictions in order to ensure that they are indeed using their resources for charitable purposes. Congress did not impose the same excise taxes and restrictions on public charities, presumably because donors hold public charities accountable.

[5] The two provisions of SOX that do explicitly apply to nonprofit organizations are whistle blower protection and document destruction policies.

considering various proposals aimed at enhancing nonprofit accountability.[6] For example, Senator Chuck Grassley (2006), then Chairman of the Senate Finance committee, said:

> "*Just as Congress has acted in the public interest to protect shareholders and workers from corporate mismanagement, so too must Congress demand transparency, accountability and good governance from the nonprofit sector…Tightening rules and regulations governing the nonprofit sector will help repair the breach of trust that threatens to tarnish even the most reputable charities in America."*

One of the main elements of Sarbanes-Oxley is management's responsibility for internal controls. Section 302 of the Act requires that chief executive and chief financial officers evaluate the design and effectiveness of internal controls on a quarterly basis and report an overall conclusion about the effectiveness of internal controls. Section 404 of the Act requires an annual audit of management's evaluation of internal controls and of the effectiveness of internal controls. Even though public charities are not subject to either Section 302 or Section 404 of Sarbanes-Oxley, similar requirements could be applied to the nonprofit sector. For example, the attorney generals in the states of New York and Massachusetts have proposed bills with provisions similar to the requirements in Section 302.

Some charities already are required to undergo internal control evaluations annually because they receive federal funding. Specifically, all organizations with federal expenditures greater than $500,000 ($300,000 for fiscal years ending before January 1, 2004) must have an audit conducted in accordance with Office of Management and Budget (OMB) Circular A-133 "Audits of Institutions of Higher Education and Other Non-Profit Organizations."[7] OMB A-133 was issued in 1990. The results of these audits (Form SF-SAC) must be filed within nine months of the end of the fiscal year with the Federal Audit Clearinghouse and are publicly available.

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[6] The extraordinary interest in reforming laws governing charitable organizations is detailed in Reiser (2005), Mulligan (2007), and Fremont-Smith (2007).

[7] Federal expenditures represent the total amount of federal awards expended during the year as reported on the A-133 audit report. The amount expended and the amount received in government grants during a given period are not equal for two reasons: (1) timing differences and (2) federal expenditures include all funds that the organization oversees, even if those funds are not revenue to the organization but are instead federal financial assistance (e.g., financial aid which is administered by the university and therefore included in total federal expenditures).

The objective of an A-133 audit, also called a single audit, is to provide assurance that an organization receiving grants from the federal government is using the funds appropriately and is complying with all federal regulations. As part of an A-133 audit, independent auditors issue opinions on both the financial statements and on compliance with provisions of the federal programs. In addition, the auditors report on internal control over both financial reporting and federal program compliance. Although the internal control audit required under A-133 is not as stringent as the audit required by the Sarbanes-Oxley Act, it does identify whether there are any reportable conditions and, if so, whether any of the reportable conditions are material weaknesses.[8]

An important attribute of an A-133 audit process is that the auditor must determine whether the nonprofit organization qualifies as a low risk auditee. This determination is based on numerous factors including prior year audit results, third-party references, the level of oversight of the granting federal agency, and the inherent risk of the federal programs involved. To be considered low risk, an organization must have been audited annually for the past two years and these prior audits must have resulted in clean opinions, no internal control deficiencies, and no audit findings. The risk determination affects the amount of auditing that is required to be performed under OMB A-133. For high risk organizations, auditors are required to perform more testing and, thus, are more likely to uncover internal control problems.

3. Hypothesis Development and Empirical Models

Determinants of Internal Control Deficiencies

We first examine the determinants of internal control deficiencies. A significant body of research examines the characteristics of publicly traded companies disclosing internal control

[8] Reportable conditions involve shortcomings in the design or operation of internal controls that could adversely affect the organization's financial reporting or its ability to administer its federal programs. Material weaknesses are reportable conditions in which the design or operation of one or more internal control components does not reduce to a relatively low level the risk of material noncompliance with applicable grant requirements or with GAAP caused by error or fraud that may occur and not be detected in a timely manner. Note that SAS 112 replaces the "reportable condition" concept with "significant deficiency." Because our sample period pre-dates SAS 112, we use the term reportable condition.

problems. Ge and McVay (2005) find that firms disclosing material weaknesses are more complex, smaller, and less profitable than firms not disclosing material weaknesses. Doyle, Ge, and McVay (2007) add that firms disclosing material weaknesses are younger, growing rapidly, or undergoing restructuring. Likewise, Ashbaugh-Skaife, Collins, and Kinney (2007) find that firms reporting internal control deficiencies have more complex operations, greater exposure to accounting risk, fewer resources to invest in internal control, and a higher likelihood of using a dominant audit firm.

Despite the extensive academic literature on internal controls in publicly traded companies, there is little research on internal control in the nonprofit sector. Keating, Fischer, Gordon and Greenlee (2005) examine A-133 audit results from 1997 to 1999 using univariate tests. They find that smaller organizations and organizations classified as high risk disclose more internal control problems. They also report that organizations with audits performed by national, large regional, and specialist firms report fewer internal control problems, which differs from the Ashbaugh et al. (2007) auditor quality results for public companies. Keating et al. (2005) suggest that small nonprofit organizations, which are more likely to have internal control problems, select small audit firms.

We extend the results of Keating et al. (2005) by examining a more comprehensive set of factors that may be associated with reporting internal control deficiencies in nonprofit organizations. Specifically, we model the likelihood of reporting internal control problems as a function of several internal control risk factors and audit detection variables. As discussed in detail below, we expect organizations that are more complex, in poor financial health, smaller, and/or growing rapidly disclose more internal control deficiencies.

Public charities with diverse operations face challenges instituting internal controls across their various initiatives and divisions. We measure organizational complexity by the type of A-133 audit performed. If a nonprofit organization receives federal funding from only one federal program, the organization can elect to have a program-specific audit rather than a complete

single audit.[9] Organizations that receive funding from only one federal source generally engage in fewer types of charitable programs than organizations that receive funding from several federal sources. Thus, we predict that organizations electing a program-specific audit (TYPEA133) are less complex and, therefore, report fewer internal control problems.

Nonprofit organizations in poor financial health are less likely to have resources to invest in establishing strong internal controls. We use the existence of a going concern paragraph in the opinion on the financial statements (GOINGCONCERNRISK) as a proxy for poor financial health. A going concern paragraph indicates the auditor has substantial doubt that the organization can meet its obligations as they become due. We expect that organizations with a going concern paragraph report more internal control deficiencies. Consistent with studies of public companies which use the existence of losses to measure financial health, we also include an indicator of whether or not the organization's revenues exceed its expenses (SURPLUS). We expect that charities with a surplus have fewer internal control problems.

Larger organizations (SIZE), as measured by total assets, have more resources and experience to draw on when implementing internal controls. For example, Greenlee, Fischer, Gordon and Keating (2007) report that older and larger nonprofit organizations are more likely to have an internal audit function in place. Thus, we expect that larger organizations disclose fewer internal control problems. Internal controls should change in response to organizational change as existing controls may be irrelevant or inefficient and new controls may be required. Rapidly growing organizations are often unable to adequately assess and update internal controls at the same pace at which organizational expansion occurs. We predict that change in size (GROWTH) is positively associated with the existence of internal control deficiencies.

