Non-Profits Size, Executive Compensation, Non-Profit Types and Federal Compliance: A Further Look

Laurence R. Brown
Claflin University

Rupert Rhodd
Florida Atlantic University

Lapses in internal controls and low levels of accountability have resulted in many organizations becoming insolvent. Federal compliance or the adherence to internal control could be affected by many factors, including executive compensation and nonprofit size. This paper uses regression analysis to explore the effects of non-profit types, the number of internal controls, the type of non-profit firms, and executive compensation on federal compliance. Based on archival data from 144 nonprofit organizations in the southeast United States, this paper shows that executive compensation, the types of non-profit, and the number of regulations, are important determinant of federal compliance.

Keywords: internal control infraction, federal compliance requirement, executive compensation, nonprofit

INTRODUCTION

Unqualified opinion, unmodified opinion, and clean opinion are used interchangeably to describe the financial statement of an organization that is reasonably stated, and taken as a whole, does not include material misstatements. The Committee of Sponsoring Organizations of the Treadway Commission Framework (COSO, 2013) defines internal control as the process developed and implemented by boards of directors, management, and other personnel to alter the way in which an organization operates. The goal of internal control is to make financial reporting more reliabile, and in compliance with applicable laws and regulations. Internal control is the accountability and governance tool of an organization to help deter, prevent, and detect errors, fraud, and corruption.

Despite extensive research on internal control infractions in publicly traded companies, there are few studies of internal control infractions in nonprofit organizations. This research is intended to extend the body of research on internal control infraction in nonprofit organizations (nonprofits).

Research by Duh et. al. (2014) suggests that internal control infractions in nonprofit organizations have resulted in negative financial and operational consequences for the organizations. Therefore, a better understanding of the factors that are related to internal control infractions could help to reduce these negative financial operational consequences in nonprofits. Concerns about the viability of nonprofits and their ability to achieve their social and business goals also serve as a motivation for this study. In fact, M.

Feng et. al. (2014) and Petrovits et al. (2011) note that a low level of internal control in nonprofits has led to negative consequences and has also increased the probability of insolvency.

Other drivers of this research are the paucity of research on (a) factors contributing to internal control infractions in nonprofits (b) the accountability of nonprofit organizations and (c) mechanisms to identify the levels of internal infraction. This study seeks to fill this void by examining the relationship between internal control infraction and the following variables: federal compliance requirement, executive compensation, nonprofit size, and nonprofit types.

The paper is outlined as follows: the next section provides a review of previous studies on internal control in the accounting industry, and this is followed by a description of the data and the regression model used in the paper. The last major section presents the empirical analysis, and it is followed by a summary.

A REVIEW OF PREVIOUS STUDIES

Agency theory is the underlying theoretical foundation for this research which is framed in a principal-agent relationship. Fama and Jensen (1983) and Jensen and Meckling (1976) contend that leaders of nonprofit organizations have a lower level of accountability than for profit firms, given their inherent asymmetric payoffs; that is, there are fewer penalties for poor accounting, unreliable reporting, and non compliance in nonprofits than in for-profit organizations.

Duncan et. al. (1999) paper focused on one group of nonprofit organizations, the church. Based on a sample of 317 churches with a wide range in the size and from denominations including Presbyterian, United Methodist, and Southern Baptist, the paper explored the effect of church size, as well as the polity and hierarchical structure of denominations on internal control. Duncan et. al. (1999) ANOVA test results show that large churches have higher internal control scores and hence better internal control systems than small churches. The test also revealed that internal control and questionable accounting practices differed according to denomination or polity.

The study by Keating et al. (2005) used a chi-square test with a sample of 11,841 nonprofits to explore the association between nonprofit types, nonprofit size, and material internal control infractions. The results indicate nonprofit type is a significant predictor of internal control infraction, and that size matters. Small nonprofits that do not have a long history of receiving government grants, tend to have higher rates of adverse audit findings. Also, nonprofits that have a record of prior audit findings are likely to have a higher rate of adverse audit findings.

Cordery et. al. (2013), and Van Puyvelde et al. (2012) examined the relationship between principals and agents in nonprofit organizations and the possibility that agency theory can be used to to resolve questions of accountability to internal and external stakeholders. Their research provides evidence of a relationship between nonprofit organization leaders' accountability and the expectations of beneficiaries, and governments to whom nonprofit business leaders are accountable. Because nonprofit business leaders are accountability for the areas of finance and operations, disclosure and transparency of financial transactions, and the use of funds, nonprofit business leaders must implement control mechanisms that address agency problems, to meet the expectations of beneficiaries.

