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Relationship between Federal Compliance Complexities and Internal Control Infraction

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This is to certify that the doctoral study by

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Abstract

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by

Laurence Brown

MS, New York University, 1992

BS, University of Massachusetts, 1982

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

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Abstract

In the nonprofit industry, lapses in internal controls and low levels of accountability have resulted in many organizations becoming insolvent. Grounded in the agency theory, the purpose of this correlational study was to examine the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction. Archival data were collected from 144 nonprofit organizations in the southeast United States. The results of the multiple regression analyses indicated the model was able to predict the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction, $F(7, 136) = 6.559$, $p < .001$, $R^2 = .252$, with non-profit type (hospitals), ($\beta = -9.392$, $t = 7.191$, $p < 0.050$), accounting for a higher contribution to the model than executive compensation, ($\beta = -0.049$, $t = 1.96$, $p < 0.050$). Federal compliance requirement and nonprofit size did not explain any significant variation in internal control infraction. The implications for positive social change included the potential for a better understanding by nonprofit managers of the importance of internal controls, leading to the effective and efficient provision of goods and services needed by members of society.

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Dedication

This doctoral study is dedicated to my children, Mikaila and Erik Brown, for being my inspiration for success and to my beloved life partner, Laura Agostina, for being patient and standing with me through the doctoral journey. I hope my example of perseverance will show you all that all things are possible and there is no goal outside of your reach.

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To my life partner, Laura Agostina, there is so much to be grateful about, as you have been by my side for the entire doctoral journey. Thanks for taking care of all the other aspects of my life, thereby allowing me the time to complete this study. Thanks for the numerous trips you made with me and for pushing me to complete this journey. There were many times when your verbal and nonverbal communication was enough for me to get on with the task. Your editing skills contributed significantly to the proper presentation of my thoughts in this study. I love you.

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Section 1: Foundation of the Study

Leaders of nonprofit organizations receiving unmodified opinions on their audited financial statements can create the belief of the existence of effective internal control and an acceptable level of accountability and performance. However, Carslaw, Pippin, and Mason (2012), Othman and Ali (2014), Petrovits, Shakespeare, and Shih (2011), and Saat et al. (2013) provided evidence that many nonprofit organizations lack effective internal control and an acceptable level of accountability. The number of nonprofit organizations becoming insolvent because of minimal or no internal control in the baseline period 2000 to 2003 was approximately 5,000 of 311,977 nonprofits filing with the Internal Revenue Service (IRS). This number compared with approximately 12,000 of 236,870 nonprofits during the period 2009 to 2012 and represented an increase from the baseline time period using data in the Business Master File maintained by the IRS (Dietz, McKeever, Brown, Koulish, & Pollak, 2014; Gordon, Fischer, Greenlee, & Keating, 2013; U.S. Government Accountability Office, 2014). The increase in the number of insolvencies between 2000 and 2012 is indicative of the fiscal unsustainability of nonprofits when internal control infraction exists.

Some cases of insolvency resulted in several financial scandals and in regulators, auditors, and academics searching for causes (Hoffmann & McSwain, 2013). According to M. Feng, Li, McVay, and Skaife (2014) and Petrovits et al. (2011), a low level of internal control in nonprofit organizations has negative consequences on their operations and increases the possibility of insolvency. This study involved examining the relationship between federal compliance requirement, executive compensation, nonprofit

size, nonprofit type, and internal control infraction to contribute to the understanding of the relationship between the independent variables and internal control infraction.

Background of the Problem

Approximately 96% of 11,841 nonprofit organizations examined from 1997 to 1999 received unmodified opinions, thus leading to the public's belief that effective financial controls existed for nonprofits, even though nonprofits traditionally did not have effective internal controls (Keating, Fischer, Gordon, & Greenlee, 2005). An unmodified opinion includes an assurance that the financial statements of an organization are reasonably stated and the financial statements, taken as a whole, do not include material misstatements, whereas a modified opinion does not provide this assurance. Contrary to the perception of the existence of strong internal control, lapses in accountability and noncompliance with the Federal Single Audit Act of 1984 have led to higher expectations regarding governance oversight, risk management, and the detection and prevention of fraud. The lack of strong internal control increased professional and cognizant monitoring of the quality of nonprofit accounting, reporting, and compliance (McNally, 2013; Office of Management and Budget, 2015; Williams & Taylor, 2013). Some nonprofits, such as Roslyn District School Board in New York, United Way of America, Covenant House, United Cancer Council, American Red Cross, Tuskegee University, and McKenzie College lost funding or became insolvent (Carslaw et al., 2012; Hamilton & Slatten, 2013; Keating et al., 2005). Problems with accountability and noncompliance with regulatory standards have resulted in regulators, practitioners, and academics searching

for the causes (Carslaw et al., 2012; McNally, 2013; Office of Management and Budget, 2015; Othman & Ali, 2014; Petrovits et al., 2011; Saat et al., 2013).

The focus in prior research by Carslaw et al. (2012), Keating et al. (2005), and Saat et al. (2013) included the frequency of internal control infraction, the level of internal control between small and large nonprofits, nonprofit type, and the effects of new laws and regulations on the level of internal control infraction. Evidence provided by Carslaw et al., Keating et al., and Saat et al. included cases of smaller nonprofits, those new to government grants, and those with prior audit findings having lower levels of internal control. They also included evidence that many nonprofits are failing to be accountable, as the majority of nonprofit organizations in the United States are small entities (Carslaw et al., 2012; Gordon et al., 2013; Petrovits et al., 2011). Factors contributing to the level of internal control in nonprofits and the lack of accountability were not the focus of these prior studies.

Problem Statement

Many nonprofit organizations lack effective internal control, and as a result, some experience a lack of funding and insolvency (Saat et al., 2013). The number of nonprofit organizations registered with the IRS from 2012 to 2013 decreased 2.1% from 1.44 million to 1.41 million, partly due to insolvency as a result of minimal or no internal control (IRS, 2014). The general business problem was that lack of internal control negatively affects the ability of nonprofit organizations to remain solvent. The specific business problem was that some nonprofit managers do not know the relationship

between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between the independent variables (i.e., federal compliance requirement, executive compensation, nonprofit size, nonprofit type) and the dependent variable (internal control infraction). The targeted population consisted of archival data records from nonprofit social services organizations, schools, institutions of higher learning, housing organizations, and hospitals in the southeast region of the United States. The implications for positive social change include the potential for nonprofit boards of directors and executives to increase their awareness of nonprofit business leaders' social responsibility to beneficiaries and positive social change in their behavior. Nonprofit business leaders can improve operational efficiencies in the provision of social, education, housing, health, and economic development services to those in society and communities who need them the most.

Nature of the Study

I used a quantitative methodology for this study. The quantitative methodology involves describing and testing theories deductively from existing knowledge by developing hypothesized cause-and-effect relationships among measurable variables (Sarma, 2015). The quantitative method was the best fit for this study because the study involved examining the relationships between the variables. The qualitative method is a systematic inquiry with a focus on understanding social beings and the nature of their

interaction with themselves and their surroundings and used to develop theory inductively (Sarma, 2015). Therefore, the qualitative method was inappropriate for this study because I tested a theory, which is a deductive approach. The mixed methods approach includes both quantitative and qualitative methods and has a focus on different dimensions of the same phenomenon (Bentahar & Cameron, 2015). Because the mixed methods approach involves extensive data collection and analyses of textual and numerical data, it is time consuming and cost intensive. The exclusion of the qualitative research method from this study made the mixed methods approach inappropriate.

I used a correlational design in this study. Farrelly (2013) and Jerejian, Reid, and Rees (2013) used correlational designs to examine relationships between independent variables and dependent variables. The correlational design was appropriate for this study because of the examination of the relationship between independent variables and the dependent variable. A characteristic of the experimental and quasi-experimental designs is the measurement of the effect of an intervention on an outcome (Curtis et al., 2015). There was no intervention in this study; therefore, the experimental and quasi-experimental designs were not appropriate.

Research Question

What is the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction?

Hypotheses

Two major elements in research design are hypotheses and the variables used to test them. This study involved testing the following hypotheses to find answers to the

research question: What is the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction?

H_0: There is no statistically significant relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

H_a: There is a statistically significant relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

Theoretical Framework

Ross and Mitnick developed the theory of agency independently and concurrently in 1972 (Mitnick, 2013). Ross developed the economic theory of agency, while Mitnick developed the institutional theory of agency. Fama and Jensen (1983) and Jensen and Meckling (1976) used the institutional theory of agency to explain the principal–agent relationship and accountability in organizations. Agency theory is a means to determine the most efficient contract between the principal and the agent when their goals differ and when it is difficult or expensive to verify that what the agent is doing is an objective of the agency relationship (Bosse & Phillips, 2016). L'Huillier (2014) used agency theory to support the belief that intrinsic incentives resulting from agency contracts are a mechanism to control the behavior of leaders of nonprofit organizations, and the research on agency theory provides possible reasons for nonprofit business leaders complying with federal compliance requirement.

A proposition is that differences in the sharing of risk arise when the principal and agent prefer different actions because of differences in nonprofit type. The actions of nonprofit business leaders depend on the type of nonprofit organization involved. For example, leaders of service organizations are accountable to funders, sector regulators, and clients, that is, the principals (Baapogmah, Mayer, Chien, & Afolabi, 2015). However, the leaders of a network organization who seek policy change are accountable to members (the principals). Different types of nonprofit organizations have multiple principals (donors, clients, and the public) with conflicting or incongruent interests and differences in the relationship between principals and agents (Van Puyvelde, Caers, Du Bois, & Jegers, 2012). Agency theory was the theoretical lens chosen for this study because Baapogmah et al. (2015), Balsam and Harris (2014), Bosse and Phillips (2016), Ma and Wang (2014), McGowan, Yurova, and Chan (2014), Van Puyvelde et al. (2012), and Voulgaris, Stathopoulos, and Walker (2014) concluded that independent variables similar to the variables chosen for this study (federal compliance requirement, executive compensation, nonprofit size, and nonprofit type are some of the propositions of the theory.

Operational Definitions

Precise meanings of the terms in this study are important for understanding the findings and conclusions. Without understanding the key terms included in this section, it would not be possible to evaluate the research or determine whether a researcher has achieved the objectives of a research project. Because dictionary definitions may vary from the meanings given to the terms in this research project, it is important to keep these

definitions in mind while evaluating the evidence and conclusions documented in this research.

Accountability: Accountability refers to adherence to contract agreements that results in a high level of internal control in nonprofit organizations. Measuring accountability involves examining the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction and calculating the operational efficiency ratio of program expenses to total expenses (Harris, Petrovits, & Yetman, 2014).

Cognizant agency: A cognizant agency is a federal agency from which a recipient organization receives its largest federal grant or most of its funding and provides oversight on the expenditure of federal funds (López, Rich, & Smith, 2013).

Complexity: Complexity refers to the number of federal compliance requirements for federal funding programs. *OMB Circular A-133 Supplement 2015* includes the federal compliance requirements for federal funding programs (Saat et al., 2013). A metric of the number of federal compliance requirements prepared from information provided in *OMB Circular A-133 Supplement 2015* served as an independent variable in this study.

Internal control: The Committee of Sponsoring Organizations of the Treadway Commission (COSO) Framework includes a definition of internal control as a process developed and implemented by boards of directors, management, and other personnel. The framework is designed to provide reasonable assurance that an organization will achieve its objectives in the following categories: effectiveness and efficiency of operations, the reliability of financial reporting, and compliance with applicable laws and

regulations (COSO, 2013). Internal control is the primary mechanism to guide and monitor organizational personnel in the performance of their duties. Internal control is the accountability and governance tool of an organization to help deter, prevent, and detect errors, fraud, and corruption.

Nonprofit organization: A nonprofit organization is an organization whose leaders do not distribute its surplus funds to owners or shareholders but instead use them to help pursue its goals (Tucker & Parker, 2013). In the United States, a nonprofit organization is exempt from income and property taxation.

OMB Circular A-133 Supplement 2015: The Federal Single Audit Act of 1984 and its associated regulations require a rigorous, organization-wide examination of any entity whose leaders expend $750,000 or more of federal funds and has been effective for single audits of fiscal years beginning on or after January 1, 2015. The objective of the single audit is to assure the U.S. federal government that the management and use of such funds meet the compliance requirements of cognizant agencies (Office of Management and Budget, 2015).

Quality control review: A single audit quality control review is an audit conducted to ensure recipients of federal funds spend the funds in compliance with federal program requirements (Stone, 2012). The review can also help to ensure the recipients demonstrate effectiveness in administrating federal grants, have good governance, develop systems to ensure fiscal honesty, and adhere to their missions.

Assumptions, Limitations, and Delimitations

Assumptions in research are self-evident truths that must be valid or the research is meaningless (Leedy & Ormrod, 2005). Assumptions are something a researcher accepts as true without concrete proof. Explicitly documenting research assumptions may help reduce misunderstanding and resistance to research (Simon & Goes, 2013). Limitations are unexpected circumstances not under the control of a researcher and constrain the interpretation of the findings (Cagle & Pridgen, 2015; Connelly, 2013). Delimitations refer to the scope or bounds of a study (Simon & Goes, 2013). Based on the design of this study, there were several assumptions, limitations, and delimitations.

Assumptions

Assumptions serve as the foundation of any research (Leedy & Ormrod, 2005). Leedy and Ormond (2010) posited that assumptions are basic to research, and without them, a research problem could not exist. In this study, one assumption was that the selected sample would be representative of the population toward which I made the inferences. Another assumption was that the data were accurate and measured what I intended to measure.

Limitations

Limitations are constraints on the generalizability of research findings and the methods used to establish the validity of the study and are weaknesses inherent to a study design (Cagle & Pridgen, 2015; Connelly, 2013). The collection of archival data was a step in this study, but this type of data collection includes inherent weaknesses (Feng, Ling, Neely, & Roberts, 2014). According to Feng et al. (2014), the weaknesses of

archival data are (a) archival data may include preparation errors that affect the reliability of the data, (b) archival data may include mathematical errors, (c) archival data may be incomplete because some organizations need not report their information due to size bias, and (d) archival data format may not be user friendly.

Other limitations of this study were the exclusion of an evaluation of the quality of the accounting, reporting, and compliance systems of nonprofits, even though managers can hide weaknesses in internal control from auditors and have difficulty obtaining a large enough sample, which necessitates less robust data analysis techniques. The use of less robust data analysis techniques limits the quality of evidence available to address research questions and hypotheses (Feng et al., 2014).

A probabilistic sampling method was suitable for this study because probability enables deductive reasoning; thus, an assumption existed that there was a specified distribution of the population values (Uprichard, 2013). Some weaknesses for this sampling approach were that this method is tedious and time consuming, especially when creating larger samples (Uprichard, 2013). According to Uprichard (2013), probability sampling necessitates that researchers know about all possible units that will undergo sampling.

