

An Examination of the Influence of the PCAOB Inspection on Audit Committees' Hiring Decisions

Veena Looknanan-Brown, Ph.D. Student

Florida Atlantic University
Barry Kaye College of Business
School of Accounting
777 Glades Road
Boca Raton, FL 33431-0991
vlooknan@fau.edu

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ABSTRACT

This paper is motivated by the current decade's accounting scandals and the associated regulatory changes, namely the establishment of the PCAOB and increased audit committee responsibilities, resulting from the enactment of the Sarbanes-Oxley Act of 2002 (SOX or the Act). I design an experiment to provide empirical evidence on whether the inspection of public company auditors, conducted by the Public Company Accounting Oversight Board (PCAOB), improves audit committees' perception of audit/auditor quality, and financial statement reliability. More specifically, I investigate whether audit committees of publicly traded companies consider the PCAOB inspection in their decision to hire an external auditor. In a between-subject experiment involving 189 masters' level student subjects, I manipulate the PCAOB inspection at five levels (no inspection, no deficiency, audit deficiency only, quality control deficiency only, and both audit and quality control deficiency). I find no significant difference in means among groups and no evidence to support the hypothesis that a PCAOB inspected accounting firm is perceived to be of higher quality. However, I find evidence that the nature of the deficiency identified by the PCAOB inspection is considered in the hiring decisions of audit committee surrogates.

Keywords: PCAOB, Inspection, Perception, Financial Statement Reliability, Auditor Quality, Audit Quality, Competence, Independence

Data Availability: Case material will be made available upon request.

I. INTRODUCTION

The objective of this study is to provide empirical evidence on whether the inspection of public company auditors, conducted by the Public Company Accounting Oversight Board (PCAOB or the Board), improves audit committees' perception of audit/auditor quality, and financial statement reliability. More specifically, the study investigates whether audit committees of publicly traded companies consider the PCAOB inspection in their decision to hire an external auditor. This paper is motivated by the current decade's accounting scandals and the associated regulatory changes, namely the establishment of the PCAOB and increased audit committee responsibilities, put in place to help prevent similar scandals and restore public confidence in financial reporting.

Following a myriad of accounting scandals in the early 2000s, Congress passed the Sarbanes-Oxley Act of 2002 (SOX or the Act) in an attempt to restore investors' confidence in the market (Oxley 2007). Section 101 of the Act establishes the PCAOB to oversee the audits of public companies in order to protect investors, and to further the public's interest in informative, accurate, independent, and reliable audit reports of publicly held companies (SOX 2002). Section 301 of the Act provides that the audit committee of each issuer¹, in its capacity as a committee of the board of directors, be directly responsible for the "...appointment, compensation, and oversight of the work of any registered public accounting firm employed by that issuer....and each such registered public accounting firm shall report directly to the audit committee" (SOX 2002, p. 776). I posit that these two sections of SOX together play a critical role in achieving regulators' goal of increased investor confidence in the financial reporting of public companies.

¹ The term "Issuer" generally includes public companies, investment companies, and certain employee benefit plans. A precise definition of the term is found in section 2(a) (7) of the Act (PCAOB 2007).

Following the enactment of SOX, there have been numerous studies on audit committee responsibilities (DeZoort et al. 2008, Gaynor et al. 2006, Ghosh and Moon 2005) and some studies on the role of the PCAOB as monitors of public auditors (Abbott et al. 2008, Gunny et al. 2007, Lennox and Pittman 2007). These studies show that both audit committees and the PCAOB have critical and distinctive roles, within SOX, in improving audit and financial reporting quality. I argue that the functions of the PCAOB, and those of the audit committee are not mutually exclusive, and that the audit committee, as a potential stakeholder in the auditor choice decision (Abbot and Parker 2000), has incentives to utilize the PCAOB inspection reports in its decision making process.

Audit quality is an unobservable element, thus, in order to examine its presence or perceived presence, there must be an observable proxy. The auditing literature frequently uses Big N versus non-Big N auditors as a proxy for audit quality. However, within each category of auditors, the audit quality literature offers limited proxies for audit quality. As Big N auditors are synonymous with high audit quality in the literature (DeAngelo 1981, Becker et al. 1998) and the quality of services offered by the remaining Big 4 auditors are indistinguishable in the current environment, I focus on discerning audit quality among the non-Big N auditors. I argue that within non-Big N auditors, the PCAOB inspection is a viable proxy for perceived audit/auditor quality, and consequently perceived financial statement reliability.

As the new police of public accountants, the PCAOB, through the inspection process, offers important, independent, and unbiased assessment of the internal functions of public accountants to interested parties. The PCAOB routinely inspects public accountants with more than 100 issuers (annual firms), and 100 or fewer issuers (triennial firms), in one year and three year cycles, respectively. The results of the inspection, along with information on the organization

of the public accounting firm, are publicly² available via the PCAOB website. Prior to SOX, this type of information was not readily available to the general public and most public companies. The inspection of public accounting firms is regarded as the PCAOB's fundamental tool in impacting auditing and investors' confidence in audited financial reporting (Goelzer 2005).

Additionally, the enactment of SOX has placed increased responsibilities on audit committees to hire high quality auditors. SOX, as well as many stock exchanges (e.g. NYSE, Amex, and Nasdaq), now require audit committees to have financially literate members with at least one financial expert on the committee. As SOX has made audit committee members responsible to third parties for the direct oversight of the work of the public accountant, the issuance of unreliable financial statements will be partially attributed to a weak audit committee. The reputation of the members of the audit committee will suffer and could possibly obstruct the members from obtaining additional audit committee, or governance, appointments with the current company or other public companies. The fear of losing their credibility provides a strong incentive for audit committee members to use all available resources to assess the quality of public accountants.

In a recent article, PCAOB board member Goelzer (2008) encourages audit committee members to use the PCAOB as a resource tool, while the NYSE requires audit committee members to discuss the PCAOB inspection reports with their auditors. With increased responsibilities and more personal risks at stake, utility theory predicts that audit committee members will be less likely to make risky decisions and more likely to make decisions that will

² Part II and Part III of the inspection report are private and are not included in the public portion of the report. However, if the public accounting firm does not correct or respond to criticisms within 12 months of the report date, some or all of Part II may be made public.

increase their economic interest. Consequently, I posit that audit committee members will use the PCAOB inspection report to assess auditor quality.

In a between-subject research design involving 189 masters' level student subjects, as proxy for audit committee members, I manipulate the PCAOB inspection at five levels (no inspection, no deficiencies³, audit deficiencies only, quality control (QC) deficiencies only, and both audit and quality control deficiencies), and compare the means of each group using one-way ANOVA. I also use logistic regression to examine whether audit committees' decision to recommend an auditor differ among groups. I find no significant difference in means among groups and insufficient evidence that a PCAOB inspection influences the hiring decision of audit committee surrogates. However, I do find evidence that the nature of the deficiencies identified by the PCAOB inspection is considered by the surrogates. Specifically, I find a significant negative association ($p=0.042$) between the probability of recommending an external auditor and the variable representing the firm with quality control deficiencies (QCDEFECT). Additionally, in all the logistic regression models, audit quality (AUDQUAL) and financial statement reliability (FSRELY) are significant or moderately significant. This implies that the audit committee surrogates do consider audit quality and financial statement reliability in their decision making process.

I propose that the lack of significant results in this study is most likely due to the use of inexperienced student subjects as proxy for audit committee members. The study is designed to examine *audit committees' perception* of auditor quality, thus when target participants are employed in the study, I expect to find support for the hypotheses.

³ A deficiency is an audit or quality control finding identified by the PCAOB during its inspection of the public accounting firm.

This study contributes to the literature in several ways. First, it provides additional support to a recent empirical archival study that finds that audit committees have incentives similar to agency based conflicts, which motivates them to switch away from auditors with lower perceived audit quality as proxied by the PCAOB inspection reports (Abbott et al. 2008). Second, it is the first study to investigate whether audit committees perceive the PCAOB inspection, and related findings, as a signal for audit/auditor quality, and financial statement reliability, using an experimental setting. Third, the results of this research will provide valuable insights regarding the contribution of the PCAOB, which is important to regulators (Congress, SEC, and PCAOB), investors, and public company board members. Lastly, the results add to the auditing literature as it provides a new observable proxy for perceived audit/auditor quality, and perceived financial statement reliability among non-Big N public accountants.

The remainder of the paper proceeds as follows. Section II provides a brief insight into the development of the PCAOB as monitors of public accountants. Section III develops my hypotheses. Section IV and V discuss the research method and related results, respectively. Finally, Section VI discusses limitations of the study, and concludes the paper.

