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The Sarbanes–Oxley Act

More Bark Than Bite for Nonprofits

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Based on a survey of a representative sample of nonprofit organizations, this article explores the impact of the Sarbanes–Oxley Act (SOX) on the nonprofit sector. The study addresses two questions: What is the level of SOX adoption by nonprofit organizations? and How do we explain variations in the adoption level of SOX? Using Poisson regression models, our study finds that the level of SOX adoption in nonprofit organizations is determined to a large extent by nonprofit organizations' accountability and transparency structure prior to SOX. When this factor is taken into account, contrary to previous studies, the level of SOX adoption by nonprofits is modest. In addition to the existing accountability structure, important variables in the statistical explanation of SOX adoption include CEOs' familiarity with SOX, attitudes of nonprofit CEOs toward SOX, and organization size.

Keywords: *nonprofit accountability; nonprofits and the Sarbanes–Oxley Act; governance; Sarbanes–Oxley Act effects*

In the aftermath of the well-publicized Enron and other scandals in the for-profit world, in 2002 the U.S. Congress passed the Sarbanes–Oxley Act (SOX). SOX was intended to improve accountability and transparency in for-profit corporations and deter future abuses. Although SOX was not binding on nonprofit organizations, anecdotal evidence suggests ongoing consideration and adoption of SOX in the nonprofit sector.

To understand and explain the process of SOX adoption by nonprofit organizations, we conducted an in-depth, systematic study. The goal of the study was twofold:

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(a) to understand the depth of penetration of SOX rules and related subsequent regulations from the New York Stock Exchange (NYSE) and National Association of Securities Dealers Automated Quotation system regarding nonprofit management and governance practices, and (b) to explain the voluntary compliance of nonprofits with SOX. This study investigates the impact of SOX on nonprofit organizations through qualitative interviews as well as a quantitative analysis of original data collected through a nationwide survey of a representative sample of public charity nonprofit organizations.

Several research projects have discussed the likely effects of SOX on nonprofit organizations. In their efforts to explain SOX adoption, however, these studies overlooked the effects of accountability mechanisms in the nonprofit sector that were in existence before SOX. Our study examined the unintended effects of SOX on the nonprofit sector (SOX did not formally pertain to the sector) and has revealed that nonprofit organizations adopted SOX differentially: About half (49.7%) of the surveyed organizations described a low to moderate level of SOX adoption, and the other half (50.3%) reported a total lack of adoption. We argue that the differential adoption of SOX can be explained to a large extent by the effective accountability and transparency policies in place in some nonprofit organizations at the time SOX was enacted. We begin with a review of the relevant literature, follow with research questions, and proceed to methodology and data collection. We then present the findings and conclude with discussion and implications.

Literature on SOX Adoption

In academic journals, the popular press, and on the Internet, legal experts, business consultants, and nonprofit researchers and consulting groups have discussed the requirements of SOX in relation to nonprofit governance. Legal studies of SOX's effects on nonprofits are characterized by a healthy dose of skepticism (Gilkeson, 2007; Reiser, 2004; Szymanski, 2003). Yet nonprofit experts anticipate a pronounced effect of SOX on nonprofit entities, suggest that nonprofits prepare for higher standards of accountability, and provide recommendations concerning SOX adoption (Anft & Williams, 2004; Basinger, 2004; BoardSource & Independent Sector, 2003; Linck, Netter, & Yang, 2005; National Association of College and University Business Officers, 2003; Wiehl, 2004; Williams, 2004; Vermeer, Raghunandan, & Forgione, 2005). Considering the legal skepticism, recommendations by experts for accommodating SOX provisions to nonprofit sector realities, and the nonbinding character of SOX for nonprofit organizations, we expect that SOX adoption in the nonprofit sector will not follow the letter of SOX. Table 1 briefly presents SOX requirements and identifies those provisions that may be relevant to nonprofit organizations according to nonprofit experts.

Table 1
The Sarbanes–Oxley Act Requirements

Requirements of the Sarbanes–Oxley Act (SOX) Addressed to Publicly Traded Organizations	Relevance to Nonprofit Organizations
Title I: Public Company Accounting Oversight Board created to	
Register accounting firms to perform audit services	NR
Regulate accounting firms' audit activities	NR
Establish accounting standards.	NR
Title II: Auditor Independence provision	
Prohibits the auditor from performing specified nonaudit services	R
Requires rotation of audit partners every 5 years	R
Bars an audit firm from serving a company whose executive was employed by the audit firm less than 1 year before the audit.	R
Title III: Corporate Responsibility requirement to	
Establish an audit committee by the board of directors	R
Ensure an audit committee independence	R
Institute an audit committee responsibility to select, compensate, oversee, and discharge the auditor	R
Certify financial reports for accuracy by CEO and CFO	R
Establish CEO responsibility for internal controls evaluation	R
Prohibit personnel from exerting improper influence on the auditor	R
Forfeit certain bonuses and compensations to CEO and CFO if the company is found materially noncompliant	
Prohibit directors and officers trading public company stock during pension blackout period	NR
Obligate attorneys to report violations of securities laws and fiduciary duties	NR
Title IV: Enhanced Financial Disclosure requirement to (specific requirements of the Securities and Exchange Commission [SEC] concerning financial reporting)	
Disclose all off-balance-sheet transactions	R
Prohibit personal loans to executives and directors	R
Disclose changes in securities ownership or swap arrangements within 2 business days	NR
Institute electronic filing of all disclosures	R
Incorporate internal control reports in annual reports	R
Disclose whether a code of ethics is adopted for senior financial executives	R
Disclose whether at least one member of the audit committee is financially qualified	R
Establish an annual review of corporate disclosures by SEC	NR
Title V: Securities Analysts Conflict of Interests	
Requires independence of securities analysts from undue influence ^a	NR
Title VI: Commission Resources and Authority	
Establishes the size of SEC appropriations and powers	NR
Title VII: Studies and Reports	
Requires studies of securities market conditions and impact of some of SOX provisions	NR

(continued)

Table 1 (continued)

Requirements of the Sarbanes–Oxley Act (SOX) Addressed to Publicly Traded Organizations	Relevance to Nonprofit Organizations
Title VIII: Corporate and Criminal Fraud Accountability provision requires to Amend the U.S. Code by establishing criminal penalties for knowingly destroying, altering, concealing, or falsifying records to obstruct federal investigation	R
Preserve financial and other relevant documents for 5 years	M ^b
Institutionalize whistle-blower protection and prohibit retaliation against informants who assist investigation by federal regulators	M ^c
Establish fines or imprisonment (up to 25 years) for knowingly defrauding shareholders of publicly traded companies	NR
Declare debts resulting from fraudulent activities non-dischargeable in bankruptcy	NR
Title IX: White-Collar Crime Penalty Enhancement	NR
Title X: Corporate Tax Returns Federal income tax returns to be signed by the CEO	R
Title XI: Corporate Fraud Accountability Increases penalties for fraudulent activities in publicly traded corporations	NR
Limits future employment of SOX violators as publicly traded company CEOs	NR

Note: R = relevant but not mandatory; NR = not relevant; M = mandatory.

a. Ensures independence of security analysts to improve objectivity of securities market research and to provide investors with more reliable information.

b., c. Defined as mandatory for all types of organizations by the U.S. Code. Two SOX provisions are viewed by experts as mandatory for all types of private organizations because they are incorporated in the text of the U.S. Code. SOX refers to the amendment to Section 42121 (b) of Title 49 of the U.S. Code, which requires protection for informants who assist federal investigations in fraud cases. SOX also stipulates that similar amendments to Title 18 of the U.S. Code, Chapter 3, prohibit destruction, alteration or falsification of records, including corporate audit records.