Delimitations

Delimitations refer to conscious exclusionary and inclusionary decisions that define the boundaries of a study (Simon & Goes, 2013). In this study, leaders of organizations expending $750,000 or more of federal funds were the only organizations included in the population, which limited the generalizability of the findings, as many

nonprofits expend less than $750,000. The targeted population did not include archival data records from government-dependent organizations such as community service boards and economic development boards. Nonprofit social services organizations, schools, institutions of higher learning, housing organizations, and hospitals in the southeast region of the United States were the only types of organizations included in the sample. The southeast region of the United States had a large number of nonprofit organizations suitable for inclusion in the study and therefore comprised the area selected for this study. This study also included a restriction with regard to time, as the sample included only data for the calendar year 2015. These exclusionary and inclusionary decisions limited the generalizability of this study's findings to other types of nonprofit organizations, years, and regions of the United States.

Significance of the Study

The significance of this study is that the findings include valuable information regarding predictors of the level of internal control infraction, which nonprofit business leaders could use to develop and implement strong internal controls. Nonprofit business leaders will have a tool to aid in identifying fiscal interventions to positively leverage internal control outcomes. The goal of this study was to increase understanding of the relationship between the independent variables (i.e., federal compliance requirement, executive compensation, nonprofit size, and nonprofit type) and internal control infraction in nonprofit organizations in the southeast region of the United States. The results of this study may increase nonprofit business leaders' understanding of the

predictors of internal control infraction and improve their accountability to nonprofit beneficiaries and other stakeholders.

Contribution to Business Practice

Nonprofit business leaders may use the information obtained on the predictors of internal control infraction to identify fiscal interventions to leverage internal control outcomes positively, improve the operational efficiencies of nonprofit organizations, and better serve those most in need in society and communities through their organizations' services. Nonprofit organizations that are efficient can benefit society by providing social, education, housing, health, and economic development services to beneficiaries (Arvidson & Lyon, 2014).

Implications for Social Change

The implications for positive social change include the potential for nonprofit business leaders to increase their awareness of their social responsibility to beneficiaries by understanding the predictors of internal control infraction. Business leaders of nonprofit organizations who understand the predictors of internal control infraction may improve operational efficiencies in the provision of social, educational, housing, health, and economic development services to those in society and communities who need them the most.

A Review of the Professional and Academic Literature

The adverse consequences of internal control infraction on nonprofit organizations indicate the importance of internal control to the success and sustainability of these organizations (Carslaw et al., 2012; Hamilton & Slatten, 2013). According to

Feng et al. (2014) and Petrovits et al. (2011), the low level of internal control in nonprofit organizations has negative consequences on organizations' donor and grantor support, thus increasing the possibility of insolvency. The researchers above (i.e., Carslaw et al., 2012; Feng et al., 2014; Hamilton & Slatten, 2013; and Petrovits et al., 2011) examined factors related to organizational accountability and the relevance of internal control to accountability and sustainability using multiple linear regression analysis. Their findings included evidence of smaller nonprofits, those new to government grants, and those with prior audit findings had a lower level of internal control. These findings, as well as the findings of Gordon et al. (2013) and Petrovits et al. (2011), included evidence that many nonprofit business leaders are failing to be accountable, as the majority of nonprofit organizations in the United States are small entities. However, many variables might relate to the level of internal control infraction in nonprofit organizations but were not the focus of these previous studies.

The purpose of this quantitative correlational study was to examine the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction. Two major elements in research design are the hypotheses and the variables used to test them. This study involved testing the following hypotheses to find answers to the research question: What is the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction?

H_0: There is no statistically significant relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

H_a: There is a statistically significant relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

This section began with a brief discussion of the relationship between the sustainability of nonprofit organizations and the level of internal control in nonprofits, the purpose of the study, and the hypotheses. The review continued with the search strategy for the literature review and a discussion of agency theory. A discussion followed of the construction of the theory and of the ways researchers have used it to explain the relationship between the financial performance of nonprofit organizations and the level of internal control, its relevance to this study, and why it was selected, as well as supporting and contrasting theories. The last part of the literature review included analysis and synthesis of recent research on the relationship between the independent variables of this study and the dependent variable, the internal control framework and federal laws related to internal control, and an overview of nonprofit organization leaders' accountability.

Search Strategy for the Literature Review

The strategy for searching the literature included a detailed examination of peer-reviewed journals, government reports, and seminal scholarly books using a variety of databases. Internal control, accountability, and nonprofit organizations were the primary words used in searches. The searches involved using related articles and citations in other

journals. The process involved identifying more than 250 journal articles, and 143 emerged as relevant to this study. Eighty-six percent of the total sources cited were peer-reviewed, and 85% had publication dates of 5 years or less from the anticipated completion date in 2017. The basis for including some articles published before 2013 was their relevance to the topic of this study.

Understanding Agency Theory

Ross and Mitnick developed the theory of agency independently and concurrently in 1972 (Mitnick, 2013). Ross developed the economic theory of agency, while Mitnick developed the institutional theory of agency. Fama and Jensen (1983) and Jensen and Meckling (1976) used the institutional theory of agency to explain the principal–agent relationship and accountability by leaders in organizations. The theory is applicable for examining accountability issues in nonprofit organizations, as the theory recognizes the issues of goal conflict, information asymmetry, and uncertainty of outcomes from the relationship between principals and agents (Frias-Aceituno, Rodriguez-Ariza, & Garcia-Sanchez, 2013; Namazi, 2013; Okolie, 2014). Sinclair, Hooper, and Ayoub (2013) provided an explanation for the relationship between the level of accountability and internal control in nonprofit organizations and deduced that the relationship is from agency theory. Fama and Jensen, as well as and Jensen and Meckling, used agency theory to explain the principal–agent relationship. They contended the leaders of nonprofit organizations have a lower level of accountability given their inherent asymmetric payoffs; that is, there are fewer penalties for poor accounting, reporting, and compliance

in nonprofits than in for-profit organizations. This study involved using agency theory to examine the relationship between nonprofit accountability and internal control infraction.

Unlike for-profit organizations, nonprofits had fewer lawsuits for ineffective and inefficient internal control. Because of these asymmetries, state and federal agencies instituted compliance guidelines for monitoring nonprofits' activities (Okolie, 2014; Schubert, 2014; Sinclair et al., 2013). The intent of monitoring performed by personnel in state and federal agencies is to reduce asymmetric incentives. Because nonprofit business leaders experience fewer consequences for ineffective and inefficient internal control within their organizations, state and federal guidelines and monitoring should lead to effective and efficient internal control and better operating performance.

The intrinsic incentives resulting from the agency relationship provide a mechanism to control the behavior of leaders of nonprofit organizations. Advocates of agency theory support the belief that agency relationships in organizations play a large part in nonprofit business leaders complying with state and federal compliance guidelines (Bosse & Phillips, 2016; L'Huillier, 2014). Directing the behavior of nonprofit business leaders to maintain effective and efficient internal control and a level of accountability to beneficiaries and other stakeholders is the desired outcome of the agency relationship. Agency theory was the theoretical lens chosen for this study because it would provide an explanation of the behavior of nonprofit business leaders regarding their accountability to beneficiaries and other stakeholders and to effective and efficient internal control.

The agency relationship in the nonprofit sector occurs through stakeholders' relationships rather than through the ownership interests of principals within these

organizations. Nonprofit organizations do not have owners, but stakeholders create the principal–agent relationship (Daily & Dalton, 2015; Fama & Jensen, 1983; Harrison & Wicks, 2013; Jensen & Meckling, 1976; Sinclair et al., 2013; Van Puyvelde et al., 2012; Wellens & Jegers, 2014). Leaders of nonprofit organizations are accountable to various stakeholders, such as clients, donors, board members, staff, and the government, who assume the role of surrogate owners (Tucker & Parker, 2013). In the absence of clearly defined principals in the nonprofit environment, agency problems are complex. To resolve problems arising from the nature of the agency relationship, leaders of nonprofit organizations must implement internal control systems that address agency problems.

An agency relationship represents a contract because at the core of an agency-structured relationship is presumptive cooperative behavior between a principal and an agent at the management level. Van Puyvelde et al. (2012) contended an inherent goal conflict exists between the principal and the agent based on the inducements and contributions of the employment relationship. Namazi's (2013) findings included evidence that risk sharing occurs among individuals and groups and contended risk-sharing problems arise when cooperating individuals have different attitudes toward risk. Bosse and Phillips (2016) and Jensen and Meckling (1976) concurred the domain of the agency theory is the relationship between principal and agent and mirrors a contract, thus broadening the risk-sharing literature by including agency problems. Although agency relationships represent contracts, goal conflict and differences in risk sharing exist between principal and agent, which affects nonprofit business leaders' accountability and internal control.

An assumption of agency theory is that a conflict of interest exists between the principals (beneficiaries of goods and services provided by nonprofit organizations) and the agents (managers) relating to the benefits received, compensation, and productive efforts. Both parties in the principal–agent relationship want to maximize their residual income (i.e., benefits received and income), and there is a conflict of interest between principals and agents (Bosse & Phillips, 2016; L'Huillier, 2014; Rashid, 2015). Due to this conflict of interest, the principal–agent relationship will result in agency costs (Van Puyvelde et al., 2012). However, maximizing the residual income available to principals requires the minimization of costs, including agency costs.

The preceding discussion indicated agency theory enables the understanding of compensation structures for top organizational executives. In addition to articulating the relevance of incentives, agency theory has organizational, system evaluation, behavioral, allocation, and optimal control monitoring roles (Bosse & Phillips, 2016; Namazi, 2013). The organizational role arises because agency theory includes a reason why managerial control in an organization is necessary and ways to achieve control; that is, by resolving the information asymmetry problem in which the principal implements control measures, such as voluntary disclosures (Cordery, 2013; Zhuang, Saxton, & Wu, 2014). The basis of such control measures are observable performance outcomes, and hence, the system evaluation role of agency theory. The assumption that an agent does not perform in the best interest of the principal and that the agent is work-averse explains the behavioral role of the agency theory. The principal could use the board to monitor top executives and describe governance practices to solve agency problems.

Agents' interests may align with the interests of shareholders through stock-based compensation (Essen, Engelen, & Carney, 2013; Ma & Wang, 2014). Ma and Wang (2014) and Murphy (2013) provided evidence that a positive relationship exists between granting stock options (i.e., performance-based compensation) and managerial risk-taking behavior. This relationship led to a high level of internal control infraction in nonprofit organizations. On Contrary to Ma and Wang's findings, Blazovich (2013) documented that managerial risk propensity does not differ statistically whether the basis for executives' compensation is on performance or position within the organization. The mixed findings of these studies revealed the need for additional research on the relationship between performance-based and salary-based compensation.

Nonprofit business leaders use contracts to coalign the goals of principal and agent, which leads to the question of whether a behavior-oriented contract (e.g., executive salary) is more efficient than an outcome-oriented contract (e.g., bonus, commissions) in influencing the behavior of agents. Agency theory is suitable for understanding executive compensation and agents' actions and includes a focus on getting the most efficient contract to govern the principal–agent relationship (Eisenhardt, 1989). According to agency theory researchers (Fama & Jensen, 1983; Hou et al., 2014; Jensen & Meckling, 1976), executives of organizations may attempt to maximize their compensation by providing less accountability; however, the lower level of accountability results in a high level of internal control infraction. The premise that executives attempt to maximize their compensation supports the contention that individuals are self-interested and risk averse;

therefore, getting the most efficient contract to govern the principal–agent relationship is important to influence the behavior of agents.

The allocation role of agency theory develops from the assumption that it is possible to derive a contract that maximizes the utility of the agent and the principal and leads to the efficient allocation of company resources and risk sharing. Also, a control system serves as a mechanism that the agent and principal can agree will provide the type of information needed for control and efficient risk sharing (Namazi, 2013). Thus, agency theory is a sound basis for assessing the optimality of managerial accounting systems as well as performance evaluation systems. In support of Namazi's findings, Mirrlees and Raimondo (2013) provided evidence that it is possible to find a level of remuneration and a level of control leading to an alignment of the objectives of the principal and the agent. Mirrlees and Raimondo's findings also included evidence that this alignment is the point of equilibrium. Thus, optimal contracts are those leading to the attainment of the point of equilibrium.

An understanding of the relationship between nonprofit business leaders' accountability and the expectations of beneficiaries and governments is important to address agency problems. Baapogmah et al. (2015), Cordery, Proctor-Thomson, and Smith (2013), Fama and Jensen (1983), Jensen and Meckling (1976), and Van Puyvelde et al. (2012) examined the relationship between principals and agents in nonprofit organizations and the potential of agency theory to resolve questions of accountability to internal and external stakeholders. Their research findings provided evidence that a relationship exists between nonprofit organization leaders' accountability and the

expectations of beneficiaries and governments to whom nonprofit business leaders are accountable. Nonprofit business leaders are accountability for the areas of finance and operations, disclosure and transparency of financial transactions and the use of funds, and oversight of the organization's management decisions. To achieve the expectations of beneficiaries and governments, nonprofit business leaders must implement control mechanisms that address agency problems, such as internal control systems. Agency theory is appropriate for this study because it addressed the accountability of nonprofit business leaders and the expectations of beneficiaries and governments, and it contributed to the research on the effectiveness and efficiency of internal control and operations of organizations.

Positivist agency and principal-agent research. The development of agency theory occurred similarly to the development of positivist and principal–agent theories (Schubert, 2014). Positivist agency researchers attempt to identify cases in which conflict exists between the agent and the principal and describe the appropriate form of governance that will prevent agents from acting in self-interest (Eisenhardt, 1989). According to Eisenhardt (1989), when the contract between the principal and the agent is outcome based, the agent is more likely to behave in the interest of the principal. When the principal has information to verify the agent's behavior, the agent is more likely to behave in the interest of the principal. Principal–agent researchers focus on the principal–agent relationship, on the optimal contract, and on executives' behavior versus the outcome between the principal and the agent.

Positivist and principal–agent studies include common views that contracting problems occur because of the self-interest maximizing objective of both the principal and the agent and because the concern of both is minimizing agency costs. However, where the focus of the principal–agent researchers was on risk sharing and the nature of what constitutes an optimal contract, the focus of the positivist agency researchers is on aspects of the organizational environment and technology concerned with monitoring the contractual relationship. Eisenhardt (1989) highlighted the concern with the nature of the preferences of the principal and the agent, the nature of uncertainty, and the information structure within nonprofits. The concern of positivist agency researchers was capital intensity, information costs, capital markets, and the nature of internal and external markets. As such, the positivist theory is nonmathematical.

Rival theories of agency theory. In tandem with the development of the various conceptual definitions of accountability, existing literature includes various theoretical frameworks through which nonprofit business leaders achieve accountability and efficiency in performance. As suggested by Turbide and Laurin (2014) and Van Puyvelde et al. (2012), to resolve problems arising from the nature of the agency relationship, leaders of nonprofit organizations can complement agency theory with other theoretical approaches, such as the stakeholder and stewardship theories. Sinclair et al. (2013), Tremblay-Boire and Prakash (2015), and Wellens and Jegers (2014) were instrumental in advancing the use of stakeholder theory to understand accountability to multiple stakeholders. Nonprofit stakeholders are those affected by the activities of nonprofit organizations. A central premise of the stakeholder theory is, by focusing on all

stakeholders, the creation of value by the firm is good for firm performance. However, the stakeholder theory does not explain the conflict in the interest and goals of the various stakeholders in the firm, whereas agency theory does explain the conflict (Harrison & Wicks, 2013; O'Brien & Tooley, 2013; Wellens & Jegers, 2014). For example, shareholders can withdraw from the firm by selling their shares, while other stakeholders, such as employees and beneficiaries, may find it difficult to change their employment abruptly or may lose an essential source of goods and services should they withdraw from the firm.