II. BACKGROUND

This section discusses the PCAOB as monitors of public accountants. Following an array of accounting scandals in the early 2000's and the accompanying demise of Arthur Andersen, SOX established the PCAOB as the main watchdog of public accountants⁴. Section 104 of the Act authorizes the Board to conduct inspections and assess firm's compliance with the Act, the PCAOB rules, SEC rules, and professional standards, in connection with the firm's performance

⁴ See Figure 1 for a graphical representation of the history of the monitoring process from the early 1960s to today.

of audits, issuance of audit reports, and related matters involving issuers (SOX). The Board is required to perform inspections, and issue inspection reports as required by the Act.

The Board provides a detailed inspection report after each inspection to the Commission, and to certain state regulatory authorities. The Board also provides to the public a portion of the PCAOB inspection report via the PCAOB's website⁵. As most non-Big N firms are triennial firms, I focus my discussion of the inspection report of triennial firms. Excluding the cover sheet and three boiler plate paragraphs concerning the report, the inspection report of triennial firms during the first inspection cycle, primarily consists of four parts.

PART 1 titled "Inspection Procedures and Certain Observations" identifies the dates field work was conducted; states the scope of the inspection procedures, including the number of issuers inspected (but does not identify the name of the issuer), and the type of review (e.g. Audit Engagements and Quality Control System reviews) based on selective, predetermined procedures tailored to the nature of the firm. This section also describes significant deficiencies identified during audit engagement review, and states whether a quality control system review was conducted, but does not disclose whether quality control deficiencies were identified. In addition, Part I of the report describes the nature of the firm, such as, the number of offices, cities and states in which the firm operates, ownership structure, number of partners, number of professional staff, and number of audit clients.

PART II and PART III contain non-public information and are omitted from the public portion of the report. However, if the firm does not correct or respond to criticisms of, and/or deficiencies in, its quality control system, within twelve months of the report date, some or all of Part II, relating to the firm's Quality Control System (i.e. assessment of its audit quality), are

⁵ Available at http://www.pcaobus.org/Inspections/Public_Reports/index.aspx

disclosed to the public via an amended release of the full report. As of January 11, 2009, the PCAOB released 45 amended inspection reports pursuant to its first inspection cycle, which took place between 2004 and 2006. PART IV, titled “Responses of the Firm to the Draft Inspection Report” includes the firm’s comments⁶, if provided, in relation to PCAOB’s draft report.

In addition to the PCAOB, the public accounting firm has other monitors. With the creation of the PCAOB, changes were made to the American Institute of Certified Public Accountants (AICPA) monitoring programs for public companies. Effective January 1, 2009, the AICPA peer review program (PRP) was reconstructed to review and evaluate those portions of its member firm’s accounting and auditing practice that are not inspected by the PCAOB. Any AICPA member firm that is required to be registered with the PCAOB must also be enrolled in the AICPA PRP and have their peer review performed under that program’s standards (AICPA 2008).

In addition to the PCAOB inspections and the AICPA monitoring programs, which primarily address whether the audit is in compliance with Generally Accepted Auditing Standards (GAAS), larger CPA firms generally engage in rigorous in-house review programs (Niemeier 2008). Within these programs, internal teams review the audit work to ensure that the engagements are conducted in accordance with the firms’ policies that go beyond requirements under GAAS. In addition, the larger audit firms have peer review programs where one external audit firm reviews another firm. While the PCAOB approves of this practice, it is not mandatory for large or small audit firms (Niemeier 2008).

⁶ The Firm has 30 days to respond to the draft report before the report is made final and issued to the public. Any portions of the response that the firm requests to remain confidential, and the Board grants the requests, are not included in Part IV of the report (section 104(f) of the Act, and PCAOB Rule 4007(b)).

III. HYPOTHESES DEVELOPMENT

In this section, I develop my hypotheses beginning with DeAngelo's (1981) definition of audit quality.

Following other researchers (Abbott et al. 2008, Barton 2005, Flaming 2002), I utilize DeAngelo's two-part definition of audit quality perception, because it offers a concise and effective way of defining audit quality. DeAngelo defines audit quality perception as the propensity of the auditor to both discover (measure of competence), and report (measure of independence) a breach in a company's accounting system.

Competence

DeAngelo (1981, p. 186) states that "the probability that a given auditor discovers a breach depends on the auditor's technological capabilities, the audit procedures employed on a given audit, the extent of sampling, etc." Collectively, these measure the auditor's competence, which may be further divided into auditor knowledge of the client and auditor ability. Holding knowledge, defined as the audit firm's learned information regarding the client, constant, I focus on auditor ability. Auditor ability is defined as the propensity of the auditor to perform the audit according to professional accounting and auditing standards (for example, GAAP, GAAS, and the PCAOB standards), and to discern a financial reporting problem; if one exists (i.e. discover a breach).

Independent PCAOB inspectors perform risk based inspections of public accounting firms and identify and report on the audit deficiencies and quality control deficiencies within the firms' internal controls. The PCAOB inspectors have regulatory authority and statutory power to review auditors' workpapers, clients' files, and personnel files that were previously untouchable by third parties. The PCAOB also has the power to provide disciplinary sanctions that includes revocation

of PCAOB registration and the inability to conduct public company engagements. Therefore, it seems reasonable that public accounting firms interested in continuing to conduct public company audits will be motivated to conform to all applicable accounting and auditing standards as mandated by the PCAOB. Consequently, I posit that these firms will be perceived to be more competent than firms that are not inspected by the PCAOB.

Independence

Independence also has a two-prong definition, independence ‘in fact’ and independence ‘in appearance’ (SEC 2000). Independence ‘in fact’ is concerned with the auditor’s state of mind and integrity to make independent decisions in any given situation. As it is impossible to absolutely know a person’s state of mind, it is extremely important for an auditor to be independent “in appearance.” That is, no factors should be present that will suggest lack of auditor independence by third parties (e.g. investors and creditors), as perceived independence adds credibility to audited financial reports (SEC 2000). As independence ‘in fact’ is not observable, regulators, practitioners, and academics define independence using the appearance dimension (Dopuch et al. 2003, Kinney 1999). Therefore, in this paper, I investigate *appearance* of auditor independence as proxy for overall auditor independence.

The SEC, the AICPA, and the PCAOB are all concerned with the independence of the audit firm (SEC 2000, AICPA 2007, PCAOB 2006). The SEC (2002, p. 3) states that “an auditor is not independent if a reasonable investor, with knowledge of all relevant facts and circumstances, would conclude that the auditor is not capable of exercising objective and impartial judgment.” In its Conceptual Framework for AICPA Independence Standards, the AICPA Code of Professional Conduct defines auditor independence in appearance as “the avoidance of circumstances that would cause a reasonable and informed third party, having knowledge of all relevant information,

including safeguards applied, to reasonably conclude that the integrity, objectivity, or professional skepticism of a firm or a member of the attest engagement team had been compromised (AICPA 2007, ET Section 100.06b).

Auditor independence is one of the high risk areas the PCAOB inspectors incorporate into their inspection routine. In its report of inspections of domestic triennially inspected firms, the PCAOB states as follows, “the independence of the external auditor plays an important role in fostering high quality audits and promoting investor confidence in the financial statements of public companies” (PCAOB 2007b, p. 15). As a result, the PCAOB reviews various aspects of a firm’s compliance with the independence standards of the SEC and the Board (PCAOB 2007a). In fact, the PCAOB identifies lack of independence as the second highest quality control deficiency in small public firms (Hermanson and Houston, 2008). As independence is critically reviewed during a PCAOB inspection, I posit that accounting firms inspected by the PCAOB will be perceived as having higher quality than those who have not undergone a PCAOB inspection.

Audit Quality

Based on DeAngelo’s (1981) definition of perceived audit quality, as a function of competence and independence, and as the goal of the PCAOB inspection is to effectually improve overall audit quality by addressing deficiencies that will negatively impact these two auditor qualities, I form the following hypotheses regarding audit quality.