Amid many anticipatory reviews of SOX effects, only two studies, by the business consulting firm Grant Thornton LLP and the consulting firm Foley and Lardner LLP, attempted to analyze nonprofit leadership awareness of SOX and to measure changes in nonprofit board and executive operations systematically across a large sample. Between 2003 and 2006, Grant Thornton (2003, 2004, 2005, 2006) conducted four annual surveys of executives and boards of large nonprofit organizations (with budgets greater than \$10 million). Although the Grant Thornton surveys suffer from very low response rates (3%), they give some indication of awareness and adoption of SOX over time.

Table 2 summarizes the results of the surveys conducted by Grant Thornton (2003, 2004, 2005, 2006) of CEOs, CFOs, and board members of large nonprofit organizations. The survey findings show that in 2003, nonprofits were apparently not eager to change their accountability practices following the enactment of SOX. In 2004,

Table 2
Summary of the Grant Thornton Nonprofit Leadership Survey Results

Year of the Survey	Organization Revenues (\$)	Sample Size	Number of Respondents	Level of Sarbanes-Oxley Act (SOX) Awareness (% Who Claimed to Be Very or Somewhat Aware of SOX)	% of Respondents Saying They Have Introduced Change in Response to SOX
2003	10 million-20 million	21,000	>310	56%	20%
2004	10 million-20 million	21,000	>800	83%	48%
2005	10 million-20 million	21,000	>900	88%	67%
2006	10 million-20 million	21,000	>1000	N/A	32-78% ^a

Source: Interview with Grant Thornton experts, November 15, 2005.

Note: NA = not available.

a. The survey asked about implementation of SOX-like provisions rather than "adoption of SOX." The range in percentage adoption of the particular provisions is 32%-78%.

there was a considerable increase in their reported level of awareness and in the implementation rate of SOX requirements. The 2005 and 2006 survey results indicated an incremental increase in the already high level of SOX awareness and a more prominent increase in the implementation rate. Despite their limitations, the Grant Thornton survey results suggest that SOX adoption may have been under way in larger nonprofit organizations in the early to mid-2000s.¹

Foley and Lardner LLP also conducted surveys of private for-profit and nonprofit organizations in 2004 and 2005. It found that SOX exerted an even broader impact on nonprofit organizations than suggested by the Grant Thornton surveys. Fully 80% of the respondents in 2004 and 97% in 2005 reported effects of SOX (Broude & Prebil, 2005).

Although a large number of anecdotal accounts of the consequences of SOX for nonprofit organizations have appeared, only four systematic, empirical, academic studies have addressed the effects of SOX on the operation and performance of nonprofit boards and on top executives and staff in nonprofit organizations. Heinz (2003) conducted an early study of the effects of SOX among affiliates of a parent nonprofit organization, Alliance for Children. The survey respondents and the focus group participants contended that accountability standards in the nonprofit sector were more demanding than in many for-profit organizations and that their auditors were doing an excellent job (Heinz, 2003). Consequently, most believed that no additional regulations were necessary for the nonprofit sector. Vermeer et al. (2005)

explored the availability of audit committees and their activities in nonprofit organizations after SOX enactment in 2002. The researchers found that nonprofit organizations responded to their stakeholders' demands for monitoring mechanisms by adopting suitable measures related to their audit committees, in line with the predictions of the resource dependence theory. This study suggested that nonprofits responded to SOX requirements by increasing the number of audit committees.

Two more-recent studies of SOX by Ostrower and Bobowick (2006) and Ostrower (2007) examined the state of nonprofit governance, adherence to some major SOX provisions, factors that influenced adoption of SOX policies, and nonprofit leaders' perceptions of the difficulty of compliance. They found that nonprofit organizations of various sizes established SOX provisions to different degrees (Ostrower & Bobowick, 2006) and that among other factors, such as the availability of corporate board members, minority status, and government funding, organizational size was the major factor that affected compliance with SOX (Ostrower, 2007). Furthermore, Ostrower and Bobowick discovered that some SOX policies did not lead to serious change in nonprofit organizations because similar policies were required by existing nonprofit regulations. Most responding leaders of nonprofit organizations perceived that adherence to SOX provisions that did not already exist in their organizations would be difficult (Ostrower & Bobowick, 2006).

These findings provide useful information about SOX adoption by nonprofit organizations. For example, Ostrower (2007) discovered that from 46% to 54% of survey respondents had revised or created a conflict-of-interest policy, a whistleblower protection policy, or an external audit policy within 2 years after SOX enactment. Ostrower's research is on the right track in attempting to identify governance changes in response to SOX. Yet, the above studies conducted from 2003 to 2007 did not explicitly separate SOX-related policies adopted by nonprofit organizations before 2002, when SOX was passed, from those adopted after SOX enactment. To address this shortcoming in our survey instrument and our empirical analysis, we probed and separated pre-SOX policies from post-SOX policies to understand how SOX adoption was affected by the accountability and oversight structure already in place in nonprofit organizations prior to SOX. Absent this correction, studies of the adoption and effects of SOX are likely to be misleading. To yield a more complete picture of SOX adoption by nonprofit organizations, we conducted a nationwide survey of charitable organizations.

Research Questions

To organize our study, we asked the following research questions:

To what extent have nonprofit organizations adopted SOX and subsequent SOX-related regulations?

Why did nonprofit organizations adopt the nonbinding SOX and SOX-relatedⁱ provisions? Which factors help in explaining adoption?

Why did some nonprofit organizations adopt SOX and SOX-related subsequent provisions, and others did not?

To understand SOX adoption by nonprofit organizations—which are not bound by SOX and thus acted voluntarily with regard to adoption—we developed a theoretical framework to shape our inquiry. We applied the relevant propositions of resource dependence theory (Pfeffer & Salancik, 1978), diffusion of innovation theory (Rogers, 2003); internal determinants theory (Damanpour, 1991; Mohr, 1969), and the anticipatory accountability model (Kearns, 1994) to explain the self-regulating behavior of nonprofits. Resource dependence theory helps identify pressure factors on nonprofit leaders in the form of the advice of important stakeholders, such as donors, board members, and auditors, to consider SOX-related changes. The communication channels proposition, a part of the diffusion of innovation theory, maintains that the sources of information about innovations influence the adoption level. Following this proposition we explored how different communication channels raised awareness of SOX among nonprofit leaders and influenced their adoption decisions. The internal determinants model led us to hypothesize that size, wealth, and age of the nonprofit organization, CEO education, and other internal characteristics would help explain SOX adoption behavior. And finally, the anticipatory accountability model focused our attention on the attitudes and proactive behaviors of CEOs with regard to SOX adoption. These theories assisted in building a heuristic model of SOX adoption and conceptualizing independent variables to explain why nonprofit leaders would perceive SOX requirements as relevant and move to enact them.ⁱⁱ

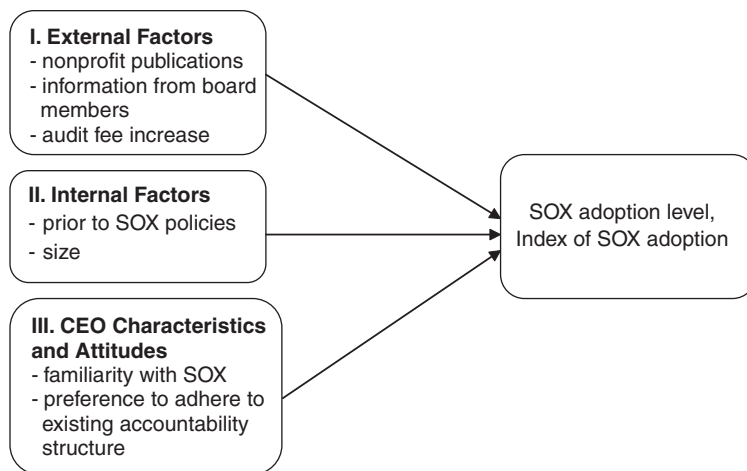
Informed by these theories, we developed the explanatory model of SOX-adoption behavior of nonprofit organizations depicted in Figure 1. The figure groups the explanatory variables into three sets of factors that account for the adoption of SOX by nonprofit organizations. These factors consist of factors external to the organization, factors internal to the organization, and the characteristics of the CEO.