Kobelsky et. al. (2013) examined how the level and time horizon of different types of performance-based compensation for CEOs and CFOs affect the likelihood of reporting material weaknesses in internal control as required by Sarbanes-Oxley Act. Kobelsky et. al. (2013) found that long-term incentives are inversely related to the reporting of internal control weaknesses, and the incentive to comply with Sarbanes-Oxley Act is influenced by the financial and criminal penalties that CEOs and CFOs would incur based on the legislation, as well as other factors. The strength of the study by Kobelsky et al. (2013) was its large sample size.

Arshad et al. (2013) used multiple regression analysis to examine the relationship between nonprofit size and the level of internal control infraction in 234 cultural, religious, and public service nonprofit organizations. The results indicate that nonprofit size does not have a significantly positive relationship with internal control infraction. However, Keating et al. (2005) had earlier provided evidence that smaller

organizations have a significantly higher level of internal control infractions, and the firm's size was a significant predictor of internal control infractions in nonprofit organizations. Carslaw et al. (2012) later concluded that smaller and high-risk nonprofits (i.e., those with less than $1 million in revenue, and those with multiple federal programs and complex requirements) tend to receive mixed opinions, that is, unmodified and modified opinions. Saat et al. (2013) using the charity level of internal control implementation model, found that nonprofit organizations with a greater scope of operations, and complexity of compliance requirements were more likely to encounter internal control infractions.

Petrovits et al (2011), like Arshad et al. (2013), used multiple regression analysis with variables such as the complexity of funding source requirements, nonprofit size, growth, the presence of an audit firm, and risk concerns to determine the causes of internal control infractions. Petrovits et al. (2011) found that growth, risk concerns, and the presence of an audit firm were significant predictors of internal control infractions. Contrary to the findings of Petrovits et al. (2011),

Noting that agents' interests may align with the interests of shareholders through stock-based compensation, Ma and Wang (2014) found that there is a positive relationship between granting stock options (i.e., performance-based compensation) to managers/agents and managerial risk-taking behavior. Ma and Wang (2014) also noted that this relationship leads to a high level of internal control infractions in nonprofit organizations.

Baapogmah et al. (2015) found the burden of government compliance requirements to be a significant factor, especially for small nonprofit organizations. The burden of government compliance is manifested in the paperwork needed for reporting, short reporting periods, costly personnel, and technology needs. Using a qualitative phenomenological study, Baapogmah et al. (2015) noted that the lack of sufficient resources contributed to the compliance burden of small nonprofits, and this in turn caused more internal control infractions.

DATA DESCRIPTION & RESEARCH METHOD

The sample for this study includes nonprofit organization in the following categories (social services, schools, institutions of higher learning, housing, and hospitals). The leaders of these organizations expend federal funds and the organizations operate in the southeast region of the United States. Because the leaders of these nonprofits expended $500,000 or more of federal funds, the organizations are subject to federal compliance requirements. They organizations are also subject to annual federal single audits that require the identification of internal control infractions in nonprofit organizations. The sample excludes government-dependent organizations such as community service boards and economic development boards.

The Federal Audit Clearinghouse database is the source of information for this study. The information in this database was originally collected from auditors performing annual federal single audits. The calendar year 2015 was the last year summary data was available and therefore, the 2015 data is most appropriate for this study. Financial data was manually collected from the Form 990 tax returns of nonprofits using Guidestar.org.

Before any analysis of this nature can be undertaken, a sample size analysis should be conducted. The size of the sample is an important feature of any empirical study in which the goal is to make inference about the population. A power analysis (G*Power) was used to determine the appropriate sample size for this study. Assuming a medium effect size ($f = 0.15$), $a = .05$, and seven predictor variables, a minimum sample size of 103 nonprofits is required to achieve a power of 0.80. Increasing the sample size to 153 increases the power to 0.95. Based on the G*Power chart (Figure 1), the sample size used for this analysis (n=144) is appropriate as it achieves a power of around 0.93.

