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## **Auditor Type and Audit Quality Differences in Nonprofit Healthcare Organizations – U.S. Evidence**

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## **Auditor Type and Audit Quality Differences in Nonprofit Healthcare Organizations – U.S. Evidence**

### **Abstract**

The purpose of this paper is to explore audit quality in nonprofit healthcare organizations by investigating differences in audit report outcomes. Specifically, we examine the relationship between auditor type and auditor-disclosed internal control exceptions in Circular A-133 audits of U.S. nonprofit healthcare organizations. Our findings indicate audits of nonprofit healthcare organizations conducted by the Big Four CPA firms carry a lower likelihood of disclosing internal control exceptions (i.e., reportable conditions and material weaknesses) than are audits conducted by smaller CPA firms. This challenges the general contention from prior studies that the Big Four firms are better audit quality providers and indicates that the alleged superiority of Big Four firms in terms of audit quality may not be generalizable to all industry sectors.

**JEL codes** – H11, H50, M410, M420

**Keywords** – Audit quality, Auditor type, Circular A-133, Nonprofit healthcare, Single Audit Act

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## **Auditor Type and Audit Quality Differences in Nonprofit Healthcare Organizations – U.S. Evidence**

### **Introduction**

In the wake of continued corporate scandals in the for-profit arena, the pressure for increased accountability within the nonprofit sector in the United States (U.S.) is growing. In an effort to increase transparency, U.S. federal and state regulators question whether nonprofit organizations continue to meet the needs of the community through charitable programs (Smith *et al.*, 2009; Smith and Edmonds, 2009). According to U.S. Senator Chuck Grassley, it is important for nonprofits to ‘keep their trust with the American people’ since many of the problems within nonprofit organizations are based upon poor governance or ‘failure to abide to best practices’ (U.S. Senate Committee on Finance, 2004). The Sarbanes-Oxley Act (SOX), though applicable only to publicly-traded companies, has highlighted a need for better governance and compliance in the nonprofit sector. Similar concerns for quality and transparency also exist on an international level, with a recent emphasis on standards for better governance. For example, the International Committee on Fundraising Organizations (ICFO) suggests nonprofit organizations develop good governance practices in order to improve accountability in the nonprofit sector at an international level (ICFO, 2008). Ellwood (2008) points out that accountability and transparency within the U.K. healthcare sector is greatly affected by the choice of accounting method.

Emphasis on compliance in the nonprofit setting has influenced healthcare organizations to concentrate on methods to improve their reporting transparency and accountability (Troyer *et al.*, 2004). Hospitals are of particular interest since healthcare-

related expenditures accounted for over 16.2% (i.e., \$2.2 trillion) of the U.S. gross domestic product in 2007 (American Hospital Association, 2009). Public charity health organizations, which account for over 14% of all public charities, generated over \$673 billion in revenue and held over \$826 billion in assets in 2005 (Blackwood *et al.*, 2008). Possibly due to their impact on the U.S. economy, federal regulators have recently called attention to the need for increased oversight in healthcare organizations.

One critical aspect of U.S. federal oversight of nonprofit healthcare organizations is the administration of federal agency awards. Nonprofit healthcare organizations that spend more than \$500,000 in federal awards are required to meet the audit and internal control requirements of Circular A-133 of the Single Audit Act of 1984 (OMB, 2003). The quality of Circular A-133 audits has been debated for decades, beginning with a 1986 U.S. Government Accountability Office (GAO) report, which asserted that 34 percent of audits of federal programs reviewed were significantly inadequate (GAO, 1986). More recently, the GAO emphasized the need for proposed reforms that may help increase the Single Audit Act's ability to ensure the effective oversight of federally funded programs. These reforms include actions to address whether auditors adequately respond to internal control issues and comply with government auditing standards (GAO, 2006). In a related report, the GAO also highlights the existence of continuing deficiencies related to the documentation and testing of internal controls in federal audits (GAO, 2007). In particular, this latter report also notes persistent deficiencies among audits performed by non-governmental auditors. As a result, the GAO concludes that audit quality remains an unresolved issue, particularly among the smaller public accounting firms (GAO, 2007). Smieliauskas *et al.* (2008) also raise audit quality

concerns, but from the perspective of the audit report. They argue that current audit reports fail to adequately address true accounting risks and should directly disclose judgments about risk and materiality.