- Factors external to the organization include donors' advice to adopt SOX, dependence on government funds (government contracts and grants), sources of information about SOX (nonprofit publications, professional networks, auditors, board members, bookkeepers, and staff), political pressure to adopt SOX, and audit fee increase.

ⁱ In line with regulations written by the New York Stock Exchange (NYSE)¹ to detail SOX requirements, boards are expected to initiate executive sessions, which exclude members of the management team. The purpose of these sessions is to discuss organizational management openly and critically (NYSE CG rules §330A.03). We decided to include a question about executive sessions as relevant to nonprofit practice, though it is not required by the text of SOX.

ⁱⁱ For a complete explanation and derivation of our theoretical framework, please see: (author-identifying source deleted).

Figure 1
Reduced Model of SOX Adoption With Statistically
Significant Explanatory Variables



Note: SOX = Sarbanes–Oxley Act.

- Factors internal to the organization include organizational size, wealth, age, adoption of policies required by SOX prior to SOX enactment in 2002, and availability of regular audits.
- Characteristics of the CEO include familiarity with SOX, attitudes toward SOX, membership in professional associations, years of formal education, and experience.

This article focuses on those explanatory variables whose relationship to SOX adoption attains statistical significance. Accordingly, Figure 1 presents a “reduced” model of all statistically significant independent variables in relation to SOX adoption.ⁱⁱⁱ Those variables that were found significantly related to SOX adoption in bivariate analysis were retained in the model and are explored further in the multivariate analysis to follow. Table 3 describes the variables included in the multivariate model of SOX adoption.

The primary variable of interest, adoption of SOX practices by nonprofit organizations, is constructed as a count of the number of SOX policies implemented by the

ⁱⁱⁱ A complete enumeration and statistical analysis of all independent variables is available from the authors.

Table 3
Variables Included in the Multivariate Analysis
of Sarbanes–Oxley Act (SOX) Adoption

Variable	Measurement
Adoption level	Summated scale measure from 1 through 15 practices required by SOX adopted by the nonprofit organization. Count variable.
Familiarity with SOX	CEOs' familiarity with SOX was measured as an ordered scale: 1 = <i>not familiar</i> , 2 = <i>somewhat familiar</i> , and 3 = <i>very familiar</i>
Publications, board members (Board)	Two variables: sources of information about SOX; dichotomous variables: 1 = <i>No</i> , 2 = <i>Yes</i>
Existing accountability (Accountability)	Attitude of managers regarding SOX measured as ordered scale variables on the scale from 1 = <i>strongly disagree</i> to 5 = <i>strongly agree</i>
Expenditure	Measure of organization size; categorical variables: (1) small: \$100,000-\$1,999,999 in annual expenditure; (2) midsize: \$2,000,000-\$9,999,999; (3) large: \$10,000,000 and greater
Prior to SOX	Summated scale measuring from 1 through 15 the number of SOX-like practices adopted prior to SOX; count variable.
Audit fee increase (Audit fee)	Audit fee increase; a dichotomous variable: 1 = <i>No</i> , 2 = <i>Yes</i>

organization. We define the dependent variable as SOX adoption level, conceived and operationalized as an index of SOX policies reported as adopted in a national sample of nonprofit organizations. The measure is a summated scale of 15 items (individual SOX policies) derived from an original national survey of nonprofit organizations (see below). The items describe specific SOX-related policies (Table 5 presents the items).

To explore the level of SOX adoption in nonprofit organizations, we used the recommended model for count data, the Poisson regression model (PRM), a nonlinear regression model appropriate for cross-sectional studies (Cameron & Trivedi, 1998). To check the appropriateness of the PRM in contrast to the negative binomial regression model, we conducted a simple alpha test. The alpha test confirmed that the PRM is the preferred model to analyze SOX adoption level.^{iv}

^{iv} The dependent variable distribution and structure suggested the model choice. The Poisson regression model (PRM) and its inverse the negative binomial regression model (NBR) are standard models for a count dependent variable. First, we ran the NBR model. NBR runs a simple alpha test automatically. The test results showed that chi-square was equal to .05 ($p = .412$), which does not allow rejection of the null hypothesis of $\alpha = 0$. When α equals 0 the Poisson regression is appropriate.

Method

Quantitative Study

Our study of SOX adoption by nonprofit organizations is based on a national survey of nonprofit organizations. To conduct the survey, a representative stratified random sample of 2,000 public charities was selected from the National Center for Charitable Statistics Core Files 2004. The 2004 Core Files included data on all 501(c)(3) organizations that were required to file Form 990 or Form 990-EZ, including private foundations. In addition to private foundations, the U.S. Tax Code 501(c)(3) includes most nonprofit organizations involved in the arts, education, health care, human services, and community service, as well as many other areas. Because 501(c)(3) organizations represent the largest and most inclusive group of public charities, they were selected for this study.^v

The sampling frame, consisting of 303,077 organizations, was stratified into three groups based on the level of the nonprofit's expenditures. To define the groupings, we sought the advice of experts from the Urban Institute; our groups approximate the stratification used by Ostrower and Bobowick (2006) in their study of nonprofits and SOX effects.^{vi} We used the expenditure-size strata to randomly select 2,000 organizations: 600 from the stratum of smaller organizations (\$100,000-\$1,999,999 in annual expenditures) and 700 each from the strata of midsize organizations (\$2,000,000-\$9,999,999) and large organizations (\$10,000,000 and higher). This size stratification was employed in response to the literature on SOX adoption by nonprofits, which suggested that SOX could be expected to have its greatest effects on larger organizations (Behn, DeVries, & Lin, 2005; Grant Thornton, 2003, 2004, 2005, 2006; Ostrower & Bobowick, 2006; Vermeer et al., 2005).