FIGURE 3
G* POWER AS A FUNCTION OF SAMPLE SIZE
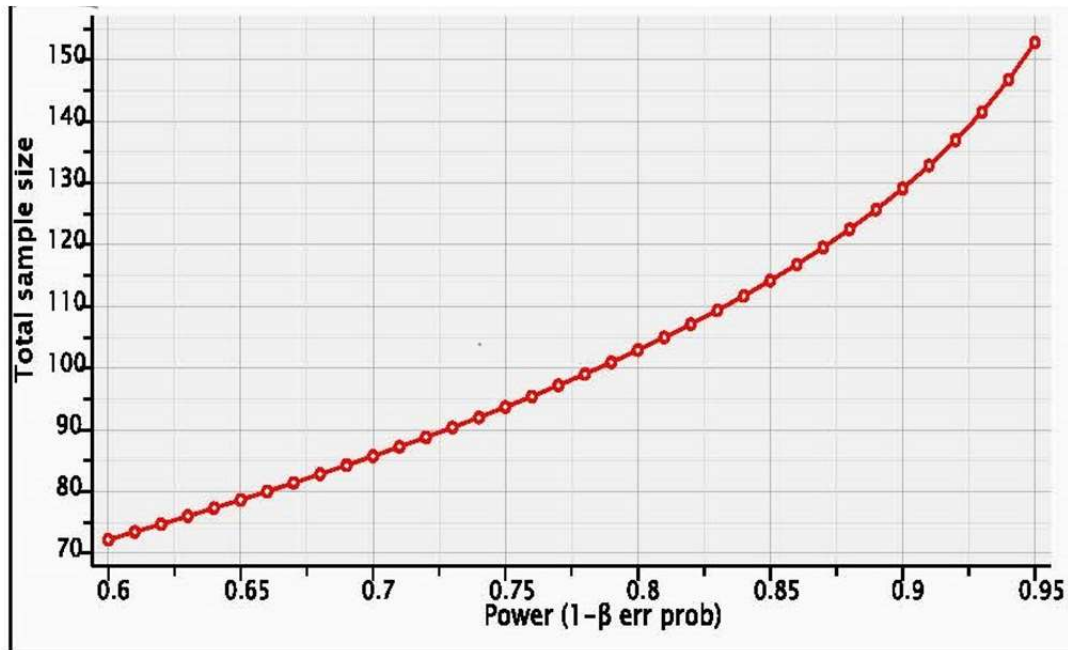
F-test – Linear multiple regression. Fixed Model, R^2 Deviation from zero
Number of predictors = 7, α err prob =0.05, Effect size $f^2 = 0.15$

Dummy variables are used for non-profit types (social service organizations, schools, institutions of higher learning, housing organizations, and hospitals). Federal compliance requirement (FEDCOMPREQ), is a ratio scale of measurement that is composed from 14 categories of compliance activities. The 14 categories are allowed or unallowed activities (allowable costs, cash management, eligibility, equipment and real property management, matching level of effort, period of availability of federal funds, procurement and supervision, program income, real property acquisition, reporting, subrecipient monitoring, and special tests and provisions). The percentage of compliance requirements for each nonprofit organization, (based on the federal agencies providing the funding), is used to represent the federal compliance requirement score. A higher score for the federal compliance requirement variable indicates a higher number of compliance requirements for nonprofit organizations.

Executive compensation (COMPENSATION) is the total compensation (salary, and health insurance and retirement benefits) paid to financial or nonfinancial executives of the nonprofit as a percentage of revenue. Nonprofit size (SIZE) is based on revenue converted to a dummy variable: that is nonprofits earning more than $750,000 are given a value of 1, and those with less are given a 0. Nonprofit type (TYPE), is a nominal scale of measurement. The nonprofit type variable has five categories: (a) institutions of higher learning, (b) schools, (c) housing organizations, (d) social service organizations, and (e) hospitals. For this research, higher education is omitted due to its relatively small sub-sample.

The federal compliance variable (ICWSCORE), is calculated from the number of reportable conditions in internal controls that were identified during the single audit. If during the performance of a single audit, an auditor found that the nonprofit organization did not comply with the laws and regulations, or that the internal controls were deficient, the auditor identified this as one or more of the following reportable conditions: material weaknesses, material noncompliance, and questioned cost. Following the methodology used in the research by Petrovits et al. (2011), the basis for determining weights for the categories is the levels of severity of internal control infraction outlined in the Federal Audit Clearinghouse database. The least severe internal control infraction received a value of 1, and the most severe received a value of 11. The weights for each category of internal control infraction appear in

Table 1. By increasing the levels for assigning weights from 3 to 6, this study improves on the methodology for assigning weights that was originally used by Petrovits. et. al. (2011). This was not simply an arbitrary increase, but one based on feedback from a panel of 10 certified public accountants who are experts in federal single audits. A high internal control score, based on the weight for internal control infractions, indicated a low level of internal control, and a low internal control score indicated a high level of internal control. Based on the categories of internal control infraction and the weights assigned to the level of severity, the determination of a composite score for each nonprofit organization was produced.

TABLE 1
QUALITY CONTROL REVIEW CODING AND WEIGHTS FOR NONCOMPLIANCE

Types of noncompliance	Assigned weight [a]
Reportable conditions—financial reporting	1
Reportable conditions—compliance	3
Material weaknesses—financial reporting	5
Material weaknesses—compliance	7
Material noncompliance	9
Questioned costs	11

[a] Source of weights is the Federal Audit Clearinghouse, where 11 = *most severe internal control infraction* and 1 = *least severe internal control infraction*.