We also investigate the effect of auditor type on the probability of reporting an internal control problem but do not make a prediction. On one hand, dominant audit firms (BIG6,

[9] A program-specific audit usually includes an audit of the financial statements and an examination of internal control over financial reporting. The primary difference between a program-specific audit and a single audit is that a program-specific audit generally includes fewer federal compliance requirements.

REGIONAL, and SPECIALIST) have more training, experience, and exposure to litigation risk, all of which imply that these audit firms are more likely to discover internal control deficiencies. On the other hand, dominant audit firms may only contract with prestigious nonprofit organizations which are inherently less risky. This self-selection suggests that dominant audit firms are less likely to discover internal control problems at their nonprofit clients.

As noted in Section 2, auditors are required to determine whether a nonprofit organization qualifies as a low-risk auditee under OMB A-133. Because they are inherently less risky and because there is less testing involved, the likelihood of unearthing an internal control problem is lower for low-risk auditees than it is for high-risk auditees. Thus, we include the assessed level of risk (RISK) as an important control in our model.

Based on the above discussion, we use the following probit model, equation (1), to estimate the probability of disclosing an internal control deficiency as a function of organizational characteristics and audit detection variables as follows:

$$\begin{aligned} Prob(\text{ICD}) = {} & \beta_0 + \beta_1 \text{TYPEA133} + \beta_2 \text{GOINGCONCERNRISK} + \beta_3 \text{SURPLUS} \\ & + \beta_4 ln\text{SIZE} + \beta_5 \text{GROWTH} + \beta_6 \text{RISK} \\ & + \beta_7 \text{BIG6} + \beta_8 \text{REGIONAL} + \beta_9 \text{SPECIALIST} \\ & + \Sigma \gamma_i \text{INDUSTRY} + \Sigma \delta_i \text{YEAR} \end{aligned} \qquad (1)$$

Overall, we expect the likelihood of reporting an internal problem increases as a function of GOINGCONCERNRISK, GROWTH and RISK and decreases as a function of TYPEA133 (less complexity), SURPLUS and SIZE. The empirical specification also includes controls for industry and year.

Effect of Internal Control Deficiencies

We next examine the consequences of internal control deficiencies. Prior studies of public companies document that internal control problems are associated with equity market concerns. Specifically, firms reporting an internal control deficiency under Section 302 and Section 404 experience stock price declines, with the most negative returns for material

weakness disclosures (e.g., Hammersley, Myers, and Shakespeare, 2008; Beneish, Billings, and Hodder, 2008). Evidence on the impact of internal control problems on the cost of capital for public companies is mixed. Ashbaugh-Skaife, Collins, Kinney and LaFond (2009) find that internal control problems are associated with a higher cost of equity while Ogneva, Subramanyam and Raghunandan (2007), using a different specification, do not find an association. A limitation of these studies of public companies is that the cost of equity is a less direct measure of stakeholders' reactions as it is inferred from a market model under certain strong assumptions.

There has been little consideration given to understanding the effect of internal control deficiencies in the nonprofit sector. Internal controls are established to provide assurance that operations are running efficiently and that financial reporting is reliable. We expect that nonprofit organizations with internal control problems, on average, have lower operating efficiency and produce lower quality financial reports. Thus, internal control problems can affect directly or indirectly the amount of funds available to achieve the organization's mission. The source of funding takes many forms depending on the type of organization, including donor contributions, government grants, program service revenue, and/or debt financing.

We choose to examine the impact of internal control problems on donations (PUBLIC SUPPORT). Donations include gifts received from individuals, trusts and estates, corporations and foundations (DIRECT SUPPORT), as well as gifts received from federated fundraising agencies (INDIRECT SUPPORT), such as the United Way and the Combined Federal Campaign. Donors generally have less information about the quality of the nonprofit organization's output relative to government grantors, customers (who provide program service revenue) and creditors. Nevertheless, donors provide a substantial amount of support to the nonprofit sector. In the face of this information asymmetry, it is important to understand all factors, including the quality of internal control, that influence a donor's charitable giving decision in a competitive market for donations. In addition, unlike the indirect cost of capital measure for public companies noted above, charitable gifts by donors to nonprofit organizations provide direct evidence of stakeholder reactions to internal control problems.

Several prior studies offer evidence that a public charity's operating efficiency is positively associated with the amount of contributions received (e.g., Weisbrod and Dominguez, 1986; Posnett and Sandler, 1989; Greenlee and Brown, 1999; Tinkelman, 2004; Tinkelman and Mankaney, 2007).[10] Further, Yetman (2008) reports that donors give less to nonprofit organizations which overstate mission-related expenses and understate fundraising expenses, providing some support for the idea that donors can unravel low-quality financial statements. However, Tinkelman (1998) and Khumawala, Parsons and Gordon (2005) both provide evidence that most donors do not unravel joint cost allocations made to strategically overstate mission-related activities. Overall, prior research suggests that, in many but not all cases, donors use available information from the organization's Form 990 to distinguish higher quality nonprofit organizations from lower quality nonprofit organizations and make their giving decisions accordingly.

Because internal control deficiencies can signal a lack of effectiveness in providing charitable services and a higher probability of undetected misconduct, all else equal, we expect that nonprofit organizations with internal control deficiencies receive fewer contributions from the public than organizations with no internal control deficiencies. This hypothesis is based on the assumption that donors make giving decisions in order to assist in the provision of public goods and, thus, opt to give to organizations that can provide the public goods with minimum risks. While it is possible that financially sophisticated donors (e.g., private foundations) actually obtain the publicly available A-133 audit report as part of the giving decision process, it is highly unlikely that most donors do. Even if donors do not know that an organization has reported an internal control problem, they may still indirectly receive information about that problem. For example, internal control problems can be associated with lower operating efficiency which is observable on the more widely-distributed Form 990. Alternatively, a donor may have lower

[10] There are many slight variations in the definition of operating efficiency. In general, operating efficiency constructs attempt to capture how much the nonprofit organization spends on program-related activities (i.e., fulfilling its mission) relative to how much it spends on administrative and fundraising costs.

quality interactions with an organization which has internal control problems (e.g., an internal control weakness causes donor acknowledgements not to be sent as required by the IRS).