The stewardship theory appeared in research by O'Brien and Tooley (2013) and Turbide and Laurin (2014) to explain the concept of accountability and governance and to show that agents are stewards of the resources provided to them. O'Brien and Tooley noted the possible basis for the roles and responsibilities of agents, for providing goods and services to those most in need, and for developing effective methods of internal control, is accountability. Similarly, Van Puyvelde et al. (2012) used stewardship theory to indicate agents would act in the best interest of the principal, even when their interests diverge. Thus, agents expect to accomplish personal outcomes of achievement and self-actualization, as well as the alignment of the goals of the agent and principal. The interests and goals of principal and agent under the stewardship theory are different from the interests and goals of the principal and agent under the agency theory.

Namazi (2013), Ross (2013), and Van Puyvelde et al. (2012) noted there is an inherent conflict of interest between the principal and agent resulting in a low level of internal control and inefficiencies in operations. Sinclair et al. (2013) indicated the

application of the stewardship theory helps in understanding the roles and responsibilities of agents for accountability but does not explain the conflict between principal and agent in nonprofit organizations, which was why agency theory was the theoretical lens chosen for this study. Bernstein, Buse, and Bilimoria (2016) and O'Brien and Tooley (2013) have critiqued, criticized, and defended the stewardship theory. However, these critiques are beyond the scope of this research.

The relationship between agency theory and accountability. The concept of accountability lacks a precise definition (Mohammed, 2013). From a normative perspective, the concept of accountability evokes a sense of responsibility to others for performance, compliance, disclosure of information and transparency, and efficient delivery of goods and services to those in need of assistance. Accountability also denotes external responses regarding compliance with laws and industry standards. Sinclair et al. (2013) adapted the core definition of accountability with a focus on what to account for instead of on the four components of accountability: transparency, answerability, compliance, and enforcement. However, Saxton, Neely, and Guo (2014) noted the components contribute to accountability by collecting information; making it available and accessible for public scrutiny; providing clear reasons for actions and decisions; monitoring and evaluating procedures and outcomes; and helping to enforce sanctions for shortfalls in compliance, justification, or transparency. Because of the lack of agreement on a precise definition of accountability, an understanding of the relationship between principal and agent is necessary to determine the effect of agency theory on nonprofit organization leaders' accountability.

O'Brien and Tooley (2013) and Tremblay-Boire and Prakash (2015) contended the definition of accountability with a focus on what to account for is too narrow and recommended broadening this external and punitive dimension to incorporate an internal dimension where decision makers take responsibility for themselves. With this, the primary concern of accountability should be providing sufficient and meaningful financial and nonfinancial information and enabling an understanding of the purpose and achievements of nonprofit organizations. The implementation of effective and efficient internal control systems facilitates the provision of sufficient and meaningful information (Virtanen & Takala, 2016). The primary benefit for organizations whose leaders accept this notion of accountability is greater congruence among the organizations' mission, internal control, and regulatory compliance.

The definition of accountability for purposes of this study is as the operational efficiency ratio or the ratio of program expenses to total expenses, as in the study by Yetman and Yetman (2012) and as widely used in other research as a measure of efficiency and performance. However, following research by Arshad, Abu Bakar, Thani, and Omar (2013), Saat et al. (2013), and Sinclair et al. (2013), the definition of accountability in this study is nonprofit business leaders' adherence to contract agreements resulting in a high level of internal control. A nonprofit organization is effective and has an acceptability level of internal control if it receives an answer of "no" in its single audit report for weaknesses (i.e., reportable conditions, material weaknesses, material noncompliance, and questioned costs) in internal control.

Carslaw et al. (2012), McNally (2013), Othman and Ali (2012), Petrovits et al. (2011), and Saat et al. (2013) examined the reasons for lapses in accountability by organizations' leaders and instances of noncompliance with federal compliance requirement. The lapses resulted in government regulators, accounting and audit practitioners, and academics searching for the causes. Fama and Jensen (1983) and Jensen and Meckling (1976) examined the theory of agency and accountability by leaders in organizations and used the theory to explain the principal–agent relationship. The leaders of nonprofit organizations provide lower levels of accountability given their inherent asymmetric payoffs; that is, fewer penalties for poor accounting, reporting, and compliance in nonprofits than in for-profit organizations (Fama & Jensen, 1983; Jensen & Meckling, 1976). Researchers and practitioners may understand the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction and the importance of accountability by the leaders of nonprofit organizations through a focus on agency theory and the variables relating to accountability.

The issue of accountability concerning nonprofit organizations is relative to the nature of the organization and within the context of the relationship between the various constituents. For example, an organization can be accountable to funders, regulators, and clients, who according to their functional relationship are the principals of the organization (Baapogmah et al., 2015; O'Brien & Tooley, 2013). Within this context, Virtanen and Takala (2016) posited the focus of nonprofit accountability is on to whom the organization is accountable and for what. Anecdotal evidence supported the premise

that whereas the leaders of public companies have traditionally operated within a strong accountability environment, nonprofit organizations have not (Ebrahim, Battilana, & Mair, 2014; Gordon et al., 2013). Saxton et al. (2014) contended the management of nonprofit organizations, at a minimum, is accountable in three aspects: finances, performance, and fairness toward various constituents (e.g., employees, contractors, clients, and citizens). Baapogmah et al.'s research included the finding that accountability involves financial sustainability and value creation. However, other findings did not include similar dimensions of accountability in nonprofit organizations, as the legitimacy of such organizations has been more in tune with their role in the provision of social and cultural services, particularly among the poor (Sinclair et al., 2013). Sinclair et al. (2013) asserted that leaders of nonprofits should justify their organizations' existence and the furtherance of their social objectives by providing support to the disadvantaged members of society. With more support for this view, there has been greater advocacy for more accountability to many different stakeholders.

Petrovits et al. (2011) provided evidence on the enactment of the Federal Single Audit Act of 1984 and the impact of the act on the level of accountability by leaders of nonprofit organizations. The evidence supported the assertion that effective internal control contributes to the quality of accountability. However, leaders of nonprofit organizations receiving unmodified opinions on their audited financial statements may not note the existence of effective internal control and an acceptable level of accountability (Keating & Frumkin, 2003). Because there is no standard way to define accountability and the objectives and definitions of internal control often differ for each

organization, challenges to the effectiveness of internal control as a measure of accountability is possible.

Only recently have academic researchers addressed accountability by nonprofit organizations' leaders, and there are few empirical discussions of nonprofit organizations leaders' accountability. The lack of studies resulted from the absence of external standards or benchmarks for nonprofit organizations, such as rules of the Securities and Exchange Commission and sections of the Sarbanes-Oxley Act of 2002 (SOX; Yasmin, Haniffa, & Hudaib, 2014). However, accounting standards and management principles exist to guide leaders of nonprofit organizations in developing strategies for accountability, and nonprofit business leaders can voluntarily comply with the sections of SOX related to accountability. Developing strategies and measurable goals requires an understanding of factors related to accountability. For this reason, the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction underwent examination through the perspective of agency theory.

Empirical Studies of the Independent and Dependent Variables

The findings of the studies discussed in this literature review included mixed evidence that a relationship exists between nonprofit type, executive compensation, nonprofit size, and internal control infraction. Understanding the principal–agent relationship is important to examine the relationship between the independent and the dependent variables in this study. Bosse and Phillips (2016) and Jensen and Meckling (1976) posited the focus in the principal–agent relationship is on risk-sharing. To

understand the effect of risk-sharing on the variables in this study, I examined the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction through the perspective of agency theory.

The purpose of this study was to extend the research and literature on internal control in nonprofit organizations by examining the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction. The basis for identifying variables in this study is the review of previous studies relevant to agency theory and the determinants of weak or a lack of internal control in nonprofit organizations. The proposition of this study was that researchers could use agency theory to explain the relationship between the independent and the dependent variables of this study. The null hypothesis of this research was no statistically significant relationship exists between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction. Variables included in previous studies helped to address the issue of whether agency relationships in nonprofit organizations directly influence the relationship between the independent and the dependent variables.

Federal compliance requirement. Petrovits et al. (2011) documented determinants, such as financial health, the pace of growth, the complexity of regulations, amount of government funding, and size of nonprofits, as having a relationship with internal control infraction. Petrovits et al. conducted a multiple regression analysis using the complexity of funding source requirements, nonprofit size, growth, going concern

risk, and audit firm as independent variables and internal control infraction as the dependent variable. Using a model consisting of the five independent variables, Petrovits et al. found that growth, going concern risk, and audit firm were significant predictors of internal control infraction (R^2 = .36, n = 44,353, p < .16); however, the coefficient on federal compliance requirement and nonprofit size was negative. Contrary to the findings included in Petrovits et al.'s study, Saat et al. (2013) used the charity level of internal control implementation model and found that nonprofit organizations with a greater scope of operations and complexity of compliance requirements were more likely to encounter internal control infraction. The mixed results of these two studies for the predictor variable, complexity of compliance requirement, provided motivation for this study.

Some nonprofit organizations, such as United Way of America, Covenant House, United Cancer Council, American Red Cross, Tuskegee University, and McKenzie College, fell out of favor with donors and grantors or went out of business because of lost funding due to noncompliance with federal compliance requirements (Carslaw et al., 2012; Hamilton & Slatten, 2013; Lam, Klein, Freisthler, & Weiss, 2013). This finding supported the premise that government agencies used information about internal control to make funding decisions; therefore, it is important for nonprofit business leaders to understand the relationship between federal compliance requirement and internal control infraction because federal funding of the 1.41 million nonprofit organizations reporting to the IRS in 2015 was 24.5% of total nonprofit revenue of $2.26 trillion. This percentage was a large percentage that helped to sustain nonprofit organizations (McKeever, 2015).

However, an extensive examination of the influence of federal compliance requirement (i.e., financial and program compliance requirements) on internal control infraction identified during the audits of nonprofit organizations has not occurred. In this study, the lack of extensive examinations of the relationship between federal compliance requirement and internal control infraction was a motivation for the inclusion of this variable.

Executive compensation. An examination of the effects of the compensation of chief executive officers (CEOs) and chief financial officers (CFOs) on the quality of internal control and the relationship between incentives for performance-based compensation and internal control quality over financial reporting since the enactment of the SOX, Section 404, took place by Kobelsky, Lim, and Jha (2013). Kobelsky et al. provided evidence that a statistically positive relationship (R^2 = .18, n = 3,654, p < .01) existed between CEOs' salary compensation and internal control infraction. Performance-based compensation sensitivity (i.e., short-term and long-term incentives) was negative for CFOs (p < .05) but not for CEOs with the magnitude of internal control infraction reported. A positive relationship existed between CEOs' performance-based compensation and the internal control infraction reported. The strength of the study by Kobelsky et al. was its large sample size.

Hou, Priem, and Goranova (2014) and Kobelsky et al. (2013) used agency theory to explain the relationship between executive compensation and agents' actions, as well as to identify the most efficient contract to govern the relationship between agent and principal. Nonprofit business leaders used incentives to align the interest of the agent and

principal (Eisenhardt, 1989). Principal–agent researchers have sought to identify the most efficient contract under changing variables, such as measures of uncertainty, risk aversion, and information. Hou et al. suggested that agency theory explained the relationship between CEO compensation, firm size, and firm performance. The analysis of sample firms by Hou et al. (2014) showed a decline in firm performance from non-performance-based compensation (i.e., salary) or a statistically significant negative relationship (R^2 = -.06, n = 1,558, p < .01) between non-performance-based compensation and firm performance. There was an opposite effect for performance-based compensation (i.e., bonuses and options). The results also indicated that a positive correlation existed between firm size and firm performance (r = .30, p < .001). A key strength of Hou et al.'s study was the variance inflation factor for the models (2.94), which was well below critical levels. This value means multicollinearity did not exist. Likewise, Sedatole, Swaney, Yetman, and Yetman (2013) posited a relationship existed between CEOs' compensation (pay-for-performance) and the performance metrics of nonprofit organizations.

Nonprofit size. Petrovits et al. (2011) examined the relationship between the complexity of funding source requirements, nonprofit size, growth, going concern risk, and audit firm as predictor variables, with internal control infraction as the dependent variable. The results indicated that growth, going concern risk, and audit firm were significant predictors of internal control infraction (R^2 = .36, n = 44,353, p < .01); however, the coefficient on nonprofit size was significantly negative. Likewise, Arshad et al. (2013) used multiple linear regression 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 indicated nonprofit size does not have a significantly positive relationship with internal control infraction ($\beta = 0.039$, $p < .001$). However, Keating et al. (2005) provided evidence that smaller organizations had a significantly higher level of internal control infraction, and firm size was a significant predictor of internal control infraction in nonprofit organizations, $\chi^2(1, N = 506) = 30.4$, $p < .01$. Carslaw et al. (2012) concluded 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. An unmodified opinion assures the fair presentation of the financial statements of an organization and that the financial statements, taken as a whole, do not include material misstatements. A modified opinion does not provide this assurance. Arshad et al., Carslaw et al., and Petrovits et al. provided mixed evidence about the relationship between nonprofit size and internal control infraction. The mixed evidence of these studies was the motivation for including the nonprofit size variable in this study.

With regard to the compliance burden of nonprofit organizations, Baapogmah et al. (2015), Cordery (2013), Jones and Webber (2012), and Petrovits et al. (2011) found the burden of government compliance requirements to be significant, especially on small nonprofit organizations. The manifestation of this burden occurs through paperwork burdens, short reporting periods, and costly personnel and technology needs. Using a qualitative phenomenological study, Baapogmah et al. noted the lack of sufficient resources contributed to the compliance burden of small nonprofits. Jones and Webber

examined an experiment and noted some compliance requirements are inflexible and complex. The findings of these studies did not indicate the reason for the compliance burden of nonprofit organizations was the size of the entities rather than the lack of sufficient resources and the inflexibility and complexity of government compliance requirements. The purpose of this study was to examine the relationship between nonprofit size and internal control infraction and extend the literature about this relationship.

Nonprofit type. Researchers found a relationship between nonprofit type and internal control infraction. Baapogmah et al. (2015) suggested accountability in nonprofit organizations depends on the context of the relationship and the type of nonprofit organization involved. For example, leaders of service organizations are accountable to funders, sector regulators, and clients (the principals) by using mechanisms such as reports and evaluations. However, the leaders of a network organization who seek policy change are accountable to their members (the principals) and use mechanisms such as lobbying and fact-finding. Keating et al. (2005) used a chi-square test of association to assess the association between nonprofit type and material internal control infraction. The results indicated nonprofit type was a significant predictor of internal control infraction in nonprofit organizations, $\chi^2(1, N = 506) = 30.4, p < .01$. Jones and Webber (2012) also found nonprofit type to be a significant predictor of internal control infraction. These findings supported the proposition in this study that a relationship would exist between nonprofit type and internal control infraction.