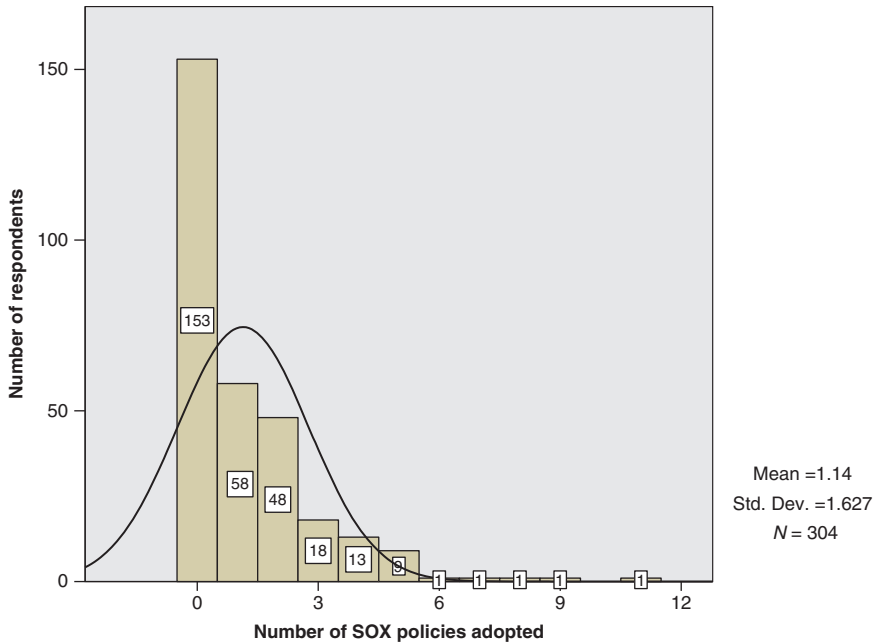
Our survey of adoption of the Sarbanes-Oxley Act by public charitable organizations was administered between April and October 2006. The response rate to the survey was 19.6%. Earlier studies suggest that this response rate is typical for nationwide surveys of for-profit executives.^{vii} To evaluate the possibility of nonresponse bias, we

^v We excluded private foundations from the sampling frame because we expected them to act differently with respect to SOX adoption than other 501(c)(3) organizations.

^{vi} The study of SOX adoption by Ostrower and Bobowick (2006) and Ostrower (2007) used full (nine strata) and reduced (five strata) size strata of public charities to understand how size influenced the SOX adoption behavior of nonprofit organizations. Following similar stratification logic, we devised three strata: <100,000-199,999; 2 million-9,999,999; and 10 million+. Our purpose was to achieve higher response rate, and to survey a bigger size of large organizations out of the expectation that large nonprofits adopt SOX rules more actively. However, we included sufficient number of smaller organizations (600) in our sample to understand their SOX adoption activities.

^{vii} Some researchers argue that nationwide surveys of organizations typically receive low return rates, with 15 percentage return rate sometimes reaching a level of acceptability for organizational surveys (Huselid, 1995; Kumar, Subramanian, & Yauger, 1998; Milliken, Martin, & Morgan, 1998; Simonin, 1997; Hager et al., 2003). Cycyota and Harrison (2002) also assumed that the response rate of 18 percentage was quite common for top executive officers in private businesses. The typical response rate for nonprofit executives is still an open empirical question.

Figure 2
Distribution of Post-SOX-Adoption Responses



employed one-way analysis of variance tests. The test results showed no difference of means between survey respondents and nonrespondents on such indicators as size, wealth, and policy area.^{viii}

In addition, analysis indicated that both SOX adopters and nonadopters responded to the survey in equal numbers. Figure 2 illustrates the distribution of SOX-adopting and -nonadopting respondents and indicates that 50.3% of all respondents had not adopted any SOX-related policies after SOX enactment while 49.7% of respondents reported a low to moderate level of SOX adoption. This distribution suggests the absence of response bias originating from the fact of SOX adoption.

To assess the sampling error, we performed a standard error of proportions test. The test (*t* test) suggested that at a 95% confidence level, the sample fell within the

^{viii} The size of organization was measured by the amount of annual expenditure, the wealth was calculated as a difference between annual revenues and expenditures, the age was calculated from the year when the tax-exempt status was granted to an organization, and policy area was defined based on the NTEE classification provided by the Urban Institute.

margin of error of $\pm 4.5\%$ of the population^{ix} parameters of public charity organizations filing IRS Form-990 or Form 990-EZ.

Qualitative Study

We also conducted an in-depth study of the SOX-related perceptions, attitudes, and behaviors of nonprofit practitioners in decision-making positions. We interviewed the executive directors and chief financial officers or comptrollers in nonprofit organizations of different sizes in a Southern city with a population of about 110,000. Six nonprofit organizations were selected with regard to the amount of their annual expenditures—two small, two midsize, and two large—to be consistent with the survey sampling strategy described above. The policy areas of the organizations selected included youth services, emergency relief, education, and health care.

The interviews provided important contextual information regarding SOX and the factors that influenced adoption (or nonadoption) behavior of participating organizations. In face-to-face interviews, several respondents indicated that they did not perceive SOX as an external threat or demand on their organizations. For this reason, they said, it has not been widely discussed at professional meetings and was not perceived with great urgency.

Characteristics of Survey Respondents and Responding Organizations

Table 4 presents the characteristics of the respondents and their respective organizations.^x The table shows that 89% of participants in the survey were either CEOs or CFOs and that the remaining 11% held managerial positions, our intended participant pool. All responding nonprofit leaders have attained high levels of formal education.

Table 4 also presents major characteristics of the surveyed organizations, including number of paid staff, age, budget size, and policy area. The average organization in the sample had 367 paid employees. The standard deviation of 2,160 employees indicates great variation among organizations in the sample on this dimension. The average age of the surveyed organizations is 29.8 years, again with substantial

^{ix} By population we mean the 2,000 organizations that were selected by a disproportionate stratified random sampling technique.

^x The total number of responses is 315. Five of them are excluded because they either had too many missing answers or refused to participate because they believed that SOX was inapplicable to them. Four cases are excluded because the respondents did not answer the questions concerning the main variable of interest—SOX adoption. Finally, two extreme outliers are excluded to more accurate statistical analysis.

Table 4
Characteristics of Respondents and Participating Organizations

Respondent Characteristics	<i>n</i> of Respondents	% of Respondents	Mean	Standard deviation
Chief executive officers	216	71.0		
Chief financial officers	54	18.0		
Managers	34	11.0		
Years in current position	303	99.7	9.1 (years)	7.3
Membership in associations	302	99.3	1.7 (association)	0.5
Level of formal education	298	98.0	17.8 (years)	2.1
Organizational Characteristics	<i>n</i> of Respondents	% of Respondents.	Mean	Standard deviation
Number of paid staff	298	98.0	367	2160
Age of organizations	296	97.0	29.8 (years)	17.7
Budget size of organizations	297	98.0	2.2	.8
\$100,000-\$1,999,999	111	37.4	\$888,893	\$495,573
\$2,000,000-\$9,999,999	107	36.0	\$4,723,240	\$2,336,662
\$10,000,000 and up	79	26.6	\$41,129,012	\$67,398,823
Policy area:	304	100		
Hospitals	15	4.9		
Environmental	9	3.0		
Public and societal benefits	31	10.2		
Religious	8	2.6		
Human services	108	35.5		
Health organizations	52	17.1		
Education	30	9.9		
Higher education institutions	13	4.3		
Arts, culture, and humanities	26	8.6		
Other	12	3.9		

variation. The sample organizations were stratified into three categories by their annual budget size: 37.4% were in the category of small organizations, with an average budget of \$888,893; 36.0% in the group of midsize organizations, with an average budget size of \$4,723,240; and 26.6% in the third group, consisting of large organizations, with an average budget of \$41,129,012.

The data summarized in Table 4 demonstrate considerable homogeneity in the characteristics of the nonprofit leaders in the sample. Nearly all of them possess a high level of formal education and membership in professional associations. This homogeneity precludes explanatory analysis based on these variables. By contrast, the sample comprises a great variety of organizations, especially in regard to age, size, and policy area.

