

Changes in Audit Committee Financial Expertise

By

Mike Braswell
School of Accountancy
College of Business
University of Missouri-Columbia
Columbia, MO 65211
jmbc59@mizzou.edu

Elaine Mauldin
School of Accountancy
College of Business
University of Missouri-Columbia
Columbia, MO 65211
mauldin@missouri.edu
(573) 884-0933

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Abstract : We examine audit committee members' financial expertise in the period surrounding implementation of Section 407 of the Sarbanes-Oxley Act of 2002. Prior research supports the importance of accounting expertise on the audit committee. However, the final rules implementing Section 407 continue to allow a broader definition of financial expertise that includes CEO / Presidents without direct accounting or finance experience. Given that financial expertise under this broader definition was already a listing requirement for the major stock exchanges, Section 407's only substantive change is a requirement that audit committee financial expertise be formally disclosed. Our findings provide evidence regarding the extent of firm reliance on the broader definition of expertise to meet the requirements of Section 407 and on whether disclosure alone encourages increases in accounting expertise in the spirit of Section 407.

For our sample of 195 firms of various sizes, we examine audit committee members' work experience backgrounds, based on proxy statement disclosures from 2002-2004. We find that firms did significantly increase the number of members with accounting experience subsequent to the passage of Section 407, consistent with agency theory predictions. We also find a large percent of firms have at least one CEO / President without accounting or finance experience on their audit committee and that this percent also increased subsequent to the passage of Section 407. We find a non-trivial percent of experts specifically identified by firms as experts are CEO / Presidents without accounting or finance experience, suggesting that many firms continue to rely on a broad definition of financial expertise for regulatory compliance.

Keywords : Audit committee, Financial expertise, Regulation

Data Availability: Data are available from sources identified in the paper.

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I. INTRODUCTION

The important role of financial expertise in enabling audit committees to effectively protect investors by preventing or detecting fraudulent financial reporting is commonly recognized by both academics (DeZoort, Hermanson and Archambeault 2002; DeFond, Han and Hu 2004) and practitioners (Levitt 1998). Although the need for financial expertise on audit committees is uncontroversial, an unresolved issue is how to define and implement greater financial expertise among members of audit committees. The purpose of this study is to examine changes in audit committee financial expertise surrounding the implementation of Section 407 of the Sarbanes-Oxley Act of 2002 (SOX 407) to determine the initial impact of disclosure regulation. The success of regulation in improving the financial reporting process depends on the degree to which change is realized (Klein 2003). We also examine the composition of financial expertise to determine how firms are defining financial expertise.

Prior research finds that audit committees with at least one member possessing accounting or related financial expertise are associated with positive financial reporting outcomes (McMullen and Raghunandan 1996; Archambeault and DeZoort 2001; Agrawal and Chadha 2003; Chtourou, Bedard and Courteau 2001) and that the market reacts favorably to the appointment of directors with accounting expertise to the audit committee (DeFond et al. 2004; Davidson, Xie and Xu 2004). Historically, audit committees were found lacking in sufficient accounting financial expertise (Lee and Stone 1997). As a result, the Blue Ribbon Commission on Improving the Effectiveness of Corporate Audit Committees (BRC), a collaborative effort between the New York Stock Exchange (NYSE) and the National Association of Securities Dealers (NASD), asserted that effective audit committees must be composed of at least one

member who possesses accounting or related financial management expertise (BRC 1999). All three major stock exchanges quickly adopted the recommendation and the SEC approved the changes in December 1999. However, concerns remained that the listing requirements would not adequately assure increased financial expertise because, in 2002, SOX 407 added a requirement for disclosure of a firm's audit committee financial expert.

SOX 407 also included a more elaborate definition of a financial expert. In the exchange listing requirements, the definition of a financial expert was left to the discretion of the board of directors (NYSE) or was quite broad (NASDAQ and AMEX). SOX 407 *proposed* financial expertise criteria attempted to narrow the definition to require explicit accounting or finance experience. Although some supported this definition (Livingston 2003) many did not and it became one of the most controversial aspects of SOX 407 (SEC 2003). In the end, the *final* rules continued to allow companies significant latitude in defining a financial expert. In particular, CEO / Presidents without direct accounting or finance experience are included in the definition because they supervise the accounting function. Supervision alone does not assure adequate depth of accounting understanding for an audit committee member (Plitch and Ceron 2003; Livingston 2003).