There are some reasons why the quality of an organization's internal controls may not affect public support. In particular, not all donors give in order to provide a public good. Some donors simply seek a warm glow (Andreoni, 1990; Ribar and Wilhelm, 2002) and, thus, internal control information, or any financial information for that matter, is irrelevant. Also, it may be too costly for donors to obtain and evaluate A-133 audit information. Finally, if the internal control audit results are not filed until nine months after year end, the information may stale. Therefore, it is an open empirical question whether internal control problems affect subsequent contributions.[11]

We adapt the widely-used Weisbrod and Dominguez (1986) approach to capture the responsiveness of donations to various economic factors. Weisbrod and Dominguez (1986) models public support as a function of conventional market variables, including price, fundraising expenses, and age:

$$\ln\text{PUBLIC SUPPORT}_t = \beta_0 + \beta_1 \ln\text{FUNDRAISING EXP}_{t-1} + \beta_2\text{PRICE}_{t-1} + \beta_3\text{AGE}_t$$

Price measures the cost to the donor of "purchasing" (i.e., contributing) one more dollar of the organization's output. Price depends on the after-tax cost of giving, as well as the efficiency in which the organization generates output. Specifically, PRICE is defined as:

PRICE = (1-T)/(1-(FUNDRAISING EXP + ADMINSTRATIV EXP)/ PUBLIC SUPPORT)

Donors face the same marginal tax rate with respect to donations for all charitable organizations and, thus, we assume T = 0. Theoretically, price should have a negative influence on the level of giving. However, Bowman (2006) notes that, in prior empirical studies, results of tests examining the effect of price on contributions are sensitive to model specification. The Weisbrod

[11] This discussion suggests that any influence that internal control does have on contributions is moderated by the level of sophistication of the organization's donor clientele. Unfortunately, it is impossible to test this supposition using archival data because nonprofit organizations do not disclose the identities of their donors in a consistent, systematic manner. See Baber et al. (2001) for a discussion of donor clienteles.

and Dominguez (1986) model also includes FUNDRAISING EXP, which represents the organization's effort to reduce information asymmetry, and AGE, which represents the organization's stock of goodwill. Both are expected to positively affect public support.

In order to test our expectation about the effect of internal control problems on contributions, we estimate the following equation:

$$\begin{aligned} \ln\text{PUBLIC SUPPORT}_t = {} & \beta_0 + \beta_1 \text{INTERNAL CONTROL DEFICIENCY}_{t-1} \\ & + \beta_2 \ln\text{FUNDRAISING EXP}_{t-1} + \beta_3 \text{PRICE}_{t-1} + \beta_4 \text{AGE}_t \\ & + \beta_5 \ln\text{GOV CONTRIBUTIONS}_{t-1} + \beta_6 \ln\text{PROGRAM REVENUE}_{t-1} \\ & + \beta_7 \ln\text{PUBLIC SUPPORT}_{t-1} + \Sigma\gamma_i \text{INDUSTRY} + \Sigma\delta_i \text{YEAR} \end{aligned} \quad (2)$$

In addition to the Weisbrod and Dominguez (1986) variables, we include government grants (GOV CONTRIBUTIONS) and program service revenue (PROGRAM REVENUE) in order to control for any crowding-out or crowding-in effects. Khanna and Sandler (2000) and Okten and Weisbrod (2000) provide evidence of a positive relation between public support and government grants and program service revenue, indicating a crowding-in effect. Finally, we include prior year public support to capture any other organization-specific factors, as well as industry and year controls. We are primarily interested in the coefficient on internal control deficiency, β_1, and predict that the existence of an internal control problem is negatively associated with subsequent public support.[12]

Reporting a negative coefficient on β_1 could indicate that disclosure of internal control deficiencies influence donors' decisions. However, it is also possible that low levels of contributions result in inadequate resources necessary for a nonprofit organization to implement strong controls. To address any endogeneity concerns, we implement the Heckman (1979) selection model. In the first stage, we use equation (1) to estimate the likelihood of reporting an

[12] We examine the association between internal control problems and public support received in the following year. To the extent that information from internal control audits is not available until nine months after the fiscal year end and donors directly use this information, our tests are biased against finding results. Our approach is consistent with prior studies which examine the influence of program spending ratios on subsequent year's giving using 990 data, where 990s are generally filed from five to eleven months after year end.

internal control deficiency and, using the parameters of this model, compute an inverse Mills ratio. In the second stage, we estimate equation (2) and include the inverse Mills ratio as a control.

4. Sample Selection and Data

We obtain data on public charities from two sources: (1) the A-133 Single Audit database available from the Federal Audit Clearinghouse and (2) the IRS Form 990 databases (Core Trend v2006a, DD Revenues and Expenses v2005b, and DD Functional Expense v2005b) available from the National Center for Charitable Statistics (NCCS). The A-133 data includes general auditee information, the amount of federal awards expended, auditor name, type of audit performed, audit opinions, internal control information, and audit findings as reported on the Form SF-SAC. The IRS data includes revenues, expenses, and balance sheet data as reported on the Form 990. All variables that we use from these databases are defined in Table 1.

Panel A of Table 2 details our sample selection process. A merge of the A-133 data and the IRS Core Trend data on EIN and year results in a sample of 76,462 unique observations (23,640 public charities) from 1999 to 2003.[13,14] We denote these observations as the 'full sample' because we have information on internal controls for every observation in this sample. Our main test examining the consequences of internal controls also requires data on public support and price. We eliminate 61,389 observations without this necessary data, resulting in a final 'limited sample' of 15,073 observations (6,572 organizations).[15]

[13] Because the NCCS data contains some data errors we conduct the error-checking procedures recommended by the NCCS. We noted some organizations which had identical information in consecutive years. We could not universally determine which year contained the correct information and, thus, deleted all related years. This resulted in a loss of 9,735 observations. Also, as suggested by the 2006 *Guide to Using NCCS Data*, any suspicious observations were compared to full text versions of the Form 990 available at Guidestar (http://www.guidestar.org). A small number of corrections were made, primarily related to the units reported (i.e., the file listed $5 instead of $5 million). To our knowledge, any remaining errors create noise but do not systematically bias our tests.

[14] Our investigation of the consequences of internal control problems requires lagged contributions data from the DD Revenues and Expense v2005b database, which is only available from 1998 through 2003. Thus, the sample period spans 1999-2003.

[15] Price is defined as log (1 / (1 - ((FUNDRAISING EXP+ADMIN_EXP)/PUBLICSUPPORT))). If the sum of fundraising and administrative costs exceeds public support, then price is undefined and the observation is excluded. This occurs when an organization does not rely on public support (e.g., low-income housing projects).

While it appears that we delete a substantial number of observations to construct the limited sample, these observations represent organizations where public support is irrelevant and, thus, would be excluded anyway. See Tinkelman and Mankaney (2007) for a discussion of the importance of sample composition when examining the determinants of contributions to nonprofit organizations. The sample selection process ultimately identifies organizations where public support is a non-trivial source of revenue. Note that our limited sample is significantly larger than samples in previous studies of internal control in the for-profit literature. We focus primarily on the limited sample because our main tests require public support and price. However, for tests that do not require these variables, we also present results using the full sample in order to shed light on the role of internal control for a broader cross-section of nonprofit organizations. In general, organizations in the full sample are significantly smaller and younger than organizations in the limited sample.

Panel B of Table 2 indicates that the number of nonprofit organizations receiving federal funds each year is increasing over time for the sample, which is consistent with the overall growth of the nonprofit sector. In Panel C, we classify observations into five main industries based on the National Taxonomy of Exempt Entities (NTEE) developed by the IRS. The five industries, which are the same industries used in Keating et al. (2005), include: Arts, Education, Health, Human Services, and Public Benefit. The remaining NTEE categories (i.e., Religion, International, Environment, and Unknown) are classified as "Other." Human Services organizations (e.g., Red Cross chapters, YMCAs) comprise over half of the sample, while Arts and Cultural organizations comprise the smallest fraction of the sample. Untabulated results reveal that, although Human Services are the most common type of nonprofit organization receiving federal funding, these organizations are also the smallest as measured by total assets. Educational institutions, which comprise 16.08% of the sample, are significantly larger than other types of nonprofit organizations.