Table 5
Patterns of Adoption of SOX Practices

SOX-related Policy or Procedure	Hadbeore SOX - 2002		Considered after SOX- 2002		Adopted after SOX- 2002		Didnot adopter after SOX - 2002	
	N	% ^a	N	% ^a	N	% ^a	N	% ^a
Conflict of Interest policy	217	71.4	16	5.3	44	14.5	24	7.9
Whistle-blower Protection policy	83	27.3	27	8.9	61	20.1	121	39.8
Document Preservation policy	192	63.2	21	6.9	38	12.5	43	14.1
Annual (or biannual) external audit	279	91.8	7	2.3	7	2.3	6	2.0
Audit partner rotation after 5-7 years	105	34.5	37	12.2	39	12.8	108	35.5
Separation of audit and non-audit services	120	39.5	27	8.9	32	10.5	108	35.5
Audit committee of board	122	40.1	25	8.2	62	20.4	83	27.3
Dual leadership	286	94.1	-	-	1	0.3	16	5.3
Board holds executive sessions ^b	260	85.5	2	0.7	7	2.3	29	9.5
Independent board members	287	94.4	3	1.0	1	0.3	12	3.9
Basic financial training was provided for board members	150	49.3	20	6.6	6	2.0	117	38.5
Basic financial training for executive director	188	61.8	6	2.0	6	2.0	94	30.9
Financial documents accuracy is certified by executive director	197	64.8	15	4.9	31	10.2	54	17.8
Allows public access to financial statements	237	78.0	10	3.3	5	1.6	46	15.1
Allow public access to audit reports	233	76.6	6	2.0	6	2.0	53	17.4

a. Percentage of organizations by row does not always adds up to 100 percent because of the omitted number of missing organizations

b. In line with regulations written by the New York Stock Exchange (NYSE) to detail SOX requirements, boards are required to initiate executive sessions, which exclude members of the management team. The purpose of these sessions is to discuss organizational management openly and critically (NYSE CG rules §330A.03).

Findings

Preexisting Condition and SOX Adoption

A major goal of the survey was to determine the status of the individual SOX-related policies prior to SOX and the adoption choices of the responding organizations post-SOX. Table 5 presents the survey results with regard to 15 practices entailed in SOX and SOX-related regulations. These practices are selected SOX provisions that are considered relevant to nonprofit activities according to BoardSource and Independent Sector (2003; see Table 1) and also those SOX-related regulations formulated by the NYSE to detail some SOX provisions. To ensure that each practice was adopted because of SOX and not for other reasons, the survey included specific

questions about the state of governance, accountability, and disclosure practices in the nonprofit organizations prior to SOX.

The results in Table 5 show that the majority of the SOX-like practices existed in the sample of nonprofit organizations prior to SOX enactment in 2002. The practices that were the most common in the sampled nonprofit organizations before SOX, with more than 90% reporting them in place, are independence of the board of directors (94.4%), dual leadership or separation of leadership roles between the CEO and the board chair (94.1%), and regular external audit (91.8%). The second-largest group of preexisting practices, reported in place in more than 70% of the organizations, includes a conflict-of-interest policy (71.4%), executive sessions of the board (85.5%), and public access to financial statements (78.0%) and audit reports (76.6%).

Among the practices adopted in the post-SOX period, two stand out. The sample of nonprofit organizations most often adopted the whistle-blower protection policy^{xi} (20.1%) and the institutionalization of the audit committee (20.4%), implemented post-SOX by about one fifth of the sample. The second-largest group of practices adopted after SOX includes the conflict-of-interest policy (14.5%), document preservation policy (12.5%), audit partner rotation (12.8%), separation of audit from nonaudit services (10.5%), and certification of financial documents by the CEO (10.2%). Some 10%-15% of the sampled organizations adopted the latter policies post-SOX.

The major finding of the descriptive analysis is that implementation of SOX-like practices by nonprofit organizations prior to SOX was significant. Correspondingly, post-SOX adoption is considerably lower than would be expected given popular and academic attention and literature. We now turn to explaining the adoption of SOX by the sample of nonprofit organizations.

Adoption Patterns Among Nonprofit Organizations

Before analyzing the relationships between the dependent variable—the level of SOX adoption—and the independent variables, let us return to the distribution of the dependent variable in Figure 2. The figure shows that the distribution of SOX adoption, measured as the number of practices implemented after SOX enactment, is nonlinear and skewed to the right. The majority of responding nonprofit organizations indicated zero practices adopted, that is, “no” adoption. This type of distribution exhibits characteristics of the Poisson distribution,^{xii} which calls for application of either Poisson regression or the negative binomial regression model, as discussed earlier.

^{xi} Two SOX provisions are viewed by experts as mandatory for all types of private organizations because they are incorporated in the text of the U.S. Code. The text of SOX refers to the amendment to the Section 42121 (b) of the Title 49 of the U.S. Code, which requires protection for informants who assist federal investigations in fraud cases. SOX also stipulates that similar amendment to the U.S. Code Chapter 3 Title 18 prohibit destruction, alteration or falsification of records, including corporate audit records.

^{xii} The Poisson regression model is called for instead of OLS because most cases (153) have a score of 0; the count variables are not continuous, they are finite; the count variable cannot take on negative values; and fourth, the proportion of cases with a higher positive value decreases as the value of the count increases.

The adoption level exhibited in Figure 2 presented a challenge for analysis because the frequency/percentage analysis indicated that the sample was divided into two nearly equal groups with respect to the level of SOX adoption. The percentage distribution reveals that 50.3% of respondents reported that their organization did not adopt any SOX-related policies or procedures after SOX was enacted in 2002, and 49.7% of respondents reported adopting at least 1 SOX-related policy. In addition, about 45% of adopting organizations adopted only from 1 to 4 policies out of the 15 applicable to the nonprofit sector (BoardSource & Independent Sector, 2003), and about 35% reported adopting only 1 or 2. The distribution of responses is nonlinear, with a large number of responses at the lowest levels of adoption, from 1 to 2 policies (34.9%).

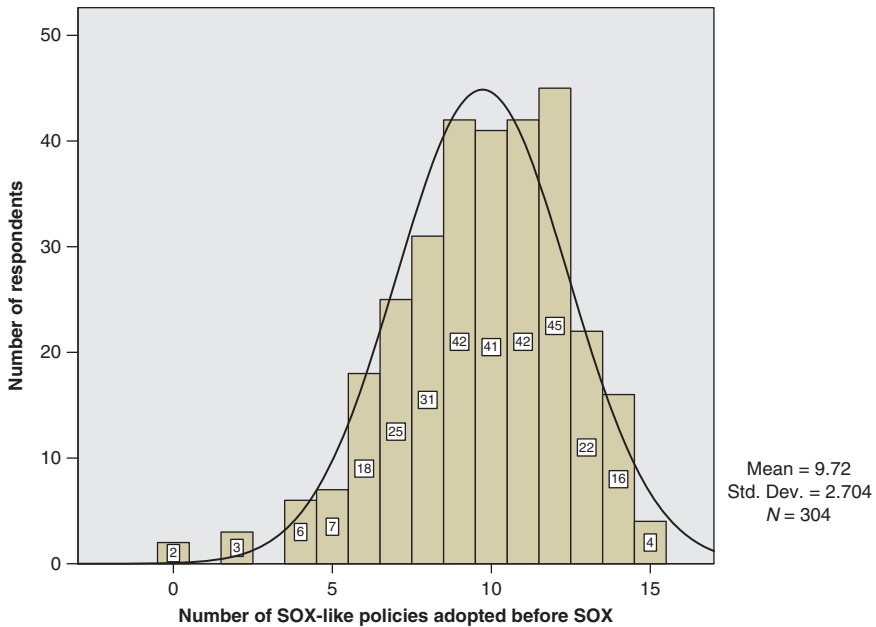
Earlier we stated that one goal of the research was to understand the effects of the pre-existing accountability practices in nonprofit organizations (prior to 2002) on the level of SOX adoption following SOX. We refer to the situation regarding pre-SOX institutionalization of SOX-like policies as a preexisting condition. This term describes the SOX accountability structure in place in nonprofit organizations as reported by respondents in the period prior to SOX adoption in 2002. We hypothesize that those organizations with a higher level of preexisting condition concerning SOX will see less need to adopt its provisions and, hence, demonstrate lower implementation of SOX.