*H1: Audit committees’ perception of audit quality will be higher in the presence of a PCAOB **inspection** than in the absence of an inspection.*

*H2: Audit committees’ perception of audit quality will be lower in the presence of PCAOB **inspection deficiencies** than in the absence of inspection deficiencies.*

Financial Statement Reliability

The accounting literature purports that there is a direct relationship between audit quality and financial statement reliability. Research shows that auditing acts as a constraint on managements' choice of accounting procedures and limits earnings management, with the effectiveness of the constraint depending on the quality of the audit (Becker et al. 1998). Additionally, Becker et al. (1998) find that clients of non-Big N accounting firms report higher discretionary accruals and apply more accounting flexibility than clients of Big N accounting firms. Regulators and standard setters have also linked audit quality and financial statement reliability as integral parts of the same goal of providing investors with reliable financial reporting. The PCAOB was established to monitor public accountants in order to improve audit quality and provide reliable audit reports of publicly held companies. Based on the above discussion, it follows that the perception of financial statement reliability is conditional upon the perception of audit/auditor quality. Consequently, controlling for audit quality perception, I hypothesize as follows:

*H3: Controlling for audit quality perception, audit committees' perception of financial statement reliability will be higher in the presence of a PCAOB **inspection** than in the absence of an inspection.*

*H4: Controlling for audit quality perception, audit committees' perception of financial statement reliability will be lower in the presence of PCAOB inspection **deficiencies** than in the absence of inspection deficiencies.*

Nature of Deficiency

The type of deficiency identified by the PCAOB inspection process presents different threats to overall audit quality and financial statement reliability. I discern the relative importance of this issue by manipulating the type of inspection deficiency in my research design: audit deficiency versus quality control deficiency. Research shows that there are more PCAOB

inspected firms with deficiencies than without⁷ (Hermanson and Houston 2008, Hermanson et al. 2007, PCAOB 2007b). The PCAOB (2007b) reports that of the 439 reports in the first inspection cycle, 28 percent of triennial firms did not have an audit deficiency or a quality control deficiency. The Board identifies audit deficiencies as “those deficiencies that, in the inspection team’s judgment, resulted in the firm failing to obtain sufficient competent evidence to support its opinion on the financial statement” (PCAOB 2007b, p. 3). These deficiencies are usually identified during the examination of specific audit engagements, are considered public information, and are disclosed in the initial inspection report. They are random in nature and rarely lead to significant deficiency issues.

On the other hand, quality control deficiencies deal with criticisms of, or potential defects in, the quality control systems of the firm, and are not included in the initial release of the inspection report. However, if those criticisms or defects are not addressed by the firm, to the satisfaction of the Board, within 12 months of the date of the issuance of the initial inspection report, they are reported and made publicly available in an amended release of the inspection report (SOX 2002). As quality control deficiencies are private information, the firm is not obligated to provide the PCAOB findings, related to its quality controls, to the audit committee. However, in a recent article, Board member Daniel Goelzer (2008) urges audit committee members to request this information from their external auditors. He presents a list of sample questions that audit committees should ask their external auditors relating to the nonpublic portion of the PCAOB inspection.

Deficiencies in a firms’ quality control may signify systematic risks within the firms’ internal controls, which are more problematic to the accounting firm. As audit committees want to

⁷ 228 of 316 inspected triennial firms sampled had deficiencies.

protect their reputation by minimizing the risk of making an incorrect decision, I expect they will more likely consider the nature of the deficiencies identified by the PCAOB. Consequently, I propose the following hypotheses.

*H5: Audit committees' perception of audit quality will be lower in the presence of PCAOB inspection with **quality control deficiencies** than without quality control deficiencies.*

*H6: Controlling for audit quality perception, audit committees' perception of financial statement reliability will be lower in the presence of PCAOB inspection with **quality control deficiencies** than without quality control deficiencies.*

Recommendation

It is possible that the audit committee may have more confidence in the accounting firm that has undergone a PCAOB inspection, one with no inspection findings, and one with no QC deficiencies than ones with contrasting qualifications as argued above. However, it is possible that the PCAOB inspection, and associated findings, may have little or no impact on the audit committee's decision to recommend the auditor to conduct a financial statement audit. Also, in referring to the PCAOB inspection report, the PCAOB frequently cautions readers against drawing conclusions about the comparability of inspected firms based on the number and type of deficiencies reported in any given year (PCAOB 2007b). Nevertheless, since audit committee members are aware that they are accountable to third parties and that there is a high possibility that they may be called upon to explain the evaluation process to others should legal issues arise, it is highly feasible that the reputation costs of not considering the PCAOB inspection in their decision to hire an external auditor will override the PCAOB standard disclaimers. Therefore, I posit that audit committee members will consider the PCAOB inspection as an additional resource in assessing, judging, and recommending an auditor. Consequently, I hypothesize as follows:

*H7: Controlling for perceptions of audit quality and financial statement reliability, audit committees will more likely recommend an auditor who has **undergone a PCAOB inspection** than one who has not been inspected.*

*H8: Controlling for perceptions of audit quality and financial statement reliability, audit committees will less likely recommend an auditor with **audit deficiencies** than one without audit deficiencies.*

*H9: Controlling for perceptions of audit quality and financial statement reliability, audit committees will less likely recommend an auditor with **quality control deficiencies** than one without quality control deficiencies.*

IV. RESEARCH METHOD

The research design and instrument described in this section is adapted from, and incorporates, the works of Gaynor, McDaniel and Neal (2006), Flaming (2002), and McKinley, Pany, and Reckers (1985).

Design

I employ a between-participant experimental design in which participants received one of five cases. The information included in each case was identical except for the manipulated independent variable. Whether or not the audit firm receives a PCAOB inspection, and the nature of the inspection, was manipulated at five levels as follows:

<i>Control</i>	<i>Treatment 1</i>	<i>Treatment 2</i>	<i>Treatment 3</i>	<i>Treatment 4</i>
No Inspection	Inspection/No Deficiencies	Inspection/Audit deficiencies	Inspection/Quality control deficiencies	Inspection/Audit and quality control deficiencies
Group A (N=33)	Group B (N=31)	Group C (N=28)	Group D (N=28)	Group E (N=28)

Developing the Instrument

I constructed the hypothetical CPA firm as follows: I obtained background data from the *Audit Analytics* database of companies that completed an audit in fiscal year 2006 and traded in Nasdaq small-cap capital market. I removed all commercial banks and savings institutions (SIC codes 6021, 6022, 6029, 6035, 6036), because financial institutions are heavily regulated and are not representative of the average publicly traded domestic companies that are audited by triennial audit firms. I sorted the remaining companies by market capitalization and identified those with market capitalization between \$100 million and \$1 billion⁸. Next, I listed the audit firms that conducted the audit for the 21 small-cap companies during 2006 and obtained the firm's characteristics from the most recent inspection report posted on the PCAOB's website.⁹ I retrieved the following characteristics for each firm: *number and location of offices, ownership structure, the number of partners, the number of professional staff, and the number of issuers*. I used this information to construct the characteristics for the hypothetical CPA audit firm in my research instrument.

Task and Instrument

The experimental task required each participant to assume the role of an audit committee member of a growing mid-size retail public company. They were told that the company's Board of Directors had unanimously voted to hire a new external auditor and they would be one of three audit committee members to make a recommendation to the full board. The participant was presented with basic information on the public company, the CPA applicant (Firm A), and

⁸ There were 21 issuers (some companies on the list have more than one issue) with market capitalization between \$100M and \$1B (range: \$103M to \$237M). There was one company with two issues with market capitalization greater than one billion. The remaining 187 issuers' market capitalization range between \$4 to \$98M.

⁹ Four audit firms on this list are registered with the PCAOB but did not have an inspection report posted on PCAOB's website as of 8/6/08. Upon inquiry, the PCAOB stated that the reason these firms did not have an inspection report posted was private (not public) information.

instructions relating to the participant's role as an audit committee member. The participants were told that they had to make a decision whether or not to recommend Firm A as the company's independent external auditor engaged to conduct its financial statement audit. They were told that CPA Firm A has a well-established reputation in the industry for providing audit services and that the quoted fee was reasonable and comparable to the company's current audit fees and to the fees of other CPA firms of its size.

All five packets of information were identical except for the manipulated independent variable. Each participant was randomly assigned only one of the five packets to decrease the probability that any of the participants could determine the exact nature of the manipulation. Each packet of information contained four sections on a total of nine pages (including cover page). Section I contained the case material, Sections II and III contained questions specific to the case information, and Section IV contained manipulation check, control, and demographic questions.

Section I of the packet contains information on the public company, and the CPA audit applicant, as well as instructions for participants. A hypothetical public manufacturing company was constructed using comparable company data reported in Audit Analytics database that traded in the Nasdaq Small-Cap market and that used non Big-4 CPA firms for audit services in fiscal year 2006. The company was described as a small-cap U.S. manufacturing company that publicly traded on Nasdaq. It has a market cap of approximately \$150 million and reported revenues of \$110 million on its last audited financial statement. The company was audited for the past five years by the same regional CPA Firm and audit partner; however, the owners of the regional CPA firm sold the practice to a Big-4 public accounting firm and the audit partners all retired. As a result, the Board has voted in favor of hiring a new CPA firm and has instructed the audit

committee to “shop” for a new CPA firm qualified to provide audit services in the same professional and efficient manner as the previous auditor.