The purpose of this study is to investigate audit quality within U.S. nonprofit healthcare organizations. We rely on audit outcomes from Circular A-133 audits as our measure of audit quality. Specifically, we look at auditors' ability to detect and report existing internal control exceptions as a proxy measure of audit quality. Audit quality in Circular A-133 audits is documented in prior literature, but previous studies do not focus particularly on the healthcare sector (e.g., Brown and Raghunandan, 1995; Jakubowski, 1995; Jakubowski *et al.*, 2002; López and Peters, 2010). Expanding upon prior audit quality research in the nonprofit sector, we analyse whether differences in audit outcomes of nonprofit healthcare organizations exist among certified public accountant firms (hereafter, CPA firms) of various sizes. The U.S. healthcare industry has seen tremendous growth over the past decade and, with the advent of increased oversight measures, this investigation is timely and pertinent.

Our cross-sectional sample of 1,191 single audit reports of nonprofit healthcare entities from 2004 to 2008 indicates that the Big Four CPA firms are *less likely* to disclose reportable conditions and material weaknesses than are smaller CPA firms. Prior research in the for-profit setting generally finds that Big Four auditors are better quality providers (DeAngelo, 1981; Simunic and Stein, 1987; Lennox, 1999; Francis, 2004) and studies in the nonprofit sector, particularly on city and county-level governmental audits, find that the Big Four auditors are improving in the quality of their audits (Krishnan and Schauer, 2000; López and Peters, 2010). Our findings challenge

these claims of improved audit quality among the Big Four CPA firms and provide evidence that the alleged superiority of the Big Four firms maybe not be generalizable to all industry sectors. Nonprofit healthcare organizations compose a unique sector that has been almost completely overlooked by the audit quality literature. The distinctive operating structure of nonprofit healthcare organizations, joined to their mission of advancing the common good in healthcare, requires auditors to approach their audits differently and to apply methods that are industry-specific. Thus, the availability of auditors who can provide such services may be limited in some circumstances and dependent upon the size and complexity of the operations of the organization (Panel on the Nonprofit Sector, 2005). Further research in the nonprofit healthcare industry is needed to fully understand the unique governance and reporting conditions of this distinct sector. Our study supports the call for research on governance in nonprofit entities and contributes to the existing literature on audit quality in nonprofit organizations (Keating *et al.*, 2005; Brennan and Solomon, 2008; Smith and Edmonds, 2009; López and Peters, 2010).

The paper is organized as follows: we first we present a literature review that includes a discussion of audit quality research in the nonprofit sector. Next, we discuss the Single Audit Act and Circular A-133 audits in more detail. Our methodology and sample selection procedures are presented in the next section followed by a discussion of the results. The last section provides concluding remarks.

## **Literature Review**

Circular A-133 audit outcomes have been used in prior studies to investigate issues related to audit quality, compliance, and governance. For instance, Keating *et al.*

(2005) discover that smaller nonprofit organizations have more difficulty complying with Circular A-133's audit requirements and tend to engage smaller CPA firms for their audits. They also find that the audits of healthcare organizations disclose the most reportable conditions and going concern issues than the audits of any other type of nonprofit entity. Pridgen and Wang (2008) also rely on Circular A-133 audit outcomes to discover that nonprofit hospitals with audit committees have better internal control procedures concerning the administration of their federal programs. The findings in Pridgen and Wang (2008) provide early evidence that proper administration of federal programs is critical to the nonprofit healthcare sector.