According to the survey respondents, the level of the preexisting condition was generally high. The histogram in Figure 3 shows a bell-shaped distribution of responses, although with a preponderance of observations to the right. The average nonprofit organization in the sample had adopted nearly 10 SOX-like practices prior to SOX enactment in 2002 ($M = 9.72$). Figure 3 shows that the great majority of responding organizations (about 70%) had adopted SOX-like policies and practices prior to the passage of SOX at a high level, that is, 9-15 provisions of SOX and SOX-related regulations.

The frequency analysis of prior-to-SOX adoption of SOX-related practices demonstrates an unexpected state of preexisting accountability practices (similar to SOX) among nonprofit organizations: Virtually all of the nonprofit organizations in the sample (302 of 304, or 99%) had already established from 1 to 15 SOX-like policies and procedures within their organizations prior to SOX enactment in 2002. This finding suggests that the SOX accountability structure prior to SOX in many nonprofit organizations preceded most of the SOX requirements and could be improved only marginally by adoption of SOX rules. Developing this line of thought further, it seems logical that the large number of zero adoptions in the post-SOX period is explained by the high level of adoption of SOX-like practices prior to the passage of SOX.

At the beginning of the study, we had anticipated finding some level of preexisting SOX-like practices. However, the survey results demonstrate an unexpectedly high level of preexisting SOX-like practices in nonprofit organizations. Only two organizations in the entire sample had not adopted any of the SOX-like requirements before SOX became effective in 2002 (Figure 3). This finding questions the widely expressed opinion that nonprofit organizations would be seriously affected by SOX (Anft & Williams, 2004; Basinger, 2004; BoardSource & Independent Sector, 2003; Gordon,

Figure 3
Distribution of “Preexisting Condition” With Regard
to SOX-Like Policies



Hughes, & Banks LLP, 2003; Hempel & Borrus, 2004; National Association of College and University Business Officers, 2003; Tate, 2003; Wiehl, 2004; Williams, 2004).

This unusually high level of preexisting SOX-like practices led to the expectation that the adoption of SOX-like procedures before SOX was enacted would have a negative effect on the adoption of SOX practices after passage of SOX. To examine how pre-SOX adoption affects post-SOX adoption behavior, we split the sample into two groups at the mean to create a low-prior-adoption group and a high-prior-adoption group. The low-prior-adoption group consisted of those respondents who reported having adopted from 0 to 8 SOX-like policies prior to SOX (less than the mean, 9.7); the high-prior-adoption group consisted of those who reported adopting from 9 to 15 SOX-like policies prior to SOX.

We hypothesized that the high-prior-adoption group would adopt fewer SOX-like policies after SOX was enacted in 2002 than would the low-prior-adoption group. We also expected that the factors that determined SOX adoption levels may differ between the two groups. Our reasoning was that the nonprofit organizations that had

already established policies and procedures similar to SOX would have less urgency and opportunity to adopt such practices after SOX was passed in 2002.

Explaining SOX Adoption

To account for these differences, we performed Poisson regressions separately in the high-prior-adoption and the low-prior-adoption groups to understand which factors led to SOX adoption. We explored how the level of SOX adoption in both groups was related to the familiarity of the CEO with SOX, nonprofit publications as a source of information about SOX, board members as a source of information about SOX, preference of the CEO to adhere to the existing accountability structure (attitudinal measure), organization size, prior-to-SOX adoption level (preexisting condition), and increase in audit fees (see Table 3 for the operationalization of all variables). These explanatory variables were the only ones significantly related to SOX adoption in the bivariate analysis discussed earlier.

The following relationships were hypothesized:

- *Familiarity* of the CEOs with SOX requirements was expected to influence SOX adoption by nonprofit organizations in an unknown direction because the effect would depend on how closely the CEOs related SOX to their organizations.
- Information about SOX received from nonprofit *publications* and members of the *board* were expected to increase the likelihood of SOX adoption.
- The attitudinal variable *accountability* was measured by responses to a statement that maintained that nonprofit managers should follow their existing accountability standards and procedures regardless of SOX until change was required by passage of a specific nonprofit law. The variable was measured on an ordinal scale from 1 (*strongly agree*) to 5 (*strongly disagree*). We expected that the lack of perceived urgency by nonprofit leaders would decrease SOX adoption level.
- Similar to the SOX adoption (dependent) variable, the independent variable *prior to SOX adoption* (preexisting condition) was constructed as a summated scale of the number of policies, from 0 to 15, indicated by the respondent as existing in the organization prior to SOX enactment in 2002. The prior-to-SOX adoption level was expected to decrease the adoption level post-SOX.
- *Audit fee* was a dichotomous (yes or no) variable that asked about an increase in audit fees. We assumed that audit fee increase would signal nonprofit leaders that a definite change was under way in audit procedures and sensitize them to new SOX requirements. Thus, we expected nonprofit leaders to adopt SOX to a higher degree if they reported an audit fee increase.

Table 6 reports the marginal effects of the explanatory variables on SOX adoption estimated by the Poisson regression analysis. The analysis was conducted separately in the low-prior-adoption and the high-prior-adoption groups. The Poisson regressions included only those independent variables that were found significantly related to post-SOX adoption in either of the two pre-SOX-adoption groups. Many variables

Table 6
Predicted Means of Post-Sarbanes–Oxley Act (SOX) Adoption
Practices in Two Groups: Estimated Effects

Low Prior Adoption (Yhat = 1.059)			High Prior Adoption (Yhat = 0.713)		
Variable	Marginal	SE	Variable	Marginal	SE
Familiarity	1.619***	0.484	Familiarity	1.220****	0.379
Publications	0.479*	0.236	Publications	0.091	0.112
Board	0.529**	0.213	Board	0.028	0.112
Accountability	−0.236*	0.115	Accountability	−0.225*****	0.055
Size	0.178	0.121	Size	0.154**	0.076
Prior to SOX	−0.185**	0.075	Prior to SOX	−0.196*****	0.036
Audit fee	0.830***	0.279	Audit fee	0.109	0.114

Note: Yhat = \hat{Y} . Yhat is a predicted value - the symbol is \hat{Y} , while Ybar is a mean value of Y with a dash above, the symbol of which is not found in a word processing software. Marginal can be defined as “marginal effects.”

* $p < .05$. ** $p = .01$. *** $p = .001$. **** $p = .0001$.

were excluded from the models because of insignificant relationships with the dependent variable. For example, no statistically significant relationships were found between most sources of CEO information and the level of post-SOX adoption, with the exception of nonprofit publications and board members. Likewise, significant relationships were not found between SOX adoption and the belief that SOX might improve credibility of nonprofit organizations, a proactive stance of nonprofit managers, or the occupational background of managers.