In Panel D of Table 2, we classify observations by the type of auditor, which is based on audit firm size and experience in conducting A-133 audits, similarly to Keating et al. (2005).

The Big 6 category includes the six largest public accounting firms from 1998 to 2003.[16] The Regional category includes any of the next twenty-five largest accounting firms from *Accounting Today's* 2004 Top 100 Firms list (ranked by revenues). Seventeen of these twenty-five Regional firms conducted A-133 audits during our sample period. The Specialist category includes any accounting firm, not already classified as Big 6 or Regional, which conducted 100 or more A-133 audits during the sample period. In our sample, 109 audit firms are classified as Specialist auditors. The Other category includes all accounting firms not already classified as Big 6, Regional or Specialist. The Specialists conducted 15.46% of the A-133 audits in our sample, followed by the Big 6 which conducted 12.85% of the audits and the Regional firms which conducted 8.19% of the audits.[17] Untabulated results indicate that Big 6 firms audit the largest nonprofit organizations receiving federal funds. The mean (median) total assets of a Big 6 auditee is $563.4 million ($87.6 million) while the mean (median) total assets of a Regional auditee is $33.0 million ($6.6 million). Regional firms, in turn, audit larger organizations than Specialists which, in turn, audit larger organizations than the other accounting firms.

Panel A of Table 3 provides descriptive statistics for the sample. The mean (median) PUBLIC SUPPORT is $6.4 million ($709,664), of which the mean (median) DIRECT SUPPORT is $5.7 million ($489,041). The mean (median) INDIRECT SUPPORT is $723,524 ($0), indicating that many organizations do not receive any indirect support from federated fundraising campaigns. The mean (median) SIZE is $77.0 million ($2.7 million) while the mean (median) AGE of a nonprofit organization in our sample is 29 (25) years.[18] The mean (median) rate of growth is 13.7% (4.6%).

[16] We label the category 'Big 6' because there were six firms at the beginning of the sample period, even though there were only four firms by the end of the sample period. This category includes any organization which listed one of the following firms as its auditor on its A-133 report: Arthur Andersen, Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG, PriceWaterhouse or PriceWaterhouseCoopers.

[17] These frequencies are quite different than the frequencies in the for-profit sector. For example, Ashbaugh-Skaife et al. (2007) report that the six dominant audit suppliers account for 84.7% of the audits of public companies.

[18] Age is calculated from the year the organization received its tax exempt status, not from the year when the organization was founded. This calculation causes age to be biased downward (i.e., Harvard was founded in 1638 but received its tax exempt status from the IRS in 1967.)

The A-133 audit provides four indicators of an internal control problem: if the organization discloses a reportable condition related to its financial statements; if the organization discloses a reportable condition related to compliance with federal programs; if the organization discloses a material weakness related to its financial statements; and if the organization discloses a material weakness related to its compliance with federal programs. We are most interested in internal control over financial reporting because these results are relevant to all nonprofit organizations and because donors likely care more about financial reporting and less about compliance with federal regulations.[19] Panel A of Table 3 reports that 12% of the sample disclosed a reportable condition over financial reporting (RC_FS). Untabulated results indicate that 26.6% of these reportable conditions are deemed material weaknesses (or 3.5% of the entire sample). For comparison purposes, 14-15% of for-profit companies report a material weakness (Doyle et al., 2007, Table 5). Given the relatively small number of observations with a material weakness, we focus primarily on reportable conditions.

Panel B of Table 3 provides descriptive statistics by the existence of a reportable condition over financial reporting. Organizations which disclose internal control problems are significantly smaller in size, on average, than organizations which do not. Thus, public support, government contributions, program service revenue, and fundraising expenses are also lower. We measure the amount spent on charitable activities as the ratio of program expenses to total expenses. The mean program expense ratio is 87.4% for organizations with internal control deficiencies and 87.9% for organizations without deficiencies. This (marginally significant) difference suggests that organizations with better internal controls spend more on mission-related activities. Consistent with Desai and Yetman (2006), we measure executive compensation as the ratio of officers' compensation to total expenses. Organizations disclosing reportable conditions pay significantly more executive compensation on average than organizations without reportable conditions (3.6% versus 3.3%).

[19] Not surprisingly, there is significant overlap among organizations which disclose a financial statement internal control problem and organizations which disclose a federal program internal control problem.

5. Empirical Results

Determinants of Internal Control Deficiencies

Table 4 reports simple correlations between our measure of internal control problems (RC_FS) and organizational characteristics. As predicted, having a going concern paragraph in the audit opinion is positively associated with internal control deficiencies while reporting a surplus is negatively associated with internal control deficiencies. Disclosure of internal control problems are negatively associated with size and positively associated with risk. Overall, the correlations in Table 4 are consistent with smaller organizations, risky organizations, and financially-distressed organizations disclosing more reportable conditions.

Table 5 presents the results from the first stage of our analysis. We estimate the probability of disclosing a reportable condition as a function of organizational characteristics and audit detection factors using a probit model for the limited sample. The coefficients on financial health (GOINGCONCERNRISK and SURPLUS), SIZE, and RISK have the predicted signs and are statistically significant. The coefficient on GROWTH is positive but not significant. The coefficient on TYPEA133, which serves as a proxy for complexity, is unexpectedly positive and marginally significant. These results are consistent with less financially healthy and smaller organizations disclosing more internal control deficiencies.[20]

The model also includes indicator variables for the type of auditor performing the A-133 audit. The coefficients on Big 6 auditors and specialist auditors are significantly negative. This result indicates that the probability of disclosing an internal control problem decreases if a Big 6 firm or specialist firm is used and suggests these audit firms selectively contract with certain high-quality nonprofit organizations. However, the coefficient on Regional firms is significantly

[20] We obtain qualitatively similar results when we estimate a regression of the disclosure of a material weakness on the same explanatory variables, with one exception. When material weakness is the dependent variable, the coefficient on TYPEA133 is negative but not significant.

positive which indicates the likelihood of disclosing an internal control problem increases if a Regional audit firm is used.

We also estimate the probability of disclosing an internal control problem using the full sample in order to understand the determinants of internal control deficiencies for a broader range of nonprofit organizations. Table 5 reports that all of the coefficients that were significant in the predicted direction (GOINGCONCERN, SURPLUS, SIZE and RISK) for the limited sample remain so for the full sample. In addition, the coefficient on our proxy for complexity, TYPEA133, is now negative and highly significant as predicted. This suggests when we limit our sample to organizations with non-trivial public support we reduce the variability of our complexity measure.[21] The coefficient on GROWTH remains insignificant.

Effect of Internal Control Deficiencies on Public Support

Panel A of Table 6 reports the results from the second stage of our analysis. We estimate a regression of public support on the disclosure of reportable condition over financial reporting in the prior year and include the Inverse Mills ratio computed using the parameters from Table 5 for the limited sample. For this table and all subsequent tables, we use Huber-White robust standard errors, where errors are clustered by organization.