The new CPA applicant (Firm A) is a mid-size, regional accounting firm that provides auditing, tax and advisory services to privately and publicly held clients. It was recently formed by the merger of two smaller CPA firms that specialized in private and public clients, respectively. CPA Firm A has three offices conveniently located throughout the region. There are 30 partners and 190 professional staff. The audit service partners have an average of 15 years experience in auditing SEC issuers. The firm currently has 25 SEC audit clients. The firm has no affiliation with the company and if hired will conduct the company’s external audit for the first time this year. The firm is registered with the PCAOB, as a requirement of all CPA firms conducting audits of publicly traded companies in the United States. The firm is also a member in good standing with the Accounting Institute of Certified Public Accountants (AICPA). The auditing fees quoted to provide audit services are reasonable and comparable to the company’s prior audit fees and the fees of other CPA applicants.

After reviewing the case information in Section I, the participants were asked to respond to the two question sets in Sections II and III. The first eight questions in Section II asked participants to rate their level of confidence, on a 5-point Likert-Type scale, regarding the auditor’s competence, the auditor’s independence, audit quality, and financial statement reliability. With regards to their rating on these eight questions, participants were further asked the single most important factor in support of their answers. The last question in Section II (no. 9) asked participants whether or not they would recommend CPA Firm A to conduct the audit, (9a) the single most important factor in support of their decision, (9.b) other pertinent factors in support of

their decision, (9.c) the single most important factor that argues against their decision, (9.d) other pertinent factors that argue against their decision.

In Section III, participants were asked to assume that the CPA firm's audit fees were 24 percent below that of the company's prior audit fees and the fees quoted by other CPAs. Under this assumption, participants were asked whether they will recommend (or not recommend) CPA firm A to conduct the audit. This assumption was included to test the importance of the PCAOB inspection and the nature of the inspection findings in the audit committee's decision making process. However, I choose not to analyze the scores on this question for the current study; therefore, I did not make a corresponding prediction. Lastly, participants were asked to respond to section IV, containing manipulation check, control and demographic questions, without referring to any of the previous sections.

Participants

Newly developed instruments should be pre-tested as many times as necessary and adjusted accordingly, as part of item analysis, to enhance the reliability and validity of the instrument (Nunnally and Bernstein 1994, Crocker and Algina 1986). The research instrument¹⁰ was tested twice on two groups of masters-level students at a large Southeastern University.

Participation was voluntary and no incentive was offered for participation. The final sample selection is presented in Table 1 and consists of usable responses from 148 participants. Thirty-eight participants missed, or failed to respond to, one or more of the three manipulation check questions presented in the instrument. Four of 189 respondents missed the first manipulation check question which asked participants to recall the role they were assuming. The two most

¹⁰ The instrument used in this experiment was approved by the university's Institutional Review Board (IRB) on October 23, 2008 prior to the administration of the first test.

frequently missed questions relates to whether or not a PCAOB inspection was conducted, and whether or not the auditing firm had a deficiency. Also, three individuals did not complete all questions in the demographic section.

Procedure

Student participants who voluntarily agree to participate in the experiment were randomly assigned one of the five experimental conditions. Participants were assured of their anonymity and controls were in place to allow participants to complete one section at a time in the order presented. The instrument was administered, and instructions read, to the participants by the author. The participants read the case materials in Section I and answered the questions in the remaining sections. Participants were not given the opportunity to view or make changes to previous sections once those sections were completed and the participants had moved on to the background/manipulation check section.

Variables and Data

The nine questions in Section II of the instrument form the dependent variables. The first six questions measure the participants' perception of overall audit quality (AUDQUAL), defined as a function of auditor competence (COMP), and auditor independence (INDEP). The next two questions measure the participants' perception of financial statement reliability (FSRELY). The last question in Section II asked participants whether or not they would recommend (RECOM) CPA Firm A to conduct the audit. The independent variable, INSPECTION, manipulated at five levels, indicates whether or not the applicant has undergone a PCAOB inspection, and the nature of the deficiencies identified by the PCAOB during the inspection.

The scores on responses from section IV formed the control variables. Based on prior research and the nature of my experiment, I include the following control variables or covariates in

my models. The participants' age (AGE), gender (GENDER), level of education (EDUCATION), and the number of years the participants were employed (WORKEXP) are frequently utilized in behavioral research between-subject designs, because they have been found to affect an individual's perception (the dependent variable). Additionally, certain attributes of the participant as well as his/her level of exposure, and/or knowledge of the PCAOB, and the PCAOB inspection report may also affect the participant's perception of audit quality, and financial statement reliability. Consequently, I use the following covariates in the models: whether the participant is a certified public accountant or not (CPA), whether he/she has ever read a PCAOB inspection report or not (READRPT), whether the participant is aware that the inspection report has a public and non-public section (AWARESECT), and the participant's degree of familiarity with the PCAOB (FAMPCAOB). Additionally, because this experiment employs student subjects in various fields of study, I categorize the students in two groups of accounting and non-accounting students (CLASS¹¹). All variables used in this paper are summarized and described in Table 2.

Figure 2 presents a visual representation of the research design. The independent variable INSPECTION was manipulated at five different levels with no PCAOB inspection as the control group. Each manipulation of the independent variable provides a different contrast by which all nine hypotheses were tested (refer to Figure 2). Contrast 1 (H1 and H3) tests whether perceptions of audit quality, and financial statement reliability are higher in the presence of a PCAOB inspection (INSPECT). Contrast 2 (H2 and H4) tests whether perceptions of audit quality and financial statement reliability, are lower in the presence of PCAOB inspection deficiencies (DEFECT). Lastly, contrast 3 (H5 and H6) tests whether perceptions of audit quality and financial

¹¹ A question relating to this variable is not included in the instrument because it is not applicable to audit committee members. This variable was formed based upon the class in which the students were enrolled when they participated in the study. The four categories are Management, Accounting (non-tax), Quantitative Research Methods, and Tax.

statement reliability are lower in the presence of PCAOB inspection quality control deficiencies (QCDEFECT). At each contrast level, whether or not the audit committee recommends the accounting firm (H7, H8, H9) is tested.

I compare differences among means using one-way analysis of variance (ANOVA), and covariance (ANCOVA) to test hypotheses 1 through 6¹². I also use Logistic regression to test hypotheses 7, 8 and 9 of whether to recommend (coded “1”), or not to recommend (coded “0”) the accounting firm, while controlling for the perceptions of audit quality, and financial statement reliability. I include AUDQUAL and FSRELY as control variables in the logistic regressions because audit committees’ perception of audit quality and financial statement reliability may affect their decision to recommend the auditor.

V. RESULTS

Factor Analysis

While the items in the instrument are hypotheses-driven, I conduct an exploratory factor analysis to assess whether the items load as intended. I employ the principal-axis method with oblique rotation (direct oblimin) and find that the items load best on three factors with seven of the eight questions loading favorably (range: 0.477 to 0.925) on a given factor¹³. Table 3 presents the results of the factor loading by item number. Question item number 5 did not load on any factor so it was discarded. It asks participants, “*How confident are you that the overall quality of the audit conducted by CPA Firm A will be high?*” The scores of the three latent factors formed the dependent variables: COMP, INDEP, and FSRELY. Based on DeAngelo’s (1981) definition of

¹² Since the dependent variables are related, multiple analysis of variance (MANOVA) and covariance (MANCOVA) were also employed to compare the mean difference among the various groups, but the results did not change.

¹³ Principal component analysis with varimax rotation also converges similarly on three factors. The scree test also confirms a three-factor solution.

audit quality perception, I form a fourth dependent variable, AUDQUAL equal to the composite scores of COMP and INDEP. Reliability of the measurement scale using the seven usable items has an overall Cronbach's alpha of 0.747 with reliability greater than 0.673 for each subscale.

Descriptive Statistics

Descriptive statistics partitioned by the dependent variables and treatment levels are shown in Table 4. Examination of this table reveals no significant differences among the five groups. The means and medians of each dependent variable are consistent across groups. For example, the mean (median) for COMP across the five treatment groups are 7.06 (7.0), 6.61 (7.0), 6.79 (7.0), 7.04 (7.0), 6.18 (6.0), respectively. Table 5 provides the descriptive statistics across treatment levels for the independent and control variables. There is little variability in participants' attributes among the groups; therefore, the groups' homogeneity is not a contributing factor to the lack of significance among group means. The mean (median) in years from which the variable AGE is derived are 29 (26) and ranges between 21 to 70 years (not tabulated). Also, the mean (median) in years from which the variable WORKEXP is derived is 7(4) and ranges between 0 to 45 years (not tabulated).

Table 6 presents Pearson (Spearman) correlation coefficients above (below) the diagonal for all variables used in my analyses. The correlations reveal low to moderate correlations between the independent variables with few significant correlations. Two positive and significant correlations are between READRPT and FAMPCAOB of 0.689 and AGE and WORKEXP of 0.637. Intuitively, it makes sense for these variables to be correlated, because as one reads the PCAOB reports they will become more familiar with the PCAOB, and vice versa. However, the variables are measuring different aspects of the PCAOB inspection. Similarly, as one ages they are more likely to have more work experience. Overall the correlations suggest that

multicollinearity is not a problem in my data. In addition, inspection of the variance inflation factors (VIFs) and tolerance values confirm that all values are within acceptable levels¹⁴.