Single audit stakeholders have raised concerns about the complexity, costs, and relative benefits of the single audit compliance requirements for different types of nonprofit organizations. Jones and Webber (2012) experimented with nonprofit organizations whose staff members provide social, education, housing, health, and economic development services, in which it was straightforward to measure performance. Jones and Webber concluded these nonprofit types were more likely to meet compliance requirements. However, organizations whose staff members provide health services that require complex processes to monitor and account for the transactions were more likely to fail to meet compliance requirements. Relative to the nature of the services, nonprofits whose staff members provide health services have more compliance requirements than social and cultural services organizations because of the medical implications involved (Jones & Webber, 2012). The federal compliance requirements for health services nonprofits tended to be more complex as well. Jones and Webber (2012) also provided evidence that compliance costs affect smaller organizations disproportionately. However, Jones and Webber's experiment included only three nonprofit organizations and resulted in inconclusive findings that limited the credibility of the results. Judging the results should therefore entail caution.

Internal control infraction. Internal control is deemed effective when there are no material weaknesses in internal control (Office of Management and Budget, 2015). Material weakness, as defined in accounting and auditing standards, is a deficiency or a combination of deficiencies in internal control, such that there is a reasonable possibility that fraud may occur or a material misstatement of the entity's financial statements will

not be prevented, or detected and corrected, on a timely basis. A requirement included in the Federal Single Audit Act of 1984 is reporting internal control infraction to the Federal Audit Clearinghouse for organizations expending $750,000 or more of federal funds as part of their annual single audit reports. This requirement is to enhance disclosure of information, transparency, and financial and operational efficiencies to result in better services to beneficiaries and the public. Failure to report to the Federal Audit Clearinghouse will most likely result in a loss of federal funding in the future. Nonprofit organizations expending less than $750,000 of federal funds do not have to undergo audits under the Federal Single Audit Act of 1984 or report to the Federal Audit Clearinghouse but must have an audit under the Generally Accepted Government Auditing Standards. In this study, the proxies for internal control infraction are reportable conditions for financial reporting, reportable conditions for compliance, material weaknesses in financial reporting, material weaknesses for compliance, material noncompliance, and questioned costs. The existence of a high level of internal control infraction in organizations can result in potential negative consequences.

The potential consequences for publicly traded companies experiencing a high level of internal control infraction differ from the consequences for nonprofit organizations (Rice, Weber, & Wu, 2014). Understanding the potential consequences for both types of organizations is important because internal control infraction in publicly traded companies increases the likelihood of class action lawsuits by investors, sanctions from the Securities and Exchange Commission for an accounting-related infraction, and management turnover. However, nonprofit organizations are different. Rice et al.

examined penalties that could serve as an enforcement mechanism for SOX Section 404 and focused on firms with restatements related to internal control infraction. Using a sample of 1,007 firms, Rice et al. found no evidence that penalties are more likely for firms, managers, and auditors who failed to report the existence of internal control infraction. Rice et al. reported that 10% of firms in the sample faced litigation resulting from their restatement. Rice et al. also noted that 7% of the firms in the sample experienced sanctions by the Securities and Exchange Commission. The predictor variables of interest in the study by Rice et al. were litigation and Accounting and Auditing Enforcement Releases (AAER) by the Securities and Exchange Commission, which are sanctions for accounting-related infractions. The dependent variable was internal control infraction. The results of the AAER regression showed the estimated coefficient on internal control infraction is positive and statistically significant (R^2 = .245, n = 1,007, p < .10). The marginal effect of internal control infraction indicated that 3-5% of firms reporting internal control infraction are more likely to receive an AAER following a restatement of their financial statements. The results of the litigation regression showed the estimated coefficient on internal control infraction is positive and statistically significant (R^2 = .258, n = 1,007, p < .10). The findings of this study indicated that firms reporting internal control infraction before their restatements were more likely to face litigation. Despite extensive research on internal control infraction in publicly traded companies, there are few studies of internal control infraction in nonprofit organizations. The intent of this study was to extend the literature on internal control infraction in nonprofit organizations.

In nonprofit organizations, the potential consequences are inefficient financial and operational processes leading to errors in financial reporting and fraud, a loss of funding, a lack of achievement of economic and social objectives, and insolvency (Petrovits et al., 2011). Carslaw et al. (2012) suggested there were few regulatory consequences for nonprofit organizations reporting material internal control infraction or failing to remediate known infractions. Existing literature on the consequences of a high level of internal control infraction in organizations included the assumption that agents considered the expected costs and benefits when deciding whether to comply with SOX for publicly traded companies and the Federal Single Audit Act of 1984 requirements for organizations expending federal funds (Basile, Handy, & Fret, 2015). Although the consequences of a high level of internal control infraction differ between publicly traded companies and nonprofit organizations, the possible outcome can be insolvency for both types of organizations.

Despite increased attention to internal control in nonprofit organizations and nonprofit business leaders' accountability by government agencies and academics, nonprofit organizations continue to have weaknesses in their internal control (Petrovits et al., 2011). Duh, Chen, Lin, and Kuo (2014) suggested a high level of internal control infraction in nonprofit organizations has resulted in negative financial and operational consequences for organizations. Understanding the relationship between various variables and internal control infraction in nonprofits is important to the sustainability of the nonprofit industry. Concerns about the viability of nonprofit organizations to continue as going concern entities and their ability to achieve their social and business goals

served as motivation for this study. As such, it is important to understand the relationship between the independent variables and the dependent variable of this study, that is, federal compliance requirement, executive compensation, nonprofit size, nonprofit type, , and internal control infraction.

Internal Control Framework and Federal Laws Related to Internal Control

The updated COSO Framework and internal control. In 1985, the leaders of a coalition of accounting organizations in the United States formed COSO (Provasi & Riva, 2015). The mandate of the commission was to examine the reasons for the incidents of fraud in the financial activities of firms and to make recommendations organizational leaders could use to develop and maintain internal control systems that mitigate risks to an acceptable level and provide reliable information supporting sound business decisions (McNally, 2013). In 1992, COSO leaders issued the COSO Internal Control–Integrated Framework. The framework included the definition of internal control, five components of internal control (i.e., control environment, risk assessment, control activities, information and communication, and monitoring), and three objectives of internal control: operations, reporting, and compliance (COSO, 2013; Länsiluoto, Jokipii, & Eklund, 2016; McNally, 2013; Provasi & Riva, 2015). Professionals in management, accounting, and auditing, as well as government regulators, use the COSO Framework for developing, implementing, and monitoring internal control in organizations and accountability by their leaders.

The COSO Framework includes a definition of internal control as a process developed, implemented, and maintained by an organization's board of directors,

management, and other personnel to provide reasonable assurance regarding the achievement of operating, reporting, and compliance objectives (COSO, 2013; McNally, 2013). Organizational leaders and auditors widely acknowledge the COSO Framework as the definitive standard for developing and maintaining an effective and efficient internal control system (McNally, 2013). In recognition of technological and business developments and increased business risks, COSO leaders released revisions and updates to the 1992 COSO Internal Control–Integrated Framework on May 14, 2013 (McNally, 2013; Provasi & Riva, 2015). The release codified existing principles and expanded guidance on nonfinancial reporting but retained the core definition of internal control and the five components of a system of internal control (COSO, 2013; Provasi & Riva, 2015). The conclusion by management and regulators was if the three COSO control objectives and the five components are not present and functioning, as well as operating together, then there is a material internal control deficiency (Leng & Zhang, 2014; McNally, 2013). An understanding of the definition, components, and objectives of internal control by leaders of nonprofit organizations enables the achievement of operating, reporting, and compliance objectives.

The Sarbanes-Oxley Act of 2002 and internal control. In 2002, members of the U.S. Congress enacted SOX, also known as the Public Company Accounting Reform and Investor Protection Act and the Corporate and Auditing Accountability and Responsibility Act, to set governance and auditing standards for all publicly traded companies in the United States (Petrovits et al., 2011; U.S. Government Accountability Office, 2013). Requirements of the SOX included creating a quasi-public institution, the

Public Company Accounting Oversight Board, to oversee and regulate audits of publicly traded companies and to enlist auditors in enforcing existing laws against theft and fraud (Coates & Srinivasan, 2014). The enactment of SOX resulted in increased monitoring of publicly traded companies' internal control system and their leaders' level of accountability.

Sections 302 and 404 of SOX mandate the CEOs and CFOs of publicly traded companies certify the effectiveness and efficiency of the internal control of their companies. Section 404 also includes a mandate for auditors to attest to the effectiveness of internal control (Cheung, 2014; Clinton, Pinello, & Skaife, 2014; Coates & Srinivasan, 2014; Myllymäki, 2013; U.S. Government Accountability Office, 2013). The mandates of SOX have increased the monitoring of the effectiveness and efficiency of publicly traded companies' internal control.

Although SOX is not binding on nonprofit organizations, many nonprofit business leaders have adopted various provisions of the act. Prior research findings on the effects of the adoption of some provisions of SOX on nonprofit organizations included evidence that nonprofits experienced effects in proportion to the level of adoption (Turbide & Laurin, 2014). Leaders of approximately 25% of nonprofits studied attributed the benefits of better financial controls and reduced risks of accounting fraud to the adoption of SOX provisions (Yazawa, 2015). The adoption of the mandates of SOX by nonprofit business leaders and auditors resulted in a lower level of internal control infraction in nonprofit organizations.

Discussions of the appropriateness and the effectiveness of the SOX regulations to ensure accountability continue in academia, as well as in the political arena. Supporters of regulations insist regulations are necessary to maintain accountability and more regulations are necessary to improve accountability. Opponents contend there are too many regulations and regulations are not necessary to prevent a high level of internal control infraction and ensure accountability (Coates & Srinivasan, 2014; Feng et al., 2014; Petrovits et al., 2011; Yazawa, 2015). Most managers believed Section 404 of SOX improved the quality of financial reporting but did not believe the regulations improved the efficiency of firms' operations (Alexander, Bauguess, Bernile, Lee, & Marietta-Westberg, 2013; Yazawa, 2015). Their findings of the effectiveness of SOX regulations on nonprofit organizations' internal control infraction and accountability by their leaders is debatable; however, the focus by nonprofit business leaders and auditors on internal control because of the Federal Single Audit Act of 1984 requirements was a major part of the examination in this study.

The Federal Single Audit Act of 1984 and internal control. Tandem procedures outlined in *OMB Circular A-133 Compliance Supplement 2015* are on the disclosure of material weaknesses that indicate significant deficiencies in internal control and on conducting substantive testing regarding major program compliance with the unique requirements of particular grant programs. Monitoring organizations whose leaders expend $750,000 or more of federal funds, by the Federal Audit Clearinghouse and other regulators, does not necessarily lead to acceptable measures of success. Keating et al. (2005) suggested this is due in part to the types of nonprofits and the differences in

the financial and program compliance requirements by cognizant agencies. Despite the differences, leaders of nonprofits consider the evidence of the measure of success resulting from monitoring mixed. The focus of audit procedures outlined in *OMB Circular A-133* resulted in identifying material deficiencies in the internal control of nonprofit organizations, thereby providing motivation for this study.

Transition

Based on an understanding of the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction and the effect of agency theory on these variables, the leaders of nonprofit organizations will be able to focus on the effectiveness and efficiency of internal control. This should lead to a decrease in noncompliance with federal program compliance requirement and an increase in productivity and the satisfaction of beneficiaries of goods and services. To achieve a low level of internal control infraction, nonprofit business leaders should understand the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

Carslaw et al. (2012) and Saat et al. (2013) suggested small organizations had a higher level of internal control infraction than large organizations. However, Saat et al. demonstrated that the complexities of financial and program characteristics result in a high level of internal control infraction in small nonprofit organizations. Hence, additional study of the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction in nonprofit organizations was necessary.

This study included an analysis and synthesis of the independent and dependent variables. Arshad et al. (2013), O'Brien and Tooley (2013), and Saat et al. (2013) examined the effect of variables on nonprofit accountability and provided evidence that a relationship existed between some variables and accountability by leaders of nonprofit organizations. The focus of this study was on the variables that may relate to internal control infraction in nonprofit organizations.

The review of the literature covered some variables related to internal control infraction in nonprofits and the effect of agency theory on the variables. Section 1 established the foundation for this study. Section 2 expands the discussion of the problem statement, purpose statement, research method and design, data collection, and data analysis.

Section 2: The Project

This section begins with a restatement of the purpose statement, followed by a description of the role of the researcher in the data collection process and participants in the study. Descriptions of the research method, design, and justification for the methodology and design chosen also appear in this section. Other areas of the study discussed are the population, sampling technique, and data collection and analysis techniques. This section ends with a discussion of the measures undertaken to ensure the validity and reliability of findings.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between the independent variables (i.e., federal compliance requirement, executive compensation, nonprofit size, nonprofit type), and the dependent variable (i.e., internal control infraction). The targeted population was archival data records from nonprofit social services organizations, schools, institutions of higher learning, housing organizations, and hospitals in the southeast region of the United States. The implications for positive social change include the potential for nonprofit boards of directors and executives to increase their awareness of nonprofit business leaders' social responsibility to beneficiaries. The increase in awareness of nonprofit business leaders should bring about positive social change in their behavior. Nonprofit business leaders can improve operational efficiencies in the provision of social, education, housing, health, and economic development services to those in society and communities who need them the most.

Role of the Researcher

The basic ethical principles that underlie the conduct of research involving human subjects are intended to ensure the ethical performance of research and the protection of human subjects' rights is guaranteed (Brakewood & Poldrack, 2013; Moulton, Collins, Burns-Cox, & Coulter, 2013). The role of the researcher in a quantitative study involves collecting, organizing, and ethically analyzing data. My role in this quantitative study was to ensure adherence to the ethical principles and guidelines in the *Belmont Report*.

As a public accountant engaged in nonprofit auditing, I am familiar with the internal control systems of nonprofit organizations, regulations related to internal control systems, and internal control infraction experienced by nonprofit organizations. Over the past two decades, I have observed relatively few improvements in the level of internal control and nonprofit business leaders' accountability. Identifying the relationship between variables and internal control infraction in nonprofits is important to nonprofit business leaders achieving their social responsibilities and to auditors achieving the objectives of the audits.

The researchers' role as related to three basic ethical principles relevant to the ethics of research involving human subjects is described in the Belmont Report (Brakewood, & Poldrack, 2013; Moulton, Collins, Burns-Cox, & Coulter, 2013). The principles are respect of persons, beneficence, and justice. Respect for persons incorporates the convictions that the treatment of individuals should be as autonomous agents and that persons with diminished autonomy should receive protection. Beneficence requires persons to receive ethical treatment from researchers who should

respect their decisions and protect them from harm. Justice relates to who should benefit from research and who should bear the burdens.

As a researcher, I abided by all ethical principles of the *Belmont Report* and avoided bias. In this study, I used archival data from U.S. government sources in the public domain. Although this research did not involve human participants, the study proceeded in an ethical manner. I also obtained permission from Walden University Institutional Review Board (IRB) before collecting data.

Participants

Departments of the federal government are the most frequent cognizant agencies of nonprofit social services organizations, schools, institutions of higher learning, housing organizations, and hospitals whose leaders expend federal funds. Nonprofits in the southeast region of the United States receiving funding from federal government departments and expending federal funds equal to and exceeding $750,000 must have an annual federal single audit. These nonprofits comprised the targeted population of this research. Nonprofits whose leaders expend federal funds must meet the compliance requirements of the federal agencies providing the majority of their funds.