In the first column ("Base") of Panel A, we estimate the traditional Weisbrod and Dominguez (1986) model. Consistent with prior research, the coefficients on FUNDRAISING EXP and AGE are significantly positive while the coefficient on PRICE is significantly negative. In model (1), we include an indicator variable for the existence of a reportable condition. The coefficient on RC_FS_{t-1} (-0.303) is negative and significant. In model (2), we add GOV CONTRIBUTIONS and PROGRAM REVENUE, which are both positively associated with public support. The coefficient on RC_FS_{t-1} remains negative and significant. Finally, in model (3), we add prior year public support. Not surprisingly, the coefficient on PUBLIC $SUPPORT_{t-1}$

[21] Panel A of Table 3 indicates that only .5% of observations in the limited sample received the less complex program-specific audit.

is highly significant. Nevertheless, the coefficient on RC_FS_{t-1} is still negative and significant.[22] Overall, this evidence is consistent with our hypothesis that reportable conditions related to the financial statements have a detrimental effect on subsequent public support. Specifically, our results suggest that, all else equal, reporting internal control problems are associated with 6.3% (approximately $400,000) less public support on average.

Next, we examine the components of PUBLIC SUPPORT in Panel B of Table 6. All three models provide evidence that DIRECT SUPPORT is negatively associated with RC_FS_{t-1}. The evidence for INDIRECT SUPPORT is mixed; one model reports an insignificant coefficient, one model reports a negative coefficient and one model reports a positive coefficient. Thus, it appears the PUBLIC SUPPORT result is driven by DIRECT SUPPORT. Those organizing and contributing to federated fund-raising campaigns do not appear to consider internal control problems as part of the giving decision.

We conduct a series of robustness tests (untabulated). First, we estimate a regression of subsequent public support on the disclosure of a material weakness over financial reporting. We find evidence that material weaknesses are negatively associated with subsequent public support using model (1) and model (2). The coefficient on material weaknesses in model (3) is negative but not significant using a two-tailed test (t-stat = -1.38). We also estimate the regressions from Table 6 without using the Heckman (1976) procedures and find consistent evidence that disclosure of a reportable condition is negatively associated with public support. Finally, we replace the year indicator variables with each year's annual GDP to control for macroeconomic factors.[23] We continue to find a significantly negative relation between reportable conditions and subsequent contributions.

Table 7 replicates model (3) of Table 6 across the six NTEE industries. We investigate the impact of RC_FS_{t-1} on public support and find negative and significant coefficients for the

[22] Size is negatively associated with internal control deficiencies and positively associated with the level of public support. We do not include size as an explanatory variable in Table 6 because size and age are highly correlated and inclusion of size results in multicollinearity problems. Size was included in the first stage. In addition, the inclusion of lagged public support should control for several organization-specific characteristics, including size.

[23] We obtain the GDP data from the U.S. Department of Commerce Bureau of Economic Analysis (www.bea.gov).

Education, Health and Public Benefit industries. In untabulated results, we estimate regressions across the 28 major NTEE groups for a finer analysis and find negative and significant coefficients for Higher Education, Science and Technology, Mental Health, Health Research, Human Services, Recreation and Community Improvement. Only two industries, Animal and Environment, have positive and significant coefficients. Coefficients for the remaining industries are insignificant. According to Wing, Pollack and Blackwood (2008), excluding Religion,[24] Education receives the largest percentage of total public support, followed next by Health. Environment and Animal receive the lowest proportion of public support. Thus, it appears that internal control problems influence industries which receive substantial contributions.

Effect of Internal Control Deficiencies on Expense Ratios

Our results, thus far, indicate a negative association between weak internal controls and public support. However, they do not provide any insight into the mechanism by which internal controls influence giving. Perhaps, operating efficiency (or inefficiency) mediates the link between internal control and contributions. Specifically, poor internal controls cause an organization to spend more on administrative costs and less on mission-driven expenses. In turn, donors (or watchdog groups) observe the low program expense ratio and provide less support.[25]

To explore this possibility, we estimate a regression of the program expense ratio on the disclosure of a reportable condition related and other control variables in Table 8. All else equal, organizations with higher program ratios are considered more efficient. In order to understand the influence of internal controls for a broad range of organizations, we conduct this analysis on

[24] Religion receives the largest amount of public support. Most religious organizations are not included in our sample because religious institutions are exempt from the Form 990 filing requirement and most do not receive federal funding.

[25] A confounding factor is management's incentive to manipulate financial reporting by overstating the amount of program expense and understating the amount of administrative and fundraising expenses (Jones and Roberts, 2006; Krishnan, Yetman and Yetman, 2006). While the influence of internal control problems on earnings management has not been studied in the nonprofit sector, evidence from the for-profit sector indicates that weak internal controls are associated with lower accruals quality (Doyle, Ge and McVay, 2007). Thus, it is likely that internal controls problems are associated with a higher probability of overstating program expense by nonprofit organizations. If this is the case, and donors do not unravel this overstatement, internal control problems could ultimately lead to more contributions, rather than less.

both the limited sample and the full sample as these tests do not require price or public support data. For both samples, we report a significantly negative coefficient on RC_FS.[26] Overall, our evidence suggests that the existence of a reportable condition is associated with lower program efficiency. These results are consistent with poor internal controls leading to fewer mission-related activities and more administrative activities.

In Table 8, we also examine the association between disclosure of reportable condition and one specific administrative cost – executive compensation. Internal control problems indicate less oversight within the organization and, thus, less ability to prevent agency cost problems. Both anecdotal and empirical evidence suggest that agency problems exist in the nonprofit sector (Frumkin and Keating, 2001; Krishnan, Yetman and Yetman, 2006; Core, Guay and Verdi, 2006; Banjo, 2009). However, Baber, Daniel and Roberts (2002) present evidence that changes in compensation are positively associated with changes in mission-related spending. We present an exploratory analysis of the effect of internal controls on executive compensation in nonprofit organizations. For the limited sample, the coefficient on RC_FS is insignificant. For the full sample, the coefficient on RC_FS is positive and significant. This result implies that that disclosure of a reportable condition is associated with relative *higher* executive compensation. Recall that the full sample is comprised of many observations with little or no public support and, thus, less oversight by donors. Overall the evidence is consistent with the notion that, in some circumstances, poor internal controls are associated with greater agency costs.

6. Conclusion

This study examines the causes and consequences of internal control weaknesses in nonprofit organizations. The nonprofit sector provides a useful setting to examine the effects of internal control disclosures because charitable giving by donors provides direct evidence of

[26] In Table 8, we measure both public support and reportable conditions in year *t*, under the assumption that organizations with poor internal controls have lower contemporaneous operating efficiency on average. Results are similar if we instead measure reportable conditions in year *t-1*.

stakeholder reactions to such disclosures. We first document that the likelihood of reporting an internal control problem increases for nonprofit organizations which are smaller and in poor financial health. We then present evidence that weak internal controls over financial reporting have a significant negative effect on the amount of subsequent public support received after controlling for the current level of public support and other factors influencing contributions. Thus, internal control information does affect, either directly or indirectly, the donor's giving decision.

Our results may be of interest to several constituencies. First, the IRS and other regulators are reformulating laws in an attempt to increase public confidence in the integrity of exempt organizations. Second, donors want to make more informed charitable decisions. Third, watchdog groups, such as BBB Wise Giving Alliance, promulgate standards on charitable accountability including the establishment of appropriate accounting procedures.