Audit Quality and Financial Statement Reliability

All differences in means tests are conducted with AUDQUAL and FSRELY as the main (hypothesized) dependent variables. However, as a sensitivity analysis, I also conduct differences in means tests with COMP and INDEP (the two components of AUDQUAL) as additional dependent variables and present all results.

Table 7, Panel A presents the ANOVA results for the dependent variables AUDQUAL, FSRELY, COMP, INDEP with the independent variable, INSPECTION. The results presented show that I was unable to find any significant difference between INSPECTION and each of the three dependent variables. Since the dependent variables are related and significantly correlated, the most appropriate statistical analysis is MANOVA. However, there are controversies in statistics regarding the use and power of MANOVA (Field 2005). Alternatively, I conduct separate ANOVAs for each dependent variable and use Tukey correction to control for inflated error rates caused by conducting several ANOVAs on the same data. As a sensitivity test, I also conduct a MANOVA with the dependent variables, but the results did not change.

Table 7, Panel B presents the results of the three planned contrasts per dependent variable. Assuming equal variances among contrast groups, I was unable to find significant results for contrast 1, contrasts 2, or contrast 3 for any of the dependent variables. Contrast 3 compares the means of Group E (both QC deficiencies and audit deficiencies) and Group C (audit deficiencies only). As this comparison may introduce noise into the model due the inclusion of audit

¹⁴ The highest VIF in the data is 2.29. The literature (Myers 1990, Menard 1995) suggests that VIFs greater than 10.0 and tolerance values less than 0.2 are problematic.

deficiencies in both groups; I compare the means of Group D (QC deficiency only) and Group C, as a sensitivity test. However, the results did not change. Consequently, I did not find support for hypotheses 1 through 6. I assert that the lack of results is most likely due to inexperienced subjects and low power. I expect to find significant results when target participants are employed.

Table 8 presents the results of the ANCOVA models, including INSPECTION and the covariates with each dependent variable. The overall model is not statistically significant for dependent variables AUDQUAL, COMP, and INDEP (results not shown). However, Table 8 shows that the independent variable and most of the covariates are also not statistically significant; however, AGE is significant at 0.05 level (p-value = 0.047) for dependent variable INDEP, and moderately significant at 0.10 level (p-value = 0.099) for dependent variable AUDQUAL.

Table 8 also presents the ANCOVA results for the dependent variable, FSRELY, which includes AUDQUAL as a covariate because the perception of financial statement reliability is affected by one's perception of audit quality. The overall model for FSRELY is statistically significant (not shown) at 0.01 level of significance ($p < 0.0001$). However, the independent variable, INSPECTION, and most of the other covariates are not statistically significant, except for AUDQUAL and AWARESECT, which are statistically significant at 0.01 level ($p < 0.0001$), and moderately significant at the 0.10 level (p-value = 0.099), respectively. As a sensitivity analysis, I conduct an ANCOVA test with AUDQUAL as the only covariate in the FSRELY model, but the results did not change. That is, the overall model and AUDQUAL are significant at the 0.01 level (p-values < 0.0001) but INSPECTION is not statistically significant (results not tabulated). Intuitively, the covariates appear to be relevant and should correlate with the perceptions of AUDQUAL, FSRELY, COMP, INDEP, as predicted. However, I maintain that the

use of student subjects as proxy for audit committee members is negatively affecting the results of this study.

Recommendation Results

To test hypotheses 7 through 9, I perform logistic regression on the variable RECOM, which equals 1 if the respondent recommends the auditor and 0 otherwise. Table 9 reports the parameter estimates and the corresponding significance levels for the three logistic regressions in column A, column B and column C, while controlling for AUDQUAL, FSRELY, and other control variables that may affect the respondents' decision. The Hosmer and Lemeshow test statistics (not tabulated) for all contrasts are insignificant, which implies that the model provides a good fit for the data. The pseudo r-squares are 26.42 percent, 28.47 percent, and 32.29 percent for INSPECT, DEFECT, and QCDEFECT, respectively.

I find positive and significant results for audit quality and financial statement reliability perceptions across all three regressions at $p < 0.01$, except in the QCDEFECT regression, where AUDQUAL is moderately significant at 0.10 level ($p = 0.088$). These results suggest that the perceptions of audit quality and financial statement reliability are an integral part of audit committees' decision making process. I also find negative and significant results at the 0.05 level in the QCDEFECT regression ($p = 0.042$) suggesting that the surrogates for audit committee members considers the nature of the PCAOB inspection deficiency in its decisions. Therefore, H9 is supported.

As a sensitivity analysis, I test the association between RECOM and QCDEFECT after removing any possible noise effects from the model by allowing QCDEFECT to equal one if the audit firm has *only* QC deficiencies (no audit deficiencies-Group D) and 0 otherwise. The results of this model (not shown) provides a pseudo r-square of 41.83 percent and reports a significantly

negative coefficient on QCDEFECT at 0.05 level ($p=0.013$). I also find a positive and significant coefficient on FSRELY at 0.01 level ($p=0.008$), but the coefficient on AUDQUAL is no longer statistically significant ($p=0.581$).

I did not find any significant association between RECOM and INSPECT, and between RECOM and DEFECT. These results suggest that the PCAOB inspection, or the mere presence of PCAOB deficiencies, may not be important contributors in the participants' decision making processes. Therefore, H7 and H8 are not supported. The lack of results could be due to the model, measurement error, or the lack of experienced participants. None of the control variables are statistically significant across the three regressions.

VI. CONCLUSION

The objective of this experiment is to determine whether the PCAOB inspection is perceived to be a signal of audit/auditor quality and financial statement reliability, and whether audit committee members of triennial firms use the PCAOB inspection in their decision to hire an external auditor. In this paper I use master level students as proxy for audit committee members. However, the scores from this test do not provide completely successful results. I did not find any significant differences among the five different levels of inspection. However, I find evidence which suggests that surrogates for audit committee members consider the nature of the PCAOB inspection deficiencies in their decision making process. One plausible explanation for the lack of evidence to support hypotheses H1 to H8 is the inadequacy of student subjects as proxies for audit committee members. Other possibilities may be research design and measurement errors.

When this study is conducted using actual audit committee members as participants, I expect to find more significant results. These target participants will be more knowledgeable about the PCAOB, the inspection process, and the nature of the deficiencies identified during an

inspection. This degree of knowledge will add variability to the responses, which will be more suitable for statistical analyses. Additionally, one of the background questions presented in the instrument is specific to audit committee members, and could not be analyzed using student subjects. The question asks participants to indicate their level of experience in various capacities of corporate governance in a variety of organizations. All students responded '0' to all nine parts of this question.

Statistically significant results using audit committee members will add to the auditing literature by providing another viable proxy for perceived audit/auditor quality, and perceived financial statement reliability. Additionally, it will provide useful insights as to the benefits of the PCAOB, which will be of interest to public companies, investors, regulators and public accounting firms.

Due to the importance of this research question, some of the limitations of this study must be addressed in order to improve the impact of the experiment. First, an adequate number of appropriate target participants (audit committee members) must be employed for this experiment. I plan on acquiring audit committee members as participants for my study from one of three sources, the National Association of Corporate Directors (NACD), the KPMG Audit Committee Institute, and the Financial Executive Institute (FEI). Second, a larger number of items depicting audit quality must be assembled and factor analyzed to reduce possible measurement errors and obtain a more reliable scale capturing the various dimensions of audit quality. Despite these limitations, this initial study provides evidence that surrogates for audit committee members consider the nature of the PCAOB inspection deficiencies in their hiring of external auditors. This result suggests that they perceive the PCAOB inspection as a signal of audit/auditor quality, and financial statement reliability. I will further explore this line of research by including some

measures of risks (e.g. clients' risk, audit committees' risk exposures), and/or agency costs into the research design.