This study involved collecting secondary data from the Federal Audit Clearinghouse for five categories of nonprofit organizations: nonprofit social services organizations, schools, institutions of higher learning, housing organizations, and hospitals operating in the southeast region of the United States. This study also involved downloading public information directly from the Federal Audit Clearinghouse. The compliance requirements of federal agencies for each category of nonprofit organization

differ by the numbers of requirements; therefore, compliance complexities vary (see Table 1).

Table 1

Compliance Requirements

Oversight agencies identification numbers	Names of federal agencies	Maximum number of compliance requirements for each federal agency	% of compliance requirements
14	Department of Housing and Urban Development	14	9.7
16	Department of Justice	9	6.2
84	Department of Education	11	7.6
93	Department of Health and Human Services	12	8.3
97	Department of Homeland Security	12	8.3
98	United States Agency for International Development	9	6.2
10	United States Department of Agriculture	12	8.3
12	Department of Defense	11	7.6
17	Department of Labor	12	8.3
20	Department of Transportation	14	9.7
81	Department of Energy	12	8.3
94	Corporation for National and Community Service	10	6.7
96	Social Security	7	4.8
Total		145	100.0

Note. The source of information included in this table was *OMB Circular A-133 Compliance Supplement 2015*. The maximum number of compliance requirements for each agency in Table 1 represents the Catalog of Federal Domestic Assistance, which is a government-wide compendium of federal programs, projects, services, and activities that provide assistance.

Research Method and Design

Research Method

The quantitative research method was the methodology used in this study. The three primary methods used in scientific research are quantitative, qualitative, and mixed

methods. The quantitative research method is an objective and systematic process involving the use of numerical data to measure phenomena and produce findings (Bentahar & Cameron, 2015). According to Bentahar and Cameron (2015), researchers using the quantitative research methodology test theories from existing knowledge by developing a hypothesized relationship between measurable variables to attain additional knowledge. Furthermore, researchers using the quantitative methodology assume there is only one true and objective reality, that is, independence of social perception and variables included in statistical analyses are well represented (Babones, 2015). According to Phoenix et al. (2013), the basis for the quantitative philosophical and theoretical framework is positivism. Thus, within the positivist paradigm, the quantitative methodology is more acceptable than the qualitative method.

A fundamental consideration in posing and answering research questions is the researcher's worldview, the philosophy a researcher has about the world, and the nature of research. A worldview described by Babones (2015) and Phoenix et al. (2013) is positivism in which causes determine outcomes, reduce ideas into a small discrete set of ideas to obtain and test data, and use a quantitative research method starting with a theory to examine the relationship between variables. Starting with agency theory, this study involved examining the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction. Based on the nature of this study, the appropriate research methodology was the quantitative method.

The research community acknowledges the description of a research methodology as the procedural strategies adapted to investigate the phenomenon under study and as the

strategy of investigation (Knight & Cross, 2012). Qualitative research is a systematic inquiry concerned with understanding social beings and the nature of their interaction with themselves and their surroundings. Furthermore, the qualitative research method involves developing theory inductively (Garcia & Gluesing, 2013). The intent of qualitative researchers is not to quantify findings but to describe findings in the language employed in the research process. Qualitative research methodology is appropriate for testing phenomena with lived experiences and the perceptions of interviewees and was therefore not appropriate for this study.

The mixed methods approach includes both the quantitative and qualitative research methodologies. The quantitative and qualitative methods involve a focus on different dimensions of the same phenomenon and are appropriate for gaining insights and results, for making inferences, and for drawing conclusions (Bentahar & Cameron, 2015). Researchers using the mixed methods approach point out the shortcomings of the qualitative and quantitative methods in isolation when seeking to understand complex social issues. For example, the mixed methods approach involves more extensive data collection and analyses of textual and numerical data and is time-consuming and cost-intensive (Bentahar & Cameron, 2015). Because of the exclusion of the qualitative research method from this study and time limitation, the mixed methods approach was not appropriate for this study.

Research Design

This study included a correlation research design. The research design is the specific techniques employed to collect and analyze data (Knight & Cross, 2012). The

designs used in quantitative research are correlational, experimental, and nonexperimental. The correlational design involves examining the relationship between independent variables and the dependent variable (Farelly, 2013; Jerejian et al., 2013). This quantitative correlational study involved examining the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction to assess the significance of the relationship between the independent variables and the dependent variable. Curtis et al. (2015) noted that measuring the effect of an intervention on an outcome is characteristic of the experimental design. Also, the manipulation of variables occurs in the experimental design to ensure the random assignment of the sample units. However, the manipulation of variables does not occur in correlational or nonexperimental designs.

Correlation does not necessarily imply causality, as there is no random assignment, and thus it is impossible to ascribe causal effects to the independent variables of interest (Omair, 2015). Correlational design can involve using secondary data for two or more variables to determine an association between the variables, as occurred in this study. Correlational studies are usually quick and inexpensive to complete, as secondary data are readily available from many different sources (Omair, 2015). A correlational design was appropriate for this study, as the purpose was to determine the relationship between independent and dependent variables.

Population and Sampling

The targeted population of this study included nonprofit social services organizations, schools, institutions of higher learning, housing organizations, and

hospitals whose leaders expend federal funds and operate in the southeast region of the United States. The targeted population excluded archival data records from government-dependent organizations such as community service boards and economic development boards. Because the leaders of the nonprofits included in the targeted population expended $750,000 or more of federal funds, the organizations were subject to federal compliance requirements. They were also subject to annual federal single audits, which require the identification of internal control infraction in nonprofit organizations. The identification of internal control infraction during federal single audits helped align the sample selected for this study with the overarching research question.

I used a probabilistic sampling strategy. According to Uprichard (2013), probability sampling necessitates that knowledge of all possible units to sample is available, which was the case for this study. The probabilistic sampling strategy enables deductive reasoning; thus, an assumption exists that there is a specified distribution of the population values (Uprichard, 2013). However, some weaknesses for this sampling approach are that this method is tedious and time-consuming, especially when creating larger samples (Uprichard, 2013).

Quantitative research involves simple random sample selection from the study population to generalize the findings to the larger population. The random selection of sample units, which was the selection process for this research, increases the credibility of inferences drawn about the relationship between variables and enables the generalization of research findings to the population from which the sample comes (Hudson & Llosa, 2015). A simple random sample was suitable for this study because of

the sampling frame; that is, a complete list of all available records was available. I selected a simple random sample using Excel after I eliminated incomplete and duplicate data and standardized the spelling of the names of nonprofits from the population of nonprofit organizations' single audits. The reason for selecting this sampling method was the availability of data, its use in previous studies, and the validity and reliability of the findings of those studies. This type of selection aligns with sampling without replacement.

In sampling without replacement, each sample unit of the population has only one chance for selection in the sample. The advantages of sampling without replacement are it leads to an estimator of the population total having a smaller variance than obtained by sampling with replacement, it is simple to calculate, and there is a possibility of estimating the variance of the estimator exactly (Rao, Hartley, & Cochran, 1962). The disadvantages of sampling without replacement are it is applicable only under severe restrictions on prescribed probabilities and unbiased procedures and, it requires a cumbersome evaluation of working probabilities (Rao et al., 1962). Any attempt to avoid these disadvantages is at the expense of a loss in efficiency.

The Federal Audit Clearinghouse database is the source of information collected from auditors performing annual federal single audits. The database includes all the variables needed to test their relationship. The calendar year 2015 was the last year summary data were available and was, therefore, most appropriate for this study. I manually collected financial data from the Form 990 tax returns of nonprofits using Guidestar.org.

G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) was the statistical software package selected to conduct an a priori sample size analysis. A power analysis using G*Power Version 3.19 helped to determine the appropriate sample size for this study. An a priori power analysis, assuming a medium effect size (f =.15), a = .05, and four predictor variables, identified that a minimum sample size of 103 nonprofits was necessary to achieve a power of .80. Increasing the sample size to 153 increased power to .95. Therefore, I sought between 103 and 153 nonprofits for the study (see Figure 1).

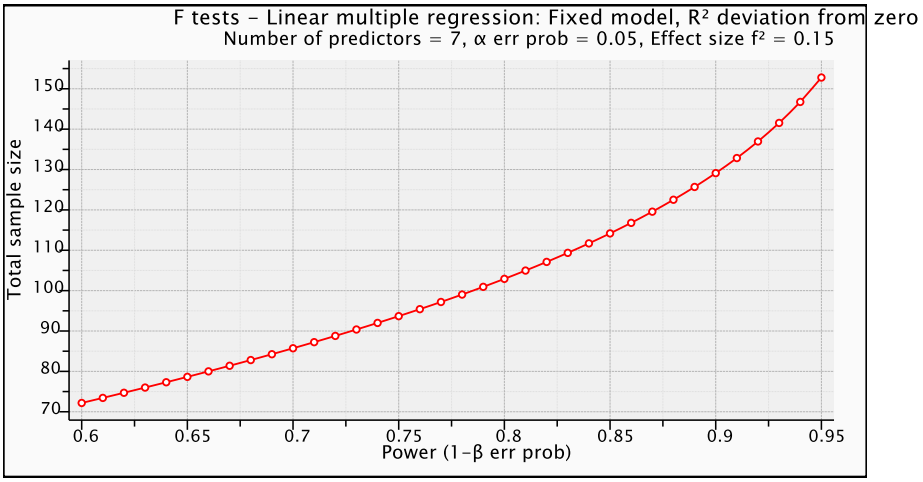

Figure 1. Power as a function of sample size.

The use of a medium effect size (f =.15) was appropriate for this study. The analysis of two articles for which internal control infraction is the outcome measurement was the basis for using a medium effect size.

Ethical Research

Walden University requires the approval of a doctoral study proposal from the university's IRB before conducting a study and requires the final doctoral manuscript include the Walden IRB approval number (see Appendix A). Before approval of the proposal, the IRB ensures compliance with applicable laws and institutional regulations

and standards for professional conduct and practices in research (Goldenberg et al., 2015). Irrespective of the research methodology, a researcher should anticipate ethical dilemmas during the research and protect human participants from risks, as documented in the *Belmont Report* and required by IRB regulations (Moulton, Collins, Burns-Cox, & Coulter, 2013; Van Amstel, 2013). This study did not include human participants, as the data required were publicly available; therefore, consent forms, confidentiality agreements, and letters of cooperation were not necessary. I stored all data in a protected electronic file to which I was the only person with access, and I will delete the data 5 years following the completion of the study.

Data Collection Instruments

Research requires an instrumentation plan consisting of decisions related to how to gather data, when to gather data, where to gather data, and how to analyze data (Hagan, 2014). For this quantitative correlational research, the primary data in the Federal Audit Clearinghouse database came from auditors performing federal single audits. This study included archival data from the Federal Audit Clearinghouse to determine the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction. The manually collected executive compensation data came from the Form 990 tax returns of nonprofits using the Guidestar.org website.

Scales of Measurement

The Federal Audit Clearinghouse database included the following variables: federal compliance requirement, executive compensation, nonprofit size, nonprofit type,

and internal control infraction. The predictor variables, which were federal compliance requirement, executive compensation, and nonprofit size, had a ratio scale of measurement. A ratio scale of measurement consists of ordered categories with the additional requirement that the categories form a series of intervals that are all the same size (Gravetter & Wallnau, 2013). Because the intervals are the same size, it is possible to determine both the size and the direction of the difference between the measurements.

The predictor variable, nonprofit type, is a nominal scale of measurement. A nominal scale of measurement involves classifying individuals or events into categories that have different names (Gravetter & Wallnau, 2013). The measurements from a nominal scale can indicate two individuals or events are different but do not identify either the direction or the size of the difference. The nonprofit type variable has five categories: social service organizations, schools, institutions of higher learning, housing organizations, and hospitals. Therefore, the study included a reference variable and four dummy variables to allow for analysis using multiple regression. Table 2 depicts an example of the coding of dummy variables using institutions of higher learning as the reference group.

Table 2

Example of Coding of Nonprofit Type Dummy Variables

Federal compliance requirement	Executive compensation	Nonprofit size	Schools	Housing	Nonprofit social services	Hospitals
X	X	X	1	0	0	0
X	X	X	0	1	0	0
X	X	X	0	0	1	0
X	X	X	0	0	0	1

Note. The measurement of federal compliance requirement, executive compensation, and nonprofit size is at the ratio level. Institutions of higher learning is the reference variable and the other four variables (i.e., schools, institutions of higher learning, hospitals, and nonprofit social services organizations) are dummy variables.

Description of the Data

Federal compliance requirement. The predictor variable, federal compliance requirement, was a ratio scale of measurement. The value of federal compliance requirement represented 14 categories of compliance activities. The 14 categories were 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. This study included the numbers of compliance requirements (i.e., the numbers of categories) and the percentages of the total compliance requirements for the federal agencies providing funding to nonprofit organizations included in the sample. Table 1 showed the maximum number of compliance requirements and percentages of compliance requirements for each federal agency. The percentage of compliance requirements for each nonprofit

organization, based on the federal agencies providing funding, represented the federal compliance requirement score. Higher scores for the federal compliance requirement variable indicated a higher number of compliance requirements for nonprofit organizations and higher levels of internal control infraction expected during the single audits of nonprofits.

Executive compensation. The predictor variable, executive compensation, was a ratio scale of measurement. The basis for executive compensation was 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. The predictor variable, nonprofit size, was a ratio scale of measurement. The basis for nonprofit size was the actual revenue of the nonprofit organization measured by the dollar value, and higher dollar values indicated larger organizations.

Nonprofit type. The predictor variable, nonprofit type, was a nominal scale of measurement. The nonprofit type variable had five categories: (a) institutions of higher learning, (b) schools, (c) housing organizations, (d) social service organizations, and (e) hospitals.

Internal control infraction. The dependent variable, internal control infraction, was a ratio scale of measurement. An internal control infraction was any reportable conditions in internal controls identified during the single audit. If during the performance of a single audit, an auditor found that the nonprofit organization did not comply with laws and regulations, the internal controls were deficient, or a situation of

illegal acts or fraud, the auditor must report such situations as reportable conditions, material weaknesses, material noncompliance, and questioned costs to the Federal Audit Clearinghouse. Questioned costs are expenditures that auditors determined were not permissable, and returning the funds for these costs to the federal government is necessary. The severity of the internal control infraction variable was a weighted measure based on the four categories identified during the federal single audits: reportable conditions, material weaknesses, material noncompliance, and questioned costs. Following the methodology used in the research by Petrovits et al. (2011), the basis for determining weights for the four categories was the levels of severity of internal control infraction outlined in the Federal Audit Clearinghouse database. To determine the internal control infraction score based on the assigned weights for infractions in this study, 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 3. The expansion of the assigned weights from the three levels of severity in Petrovits et al.'s study to six levels in this study occurred on the basis of the feedback from a panel of 10 certified public accountants who were experts in federal single audits. A high internal control score, based on the weight for internal control infraction, 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 occurred.

Table 3

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*.