Prior research in the for-profit setting generally finds that Big Four auditors are better quality providers than are smaller CPA firms (DeAngelo, 1981; Simunic and Stein, 1987; Lennox, 1999; Francis, 2004). Studies in the nonprofit sector, however, find conflicting evidence on the relationship between auditor type (e.g., Big N versus non-Big N) and audit quality. For instance, using a sample of U.S. cities and counties Jakubowski (1995) investigates audit quality among governmental and non-governmental auditors, and finds differences in the frequency of reported internal control weaknesses across auditor types (small, large, and governmental auditors). In particular, the results of his study indicate that governmental auditors report more internal control weaknesses than any other CPA firm group (Jakubowski, 1995). Similarly, Brown and Raghunandan (1995) find that state and local auditors may provide higher quality audits than CPA firms, possibly due to lower levels of litigation risk faced by CPA firms when conducting government audits. Unlike for-profit entities that focus on the profit maximization goals of shareholders, nonprofit organizations are subject to a non-distribution constraint and

need to maintain a focus on preserving the mission of the organization (Hansmann, 1980). This emphasis on program service activities among nonprofit organizations may lead to different levels of litigation risk for CPAs firms when auditing nonprofit entities (Hardiman *et al.*, 1987; Wilson *et al.*, 2007; Vermeer, 2008). As such, differences in audit quality could also arise.

In a more recent study López and Peters (2010) examine audit quality using a sample of Circular A-133 audits of U.S. cities and counties. In contrast to Jakubowski (1995) and Brown and Raghunandan (1995), the researchers find evidence indicating that the Big Four CPA firms provide better quality audits than governmental auditors and than smaller CPA firms in the years following the enactment of SOX. Despite the fact that SOX regulations only apply to publicly-traded entities, López and Peters (2010) provide early evidence that the structural changes introduced by SOX may have had cascading effects that helped improve the performance of Big Four auditors in audits of the nonprofit sector. Did these SOX-induced improvements in audit quality affect the performance of the Big Four firms in all types of audits? Or, are these improvements in the performance of Big Four auditors industry sector-specific? We explore audit quality in Circular A-133 audits of nonprofit healthcare organizations in an attempt to investigate whether the empirical findings of a positive relationship between auditor size and audit quality documented by recent studies apply to the healthcare sector.

### **The Single Audit Act and Circular A-133**

Title 31 of the U.S. Code, Chapter 75 requires non-federal entities that expend federal awards to have a single audit, where the term “non-federal entities” includes nonprofit organizations and other bodies of state or local governments. In particular,



nonprofit organizations are defined as “any corporation, trust, association, cooperative, or other organization that: (a) is operated primarily for scientific, educational, service, charitable, or similar purposes in the public interest; (b) is not organized primarily for profit; and (c) uses net proceeds to maintain, improve, or expand the operations of the organization” (Title 31, V, Chapter 75, Section 7501(a)(14)). Nonprofit hospitals and other healthcare organizations fit this definition.

The Single Audit Act of 1984 (SAA) requires that either a single or program-specific audit be conducted for governmental and nonprofit entities that spend more than \$100,000 in federal awards during a fiscal year (U.S. Congress, 1984); this threshold has since increased to expenditures of more than \$500,000 for fiscal years ending after December 31, 2003 (OMB, 2003). Prior to the enactment of the SAA, audits were conducted on a grant-by-grant basis. Thus, the SAA improved the consistency of the audits and required disclosures of compliance with applicable regulations and internal control deficiencies. Circular A-133 of the Office of Management and Budget details the specific reporting requirements and responsibilities of nonprofit organizations subject to the provisions of the SAA. Entities subject to examination must (1) maintain internal control over federal programs, (2) manage federal awards to ensure compliance with regulations and provisions of the contract agreement, and (3) prepare appropriate financial statements, including a schedule of expenditures of federal awards (OMB, 2003).