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Table 1
Sample Selection Summary

	<u>Total Observation</u>
Total number of participants (cases)	189
Less:	
Participants who missed Manipulation Check Questions	(38)
Other missing data	(3)
Total number of cases used in final analysis	<u>148</u>

Table 2 – Variable Descriptions

VARIABLES	DEFINITION
<i><u>Dependent Variables:</u></i>	
COMP	Is a measure of the participant’s level of confidence, composite of 2 items each measured on a 5-point Likert-type scale with 1=no confidence and 5=extreme confidence, that the CPA firm will identify all significant deficiencies in internal control and internal control weaknesses that could lead to material misstatements in the Company’s financial statements and related disclosures (Max score =10).
INDEP	Is a measure of the participant’s level of confidence, composite of 3 items each measured on a 5-point Likert-type scale with 1=no confidence and 5=extreme confidence, that the CPA firm is independent from the client and will conduct the audit so that the financial statements will present fairly, in all material respects, the financial position of the Company (Max score =15).
AUDQUAL	Is a composite score of COMP (2 items) and INDEP (3 items) and measures the participant’s perception of overall audit quality (Max score =25).
FSRELY	Is a measure of the participant’s level of confidence, composite of 2 items measured on a 5-point Likert-type scale with 1=no confidence and 5=extreme confidence, that the CPA firm is independent from the client and will conduct the audit so that the financial statements will present fairly, in all material respects, the financial position of the Company (Max score =10).
RECOM	Indicator variable equal to 1 if the audit committee (participant) recommends the auditor, and 0 otherwise.
<i><u>Level of Independent Variable (INSPECTION):</u></i>	
INSPECT	Indicator variable equal to 1 if the audit firm has undergone a PCAOB inspection, and 0 otherwise.
DEFECT	Indicator variable equal to 1 if the audit firm has PCAOB inspection deficiencies, and 0 otherwise.
QCDEFECT	Indicator variable equal to 1 if the audit firm has PCAOB inspection quality control deficiencies, and 0 otherwise.
<i><u>Control Variables:</u></i>	
AGE	Indicator variable equal to 1 if the participant is older than 25 years, and 0 otherwise.
GENDER	Indicator variable equal to 1 if the participant is male, and 0 otherwise.
EDUCATION	Indicator variable equal to 1 if the participant has a Masters degree or higher, and 0 otherwise.
WORKEXP	Indicator variable equal to 1 if the participant has more than 5 years full-time work experience, and 0 otherwise.
CPA	Indicator variable equal to 1 if the participant is a CPA, and 0 otherwise.
READRPT	Indicator variable equal to 1 if the participant has ever read a PCAOB inspection report, and 0 otherwise.
AWARESECT	Indicator variable equal to 1 if the participant is aware that the PCAOB inspection report has a public and non-public section, and 0 otherwise.
FAMPCAOB	Is a composite score of the participant’s level of familiarity with the PCAOB and the PCAOB inspection report each measured on a 5-point Likert-type scale with 1=not familiar and 5=very familiar.
CLASS	Indicator variable equal to 1 if the participant conducted the experiment while in an accounting class, and 0 otherwise.

Table 3
Multidimensional Audit Quality^a and Financial Statement Reliability

Item Number	Question Items	Factor Loading
Factor: Competence (COMP^b) $\alpha = 0.791$		
7	How confident are you that CPA Firm A will identify all significant deficiencies in internal controls?	0.925
8	How confident are you that CPA Firm A will identify all internal control weaknesses that could lead to material misstatements in VLB Corp's financial statement and related disclosures.	0.629
Factor : Independence (INDEP^b) $\alpha = 0.674$		
3	How confident are you that CPA Firm A is independent (that is, <i>the ability to appear objective, unbiased and likely to disclose a financial reporting problem if one exists</i>) in performing the audit?	0.776
4	How confident are you that CPA Firm A will be independent from the influence of the firm's management?	0.693
6	How confident are you that <i>investors</i> will perceive the audit conducted by CPA Firm A, as high quality?	0.477
Factor: Financial Statement Reliability (FSRELY^b) $\alpha = 0.689$		
1	How confident are you that CPA Firm A will conduct the audit so that VLB Corp.'s financial statements are free of material effects of fraud?	0.594
2	How confident are you that CPA Firm A will conduct the audit so that VLB Corp.'s financial statements will present fairly, in all material respects, the financial position of the Company?	0.826

^b Variable definitions are presented in Table 2

Overall Cronbach's alpha (α) = 0.747

^a The construct for audit quality construct is the composite scores of auditor's competence and auditor's independence.

Table 4
Descriptive Statistics of ANOVA Dependent Variables
(N=148)

Mean, Median (Standard Deviation) of Dependent Variables^a by Treatment Level

	TREATMENT LEVELS				
	N=33	N=31	N=28	N=28	N=28
	No Inspection	No Deficiencies	Audit Deficiencies Only	QC Deficiencies Only	Audit and QC Deficiencies
AUDQUAL	18.12	17.84	17.86	18.00	17.07
	18.00	18.00	18.00	17.00	18.00
	(2.25)	(2.72)	(2.88)	(3.40)	(3.03)
FSRELY	7.36	7.77	7.74	7.68	7.11
	8.00	8.00	8.00	8.00	8.00
	(1.29)	(0.845)	(1.25)	(1.22)	(1.23)
COMP	7.06	6.61	6.79	7.04	6.18
	7.00	7.00	7.00	7.00	6.00
	(1.39)	(1.58)	(1.37)	(1.77)	(1.66)
INDEP	11.06	11.23	11.07	10.96	10.89
	11.00	12.00	11.00	11.00	11.00
	(1.64)	(2.08)	(2.02)	(2.25)	(1.93)

QC=Quality control. The mean (using one-way ANOVA) and median (using Wilcoxon rank sum test) are not significantly different between groups at the 0.05 level.

^a Dependent variables are defined as follows: **AUDQUAL** is a composite score of **COMP** (2 items) and **INDEP** (3 items) and measures the participant's perception of overall audit quality (Max score =25). **FSRELY** is a measure of the participant's level of confidence, composite of 2 items measured on a 5-point Likert-type scale with 1=no confidence and 5=extreme confidence, that the CPA firm is independent from the client and will conduct the audit so that the financial statements will present fairly, in all material respects, the financial position of the Company (Max score =10). **COMP** is a measure of the participant's level of confidence, composite of 2 items each measured on a 5-point Likert-type scale with 1=no confidence and 5=extreme confidence, that the CPA firm will identify all significant deficiencies in internal control and internal control weaknesses that could lead to material misstatements in the Company's financial statements and related disclosures (Max score =10). **INDEP** is a measure of the participant's level of confidence, composite of 3 items each measured on a 5-point Likert-type scale with 1=no confidence and 5=extreme confidence, that the CPA firm is independent from the client and will conduct the audit so that the financial statements will present fairly, in all material respects, the financial position of the Company (Max score =15).

Table 5
Descriptive Statistics of Independent and Control Variables^a by Treatment Level

	TREATMENT LEVELS					Total
	No Inspection	No Deficiency	Audit Deficiency Only	QC Deficiency Only	Audit and QC Deficiency	
Categorical Variables: Frequency Distribution						
INSPECTION	33	31	28	28	28	148
GENDER						
Male	19	17	15	18	15	84
Female	14	14	13	10	13	64
AGE						
Older than 26 years	18	17	13	9	17	74
26 years or younger	15	14	15	19	11	74
EDUCATION						
Masters degree	9	9	10	5	11	44
Bachelors degree	24	22	18	23	17	104
WORKEXP						
Greater than 4 years	14	10	13	20	12	69
4 years or less	19	21	15	8	16	79
CPA						
Yes	3	3	0	3	2	11
No	30	28	28	25	26	137
READRPT						
Yes	4	8	5	2	3	22
No	29	23	23	26	25	126
AWARESECT						
Yes	4	13	6	3	6	32
No	29	18	22	25	22	116
CLASS						
Accounting	20	18	18	17	18	91
Non-Accounting	13	13	10	11	10	57
Continuous Variable: Mean and Standard Deviation						
FAMPCAOB						
Mean	3.64	4.55	3.63	3.75	3.93	3.92
Standard. Deviation	1.90	2.05	1.90	1.65	2.05	1.93

^a Variable definitions are presented in Table 2.