Strategies to Address Validity and Reliability

The establishment of external validity in this study involved the inclusion of all nonprofits in the southeast region of the United States reporting to the Federal Audit Clearinghouse in the population from which I selected the sample. A power analysis using G*Power Version 3.19 helped to determine the appropriate sample size. The strategy to address reliability was to identify methods for dealing with missing and incomplete data and standardize the spelling of the names of nonprofit organizations.

Data Collection Technique

The secondary data for this study came from the Federal Audit Clearinghouse website. The Federal Audit Clearinghouse database contains archival data records. Archival data are data previously collected by a person other than the researcher using the data Feng et al., 2014). According to Feng et al. (2014), there are several advantages to using archival data. For example, archival data files (a) contain financial and nonfinancial variables for a sample, (b) include a division of data in some archival files by location, (c) are searchable using a large number of keywords, (d) are downloadable into other

software, (e) are publicly available and easily accessible, and (f) are sometimes available at no cost. Feng et al. also described several disadvantages to using archival data. For example, archival data (a) may include preparation errors that affect the reliability of the data, (b) may include mathematical errors, (c) may be incomplete because some organizations need not report their information due to size bias, and (d) may not have a user-friendly format.

According to federal compliance regulations, leaders of nonprofits must comply with the Matrix of Federal Single Audit Compliance Supplements for cognizant federal agencies (see Appendix A). As performed by Harris et al. (2014), the collection and combination of Single Audit Act data with financial data from the IRS Form 990 obtained through Guidestar.org was one step in this study. Researchers (e.g., Hou et al., 2014; Kobelsky et al., 2013) frequently collect executive compensation information for nonprofit organizations from IRS Form 990. The data collected came from the Federal Audit Clearinghouse and Guidestar.org.

The secondary data for this study came from the Federal Audit Clearinghouse website. Leaders of nonprofit organizations who expend $750,000 or more of federal funds must submit their audited single audit reports to the Federal Audit Clearinghouse annually. The data collected from the Federal Audit Clearinghouse database included audit year, type of entity, fiscal year-end of the entity, tax identification number, auditee name and address, auditee contact, oversight agency, type of financial statement report issued, type of compliance report issued, type of noncompliance, and severity of noncompliance identified during the audit. The data from the Federal Audit

Clearinghouse also included the level of internal control infraction (i.e., the number and severity of infraction in internal control identified in the single audits of nonprofit organizations). I downloaded the data collected from the Federal Audit Clearinghouse in Excel format and processed the data using SPSS. The data collected from the Federal Audit Clearinghouse comprised the independent and dependent variables included in the regression model of this study.

The manually collected financial information came from nonprofit organizations' tax returns (i.e., Form 990 tax returns) on the Guidestar.org website. Using the tax identification numbers for each nonprofit organization, I located the Form 990 in Guidestar.org and collected the compensation and functional expense data (i.e., program, administrative, and fundraising expenses) for input into the Excel file with the Federal Audit Clearinghouse data. The combination of data from the Federal Audit Clearinghouse with executive compensation and functional expenses manually collected from IRS Form 990 completed the data required for this study.

Data Analysis

This study involved an attempt to answer the following research question: What is the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction? This study involved testing the following hypotheses to find answers to the research question:

H_0: There is no statistically significant relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

H_a: There is a statistically significant relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

Statistical Analysis

Multiple linear regression is a statistical tool used to examine the relationship between independent and dependent variables (Nimon & Oswald, 2013). Multiple linear regression is valuable for quantifying the effect of independent, or explanatory, variables upon a single dependent variable (Sofowote, Bitzos, & Munoz, 2014). Researchers use multiple linear regression analysis to cope with a large number of explanatory variables (Nimon & Oswald, 2013). Because omitted bias is possible in a simple regression, multiple linear regression is essential, even when a researcher only wants to determine the effects of one independent variable (Nimon & Oswald, 2013).

Like multiple linear regression, logistic regression involves using one or more exploratory variable that may be either continuous or categorical. Unlike multiple linear regression, researchers use logistic regression to predict binary dependent variables rather than a continuous outcome (Agras et al., 2014). Given this difference, a violation of the assumptions of multiple linear regression occurs, which made this statistical tool unsuitable for this study.

Other predictive techniques considered included discriminant analysis and hierarchical linear regression. Discriminant analysis is similar to regular multiple regression except the dependent (Y) variable is binary (that is, 0 or 1) instead of continuous. The main purpose of discriminant analysis is to predict group membership

based on a linear combination of the interval variables (Rodionova, Titova, & Pomerantsev, 2016). Discriminant analysis also helps to gain an understanding of the data set, as an examination of the predicted model gives insight into the relationship between group membership and the variables used to predict group membership (Zhong & Zhang, 2013). Because the purpose of this study was not to test the relationship between group membership and the variables used to predict group membership, discriminant analysis was not an appropriate statistical model for this study.

In hierarchical regression, the entry of each variable or group of variables into the regression equation is in an order determined by the researcher (Nimon & Oswald, 2013). The order of entry is critical in hierarchical regression, as variables entered early will appear to be more important than variables entered later. The interpretation of regression coefficients for each variable may be as the total effect of the variable on the outcome, even though there may be mediating effects through variables entered later in the regression. Hierarchical models are particularly appropriate for research designs with control variables. A disadvantage of hierarchical regression is the apparent importance of variables depending on the order entered into the equation. Because the entry of all independent variables in this study occurred at the same time, hierarchical regression was not appropriate for this study.

Data Cleaning and Missing Data

Data cleaning is the process of identifying inaccurate, incomplete, and unreasonable data and then modifying or deleting such data to improve data quality (Dawes, Vidiasova, & Parkhimovich, 2016). As the basis for research conclusions is the

analysis of data, data should be as complete and accurate as possible (Dawes et al., 2016). Most data sets contain duplicate, incomplete, and missing values. This research included the use of archival data records from the Federal Audit Clearinghouse. According to Dawes et al. (2016) and Wu (2013), government data usually have more than an 80% quality rating and may not require data cleaning. Therefore, I standardized the spelling of the names of nonprofit organizations and applied a method of dealing with missing data.

Missing data refer to the absence of data items in a data set (Vaishnav & Patel, 2015). The presence of missing data is one major factor affecting data quality. The presence of missing data is a common occurrence, and challenging problem arise when using archival data records (Vaishnav & Patel, 2015). Two methods of dealing with missing data are listwise deletion and pairwise deletion. Listwise deletion involves deleting cases containing missing values, that is, the exclusion of an entire record or entire row from the data set. This method is simple to use but has a high effect on variability. It also results in a loss of precision and induces bias (Vaishnav & Patel, 2015). Pairwise deletion is the deletion of records only from the column containing the missing values; that is, researchers delete only missing values. This method is simple to use, and keeps all available values, but results in a loss of data and may not be a better solution than other methods. To address missing data in this study, I used the listwise deletion method and eliminated nonprofit organizations with incomplete and duplicate data not required for this research.

Assumptions in Statistical Analyses

All statistical models include assumptions (Casson & Farmer, 2014). The assumptions in the use of multiple linear regression (Loomis, 2014) are (a) homoscedasticity, (b) independence of residuals (c) linearity, (d) multicollinearity, (e) normality, and (f) outliers (Norris, Plonsky, Ross, & Schoonen, 2015). Researchers must assess these assumptions during research to identify statistical techniques to deal with the assumptions (Casson & Farmer, 2014). See Table 4 for procedures for testing the assumptions in the use of multiple linear regression.

Table 4

Assumptions and Procedures for Testing Assumptions for Multiple Linear Regression

Assumptions	Procedures for testing assumptions
Linearity	Normal probability plot (P-P) of the regression standardized residual
Homoscedasticity	Normal probability plot (P-P) of the regression standardized residual
Multicollinearity	Normal probability plot (P-P) of the regression standardized residual
Independence of residuals	Normal probability plot (P-P) of the regression standardized residual
Normality	Normal probability plot (P-P) of the regression standardized residual
Outliers	Scatterplot

Homoscedasticity. The assumption of homoscedasticity refers to the equal variance of errors across all levels of independent variables (Garson, 2012). The absence of this assumption can lead to distortion of the findings and weaken the overall analysis and statistical power of the analysis, which results in an increased possibility of Type I error, erratic and untrustworthy *F*-test results, and erroneous conclusions (Casson & Farmer, 2014). I assessed for the existence of homoscedasticity by visual examination of the normal probability plot (P-P) of the regression standardized residual and scatterplot of the residuals.

Independence of residuals. Independence of residuals is an assumption for most statistical procedures, such as multiple regression and logistic regression (Garson, 2012). Independence of residuals refers to residuals being independent of one another. Residuals may be plotted against case identification number when the ordering of cases is by time, a grouping factor, or data collection order potentially causing nonindependence (Garson, 2012). There should be no pattern to this plot if residuals are independent. I assessed the independence of residuals by a visual inspection of the normal probability plot of the regression standardized residual and scatterplot of the residuals.

Linearity. Testing for nonlinearity is necessary because correlation and other general linear models assume linearity (Garson, 2012). According to Garson (2012), a plot of standardized residuals against standardized estimates (fitted values) of the dependent variables should show a random pattern when nonlinearity is absent. Another indicator of possible nonlinearity is when the standard deviation of the residuals exceeds the standard deviation of the dependent variable. Simple inspection of scatterplot is a common method of determining if nonlinearity exists in a relationship (Garson, 2012). I assessed the existence of nonlinearity by a visual inspection of the normal probability plot of the regression standardized residual and scatterplot of the residuals.

Multicollinearity. Multicollinearity is a condition that exists when there is a high relationship (e.g., >.80) between two predictor variables (Garson, 2012; Ray-Mukherjee et al., 2014). A review of the tolerance and variance inflation factor produced as part of the SPSS regression output is usually useful for assessing the degree to which multicollinearity exists among the independent variables (Garson, 2012). Tolerance is an

indicator of how the other independent variables do not explain the variability of the specified dependent in the model (Garson, 2012). Variance inflation factor, which is the inverse of tolerance, suggests multicollinearity if it is above 10. Apart from examining the variance inflation factors, I also examined a bivariate correlation matrix of the predictor variables produced by SPSS software for correlation coefficients less than .80.

Normality. To perform statistical hypothesis testing, a test statistic must contain parameter estimate information that comes from a manageable probability distribution, which is typically a normal distribution (Azat, 2014; Casson & Farmer, 2014; Loomis, 2014). The manageable probability distribution is the assumption of normality. A normal distribution takes the form of a symmetric bell-shaped curve, and the standard normal distribution has a mean of 0 and a standard deviation of 1 (Garson, 2012). A violation of this assumption may lead a researcher to inaccurate inferential statements. I assessed normality by visually examining the normal probability plot of the regression standardized residual and scatterplot of the residuals.

Outliers. Outlying observations can alter the outcome of analysis and are violations of normality (Casson & Farmer, 2014). The presence of outliers may be indicative of bad data. Dropping outliers may be necessary to address these violations; however, dropping outliers can also bias the research results. As a general principle, dropping outliers is justified if the data are bad because of the following: (a) out-of-range entries and discrepant and dishonest entries and (b) researchers do not treat missing values as real values (Garson, 2012). I assessed for the existence of outliers by

conducting a visual examination of the normal probability plot of the regression standardized residual and scatterplot of the residuals.

I employed bootstrapping to address the possible influence of assumption violations. Bootstrapping is a statistical technique implemented to compute standard errors of the coefficients for predictor variables and to address the problem of stability in a random sample directly (Nimon & Oswald, 2013). Bootstrapping is ideal for testing the significance of the standardized coefficient of the predictor variable (β) because the sampling distribution of the indirect effect may be nonnormal, particularly in small samples. In contrast, the prevailing method for testing the indirect effect is to assume that the distribution is normal (Garson, 2012; Koopman, Howe, Hollenbeck, & Sin, 2015). According to Koopman et al. (2015), when this assumption is not satisfied, the test tends to exhibit higher Type II error rates than bootstrapping does.

Interpreting Results

The SPSS output yields various statistics that require interpretation, including R^2, *F* value, *B*, *SE B*, β, *t,* and *p*. The reporting of bootstrap 95% confidence intervals occurred where appropriate.

R². R^2 is the numerical measure of the variance in the dependent variable attributed to the predictor variables (Sowinski et al., 2015). R^2 can range from 0 to 1, where higher values mean the independent variables explain more of the variance in the dependent variable and lower values mean the independent variables explain less of the variance in the dependent variable. An R^2 value of .15 indicates the predictor variable accounts for 15% of the variance in the dependent variable.

F. *T*he *F* ratio of the analysis of variance (i.e., ANOVA), including the nature of the significance test (sig. or *p* value), helped to determine if I would accept or reject the null hypothesis of the research (Norris et al., 2015). The *F* ratio provides the significance of the predictor variables (as a group) and, along with the associated *p* value (sig.), tells if the model is significant or explained. For a model to be useful, a *p* value of .05 is acceptable. This means that the model is correctly specified and that the model can help to explain the research question (Kühberger, Fritz, Lermer, & Scherndl, 2015).

B. *B* is the unstandardized coefficient of the predictor variable (Green & Salkind, 2013). The *B* value predicts by what factor the value of the dependent variable will change given a unit change in the predictor variable and assuming other predictor variables remain constant (Green & Salkind, 2013).

SE B. *SE B* is the standard error for the unstandardized coefficient of the predictor variable that shows the degree of irregularity in the data (Green & Salkind, 2013). The standard error of the estimate is the standard deviation of the error term and the measurement is the square root of the mean square residual (Von Hippel, 2012).

β. β is the standardized coefficient of the predictor variable and is the slope of the regression line that mathematically represents the linear regression formula (Green & Salkind, 2013). β coefficients represent the amount of change associated with a 1-unit change in each of the independent variables (Sowinski et al., 2015).

t. The *t* statistic is a measure of the departure of an estimated parameter from its notional value and its standard error (Liu et al., 2014b). A *t* statistic is determined when

the value of a parameter estimate in a regression model is subtracted from the actual parameter estimate and divided by the standard error.

Sig. (p). The definition of the *p* value is the probability of obtaining a result equal to or more extreme than observed when the null hypothesis is true (Li, Yeung, Cherny, & Sham, 2012). A smaller *p* value than the significance level α will result in a rejection of the null hypothesis that a particular coefficient is equal to zero, whereas a *p* value larger than the significance level α will result in a failure to reject the null hypothesis, which indicates that the estimated coefficient is not significantly different from zero (Li et al., 2012).

Statistical Software and Version

I used SPSS Version 21 to analyze and interpret data in this study. According to Rovai, Baker, and Ponton (2014), SPSS is a widely used program for statistical analysis in social science, and market researchers, health researchers, survey companies, government, education researchers, marketing organizations, and data miners use this software extensively. SPSS is an effective statistical analysis tool used in academic research to address planning, data collection, analysis, and reporting (Rovai et al., 2014).