Auditors performing Circular A-133 audits are required to determine whether the schedule of expenditures of federal awards is presented fairly in all material respects in relation to the financial statements when taken as a whole. According to the American

Institute of Certified Public Accountants (AICPA), auditors are also required to perform tests that demonstrate an understanding of the recipient's internal controls in order to support a 'low assessed risk' for these audits (AICPA, 2005). The examination of internal controls includes assessing control risk and performing tests of controls. Recent work by Srivastava *et al.* (2009) documents the importance of fraud risk assessments conducted by auditors. Circular A-133 indicates that the internal control systems of federal fund recipients should be designed to provide reasonable assurance that: (1) transactions are properly recorded and accounted for; (2) transactions are executed in compliance with applicable laws and regulations; and (3) funds, property, and other assets are safeguarded against loss from unauthorized use or disposition (OMB, 2003). The audit report must disclose reportable conditions in internal controls noted during the audit. Circular A-133 audits must also indicate whether the reportable conditions noted, if any, should be deemed as a material weakness. Furthermore, auditors must ascertain, through review and testing procedures, whether the recipient has complied with laws, regulations and grant agreements (AICPA, 2005).

Despite constant efforts to improve the effectiveness of the single audit process, several criticisms concerning the quality of Circular A-133 audits still exist. For example, a GAO report in 2006 stated that 'while the Single Audit Act has provided oversight of more than \$300 billion in annual federal grants, questions have been raised about the usefulness and effectiveness of oversight for federal funds' (GAO, 2006). Empirical research also supports concerns over audit quality in U.S. government audits, as evidenced by studies disclosing significant audit quality differences in audits performed by different types of auditors (Copley and Doucet, 1993; Brown and

Raghunandan, 1995; Jakubowski, 1995; Jakubowski *et al.*, 2002; López and Peters, 2010). This study seeks to investigate whether these criticisms are valid in the U.S. nonprofit healthcare sector.

### **Methodology and Sample Selection**

Our analysis is based on data obtained from the Single Audit Clearinghouse of the U.S. Census Bureau (<http://harvester.census.gov/sac/>). The Clearinghouse maintains a comprehensive database of single audit results that include details about recipient entities, federal award amounts, and the auditors' report. Our sample is composed of single audit reports of U.S. nonprofit healthcare organizations for fiscal years 2004 to 2008 and includes entities in the 48 contiguous U.S. states, Alaska, and Hawaii. Our search procedures identify 1,209 records, from which we remove 18 observations audited by governmental auditors. The final sample consists of 1,191 cross-sectional entity-year observations and 364 different nonprofit healthcare organizations represented in the sample.

We build on the existing literature in the audit quality arena to build our regression model as follows:

$$\begin{aligned} \text{Prob (INDEX)} = & \beta_0 + \beta_1 \text{BIG4\_CPA}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{LOW\_RISK}_{it} + \beta_4 \text{MAJOR}_{it} \\ & + \beta_5 \text{COG\_AGENCY}_{it} + \beta_6 \text{CLIENTS}_{it} + \beta_7 \text{NEW\_AUDITOR}_{it} \\ & + \delta_k \text{FUNDING\_SOURCE}_k + \lambda_j \text{YEAR}_j + \varepsilon_{it} \end{aligned}$$

where  $i$  indicates the nonprofit healthcare organization and  $t$  indicates fiscal year. Our dependent variable, INDEX, represents whether the Circular A-133 audit report discloses internal control exceptions. In particular, this variable equals zero if the audit discloses no internal control exceptions; one if the audit discloses at least one reportable condition but no material weaknesses; and, two if at least one of the reportable conditions disclosed

by the audit is also classified as a material weakness. Generally accepted auditing standards (GAAS) require auditors to identify internal control exceptions that have the potential to adversely affect the integrity of the reporting process as reportable conditions and exceptions with a greater likelihood of affecting the reporting process as material weaknesses. According to DeAngelo (1981), audit quality is the probability that an auditor will detect and report a breach in the client's accounting system. Thus, INDEX serves as a proxy for audit quality since audits conducted by better audit quality providers should carry a higher likelihood of disclosing any existing internal control exceptions. We use ordered logit regression to estimate our regression model given that our dependent variable conditions on one or three different values with an intrinsic logical order.