Table 6
Pearson/Spearman Correlation Coefficients

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1. FSRELY	1	.462**	.298**	.461**	-.001	.014	.129	.016	-.031	-.023	-.008	.014	-.040	.043	-.151	.014
2. COMP	.469**	1	.287**	.751**	-.052	.008	-.019	-.012	-.106	.035	.119	.074	-.026	-.109	.015	-.052
3. INDEP	.301**	.241**	1	.848**	.033	.068	.113	-.042	.078	-.156	-.057	.005	.022	-.004	-.054	-.033
4. AUDQUAL	.430**	.685**	.843**	1	-.006	.051	.068	-.036	-.004	-.088	.026	.044	.001	-.063	-.029	-.049
5. CPA	-.034	-.057	.012	-.012	1	-.046	-.086	.143	.079	.129	.148	-.252**	.154	-.034	-.065	.178
6. READRPT	.009	.034	.097	.068	-.046	1	.426**	-.134	.689**	.000	-.009	.057	.185	.041	-.170	-.162
7. AWARESECT	.118	.004	.142	.091	-.086	.423**	1	-.105	.483**	-.164*	-.195*	.045	-.090	.124	-.249*	-.066
8. GENDER	.015	-.026	-.052	-.074	.143	-.134	-.105	1	-.129	.109	.160	-.046	.031	-.009	.021	.051
9. FAMPCAOB	-.050	-.049	.115	.045	.084	.592**	.426**	-.124	1	-.042	-.130	.097	.066	.079	-.173	.032
10. AGE	-.009	.010	-.170*	-.120	.129	-.019	-.164*	.109	-.047	1	.637**	.042	.296**	.049	.075	.000
11. WORKEXP	.028	.083	-.087	-.019	.148	-.009	-.195*	.160	-.133	.637**	1	.044	.192*	.045	.189*	-.101
12. CLASS	.015	.058	-.018	.000	-.252**	.057	.045	-.046	.106	.042	.044	1	-.123	.010	.046	-.017
13. EDUCATION	-.015	-.032	.011	.016	.154	.185	-.090	.031	.062	.296**	.192*	-.123	1	.029	.019	-.073
14. INSPECT	.071	-.081	-.009	-.028	-.034	.041	.124	-.009	.079	.049	.045	.010	.029	1	.(a)	.(a)
15. DEFECT	-.159	-.010	-.081	-.049	-.065	-.170*	-.249**	.021	-.163	.075	.189(*)	.046	.019	.	1	.(a)
16. QCDEFECT	.011	-.093	-.041	.089	.178	-.129	-.066	.051	.038	.000	.101	-.017	-.073	.	.	1

** Correlation is significant at the 0.01 level, and * correlation is significant at the 0.05 level (2-tailed). a Cannot be computed because at least one of the variables is constant. Pearson correlations are listed above the diagonal, Spearman correlations are listed below the diagonal.

^a Variable definitions are presented in Table 2.

Table 7
Statistical Test of Between-Subjects Effects

Panel A: Tests of Between-Subject Effects: INSPECTION

		Sum of Squares	Degrees of freedom	Mean Square	F	Sig. (2-tailed)
AUDQUAL	Between Groups	19.512	4	4.878	0.598	0.665
	Within Groups	1166.994	143	8.161		
	Total	1186.507	147			
FSRELY	Between Groups	8.487	4	2.122	1.530	0.197
	Within Groups	198.270	143	1.387		
	Total	206.757	147			
COMP ^a	Between Groups	15.224	4	3.806	1.568	0.186
	Within Groups	347.019	143	2.427		
	Total	362.243	147			
INDEP ^a	Between Groups	1.871	4	.468	0.119	0.976
	Within Groups	562.798	143	3.936		
	Total	564.669	147			

Panel B: Tests of Between-Subject Effects using Planned Contrasts

	Hypotheses	Contrast	Value of Contrast	Std. Error	T	Degrees of freedom	Sig. (2-tailed) a
AUDQUAL	H1:+	1	-1.7176	2.25707	-0.761	143	0.448
	H2: -	2	-0.5876	1.80101	-0.326	143	0.745
	H5: -	3	-0.6429	1.32240	-0.486	143	0.628
FSRELY	H3:+	1	0.4625	.93034	0.497	143	0.620
	H4: -	2	-1.1797	.74235	-1.589	143	0.114
	H6: -	3	0.0714	.54508	0.131	143	0.896
COMP	a	1	-1.6295	1.23080	-1.324	143	0.188
		2	0.1613	0.98211	0.164	143	0.870
		3	-0.3571	0.72112	-0.495	143	0.621
INDEP	a	1	-0.0880	1.56743	-0.056	143	0.955
		2	-0.7488	1.25071	-0.599	143	0.550
		3	-0.2857	.91834	-0.311	143	0.756

Variable definitions are presented in Table 2. Contrast 1 = Inspected vs. not inspected groups. Contrast 2 = No Deficiency vs. Deficiency Groups. Contrast 3 = No QC Deficiency vs. QC Deficiency groups. ^a COMP and INDEP are not hypothesized, sensitivity analysis was conducted on these variables.

Table 8
ANCOVA Results

Variable ^a N=148	AUDQUAL	FSRELY	COMP	INDEP
	Coefficient <i>p -value^b</i>	Coefficient <i>p -value^b</i>	Coefficient <i>p -value^b</i>	Coefficient <i>p -value^b</i>
Intercept	18.633 <i><0.0001</i>	4.202 <i><0.0001</i>	7.462 <i><0.0001</i>	11.171 <i><0.0001</i>
CPA	0.248 <i>0.802</i>	0.101 <i>0.784</i>	-0.131 <i>0.808</i>	0.379 <i>0.577</i>
READRPT	0.424 <i>0.667</i>	0.048 <i>0.896</i>	0.484 <i>0.370</i>	-0.060 <i>0.930</i>
AWARESECT	0.552 <i>0.422</i>	0.426 <i>0.099</i>	0.120 <i>0.748</i>	0.431 <i>0.361</i>
GENDER	-0.209 <i>0.671</i>	0.081 <i>0.660</i>	-0.097 <i>0.720</i>	-0.113 <i>0.740</i>
FAMPCAOB	-0.123 <i>0.508</i>	-0.067 <i>0.337</i>	-0.153 <i>0.136</i>	0.029 <i>0.820</i>
AGE	-1.054 <i>0.099</i>	0.182 <i>0.450</i>	-0.176 <i>0.613</i>	-0.878 <i>0.047</i>
WORKEXP	0.876 <i>0.174</i>	-0.128 <i>0.599</i>	0.511 <i>0.148</i>	0.365 <i>0.409</i>
CLASS	0.342 <i>0.507</i>	-0.003 <i>0.987</i>	0.236 <i>0.403</i>	0.106 <i>0.765</i>
EDUCATION	0.238 <i>0.677</i>	-0.102 <i>0.634</i>	-0.091 <i>0.770</i>	0.329 <i>0.402</i>
INSPECTION	-0.207 <i>0.222</i>	-0.011 <i>0.864</i>	-0.145 <i>0.119</i>	-0.062 <i>0.594</i>
AUDQUAL		0.191 <i><0.0001</i>		

^a Variable definitions are presented in Table 2.

^b p-values of the estimated parameters are reported in italics.

Table 9
Logistic Regression Results

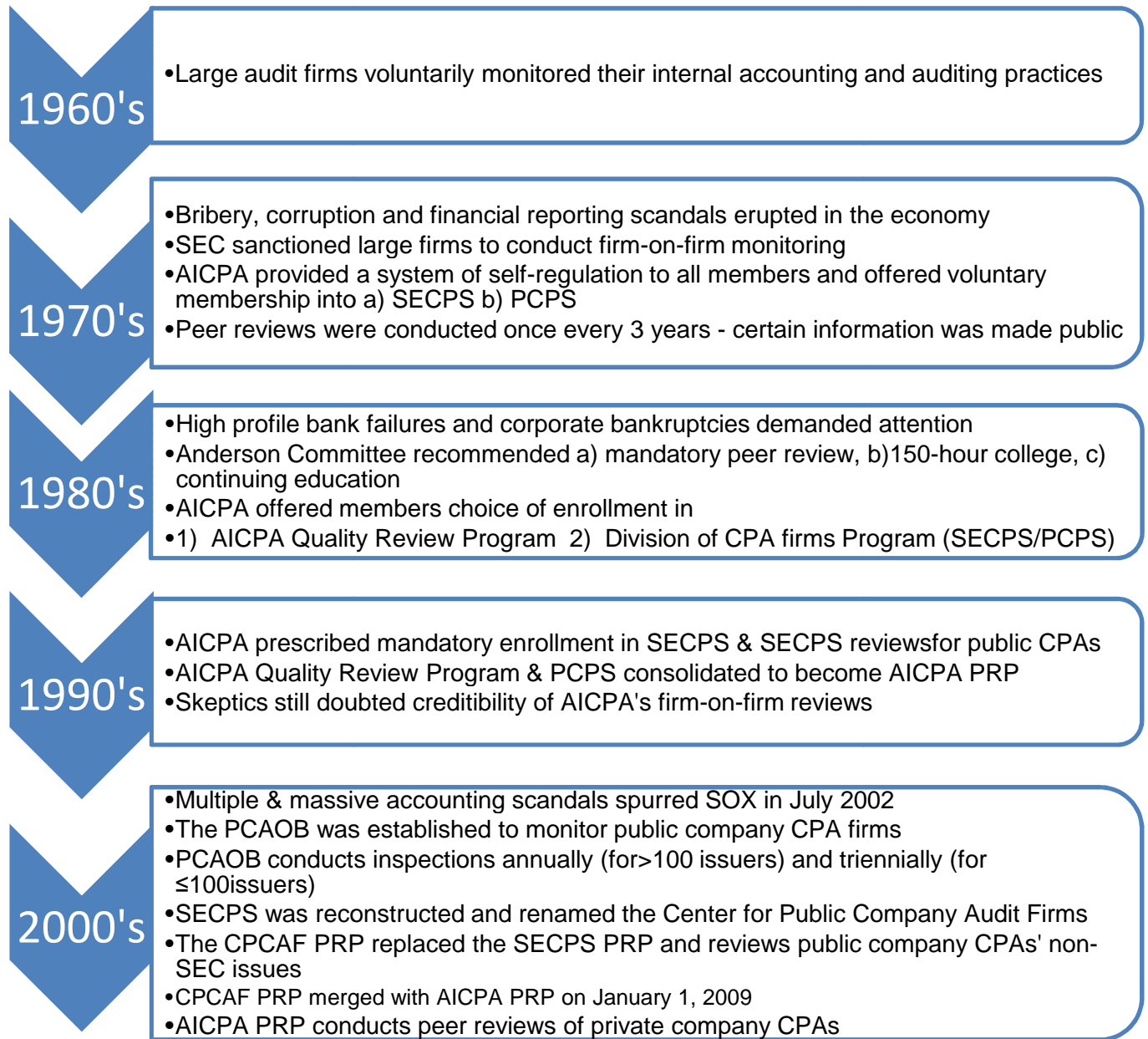
$$\text{Prob}_i(\text{RECOM}=1) = F(\beta_0 + \beta_1\text{INSPECTION} + \beta_2\text{CPA} + \beta_3\text{READRPT} + \beta_4\text{AWARESECT} + \beta_5\text{GENDER} + \beta_6\text{FAMPCAOB} + \beta_7\text{AGE} + \beta_8\text{WORKEXP} + \beta_9\text{CLASS} + \beta_{10}\text{EDUCATION} + \beta_{11}\text{AUDQUAL} + \beta_{12}\text{FSRELY})$$