Study Validity and Reliability

At an operational level, a research methodology refers to specific methods used to gather adequate evidence of phenomena, develop appropriate ways to analyze data, and demonstrate the validity of findings (Knight & Cross, 2012). Validity is central in all research but even more so for positivist and deductive research (Lameck, 2013). Validity refers to the degree to which evidence and theory support the conclusions drawn from the

findings of the research (Fan, 2013). Reliability refers to the consistency of the findings obtained from the research (Ihantola & Kihn, 2011). Four levels of validity are internal validity, external validity, construct validity, and reliability. Issues such as Type I and Type II errors, violated assumptions, misspecification errors, multicollinearity, distorted graphics, confirmation bias, and causal error are threats to internal and external validity.

Internal Validity

Internal validity indicates variations in the dependent variable resulting from variations in the independent variable and not from confounding variables (Burchett, Mayhew, Lavis, & Dobrow, 2013). Thus, the examination of internal validity is only relevant in studies in which casual relationships exist (i.e., experimental or quasi-experimental designs) and is not relevant to research using a correlational design (Ihantola & Kihn, 2011). Because this study involved a correlational design, threats to internal validity were not applicable; however, threats to statistical conclusion validity were of concern.

External Validity

External validity indicates whether support for conclusions relates to the model used and data collected and whether findings are generalizable to other samples, time periods, and settings. External validity relates to probability sampling strategies, that is, random sampling (Ihantola & Kihn, 2011). Three potential threats to external validity are population validity, time validity, and environment validity. Population validity refers to whether the relationship between two variables in a sample also exists in the population. If the sample size is inadequate or if the sample selection is not random, then estimates

may be meaningless, as the sample estimates will not reflect the population parameters (Ihantola & Kihn, 2011). Time validity refers to the possibility of generalizing findings, at a particular time, to other periods. Environmental validity refers to the generalization of findings across settings or states.

I used a two-tailed test with alpha less than 5% to guard against making a Type I error. I only reported results that had less than a 5% likelihood of occurring by chance alone. As the results obtained in the sample of this study were unlikely to have occurred by chance, it was reasonable to generalize from the sample to the larger population. A Type II error occurs when a researcher concludes that a relationship does not exist among variables when in fact there is a relationship (Yin, 2013). The probability of committing a Type II error is 1 - α. As proposed by Bradley and Brand (2015), to guard against making a Type II error, I used a sufficiently large sample. A power analysis using G*Power Version 3.19 helped determine the appropriate sample size.

Reliability

Reliability refers to the extent that a variable or a set of variables is consistent with what a researcher intends to measure and others can replicate the research findings (Lameck, 2013). Reliability refers to the possibility of obtaining the same results by performing the research examination again. Reliable measures will be consistent with their values when multiple measures exist (Ihantola & Kihn, 2011). If measurement results are not reliable, it is difficult to test hypotheses or make inferences about the relationship between variables in a quantitative model. Potential threats to reliability exist during data collection when there is a lack of clear and standard instructions.

The emphasis in this research was formulating hypotheses for subsequent verification, and the focus was to search for a relationship between the dependent and the independent variables. The research process in this study resulted in sufficient information about the relationship between the variables to generalize the findings of the sample to the population across the southeast region of the United States. Data collected in this quantitative research were numerical. Producing data in an ordered numerical system was a strength of this study.

When researchers rigorously collect and analyze data used for quantitative analyses, the data obtained are reliable (Hewege & Perera, 2013). This research was reliable because the study included procedures to control or eliminate extraneous variables and included standardized testing during the assessment of data collected. The assumptions of the multiple linear regression statistical tests in this study and procedures for testing the assumptions appeared in Table 4.

Transition and Summary

The purpose of this quantitative correlational study was to examine the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction. The research question for this study was as follows: What is the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction? The targeted population for this study was nonprofit social services organizations, schools, institutions of higher learning, housing organizations, and hospitals. Multiple linear regression was the statistical technique used to answer the research question. The

implications for positive social change include the potential for nonprofit boards of directors and executives to increase their awareness of nonprofit business leaders' social responsibility to beneficiaries and positive social change in their behavior. Nonprofit business leaders can improve operational efficiencies in the provision of social, education, housing, health, and economic development services to those in society and communities who need them the most.

In Section 3, I include a restatement of the research question and hypotheses. Section 3 also includes the presentation of findings, applications to professional practice, implications for social change, recommendations for action and further research, reflections, and conclusions.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this quantitative correlation study was to examine the relationships between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction identified during nonprofit organizations' audits. The model as a whole was able to significantly predict internal control infraction, $F(7, 136) = 6.559$, $p < .001$, $R^2 = .252$. I rejected the null hypothesis and accepted the alternative; a relationship exists between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

Presentation of the Findings

In this subheading, I discuss testing the assumptions, present descriptive statistics, and inferential statistic results, provide a theoretical conversation about the findings, and concluded with a concise summary. I employed multiple linear regression, with a sample of 144 nonprofits, to address the possible relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction. The confidence interval was 95%, where appropriate. The significance level was 5% throughout this research.

Tests of Assumptions

An evaluation of the assumptions of multicollinearity, normality, linearity, homoscedasticity, and independence of residuals occurred in this study.

Multicollinearity. The evaluation of multicollinearity occurred by viewing the correlation coefficient among predictor variables. All bivariate correlations were small to medium (see Table 5); therefore, a violation of the assumption of multicollinearity was not evident. The following table contains the correlation coefficients.

Table 5

Correlation Coefficients Among Study Predictor Variables (N = 144)

	Housing	School	Hospital	Social	Size	Compensation	Fedcomreq
Housing	1						
School	-0.33**	1					
Hospital	-0.33**	-0.15	1				
Social	-0.27**	-0.13	-0.13	1			
Size	-0.21*	-0.07	0.41**	-.078	1		
Compensation	0.48**	-0.17*	-0.19*	-0.11	-0.14	1	
Fedcomreq	0.75**	-0.28**	0.03	-0.18*	-0.14	0.44**	1

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Outliers, normality, linearity, homoscedasticity, and independence of residuals. The evaluation of outliers, normality, linearity, homoscedasticity, and independence of residuals involved examining the normal probability plot (P-P) of the regression standardized residual (see Figure 2) and the scatterplot of the standardized residual (see Figure 3). The examination indicated there was a violation of the outliers assumption. Two nonprofit hospitals had revenues that far exceeded the average. The tendency of the standardized residuals to not lie in a reasonably straight line (see Figure 2), diagonal from the bottom left to the top right, provided supportive evidence that a gross violation of the assumption of normality has occurred (Garson, 2012). The lack of a

clear or systematic pattern in the scatterplot of the standardized residuals (see Figure 3) supported the tenability of the linearity, homoscedasticity, and independence of residuals assumptions being violated.

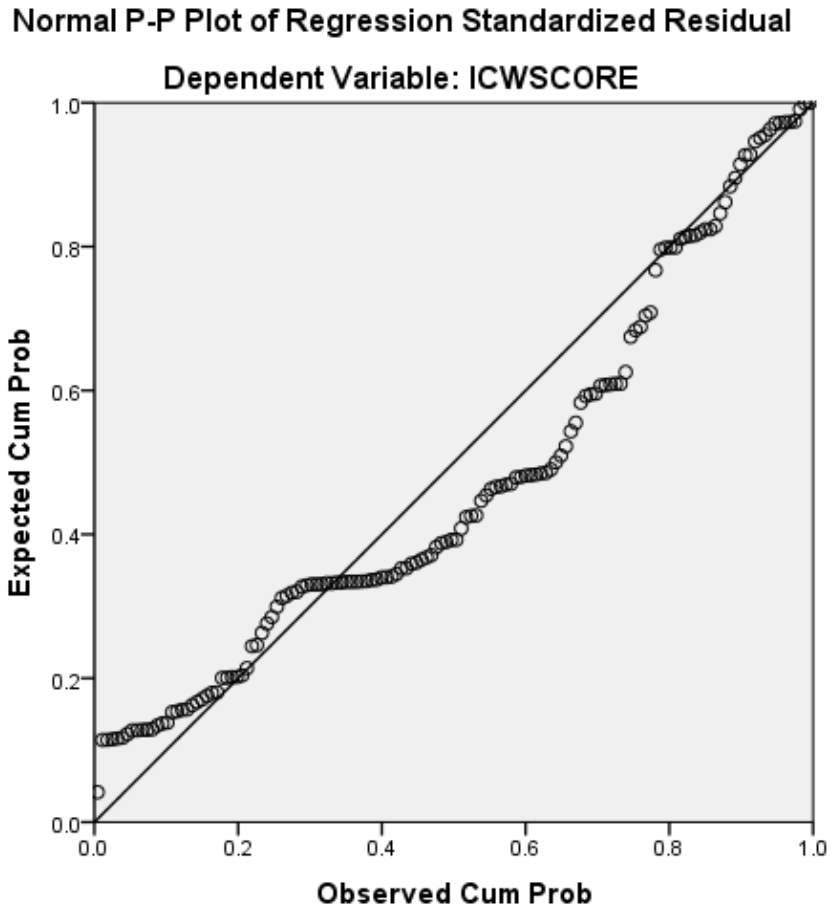

Figure 2. Normal probability plot (P-P) of the regression standardized residuals.

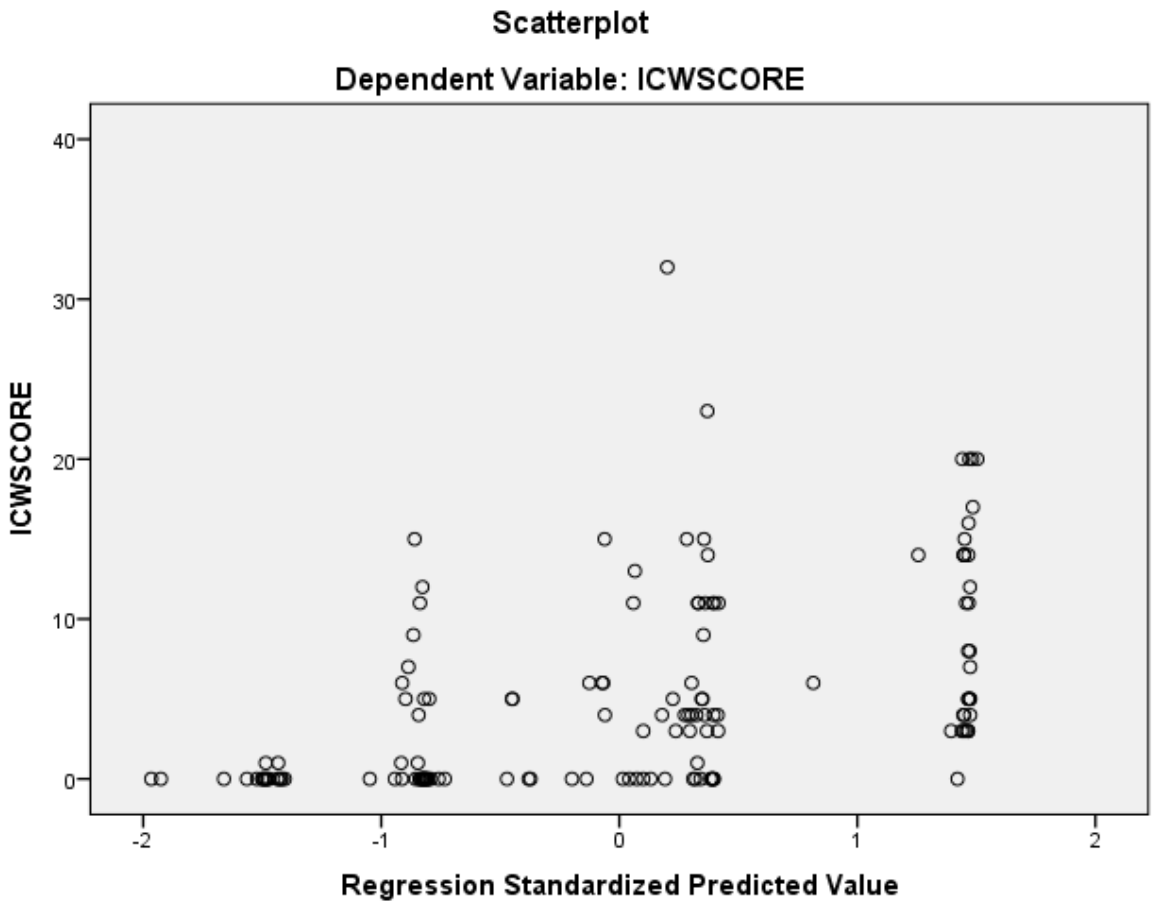

Figure 3. Scatterplot of the standardized residuals.

Descriptive Statistics

The population included 2,771 nonprofit organizations. I selected 153 nonprofits for the initial sample and eliminated nine because of missing data which resulted in 144 nonprofits included in the final sample. Descriptive statistics of the ratio variables appear in Table 6.

Table 6

Means and Standard Deviations for Quantitative Study Variables

Descriptive Statistics

		Statistic	Bias	Std. Error	Bootstrap[a] 95% Confidence Interval	
					Lower	Upper
ICWSCORE	Mean	4.92	-.04	.47	4.01	5.92
	Std. Dev.	6.146	-.053	.509	5.091	7.070
	N	144	0	0	144	144
FEDCOMPREQ	Mean	12.64	.00	.12	12.35	12.85
	Std. Dev.	1.397	-0.006	0.080	1.258	1.551
	N	144	0	0	144	144
SIZE[b]	Mean	0.01	0.00	0.00	0.00	0.01
	Std. Dev.	0.027	-0.004	0.009	0.006	0.040
	N	144	0	0	144	144
COMPENSATION	Mean	169874	-344	16638	142942	204869
	Std. Dev.	205946	-2281	21722	162362	251767
	N	144	0	0	144	144

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples
b. Revenue is a proxy for nonprofit size

Inferential Results

The study involved using standard multiple linear regression, $\alpha = .05$ (two-tailed), to examine the efficacy of the independent variables, that is, federal compliance requirement, executive compensation, nonprofit size, and nonprofit type, in predicting internal control infraction. In the regression analysis, institutions of higher learning served as the reference group for the nonprofit type variable. The null hypothesis was that there was no significant relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction. The alternative hypothesis was that there was a significant relationship between federal

compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction.

Preliminary analyses took place to assess whether the assumptions of multicollinearity, outliers, normality, linearity, homoscedasticity, and independence of residuals existed. The results of the preliminary analyses included a violation of the outliers' assumption but did not include any serious violation of normality, linearity, homoscedasticity, and independence of residuals assumptions (see the Tests of Assumptions section). The model as a whole was able to predict a significant relationship between nonprofit type, executive compensation, and internal control infraction, $F(7, 136) = 6.559$, $p < .001$, $R^2 = 0.252$. The $R^2 = 0.252$ value indicated that the linear combination of the predictor variables (nonprofit type and executive compensation) accounted for approximately 26% of variations in internal control.