As expected, differences were observed between the two prior-to-SOX adoption groups in the predicted level of post-SOX adoption, as well as in the explanatory effects of the independent variables. These differences provide supporting evidence of heterogeneity between the low-prior-adoption and the high-prior-adoption groups. Table 6 illustrates the differences between the groups in post-SOX adoption and in the explanation of adoption behavior.

In the PRM the predicted value of the dependent variable is simultaneously the mean prediction with all independent variables held at their means. The results of the two Poisson regression analyses and the accompanying marginal effect functions show that the predicted mean post-SOX adoption level is higher in the low-prior-adoption group (1.059) than in the high-prior-adoption group (0.713). This result confirms the hypothesis that the nonprofit organizations that adopted more SOX-like practices before SOX was enacted would be less prone to adopt SOX after 2002. Further support for this hypothesis derives from the finding that the level of pre-SOX adoption is negatively and significantly associated with the post-SOX adoption level in both the high-prior-adoption and the low-prior-adoption groups. These associations suggest that the nonprofit organizations in either group may not

have extended much effort to adopt SOX after it was enacted in 2002 because they had already established many of its requirements prior to SOX.

In the Poisson regressions, the marginal effect of an independent variable is the change in the mean predicted level of SOX adoption produced by a one-unit change in the independent variable, with all other independent variables held at their means. The effect of the binary variable *board member*, which determines how information originating from board members influences SOX adoption, is interpreted as follows: in the low-prior-adoption group, when organizations received information about SOX from their board members, the predicted value of SOX adoption at 1.059 increased by 0.529 ($p < .01$), with the other independent variables held at their means. By contrast, the negative marginal effect of the attitudinal variable *existing accountability* shows that when an organizational respondent reported a one-unit increase in his or her preference to adhere to existing accountability standards (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither*, 4 = *agree*, 5 = *strongly agree*), the expected SOX adoption level at 1.059 in the low-prior-adoption group decreased by 0.236, with other independent variables held at their means, and the expected SOX adoption level at 0.713 in the high-prior-adoption group decreased by 0.225, with other independent variables held at their means. The marginal effects of existing accountability standards in both groups are negative and significant at $p < .05$ and $p < .001$, respectively.

According to the results in Table 6, three independent variables provide strong explanation for SOX adoption. The three are almost equally important in influencing SOX adoption behaviors in both the low-prior-adoption and the high-prior-adoption groups: familiarity with SOX; preference of leaders to adhere to existing accountability practices; and pre-SOX adoption of SOX-like practices, described as *had before SOX* in the equation. In the low-prior-adoption group, a one-unit change in the *familiarity with SOX* variable produced a 1.619 marginal increase in post-SOX adoption, leading to a 2.678 level of SOX adoption. In the high-prior-adoption group, a one-unit change in the *familiarity with SOX* variable produced a 1.220 marginal increase over the mean SOX adoption level (.713), leading to a 1.933 post-SOX adoption level. In both groups, the coefficients were statistically significant at $p < .001$ for the *familiarity with SOX* variable. The explanatory power of the *existing accountability practices* variable is comparable in both groups, but it is significant at a higher level in the high-prior-adoption group ($p < .0001$) compared with the low-prior-adoption group ($p < .05$). As expected, the *existing accountability practices* variable is negatively associated with adoption behavior in both groups, leading to a decrease in the SOX adoption level. As hypothesized, the *had before SOX* variable is negatively related to the post-SOX adoption level, both in the high-prior-adoption group and in the low-prior-adoption group. As might have been expected, it had larger magnitude and higher statistical significance ($p < .0001$) in the former group than in the latter ($p < .01$).

Other variables offer differing explanations of the post-SOX adoption behavior in the two groups. Sources of information such as nonprofit publications and board

members are significant positive explanatory variables in the low-prior-adoption group (0.479 and 0.529, at $p < .05$ and $p < .01$, respectively) but do not explain the post-SOX adoption behavior in the high-prior-adoption group. The variable *audit fee increase* explains adoption behavior in the low-prior-adoption group but not in the high-prior-adoption group. A one-unit change from *no* to *yes* is associated with a 0.893 increase in the level of post-SOX adoption in the low-prior-adoption group ($p < .001$).¹³ It is interesting that in light of the literature, organizational size does not explain SOX adoption behavior in the low-prior-adoption group but leads to an increase in predicted SOX adoption in the high-prior-adoption group. Therefore, organizational size has been analyzed in more detail.

Organizational Size Effects Revisited

Size has been identified as a major factor in explaining SOX adoption (Behn et al., 2005; Ostrower & Bobowick, 2006; Vermeer et al., 2005). Yet the evidence of size effects in the Poisson regression analyses in Table 6 is inconsistent. For this reason we estimated Poisson regressions for SOX adoption in each of the organizational size strata that constitute the sampling frame (annual budget sizes of \$100,000–\$1,999,999, \$2,000,000–\$9,999,999, and \$10,000,000 and higher).

The results of the Poisson regressions by size strata demonstrate support for the anticipated relationship. The predicted mean SOX adoption level in the group of large organizations (1.219) is approximately 3 times as large as the mean adoption in the group of small organizations (.484). The predicted mean of SOX adoption in the group of midsize organizations (0.926) is approximately twice as large as in the group of small organizations. The monotonic differences in the level of post-SOX adoption across the three size categories show that size is positively associated with SOX adoption. As suggested by the literature, larger nonprofit organizations were more likely to adopt SOX practices. As also shown in Table 6, in the Poisson regressions by size strata, the *had before SOX* variable significantly decreased the post-SOX adoption level in all three groups.^{xiii}

Discussion

The study of SOX adoption by nonprofit organizations suggests that both contextual variables and internal organizational characteristics explain post-SOX adoption in nonprofit organizations. Familiarity with SOX is an important prerequisite for making a decision to adopt SOX rules. The level of familiarity with SOX positively

^{xiii} The full statistical results and explanation of the Poisson regression analyses by organizational size are available from the authors.

influenced post-SOX adoption in both the low-prior-adoption and the high-prior-adoption groups. Familiarity of the CEOs with SOX is particularly important because—as opposed to for-profit publicly traded companies—SOX was not mandatory for nonprofit organizations. Moreover, the sources of information about SOX matter: When information about new provisions, such as SOX, originated from board members and nonprofit publications, it was more likely to be heard and considered for implementation.

Two variables were associated with decreases in the level of SOX adoption in both groups. The *existing accountability practices* variable describes the attitudes of the CEOs toward SOX. In answering the question of whether nonprofit managers should adhere to existing accountability standards regardless of SOX until a specific nonprofit regulation required change, managers revealed their preference to follow established practices. When managers scan the environment and determine that a new regulation does not seem to pose a threat to their organizations, they look askance at change. Similarly, the *had before SOX*, or preexisting condition, variable described the pre-SOX established accountability structure in nonprofit organizations prior to SOX enactment in 2002. Having relevant practices in place promotes a sense of security, prompts less urgency, and provides fewer opportunities (or need) for nonprofit leaders to adopt SOX rules.

We had expected that the request of organizational donors—major resource providers—to adopt SOX policies would lead to increased SOX adoption. However, only 4.3% of the nonprofit organizations in the sample reported that donors advised them to adopt SOX. The proportion of donors who recommended SOX adoption was too small to establish a statistically significant relationship in our sample, but it warrants further study.

With regard to size effects, several researchers had reported that the influence of the size of organizations on SOX adoption level was so pronounced that it required separate analysis by size groupings (e.g., Ostrower & Bobowick, 2006). To follow up, we split our sample of nonprofit organizations into three size categories. The results of the Poisson regressions by size strata indicated larger size was an important factor influencing (greater) SOX adoption by nonprofit organizations.