Variable ^a N=148	Predicted Sign	Column A INSPECT		Column B DEFECT		Column C QCDEFECT	
		Coefficient	<i>p - value^b</i>	Coefficient	<i>p - value^b</i>	Coefficient	<i>p - value^b</i>
Intercept		-9.305	<i><0.0001</i>	-7.182	<i>0.004</i>	-6.248	<i>0.013</i>
CPA	+	-0.490	<i>0.587</i>	-0.673	<i>0.534</i>	-0.758	<i>0.557</i>
READRPT	+	0.013	<i>0.990</i>	0.170	<i>0.885</i>	0.620	<i>0.667</i>
AWARESECT	+	-0.641	<i>0.388</i>	-0.352	<i>0.708</i>	-0.598	<i>0.592</i>
GENDER	?	-0.292	<i>0.551</i>	-0.507	<i>0.397</i>	-0.559	<i>0.432</i>
FAMPCAOB	+	0.126	<i>0.510</i>	0.090	<i>0.689</i>	0.160	<i>0.543</i>
AGE	+	-0.522	<i>0.409</i>	-0.700	<i>0.330</i>	-0.156	<i>0.847</i>
WORKEXP	+	-0.328	<i>0.598</i>	-0.108	<i>0.884</i>	-0.668	<i>0.430</i>
CLASS	+	-0.541	<i>0.309</i>	-0.649	<i>0.292</i>	-0.967	<i>0.183</i>
EDUCATION	+	-0.132	<i>0.810</i>	-0.410	<i>0.524</i>	-0.530	<i>0.476</i>
AUDQUAL	+	0.291	<i>0.007</i>	0.303	<i>0.008</i>	0.198	<i>0.088</i>
FSRELY	+	0.844	<i>0.000</i>	0.687	<i>0.006</i>	0.840	<i>0.004</i>
INSPECT	H7: +	0.067	<i>0.904</i>				
DEFECT	H8: -			-0.929	<i>0.238</i>		
QCDEFECT	H9: -					-1.608	<i>0.042</i>
Pseudo R ²		0.2642		0.2847		0.3229	
Percent Concordant		84.70		86.60		85.60	

^a Variable definitions are presented in Table 2.

^b Chi-square p-values of the estimated parameters are reported in italics.

Figure 1
The History of Audit Firms' Monitoring Process



Source: http://www.aicpa.org/download/transparency/Position_Paper_Final.pdf. Retrieved 6/16/08

Notes

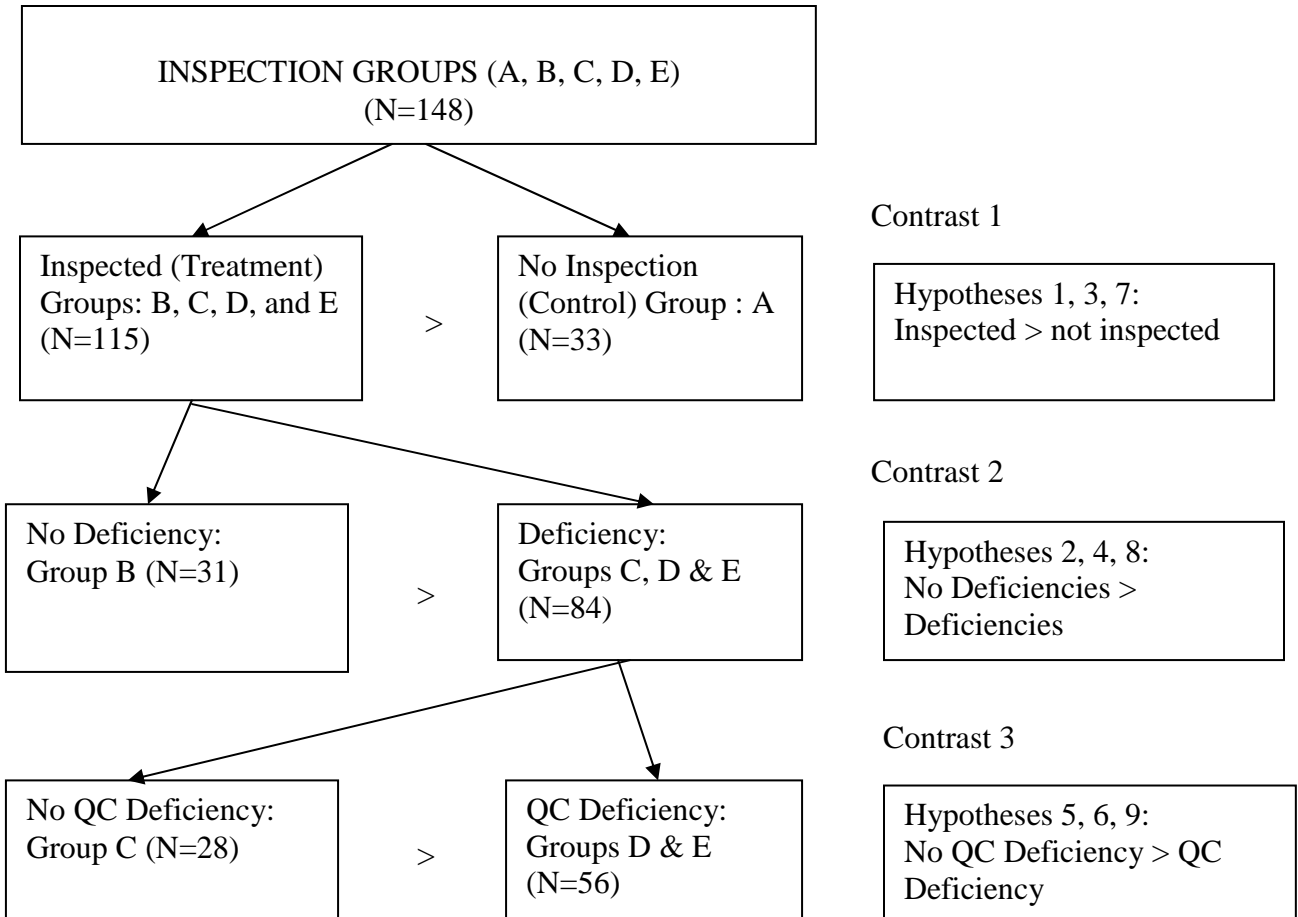
SECPS - Securities and Exchange Commission Practice Section

PCPS - Private Companies Practice Section

PRP – Peer Review Program

CPCAF – Center for Public Company Audit Firms

Figure 2 – Pictorial Representation of Hypotheses



Notes:

Group A (N=33) - No Inspection (Control), Group B (N=31) - Inspected with No Deficiencies, Group C (N=28) - Inspected with Audit Deficiencies Only, D (N=28) - Inspected with Quality Control (QC) Deficiencies Only, E (N=28) - Inspected with both Audit and QC Deficiencies.

Hypotheses 1, 2, 5 test perceptions of audit quality at each contrast level

Hypotheses 3, 4, 6 test perceptions of financial statement reliability at each contrast level

Hypotheses 7, 8, 9 test t at each contrast level