The independent variable of interest, BIG4\_CPA, is an indicator variable that equals one if the audit is performed by a Big Four CPA firm (i.e., Deloitte & Touche, Ernst & Young, KPMG, or PricewaterhouseCoopers), zero otherwise. Prior studies generally find that Big Four auditors are better audit quality providers than any other auditor group. However, we express no expectations in terms of the direction of the estimated regression coefficient for the BIG4\_CPA variable, given the lack of prior empirical evidence on the performance of the CPA firms on Circular A-133 audits of the nonprofit healthcare sector. The regression model includes controls for client- and auditor-specific factors known to affect the incidence and disclosure of internal control exceptions; we also include controls for the fixed effects of time.

SIZE is the log of total federal funds received by the nonprofit healthcare entity. This variable is intended to control for the complexities associated with larger audit

engagements and is intended to proxy for potentially omitted variables (Davidson and New, 1993; Becker *et al.*, 1998). To comply with Circular A-133 requirements auditors are allowed to classify certain clients as *low risk*, which decreases the required percentage of program expenditures that must be audited. `LOW_RISK` is an indicator variable that equals one if the auditor classifies the auditee as *low risk*, zero otherwise. We also include a control for the proportion of an organization's total federal awards that the auditor classifies as major program, `MAJOR`. Under the stipulations of Circular A-133, major programs are those that are larger in size or carry higher levels of risk. Thus, entities with larger proportions of federal funds classified as *major program* require additional audit efforts.

The Office of Management and Budget assigns a cognizant agency to entities that spend more than \$50 million a year in federal awards. `COG_AGENCY` is an indicator variable that takes a value of one if the auditee is assigned a cognizant agency, zero otherwise. Cognizant agencies are expected to conduct quality reviews and provide technical advice to fund recipients and their auditors, therefore decreasing the likelihood of internal control exceptions. Following Deis and Giroux (1992), `CLIENTS` is operationalized as the number of Circular A-133 audits of nonprofit healthcare organizations performed by the auditor. This variable is intended to control for the potential effects of industry expertise on the likelihood of disclosing existing internal control exceptions. `NEW_AUDITOR` is an indicator variable that controls for whether this is the first year that the auditor performs the audit. Prior studies indicate that longer auditor tenures are associated with higher audit quality (Geiger and Raghunandan, 2002; Johnson *et al.*, 2002; Myers *et al.*, 2003). Thus, `NEW_AUDITOR` is intended to control

for potential impact of new clients on auditors' ability to detect and report existing internal control exceptions.

We also include a matrix of indicator variables that identify the different U.S. federal agencies providing funds to the entities in our sample (*FUNDING\_SOURCE*). These indicator variables control for potential differences in oversight and monitoring efforts of different U.S. federal funding agencies. We include controls for the Department of Agriculture (USDA), Department of Defense (DOD), Department of Housing and Urban Development (HUD), Department of Education (EDU), the Department of Health and Human Services (HEALTH), and other federal government agencies (OTHER). Finally, YEAR is a matrix of indicator variables that control for temporal differences that may affect the occurrence of reportable conditions and material weaknesses.

## **Results and Discussion**

The univariate results of this study are presented in Tables 1 and 2. Table 1 depicts descriptive statistics for three different subsample groups generated on the basis of the severity of the internal control exceptions disclosed by the Circular A-133 audits in the sample. The first group includes audits that do not report internal control exceptions (INDEX = 0); the second group includes audits that disclose at least one reportable condition but no material weaknesses (INDEX = 1); and, the third and final group includes audits that disclose at least one material weakness (INDEX = 2). In addition, we present descriptive statistics for all observations in the sample in the last set of columns on this table.

As shown by the average values of the variable SIZE, audits increase in size as one moves from audits with no exceptions to audits disclosing reportable conditions. However, audits with reportable conditions that also disclose material weaknesses (i.e., INDEX = 2) appear to be smaller in average than any of the audits in other subsample groups. LOW\_RISK shows that there is a marked continuous decrease on the likelihood of a *low risk* auditee designation as one moves from audits with no exceptions to audits disclosing material weaknesses. This supports the notion that riskier audits are more likely to disclose internal control exceptions. Similarly, the average values for the variable MAJOR increase as one moves from audits with no exceptions to audits disclosing material weaknesses, signifying an increasing relationship between the proportion of funds in the audit classified as *major program* and the likelihood that the audit will disclose internal control exceptions.