Finally, management and boards of trustees of nonprofit organizations are wrestling with a difficult economic climate. Our evidence suggests that addressing internal control weaknesses can increase public support. Nonprofit organizations should consider conducting periodic, thorough internal reviews of their own internal controls structure. If attestations of internal controls by external auditors are cost-prohibitive, the nonprofit sector may consider promoting a peer-review process to assess internal controls. As an alternative, nonprofit organizations can seek in-kind support to help them improve their internal controls. For example, technology companies often donate technical support to nonprofit organizations. Similarly, other corporate donors with Sarbanes-Oxley experience can provide guidance on creating and maintaining adequate internal control systems.

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Table 1. Variable Definitions

Variable	Definition
RC_FS	An indicator variable that equals 1 if A-133 audit noted reportable conditions in internal controls over financial reporting (SF-SAC Part II #3); otherwise 0.
PUBLIC SUPPORT	Total public support received for the fiscal year, defined as the sum of direct public support (IRS p1dirSup) and indirect public support (IRS p1indSup).
DIRECT SUPPORT	Direct public support received for the fiscal year (IRS p1dirSup).
INDIRECT SUPPORT	Indirect public support received for the fiscal year (IRS p1indSup).
PROGRAM REVENUE	Program service revenue, including government fees and contracts, received for the fiscal year (IRS p1pSrev).
GOV CONTRIBUTIONS	Government contributions (grants) received for the fiscal year (IRS p1govGt).
FUNDRAISING EXP	Fundraising expenses for the fiscal year (IRS p2fTot).
TYPEA133	An indicator variable that equals 1 if program-specific audit is conducted (SF-SAC Part I #2); otherwise 0.
GOINGCONCERNRISK	An indicator variable that equals 1 if A-133 audit includes a going concern explanation (SF-SAC Part II #2); otherwise 0.
SURPLUS	An indicator variable that equals 1 if total revenues (IRS TotRev) - total expenses (IRS Exps) $\geq$ 0; otherwise 0.
AGE	Number of years the organization has been tax-exempt (IRS RuleDate).
SIZE	Beginning-of-year total assets (IRS p4b_Asst).
GROWTH	The growth in assets, measured as the ratio of end-of-year total Assets (IRS p4e_Asst) to beginning-of-year total Assets (IRS p4b_Asst).
RISK	An indicator variable that equals 1 if organization is classified as "not low risk" on A-133 audit (SF-SAC Part III #3); otherwise 0.
BIG6	An indicator variable that equals 1 if auditor (SF-SAC Part I #7) of A-133 report is classified as one of the Big 6 auditors; otherwise 0.
REGIONAL	An indicator variable that equals 1 if auditor (SF-SAC Part I #7) of A-133 report is classified as one of the Regional auditors; otherwise 0.
SPECIALIST	An indicator variable that equals 1 if auditor (SF-SAC Part I #7) of A-133 report is classified as one of the Specialist auditors; otherwise 0.
PROGRAM EXP RATIO	The ratio of program expense (IRS p2pTot) to total expenses (IRS Exps).
COMPENSATION EXP RATIO	The ratio of compensation expense paid to officers, directors and key employees (IRS p2tComp) to total expenses.
PRICE	log (1 / (1 - ((FUNDRAISING EXP_{t-1}+ADMIN_EXP_{t-1})/PUBLICSUPPORT$_{t-1}$))), where fundraising expense and public support are defined above and administrative expenses are management and general expenses (IRS p2mTot).

Source: IRS Form 990 from the National Center for Charitable Statistics and Form SF-SAC from the Federal Audit Clearinghouse.

Table 2. Sample Description

Panel A. Sample Selection

	1999 - 2003 Observations	Unique Organizations
Public operating charities reporting to IRS	1,144,214	
Organizations receiving A-133 audit	191,077	
Merge IRS and NCCS data	77,383	
Less audit periods other than "Annual"	(921)	
Full Sample	76,462	23,640
Less no public support data	(21,251)	
Less no price data	(40,138)	
Limited Sample	15,073	6,572

Panel B. Observations by Year

	Observations	Percent
1999	2,595	17.22%
2000	2,851	18.91%
2001	3,152	20.91%
2002	3,229	21.42%
2003	3,246	21.54%
Total	15,073	100.00%

Panel C. Observations by NTEE Classification

	Observations	Percent	Unique Organizations
Arts	370	2.45%	164
Education	2,423	16.08%	961
Health	2,253	14.95%	1,046
Human Services	7,860	52.15%	3,461
Public Benefit	1,455	9.65%	644
Other	712	4.72%	296
Total	15,073	100.00%	6,572

Panel D. Observations by Auditor Type

	Observations	Percent
Big 6	1,937	12.85%
Regional	1,234	8.19%
Specialist	2,331	15.46%
Other	9,571	63.50%
Total	15,073	100.00%

NTEE classifications: Arts (Major Group A), Education (Major Group B), Health (Major Groups E, F, G, H), Human Services (Major Group I, J, K, L, M, N, O, P) and Public Benefit (Major Groups R, S, T, U, V, W).

Table 3. Descriptive Statistics

Panel A. Overall Descriptive Statistics

Variable	n	Mean	Q1	Median	Q3
PUBLIC SUPPORT	15,073	6,385,111	209,289	709,664	2,646,699
DIRECT SUPPORT	15,073	5,661,587	111,878	489,041	2,081,332
INDIRECT SUPPORT	15,073	723,524	0	0	163,908
SIZE (TOTAL ASSETS)	15,073	77,025,158	949,307	2,665,064	10,306,016
AGE	14,836	29.126	15.000	25.000	40.000
GROWTH	15,065	1.137	0.966	1.046	1.172
GOV CONTRIBUTIONS	15,073	5,075,002	406,217	1,031,420	2,533,473
PROGRAM REVENUE	15,073	11,529,887	17,605	331,852	2,138,729
FUNDRAISING EXP	15,073	575,449	0	23,518	221,273
PRICE	15,073	5.833	1.246	1.685	2.927
PROGRAM EXP RATIO	14,992	0.878	0.829	0.887	0.947
COMPENSATION EXP RATIO	14,992	0.033	0.000	0.020	0.044
Indicator variables:					
RC_FS	15,073	0.120			
RISK	15,073	0.293			
TYPEA133	15,073	0.005			
GOINGCONCERNRISK	15,073	0.006			
SURPLUS	15,073	0.653			
BIG6	15,073	0.129			
REGIONAL	15,073	0.082			
SPECIALIST	15,073	0.155			

Table 3. Descriptive Statistics (continued)

Panel B. Descriptive Statistics by Existence of a Reportable Condition

	$RC\_FS_{t-1} = 0$			$RC\_FS_{t-1} = 1$			
Variable	n	Mean	Median	n	Mean	Median	t-test
PUBLIC SUPPORT	13,122	6,819,189	743,988	1,951	3,465,596	525,830	***
DIRECT SUPPORT	13,122	6,050,622	508,039	1,951	3,045,025	378,792	***
INDIRECT SUPPORT	13,122	768,567	0	1,951	420,571	0	**
SIZE (TOTAL ASSETS)	13,122	85,728,821	2,761,467	1,951	18,486,219	2,046,656	***
AGE	12,922	29.321	25.000	1,914	27.810	24.000	***
GROWTH	13,116	1.133	1.046	1,949	1.167	1.046	
GOV CONTRIBUTIONS	13,122	5,435,599	1,049,112	1,951	2,649,705	914,529	***
PROGRAM REVENUE	13,122	12,678,207	344,745	1,951	3,806,537	251,485	***
FUNDRAISING EXP	13,122	618,461	27,537	1,951	286,159	7,369	***
PRICE	13,122	5.644	1.673	1,951	7.105	1.778	
PROGRAM EXP RATIO	13,049	0.879	0.887	1,943	0.874	0.887	*
COMPENSATION EXP RATIO	13,049	0.033	0.020	1,943	0.036	0.023	**

All variables are defined in Table 1. ***, **, * indicates statistical significance at the 0.01, 0.05 or 0.10 level, respectively.