ESTIMATION RESULTS

The listwise deletion method was used to eliminate nonprofits with incomplete and duplicate data. To test the assumption of normality, linearity, homoscedasticity, and independence of the residuals, the normal probability (P-P) plot of the regression standardized residual and the scatterplot of the standardized residual were examined. The plot is not reported in this research, but it shows the lack of a clear or systematic pattern of the standardized residuals. This supports the assumption that the residuals are homoscedastic and independent.

Multicollinearity was assessed by examining the bivariate correlation coefficient among predictor variables. All bivariate correlations were small, and the p-values were greater than 0.1. This denotes the absence of multicollinearity among the predictor variables.

Using the Statistical Package for the Social Sciences software (SPSS), the multiple regression technique was applied to examine the relationship between the dependent variable (federal compliance) and the independent variables (federal compliance requirements, executive compensation, size of nonprofits and type of nonprofits). The regression model is presented in Equation 1.

$$ICWSCORE = \alpha + \beta_1 * FEDCOMPREQ + \beta_2 * COMPENSATION + \beta_3 * SIZE + \beta_4 * TYPE_i + e \qquad (1)$$

TABLE 2
REGRESSION ANALYSIS SUMMARY FOR THE PREDICTOR VARIABLES

	B	SE B	t	p
(Constant)	8.325	6.555	1.270	0.206
FEDCOMPREQ	1.116	0.578	1.927	0.056**
COMPENSATION	-0.049	0.025	-1.960	0.050*
SIZE	-7.112	18.955	-.375	0.708
TYPE				
Hospital	9.392	1.894	-4.959	0.000*
School	7.319	1.587	4.612	0.000*
Social	-7.250	1.769	4.099	0.000*
Housing	-3.715	1.929	-1.926	0.056**

(*) 5% significance; (**) 10% significance

From the multiple regression results, the model as a whole is identified and shows a significant relationship between the variable representing federal compliance and the independent variables included in the model: $F(7, 136) = 6.559$, $p < .001$, $R^2 = 0.252$. In Table 2, the federal compliance requirement variable (FEDCOMPREQ) is significant at the 10% level. The positive sign for the federal compliance variable indicates that the greater the number of federal compliance requirements, the greater the number of internal control infractions. This implies that the larger the number of federal requirements the less likely are firms to be found in compliance. The executive compensation variable (COMPENSATION) is significant at the 5% level and has a negative sign. This indicates that the higher the executive compensation, the less the number of internal control infractions. Simply, the more you pay CEOs, the more likely are they to be better administrators and this will lead to less internal control infractions.

The coefficients for all four types of nonprofit variables are significant at the 5% level. However, two are positive (Hospitals and Schools), and two are negative (Social and Housing). This means that when compared as a group, hospital and school nonprofits are expected to have a higher level of internal control infractions than social services and housing nonprofits. It follows that social services and housing nonprofits are more likely to comply with federal requirements than hospital and school nonprofits. Assuming all factors are equal, hospitals are expected to have the highest number of internal infractions, and social services the lowest. In this research, the size of nonprofits is not related to the number of internal control infractions.

CONCLUSION

Like Arshad et al. (2013) and Petrovits et al (2011), and unlike Keating et. al. (2005) who used a similar multiple regression analysis, the results show that nonprofit size does not have a significantly relationship with internal control infraction. Like Keating et al. (2005), the results indicate nonprofit type was a significant predictor of internal control infractions in nonprofit organizations. Although this research confirms and refutes some of the previous findings, its greatest contribution is the extension of Petrovits et. al. (2011) methodology by increasing the assigned categories of weights from 3 to 6. This research was also able to determine that in the group of nonprofits, which are likely to have more and less internal control infractions.

Annually, the media reports many nonprofit insolvencies, and this alone demands research by academicians. The purpose of this quantitative correlation study was to examine the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and the dependent variable, internal control infraction. Based on the significant relationship between nonprofit type and internal control infraction, it is clear which nonprofit organization needs more oversight and which needs less. Another important finding of this study is the inverse relationship between executive

compensation and internal control infractions in nonprofit organizations. The implication from this is, if CEOs and CFOs for nonprofits are adequately compensated, internal infractions will be less as well as the number of bankruptcies. Since this study included only the nonprofit population in the southeast region of the United States, future researchers should focus on other regions of the United States, to confirm or contradict the findings of this study. This could produce more generalized results for a wider area.

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