Note that none of the entities with auditor reports disclosing material weaknesses (i.e., INDEX = 2) was assigned a cognizant agency. Thus, the designation of a cognizant agency to overlook the operations of an auditee seems to be an effective measure in the curtailment of material weaknesses, the most serious kind of internal control exceptions. The average value of the variable CLIENTS increases as one moves from audits with no exceptions to audits disclosing reportable conditions, potentially indicating that the ability of auditors to detect and report internal control exceptions increases as the amount of other Circular A-133 audits of nonprofit healthcare organizations in their clients set increases. Lastly, as presented in the last set of columns in this table, 86.5 percent of all entities in the sample received funds from the Department of Health, making this agency the most common provider of federal funds among nonprofit healthcare organizations.

Table 2 presents the proportion of Circular A-133 audits with reportable conditions and material weaknesses by auditor type. Out of a total of 1,191 observations, 16.54 percent of the audits disclosed at least one reportable condition and 24.87 percent of audits with reportable conditions also disclosed at least one material weakness. Results by auditor type reveal that audits conducted by the Big Four auditors display a slightly higher proportion of reports with reportable conditions than audits conducted by smaller CPA firms (16.64 percent versus 16.40 percent, respectively). A similar pattern emerges for audits with reportable conditions; 26.96 percent of audits performed by the Big Four CPA firms with reportable conditions also disclose materials weaknesses, while only 21.95 percent of the audits performed by the smaller CPA firms with reportable conditions also disclose material weaknesses. A test of difference in population proportions indicates that the difference in this latter set of proportions is statistically significant ( $p\text{-value} < .049$ ). In sum, the univariate result in Table 2 presents evidence that, while the proportion of audits disclosing reportable conditions seem to be about the same for all auditor groups, the proportion of audits disclosing material weaknesses is higher among audits performed by the Big Four auditors.

In an untabulated analysis of the data presented in Table 2 we eliminated audits conducted by larger, non-Big Four auditors, also known as second-tier auditors, from the Small CPA firm group. This procedure eliminates 137 observations, leaving a total of 363 observations in the reduced Small CPA firm group. We then re-estimated the proportion of audits disclosing reportable conditions and material weaknesses and find that for the reduced Small CPA firm group the proportion audits disclosing reportable conditions increases to 17.08 percent, while the proportion of audits with reportable



conditions that also disclose material weaknesses increases to 27.42 percent. Tests of difference in population proportions indicate that these proportions (17.08 percent and 27.42 percent) are significantly higher than those obtained for the Big Four CPA firms (16.64 percent and 26.96 percent, respectively). Thus, the inclusion of second-tier auditors in the sample seems to be acting as a confounding factor in the univariate analyses of this study.

The ordered logit regression results are presented in Table 3, which were estimated using all observations in the sample ( $n = 1,191$ ). The results are significant when taken as a whole (chi-square = 45.77;  $p$ -value < .001) and the model has a pseudo  $r$ -square of 5.70 percent. The estimated regression coefficient for BIG4\_CPA, the independent variable of interest, indicates that audits conducted by the Big Four firms are *less likely* to disclose reportable conditions or material weaknesses than are firms in the Small CPA group (BIG4\_CPA = -0.878;  $p$ -value = 0.002). This result lends support to our findings in the univariate section that audits conducted by smaller CPA firms are significantly more likely to disclose internal control exceptions. These findings, however, contradict the general assertion from prior empirical studies that the Big Four CPA firms are better audit quality providers.