Table 4. Pearson Correlation Matrix

	TYPE A133	GOING CONCERN	SURPLUS	AGE	SIZE	GROWTH	RISK	PRICE
RC_FS	0.019	0.082	-0.038	-0.011	-0.027	0.008	0.234	0.009
	(0.018)	(<.0001)	(<.0001)	(0.1866)	(0.0009)	(0.3569)	(<.0001)	(0.2618)
TYPEA133	1.000	-0.005	-0.005	-0.014	-0.006	0.024	0.020	0.000
		(0.5199)	(0.5522)	(0.081)	(0.4982)	(0.0038)	(0.016)	(0.9829)
GOINGCONCERNRISK		1.000	-0.055	-0.021	-0.008	-0.001	0.036	-0.005
			(<.0001)	(0.0115)	(0.3537)	(0.8654)	(<.0001)	(0.5614)
SURPLUS			1.000	0.037	0.034	0.091	-0.020	0.001
				(<.0001)	(<.0001)	(<.0001)	(0.0135)	(0.9303)
AGE				1.000	0.075	-0.040	-0.090	0.004
					(<.0001)	(<.0001)	(<.0001)	(0.594)
SIZE					1.000	-0.005	-0.026	-0.003
						(0.5732)	(0.0017)	(0.6756)
GROWTH						1.000	0.005	-0.003
							(0.5254)	(0.7141)
RISK							1.000	0.003
								(0.7469)

All variables are defined in Table 1. n = 15,073.

Table 5. Determinants of Internal Control Deficiencies

		REPORTABLE CONDITION	
Variable	Predicted Sign	Limited Sample	Full Sample
Intercept		-0.844 ***	-1.415 ***
		(28.076)	(139.811)
TYPEA133	-	0.294 *	-0.436 ***
		(2.770)	(17.553)
GOINGCONCERNRISK	+	0.935 ***	1.291 ***
		(44.169)	(300.095)
SURPLUS	-	-0.112 ***	-0.069 ***
		(14.384)	(8.982)
SIZE	-	-0.030 ***	-0.058 ***
		(10.401)	(70.752)
GROWTH	+	0.008	-0.00002
		(0.242)	(0.353)
RISK	+	0.738 ***	1.367 ***
		(683.167)	(3524.624)
BIG6	?	-0.406 ***	-0.963 ***
		(44.011)	(306.694)
REGIONAL	?	0.309 ***	0.310 ***
		(42.065)	(64.007)
SPECIALIST	?	-0.145 ***	-0.373 ***
		(12.544)	(131.222)
Industry Indicators		Included	Included
Year Indicators		Included	Included
No. of Observations Used		15,061	75,935
No. of Observations with Internal Control Deficiencies		1,809	10,016
Likelihood Ratio		1009.043	5696.352
		<.0001	<.0001
Percent Concordant		71.00%	71.90%

All variables are defined in Table 1. For the limited sample, we estimate a probit model as the first stage of the Heckman selection model. The parameters from the probit model are then included in the second stage, the results of which are reported in Table 6. For the full sample, we estimate a logistic model. Wald chi-squared statistics are reported in parentheses. ***, **, * indicates statistical significance at the 0.01, 0.05 or 0.10 level, respectively.

Table 6. The Effect of Internal Control Deficiencies

Panel A. The Effect of Reportable Conditions on All Public Support

	PUBLIC SUPPORT			
Variable	Base	(1)	(2)	(3)
Intercept	12.558 ***	12.620 ***	8.201 ***	0.020
	(95.825)	(96.130)	(37.649)	(0.184)
RC_FS_{t-1}		**-0.303 *****	**-0.210 *****	**-0.063 ****
		(-6.096)	**(-4.142)**	**(-2.422)**
$FUNDRAISING\ EXP_{t-1}$	0.193 ***	0.192 ***	0.169 ***	0.018 ***
	(35.219)	(35.166)	(30.318)	(9.471)
$PRICE_{t-1}$	-0.182 ***	-0.181 ***	-0.201 ***	0.054 ***
	(-8.274)	(-8.185)	(-8.847)	(6.388)
AGE	0.021 ***	0.020 ***	0.010 ***	0.002 ***
	(16.386)	(16.282)	(7.439)	(4.278)
$GOV\ CONTRIBUTIONS_{t-1}$			0.093 ***	0.016 ***
			(16.047)	(7.943)
$PROGRAM\ REVENUE_{t-1}$			0.270 ***	0.006
			(21.080)	(1.326)
$PUBLIC\ SUPPORT_{t-1}$				0.958 ***
				(109.894)
Inverse Mills		0.076 ***	0.028	0.002
		(2.989)	(1.096)	(0.172)
Industry Indicators	Included	Included	Included	Included
Year Indicators	Included	Included	Included	Included
Number of Observations	14,417	14,406	11,430	11,444
R^2	42.51%	42.71%	53.50%	88.13%

Table 6. The Effect of Internal Control Deficiencies (continued)

Panel B. The Effect of Reportable Conditions on Components of Public Support

	DIRECT SUPPORT			INDIRECT SUPPORT		
Variable	(1)	(2)	(3)	(1)	(2)	(3)
Intercept	11.417 ***	6.499 ***	0.170 **	3.538 ***	2.100 ***	-0.048
	(81.884)	(25.789)	(2.185)	(9.681)	(3.192)	(-0.813)
RC_FS_{t-1}	**-0.312 *****	**-0.156 ** **	**-0.047 ***	**-0.200**	**-0.248 ***	**0.039 ** **
	(-4.465)	**(-2.552)**	**(-1.731)**	**(-1.522)**	**(-1.685)**	**(2.278)**
$FUNDRAISING\ EXP_{t-1}$	0.279 ***	0.224 ***	0.021 ***	0.117 ***	0.105 ***	0.005 ***
	(40.308)	(33.702)	(10.176)	(7.725)	(6.054)	(3.917)
$PRICE_{t-1}$	-0.096 ***	-0.137 ***	0.056 ***	0.034	0.045	0.001
	(-3.599)	(-4.944)	(6.231)	(0.622)	(0.746)	(0.072)
AGE	0.025 ***	0.010 ***	0.002 ***	0.056 ***	0.052 ***	0.0005
	(16.104)	(6.387)	(4.390)	(13.916)	(11.277)	(1.359)
$GOV\ CONTRIBUTIONS_{t-1}$		0.146 ***	0.014 ***		0.111 ***	0.005 ***
		(19.459)	(7.024)		(7.075)	(3.121)
$PROGRAM\ REVENUE_{t-1}$		0.293 ***	0.010 **		0.018	0.002
		(19.277)	(2.504)		(0.476)	(0.619)
$DIRECT\ SUPPORT_{t-1}$			0.942 ***			
			(205.146)			
$INDIRECT\ SUPPORT_{t-1}$						0.988 ***
						(791.173)
Inverse Mills	0.071 *	0.060 *	0.021	-0.023	-0.034	-0.015
	(1.772)	(1.739)	(1.344)	(-0.294)	(-0.398)	(-1.307)
Industry Indicators	Included	Included	Included	Included	Included	Included
Year Indicators	Included	Included	Included	Included	Included	Included
Number of Observations	14,414	11,344	11,428	14,806	11,738	11,191
R^2	40.43%	51.84%	91.89%	16.35%	19.20%	98.24%