In the final model, nonprofit type and executive compensation significantly predicted internal control infraction but federal compliance requirements and nonprofit size did not explain any significant variation in internal control infraction. The final predictive equation was as follows:

$$\text{ICWSCORE} = \alpha + \beta_1*\text{FEDCOMREQ} + \beta_2*\text{COMPENSATION} + \beta_3*\text{SIZE} + \beta_3*\text{SCHOOL} + \beta_4*\text{SOCIAL} + \beta_5*\text{HOSPITALS} + \beta_6*\text{HOUSING} + e\ldots \quad (1)$$

Table 7

Regression Analysis Summary for the Predictor Variables

						95% Confidence Interval for *B*	
	B	*SE B*	*β*	*t*	*p*	Lower Bound	Upper Bound
(Constant)	8.325	6.555		1.270	0.206	-4.638	21.287
FEDCOMPREQ	0.116	0.578	0.026	0.201	0.841	-1.027	1.259
COMPENSATION	-0.049	0.025	-0.115	-1.960	0.050	-0.121	0.023
SIZE	-7.112	18.955	-0.031	-.375	0.708	-44.59	30.372
NONPROFTYPE							
HOSPITAL	-9.392	1.894	-0.519	-4.959	0.000	-13.13	-5.646
SCHOOL	-7.319	1.587	-0.404	-4.612	0.000	-10.45	-4.181
SOCIAL	-7.250	1.769	-0.351	-4.099	0.000	-10.74	-3.752
HOUSING	-3.715	1.929	-0.298	-1.926	0.056	-7.529	0.099

Note. The measurement of federal compliance requirement, executive compensation, and nonprofit size is at the ratio level. Institutions of higher learning is the reference variable and the other four variables (i.e., schools, institutions of higher learning, hospitals, and nonprofit social services organizations) are dummy variables.

Executive compensation. The negative slope of executive compensation (*B* = -0.049) as a predictor of internal control infraction indicated there was a decrease of 0.049 in internal control infraction for each $1 increase in compensation or approximately a decrease of approximately 5 units in the number of internal infractions for every additional $100 of compensation (see Table 7). In other words, internal control infraction tended to decrease as executive compensation increased.

Nonprofit type. The categories of nonprofit type variable, (i.e., hospital, schools, and social services), helped to determine the occurrence and magnitude of internal control infraction. In table 7, hospitals, schools, and social services were significant

predictors of internal infraction at the 5% level, with the hospital category of nonprofit type variable accounting for the highest contribution (B = -9.392). The housing category of the nonprofit type variable did not contribute significantly (B = -.3.715) to the model.

Analysis Summary

The purpose of this quantitative correlation study was to examine the relationships between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction identified in audits of nonprofit organizations. I used standard multiple linear regression to examine the ability of federal compliance requirement, executive compensation, nonprofit size, and nonprofit type to predict the value of internal control infraction. Assumptions surrounding multiple regression were assessed with the results of the assessment included a violation of the outliers' assumption but did not include any serious violation of normality, linearity, homoscedasticity, and independence of residuals assumptions. The model used in this study, as a whole, was able to predict internal control infraction significantly, $F(7, 136) = 6.559$, $p < .001$, $R^2 = 0.252$. Nonprofit type and executive compensation provided useful predictive information about internal control infraction.

Theoretical Conversation on Findings

The findings of this study align with Kobelsky et al. (2013) who examined the effects of the compensation of CEOs and CFOs on the quality of internal control and the relationship between incentives for performance-based compensation and internal control quality over financial reporting. Kobelsky et al. provided evidence that a statistically positive relationship existed between CEOs' salary compensation and internal control

infraction. The relationship between performance-based compensation sensitivity (i.e., short-term and long-term incentives) and internal control infraction was negative for CFOs ($p < .05$) but not for CEOs. A positive relationship existed between CEOs' performance-based compensation and internal control infraction reported.

An analysis of sample firms by Hou et al. (2014) showed a decline in firm performance from nonperformance-based compensation (i.e., salary) or a statistically significant negative relationship between non-performance-based compensation and firm performance. There was an opposite effect for performance-based compensation (i.e., bonuses and options). The findings from this study supported the findings of Hou et al. (2014) and Kobelsky et al. (2013) who used agency theory to explain the relationship between executive compensation and agent's actions, as well as to identify the most efficient contract to govern the relationship between agent and principal. Based on their study, Hou et al. suggested that agency theory explained the relationship between CEO compensation and internal control which supported the proposition that agency theory is suitable as a theoretical framework for this study. The model used in this study, as a whole, was able to predict internal control infraction significantly, $F(7, 136) = 6.559$, $p < .001$, $R^2 = 0.252$. The negative slope of executive compensation (-0.049) as a predictor of internal control infraction indicated there was about a 0.049 decrease in internal control infraction for each $1 increase in compensation or approximately 5 units decrease in the number of internal infractions for every additional $100 of compensation. Therefore, internal control infraction tended to decrease as executive compensation increased.

Petrovits et al. (2011) and Saat et al. (2013) examined the relationship between federal compliance requirements, nonprofit size, and internal control infraction. Likewise, Arshad et al. (2013) and Keating et al. (2005) examined the relationship between nonprofit size and the level of internal control infraction. The findings in Petrovits et al.'s study included evidence that the coefficient on federal compliance requirement and nonprofit size was significantly negative. The findings of this study supported the results of Petrovits et al. Contrary to the findings of this study and Petrovits et al., Saat et al. found that nonprofit organizations with complexity of compliance requirements were more likely to encounter internal control infraction. The results of Arshad et al.'s study indicated that nonprofit size did not have a significantly positive relationship with internal control infraction. Contrary to the findings included in Arshad et al.'s study, Keating et al. (2005) provided evidence that nonprofit size was a significant predictor of internal control infraction.

Applications to Professional Practice

Managers of nonprofit organizations who understand the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and internal control infraction may be able to implement effective and efficient internal controls in their organizations resulting in an acceptable level of accountability by nonprofit managers, fewer internal control infractions, and efficient provision of goods and services to beneficiaries. In addition, the understanding of the relationship between federal compliance requirement, executive compensation, nonprofit size, nonprofit type,

and internal control infraction will help regulators to design and implement compliance requirements that are effective but less arduous than the ones that currently exist.

Implications for Social Change

The implications for positive social change include the potential for a better understanding, by managers, of the importance of internal controls in nonprofit organizations. Effective and efficient internal controls in nonprofit organizations are important because they could potentially lead to an increase in the level of accountability by managers of nonprofit organizations and to fewer instances of internal control infraction. Practical implications are that nonprofit leaders can apply the findings of this study to gain a better understanding of the relationship between the independent variables and dependent variable resulting in a reduction of the risk of monetary loss because of noncompliance with regulations, a decrease in insolvencies by nonprofit organizations, greater accountability by nonprofit organizations' managers, and an increase in the provision of goods and services to those in society most in need.

Recommendations for Action

I recommend organization leaders take the following actions. Since one finding of this study was there is a significantly positive relationship between nonprofit type and internal control infraction, leaders of nonprofit organizations should ensure that internal controls are developed with a knowledge of the relationship between their type of nonprofit organization and internal control infraction. This could mean that the categories of nonprofit type (i.e., schools, hospitals, and nonprofit social services organizations) are likely to experience internal control infraction. Nonprofit leaders in schools, hospitals,

and nonprofit social services organizations should focus on developing and monitoring internal controls specific to their nonprofit type.

Another finding of this study was that executive compensation is a predictor of the level of internal control infraction in nonprofit organizations. Based on this finding, leaders of nonprofit organizations should ensure that executives are adequately compensated. The results of this study indicated that as executive compensation increases, internal control infraction tended to decrease; therefore, adequate compensation should lead to an acceptable level of internal control infraction.

I will share the findings of this study with nonprofit managers, auditors, and regulators of the nonprofit industry through scholarly journals, business publications, conferences, and seminars. My focus will be to help nonprofit managers improve their internal control system and reduce the rate of internal control infraction identified in nonprofit organizations' audits.

Recommendations for Further Research

Future research on the topic of internal infraction identified in nonprofit audits could include the following recommendations. First, future researchers should examine the quality of accounting, reporting, and compliance data using more robust data collection techniques. Accessing new data sources, such as the new Form 990 tax return, will provide more details of nonprofit information, such as more narrative information pertaining to the organizations' operations and programs, which can improve the quality of data. This approach would address one of the weaknesses of archival data, that is, incomplete data.

Second, since this study included only the nonprofit population in the southeast region of the United States, future researchers should focus on the relationship between the independent variables and internal control infraction, in other regions of the United States, to confirm or contradict the findings of this study. Conducting similar studies in other regions of the United States may provide supporting or contradicting results to the findings of this study. Examining the relationship between the independent and dependent variables in other regions of the United States should result in findings generalizable to a broader population.

Third, this quantitative study involved examining the relationship between federal compliance requirement, executives' compensation, nonprofit size, nonprofit type, and internal control infraction; however, future researchers should conduct research to examine the relationship between variables not included in this study, such as the financial performance of nonprofit organizations using net income as a proxy for performance, total federal funds expended on program activities, the use of Big 4 versus Non-Big 4 audit firm, and internal control infraction. Studying these variables would expand the literature on internal controls in nonprofits and the findings could have a social impact on the clients of nonprofit organizations as well as on society.

Reflections

The Doctor of Business Administration degree program has been a challenge but exciting experience. I had to master time-management to balance my job, school, and home life. However, the resources available at Walden University and the interaction with my cohorts helped me to complete the courses and the doctoral study.

This research involved examining the relationship between independent variables (i.e., federal compliance requirement, executive compensation, nonprofit size, nonprofit type) and internal control infraction identified in audits of nonprofit organizations. This study was rewarding for many reasons. The study provided answers to questions about the relationship between independent variables and internal control infraction in nonprofit organizations and contributed to the literature by identifying some variables not identified in prior studies. In addition, the study revealed the importance of knowledge concerning variables related to internal control infraction to managers of nonprofit organizations, regulators, and academics. With this knowledge, managers of nonprofit organizations and regulators can implement internal controls and compliance requirements that are effective and efficient. Effective internal controls and compliance requirements should result in the efficient provision of goods and services needed by members of society.

Conclusions

The cases of internal control infraction, identified in the audits of nonprofit organizations, and the number of nonprofit insolvencies highlight the need to understand the variables related to internal control infraction. The purpose of this quantitative correlation study was to examine the relationship between independent variables, that is, federal compliance requirement, executive compensation, nonprofit size, nonprofit type, and the dependent variable (i.e., internal control infraction). The study involved collecting data and examining data for 144 nonprofit organizations in the southeast United States.

The model used in this study, as a whole, was able to significantly predict internal control infraction, $F(7, 136) = 6.559$, $p < .001$, $R^2 = 0.252$. The results revealed a significant relationship between executive compensation, nonprofit type, and internal control infraction, and no significant relationship between federal compliance requirements, nonprofit size, and internal control infraction. The findings also provided an answer to the research question and increased the understanding of the theoretical framework, agency theory, and the relationship between the independent variables and dependent variable. The findings of this study led to recommended actions for positive social change in the nonprofit industry, such as, nonprofit leaders should gain a better understanding of the relationship between the independent variables and dependent variable in this study which could lead to an increase in the provision of goods and services to those in society most in need. I also recommended that future research examine the relationship between independent variables not included in this study and internal control infraction, and include other geographical areas.

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Appendix A: Institutional Review Board Approval

IRB Materials Approved - Laurence Brown

[redacted]

IRB <irb@mail.waldenu.edu>

Reply all

Wed 9/6, 6:54 PM

Laurence Brown;

Sean A. Stanley

Inbox

Action Items

Dear Mr. Brown,

This email is to notify you that the Institutional Review Board (IRB) confirms that your doctoral capstone entitled, "Relationship between Federal Compliance Complexity and Internal Control Infraction," meets Walden University's ethical standards. Since this project will serve as a Walden doctoral capstone, the Walden IRB will oversee your capstone data analysis and results reporting. Your IRB approval number is 09-06-17-0505884.

This confirmation is contingent upon your adherence to the exact procedures described in the final version of the documents that have been submitted toIRB@mail.waldenu.edu as of this date. This includes maintaining your current status with the university and the oversight relationship is only valid while you are an actively enrolled student at Walden University. If you need to take a leave of absence or are otherwise unable to remain actively enrolled, this is suspended.

If you need to make any changes to the project staff or procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive confirmation with a status update of the request within 10 business days of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for research activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research.

When you submitted your IRB materials, you made a commitment to communicate both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the researcher.

Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained at the IRB section of the Walden website:http://academicguides.waldenu.edu/researchcenter/orec

You are expected to keep detailed records of your capstone activities for the same period of time you retain the original data. If, in the future, you require copies of the originally submitted IRB materials, you may request them from Institutional Review Board.

Both students and faculty are invited to provide feedback on this IRB experience at the link below:

http://www.surveymonkey.com/s.aspx?sm=qHBJzkJMUx43pZegKlmdiQ_3d_3d

Sincerely,
Libby Munson
Research Ethics Support Specialist
Office of Research Ethics and Compliance
Walden University
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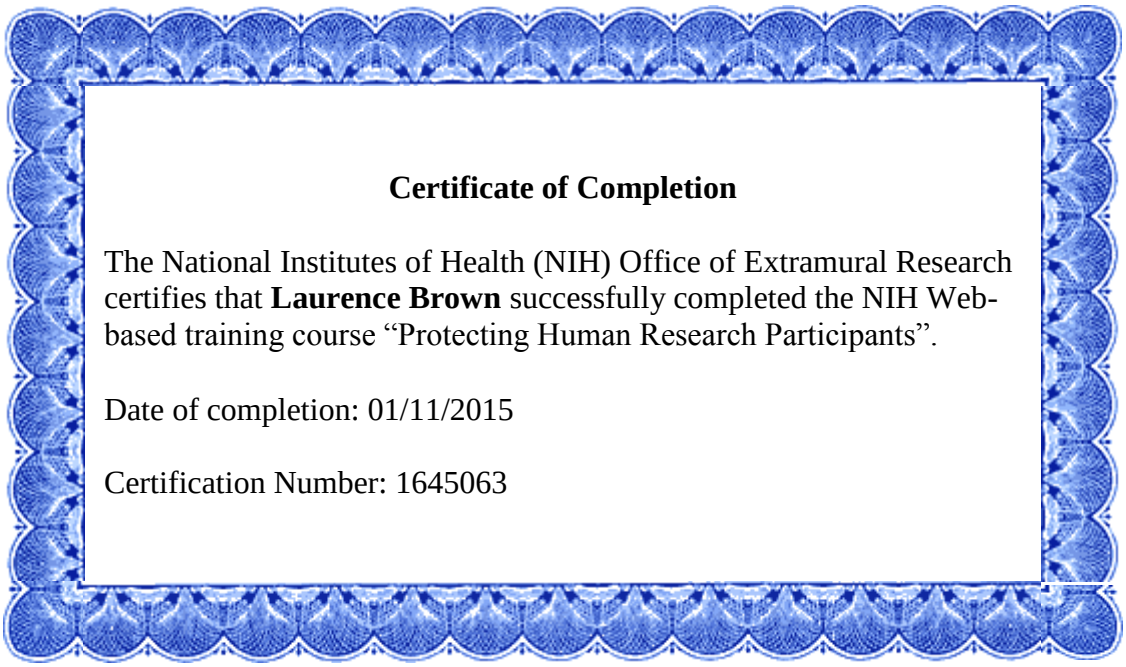
Information about the Walden University Institutional Review Board, including instructions for application, may be found at this link:http://academicguides.waldenu.edu/researchcenter/orec

Appendix B: Certificate of Completion



Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Laurence Brown** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 01/11/2015

Certification Number: 1645063