Conclusion

Results of this study show that adoption of SOX did take place in organizations in the nonprofit sector, with about 50% of our nationwide sample reporting low to moderate adoption of from 1 to 4 out of 15 practices recommended by SOX and post-SOX regulations relevant to the nonprofit sector. The remaining 50% of responding nonprofits did not adopt any SOX practices after SOX enactment in 2002. This finding diverges from the widespread expectations of experts for increasing SOX adoption by nonprofits, and from earlier findings discussed in various studies that indicated SOX

adoption among nonprofits exceeding 50%-70% (Broude & Prebil, 2005; Foley & Lardner LLP, 2005; Grant Thornton LLP, 2003, 2004, 2005, 2006; Tate, 2004).

An important reason for this difference in findings lies in our attention to preexisting accountability structures in nonprofit organizations prior to SOX passage in 2002. Our systematic survey of a well-defined national sample of nonprofit organizations undergirds this result. The survey tapped the pre-SOX accountability structure in place in responding nonprofit organizations because we anticipated that those organizations that reported having SOX requirements in place before SOX enactment would have less urgency and opportunity to adopt SOX policies. We systematically examined the effect of the preexisting conditions in our empirical analysis and found that this factor significantly decreased SOX adoption by nonprofit organizations. By contrast, the literature review revealed that the few empirical studies that have been conducted did not separate SOX-like policies adopted by nonprofit organizations before Congress passed SOX from those adopted after SOX enactment. Our research findings thus amend misleading findings of previous studies on SOX adoption behavior among nonprofit organizations.

Results of the analysis show that with respect to SOX, the typical nonprofit leader behaved conservatively. He or she usually expressed a preference for maintaining the status quo and following the existing accountability standards regardless of SOX. About half (52%) of the respondents said that they *agree* or *strongly agree* or take a neutral position (*neither agree nor disagree*) in regard to the policy of adhering to “existing accountability practices regardless of SOX.” This preference is related significantly to the decrease in SOX adoption behavior in the two sample subgroups defined by their pre-SOX adoption level. Such a lack of proactive behavior on the part of nonprofit executives led to lower post-SOX adoption levels. Our face-to-face interviews with nonprofit executives also indicated that nonprofit leaders did not perceive SOX as an external threat that warrants immediate action.

Our study results confirm earlier findings with regard to the effects of organizational size on SOX adoption behavior (Ostrower & Bobowick, 2006). We found that larger organizations adopted SOX at a higher level than did smaller organizations, perhaps because larger nonprofits have more resources and experience greater pressure for accountability.

Nonprofit organizations were not bound by statute law to adopt the provisions of SOX, except for two universally mandatory provisions (see Note 12). Nevertheless, anecdotal evidence suggested that they did in great number. We undertook the present analysis to test the conventional wisdom. Based on our systematic survey and empirical investigation, we find that the level of adoption of SOX by nonprofit organizations was low, yet predictable. To understand implementation of legislation, we argue, the prior level of adoption must be taken into account. So should organizational size, familiarity, and sources of information concerning the change. Adoption, though, presents only a beginning. What remains to be seen—and examined—are the effects of SOX adoption on nonprofit (and for-profit) organizations, their clients, and the larger community.

Notes

1. The Grant Thornton studies targeted a large sample of 21,000 organizations, and received low response rates of 1% in 2003, 3% in 2004, and 4% in 2005 and 2006, as calculated from the reported number of responses in Table 2. The low response rates and the adoption growth dynamics may suggest a response biased by the fact of SOX adoption at the time when responses were prepared.

2. In line with regulations written by the New York Stock Exchange (NYSE) to detail SOX requirements, boards are expected to initiate executive sessions, which exclude members of the management team. The purpose of these sessions is to discuss organizational management openly and critically (NYSE CG rules §330A.03). We decided to include a question about executive sessions as relevant to nonprofit practice, though it is not required by the text of SOX.

3. For a complete explanation and derivation of our theoretical framework, please see the authors Tamara G. Nezghina and Jeffrey L. Brudney.

4. A complete enumeration and statistical analysis of all independent variables is available from the authors.

5. The dependent variable distribution and structure suggested the model choice. The Poisson regression model (PRM) and its inverse, the negative binomial regression model (NBR), are standard models for a count-dependent variable. First we ran the NBR model. NBR runs a simple alpha test automatically. The test results showed that $\chi^2(1, N = 286) = .05, p = .412$, which does not allow rejection of the null hypothesis of $\alpha = 0$. When $\alpha = 0$, the Poisson regression is appropriate.

6. We excluded private foundations from the sampling frame because we expected them to act differently with respect to SOX adoption than would other 501(c)(3) organizations.

7. The studies of SOX adoption by Ostrower and Bobowick (2006) and Ostrower (2007) used full (nine-strata) and reduced (five-strata) size strata of public charities to understand how size influenced the SOX adoption behavior of nonprofit organizations. Following similar stratification logic, we devised three strata: \$100,000-\$199,999, \$2 million-\$9,999,999, and \geq \$10 million. Our purpose was to achieve a higher response rate and to survey a greater size of large organization in the expectation that large nonprofits adopted SOX rules more actively. However, we included a sufficient number of smaller organizations (600) in our sample to understand their SOX adoption activities.

8. Some researchers have argued that nationwide surveys of organizations typically receive low return rates, with a 15% return rate sometimes reaching a level of acceptability for organizational surveys (Hager, Thomas, Pollak, & Rooney, 2003; Huselid, 1995; Kumar, Subramanian, & Yauger, 1998; Milliken, Martin, & Morgan, 1998; Simonin, 1997). Cycyota and Harrison (2002) also assumed that the response rate of 18% was quite common for top executive officers in private businesses. The typical response rate for nonprofit executives is still an open empirical question.

9. The size of organization was measured by the amount of annual expenditure, wealth was calculated as a difference between annual revenues and expenditures, age was calculated from the year when tax-exempt status was granted to an organization, and policy area was defined on the basis of the National Taxonomy of Exempt Entities classification provided by the Urban Institute.

10. By population we mean the 2,000 organizations that were selected by a disproportionate stratified random sampling technique.

11. The total number of responses was 315. Five of them were excluded because they either had too many missing answers or refused to participate because they believed that SOX was inapplicable to them. Four cases were excluded because the respondents did not answer the questions concerning the main variable of interest, SOX adoption. Finally, two extreme outliers were excluded for more-accurate statistical analysis.

12. Two SOX provisions are viewed by experts as mandatory for all types of private organizations because they are incorporated in the text of the U.S. Code. The text of SOX refers to the amendment to Section 42121(b) of Title 49 of the U.S. Code, which requires protection for informants who assist federal investigations in fraud cases. SOX also stipulates that similar amendments to the U.S. Code, Chapter 3, Title 18, prohibit destruction, alteration, or falsification of records, including corporate audit records.

13. The Poisson regression model was called for instead of ordinary least squares analysis because most cases (153) had a score of 0; the count variables were not continuous but finite; the count variable cannot take on negative values; and the proportion of cases with a higher positive value decreased as the value of the count increased.

14. Other independent variables such as information from formal and informal networks, availability of external audits, credibility, political pressure, number of years in current position, years of education, membership in associations, government funding, and wealth did not offer statistically significant explanations of SOX adoption behavior in either group.

15. The full statistical results and explanation of the Poisson regression analyses by organizational size are available from the authors.

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