All variables are defined in Table 1. We use log form for all continuous variables. Influential observations, identified as studentized residuals greater than three, are removed. t-statistics are reported in parentheses. We use Huber-White robust standard errors clustered by organization. ***, **, * indicates statistical significance at the 0.01, 0.05 or 0.10 level, respectively.

Table 7. The Effect of Internal Control Deficiencies on Public Support by Industry

	PUBLIC SUPPORT					
Variable	Arts	Education	Health	Human Services	Public Benefit	Other
Intercept	-0.132	0.556 ***	0.502 **	-0.877 ***	0.334	-0.342
	(-0.362)	(3.549)	(2.342)	(-4.709)	(0.946)	(-0.795)
RC_FS_{t-1}	**0.095**	**-0.083 ** **	**-0.130 ** **	**-0.054**	**-0.182 * **	**-0.046**
	(1.055)	**(-2.098)**	**(-2.233)**	**(-1.557)**	**(-1.836)**	**(-0.278)**
$FUNDRAISING\ EXP_{t-1}$	0.063 **	0.006	0.024 ***	0.016 ***	0.019 ***	0.028 **
	(2.569)	(1.559)	(4.778)	(6.024)	(3.190)	(2.090)
$PRICE_{t-1}$	0.077	0.060 ***	0.016	0.083 ***	0.046 *	0.109 *
	(1.523)	(4.083)	(0.703)	(5.907)	(1.792)	(1.845)
AGE	0.002	-0.001	0.003 **	0.002 ***	0.0001	0.001
	(1.160)	(-0.892)	(2.562)	(2.956)	(0.027)	(0.557)
$GOV\ CONTRIBUTIONS_{t-1}$	0.0001	0.009 ***	0.026 ***	0.025 ***	0.013	0.008
	(0.005)	(2.772)	(4.422)	(7.559)	(1.421)	(0.660)
$PROGRAM\ REVENUE_{t-1}$	0.032	0.049 ***	0.033 ***	0.012 *	0.015	-0.014
	(1.380)	(3.902)	(2.634)	(1.746)	(1.096)	(-0.745)
$PUBLIC\ SUPPORT_{t-1}$	0.915 ***	0.894 ***	0.879 ***	1.011 ***	0.927 ***	1.005 ***
	(19.282)	(49.662)	(41.250)	(71.223)	(32.844)	(28.720)
Year Indicators	Included	Included	Included	Included	Included	Included
Number of Observations	305	2,171	1,698	5,927	974	391
R^2	91.10%	88.17%	83.34%	84.18%	82.95%	89.93%

All variables are defined in Table 1. We use log form for all continuous variables. Influential observations, identified as studentized residuals greater than three, are removed. t-statistics are reported in parentheses. We use Huber-White robust standard errors clustered by organization. ***, **, * indicates statistical significance at the 0.01, 0.05 or 0.10 level, respectively.

Table 8. The Effect of Internal Control Deficiencies on Program Expense and Compensation Expense

	PROGRAM EXP RATIO				COMPENSATION EXP RATIO			
Variable	Limited Sample		Full Sample		Limited Sample		Full Sample	
Intercept	0.957 ***	0.879 ***	0.902 ***	0.862 ***	0.102 ***	0.110 ***	0.108 ***	0.085 ***
	(85.097)	(71.860)	(146.110)	(117.147)	(23.661)	(21.249)	(39.179)	(31.126)
RC_FS	**-0.006 ** **	**-0.009 *** **	**-0.012 *** **	**-0.013 *** **	**-0.001**	**-0.0004**	**0.003 *** **	**0.002 *** **
	(-2.100)	**(-3.536)**	**(-8.169)**	**(-8.134)**	**(-0.610)**	**(-0.415)**	**(5.294)**	**(4.201)**
SIZE	-0.006 ***	-0.005 ***	-0.003 ***	-0.00003	-0.004 ***	-0.003 ***	-0.005 ***	-0.004 ***
	(-9.439)	(-5.672)	(-8.197)	(-0.056)	(-18.918)	(-8.568)	(-36.142)	(-22.591)
GOV CONTRIBUTIONS		0.002 ***		0.0003 **		-0.0003 ***		0.0005 ***
		(7.226)		(2.092)		(-3.578)		(13.533)
PROGRAM REVENUE		0.009 ***		0.002 ***		-0.003 ***		-0.0004 ***
		(13.575)		(5.512)		(-9.449)		(-2.846)
FUNDRAISING EXP		-0.007 ***		-0.004 ***		0.001 ***		0.001 ***
		(-27.602)		(-24.447)		(8.625)		(25.126)
GOINGCONCERNRISK		0.002		-0.011 **		0.006		0.003 **
		(0.169)		(-2.120)		(1.036)		(2.033)
SURPLUS		-0.0002		-0.004 ***		0.003 ***		0.006 ***
		(-0.101)		(-4.150)		(4.246)		(20.282)
RISK		-0.005 **		-0.004 ***		0.001		0.002 ***
		(-2.444)		(-3.927)		(1.374)		(5.880)
BIG6		0.003		-0.005 *		0.001		-0.004 ***
		(0.741)		(-1.789)		(0.381)		(-6.022)
REGIONAL		-0.006		-0.012 ***		0.0001		-0.001
		(-1.505)		(-5.696)		(0.101)		(-1.273)
SPECIALIST		0.001		-0.001		-0.0004		-0.003 ***
		(0.465)		(-0.632)		(-0.353)		(-7.160)
Industry Indicators	Included	Included	Included	Included	Included	Included	Included	Included
Year Indicators	Included	Included	Included	Included	Included	Included	Included	Included
Number of Observations	14,833	11,893	71,774	61,069	14,818	11,894	72,060	60,939
R^2	6.57%	23.01%	7.30%	11.46%	7.75%	11.72%	9.16%	14.88%

All variables are defined in Table 1. We use log form for all continuous variables. Influential observations, identified as studentized residuals greater than three, are removed. t-statistics are reported in parentheses. We use Huber-White robust standard errors clustered by organization. ***, **, * indicates statistical significance at the 0.01, 0.05 or 0.10 level, respectively.