The estimated coefficient for SIZE indicates that audits of larger entities are more likely to disclose internal control exceptions; however, this result is not statistically significant. In contrast, lower risk audits are significantly less likely to disclose internal control exceptions, as evidenced by the negative sign of the estimated regression coefficient for LOW\_RISK. The estimated coefficient for MAJOR indicates that there is a positive relationship between the proportion of federal funds classified as major

program and the likelihood that the audit would disclose internal control exceptions. The results for COG\_AGENCY indicate that audits of nonprofit hospitals that are an assigned cognizant agency are more likely to disclose internal control exceptions. However, all audit reports of entities with an assigned cognizant agency only reflect internal control exceptions in the form of reportable conditions, as discussed in the univariate statistics section. Lastly, the estimated coefficient for CLIENTS indicates that audits conducted by CPA firms with more nonprofit healthcare organizations in their client portfolios are more likely to perform audits that disclose internal control exceptions. This latter finding is also in accordance with our findings for the variable CLIENTS in the univariate analysis section.

### **Concluding Remarks**

This study contributes to the literature by investigating audit quality in the healthcare sector. Our analysis of post-SOX data extends the findings of prior related studies and contributes to their call for additional research in the audit quality arena. The results of this study are timely and relevant since the healthcare sector will soon experience significant changes due to attempted health care reforms by the U.S. Congressional body. Our results reveal that Big Four CPA firms are *less likely* to disclose internal control exceptions, challenging the findings of recent empirical studies indicating that the Big Four CPA firms are better audit quality providers. But, beyond questioning the superiority of the Big Four CPA firms, our findings also question whether the distinct organizational structure of nonprofit healthcare organizations impacts the performance of their auditors. We note that specialized auditor knowledge and expertise may be necessary when examining nonprofit healthcare organizations and, based on our

findings, smaller CPA firms seem to be able to perform these audits more effectively than the Big Four firms.

Our results contribute to the discussion that recent regulatory changes in the for-profit, such as SOX, and increased government oversight of the auditing profession have forced auditors to reevaluate their business practices (Koehn and Del Vecchio, 2004; Koehn and Del Vecchio, 2006; López and Peters, 2010). These changes may contribute to Big Four auditors focusing more closely on internal control procedures in their for-profit clients at the expense of lower levels of audit rigor among their nonprofit clients. We encourage future research to examine the characteristics of smaller CPA firms in order to determine factors that influence their superior ability to disclose internal control exceptions in audits of entities in the healthcare sector.

Considering the millions of dollars dispensed by the U.S. federal government to help fund various programs in the nonprofit sector, further scrutiny of the audit quality differences indentified in this study is necessary. This is particularly important when considering that higher audit quality may lead to a much needed level of greater oversight and accountability within nonprofit organizations. Unerman and O'Dwyer (2006) propose that further research is necessary to 'help identify and develop suitable accountability mechanisms for a variety' of nonprofit organizations (p. 315). Our focus on Circular A-133 audits due to the goal of the SAA to improve transparency and the administration of federal awards may be seen as a step toward development of an accountability mechanism for nonprofit healthcare organizations.

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**TABLE 1**  
**Descriptive Statistics by Audit Findings**

Variable	INDEX = 0			INDEX = 1			INDEX = 2			All Observations		
	Mean	Median	STD	Mean	Median	STD	Mean	Median	STD	Mean	Median	STD
BIG4_CPA	<b>0.579</b>	1.000	0.494	<b>0.568</b>	1.000	0.497	<b>0.633</b>	1.000	0.487	<b>0.580</b>	1.000	0.494
SIZE	<b>15.064</b>	14.695	1.501	<b>15.366</b>	14.769	1.902	<b>14.921</b>	14.981	1.288	<b>15.096</b>	14.711	1.551
LOW_RISK	<b>0.609</b>	1.000	0.488	<b>0.547</b>	1.000	0.499	<b>0.163</b>	0.000	0.373	<b>0.583</b>	1.000	0.493
MAJOR	<b>0.797</b>	0.888	0.225	<b>0.812</b>	0.926	0.221	<b>0.872</b>	0.931	0.152	<b>0.802</b>	0.896	0.223
COG_AGENCY	<b>0.064</b>	0.000	0.246	<b>0.149</b>	0.000	0.357	<b>0.000</b>	0.000	0.000	<b>0.072</b>	0.000	0.259
CLIENTS	<b>23.904</b>	26.000	20.634	<b>25.655</b>	25.000	23.067	<b>31.694</b>	34.000	26.221	<b>24.442</b>	26.000	21.244
NEW_AUDITOR	<b>0.248</b>	0.000	0.432	<b>0.243</b>	0.000	0.430	<b>0.245</b>	0.000	0.434	<b>0.248</b>	0.000	0.432
USDA	<b>0.308</b>	0.000	0.462	<b>0.277</b>	0.000	0.449	<b>0.449</b>	0.000	0.503	<b>0.310</b>	0.000	0.463
DOD	<b>0.140</b>	0.000	0.347	<b>0.135</b>	0.000	0.343	<b>0.122</b>	0.000	0.331	<b>0.139</b>	0.000	0.346
HUD	<b>0.243</b>	0.000	0.429	<b>0.264</b>	0.000	0.442	<b>0.224</b>	0.000	0.422	<b>0.245</b>	0.000	0.430
EDU	<b>0.288</b>	0.000	0.453	<b>0.250</b>	0.000	0.434	<b>0.367</b>	0.000	0.487	<b>0.286</b>	0.000	0.452
HEALTH	<b>0.861</b>	1.000	0.346	<b>0.885</b>	1.000	0.320	<b>0.878</b>	1.000	0.331	<b>0.865</b>	1.000	0.342
OTHER	<b>0.388</b>	0.000	0.488	<b>0.453</b>	0.000	0.499	<b>0.490</b>	0.000	0.505	<b>0.401</b>	0.000	0.490
<i>n</i>		994			148			49			1,191	



**TABLE 2**  
**Proportion of Audits Disclosing Reportable Conditions**

	Big Four CPA firms	Small CPA firms	All Observations
Prob (INDEX = 1)	0.1664	0.1640	0.1654
Prob (INDEX = 2)	0.2696	0.2195	0.2487
<i>n</i>	<i>691</i>	<i>500</i>	<i>1,191</i>

**TABLE 3**  
**Ordered Logit Regression**

$$\text{Prob (INDEX)} = \beta_0 + \beta_1 \text{BIG4\_CPA}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{LOW\_RISK}_{it} + \beta_4 \text{MAJOR}_{it} + \beta_5 \text{COG\_AGENC}_{it} \\ + \beta_6 \text{CLIENTS}_{it} + \beta_7 \text{NEW\_AUDITOR}_{it} + \delta_k \text{FUNDING\_SOURCE}_k + \lambda_j \text{YEAR}_j + \varepsilon$$

Variable	Expected Sign	Coefficient Estimate	P-value
BIG4_CPA	-/+	-0.878	0.004
<i>Control Variables</i>			
SIZE			
LOW_RISK	-/+	0.040	0.310
MAJOR	-	-0.757	<.0001
COG_AGENCY	+	0.553	0.107
CLIENTS	-	0.343	0.185
NEW_AUDITOR	+	0.027	<.0001
	+/-	-0.155	0.224
<i>Funding Source</i>			
USDA			
DOD	-/+	0.011	0.476
HUD	-/+	-0.261	0.175
EDU	-/+	-0.064	0.380
HEALTH	-/+	0.093	0.315
	-/+	0.407	0.065
<i>Year</i>			
YEAR <sub>2005</sub>			
YEAR <sub>2006</sub>	-/+	0.095	0.354
YEAR <sub>2007</sub>	-/+	0.283	0.130
YEAR <sub>2008</sub>		0.461	0.035
		0.327	0.133
Intercept (INDEX=2)			
Intercept (INDEX=1)	-/+	-4.554	<.0001
	-/+	-2.984	0.007
Chi-square		45.77	
Pr > Chi-square		<.0001	
Pseudo R-square		5.70%	
n		1,191	