Because the primary change from the existing exchange requirements is increased disclosure and not substantive new requirements, it is unclear whether or not SOX 407 will result in increased financial expertise on audit committees. On the one hand, some concern is expressed that the audit committee expertise provisions are only window dressing and will not bring about changes in audit committee composition (Leone 2003). This concern is consistent with a socio-historical appraisal of the securities acts of 1933 and 1934 that finds the disclosure provisions only served to appease the public without changing the status quo (Marino and

Neimark 1982). On the other hand, agency theory suggests that firms may increase audit committee expertise in an effort to avoid agency costs that might be assigned to them by a market that is skeptical of the audit committee's ability to ensure transparent financial information. This argument is consistent with findings that disclosure increased compliance with corporate governance standards in the United Kingdom (Dyck and Zingales 2002). In light of these compelling yet opposing predictions, we look to archival data to gain insights into whether firms increased audit committee financial expertise after passage of SOX 407.

We examine audit committee member backgrounds as reported in proxy statements dated in 2002-2004. Our sample consists of 195 publicly traded firms randomly selected in approximately equal numbers from the S&P 500, S&P MidCap, and S&P SmallCap (as reported in the Investor Responsibility Research Center [IRRC] board practices database) to assure inclusion of a variety of firm size. Disclosures in 2002 related to 2001 are considered to reflect audit committee composition prior to the enactment of SOX 407 and disclosures in 2004 related to 2003 are considered to reflect audit committee composition after the required date for implementing the provisions of SOX 407. Disclosures in 2003 related to 2002 are used to determine whether firms voluntarily or proactively adopted the SOX 407 provisions in the face of impending regulatory action. Finally, we also compare economic characteristics of firms that do and do not make audit committee changes to determine under what conditions firms are more likely to change audit committee composition. These characteristics include other board characteristics, size, industry, market/book, debt/assets, and ROA.

We find that the percent of firms with at least one financial expert, narrowly defined as direct accounting experience consistent with prior research and the proposed regulations, significantly increased from 45 percent in 2001 to 49 percent in 2002 and 64 percent in 2003.

Multivariate analysis, controlling for firm size and industry, confirms that the increase is significant. Additional analysis indicates that the percent of firms with CEO / Presidents without accounting or finance experience also significantly increased in 2002 and 2003. We also find that larger firms are more likely to make a change and increase financial expertise in 2002 or 2003. Together these results are consistent with a positive influence of SOX 407, consistent with agency theory and in opposition to Marino and Niemark (1982). However, the results also suggest that many firms continue to rely on the weaker definition of financial expertise as CEO / President without direct accounting or finance experience for regulatory compliance, which may suggest inconsistent effectiveness of the disclosure provisions and a need to re-visit the definition of financial expertise.

The remainder of this paper is organized as follows. Section II presents background information on audit committee financial expertise and SOX 407 and presents competing arguments for why disclosure may or may not increase audit committee financial expertise. Section III describes the sample selection procedures and research design and Section IV presents the empirical findings. Section V discusses conclusions.

II. BACKGROUND AND THEORY

DeZoort et al. (2002) summarize a large body of empirical audit committee research and offer the following definition: “An effective audit committee has qualified members with the authority and resources to protect stakeholder interests by ensuring reliable financial reporting, internal controls, and risk management through its diligent oversight efforts” (40). DeZoort et al. (2002) also developed an organizing taxonomy for the determinants of audit committee effectiveness. The four determinants are authority, resources, diligence, and composition, including independence and expertise. In this study, we focus on the expertise of audit

committee members because even though prior research consistently demonstrates its importance to financial reporting outcomes, it remains unclear whether or not regulation is effective at increasing the financial expertise of audit committee members. In addition, the definition of financial expertise is quite broad and it is unclear how companies apply the definition to comply with regulation.

Research Relating Audit Committee Financial Expertise to Financial Reporting Outcomes

A growing body of research suggests that financial expertise impacts audit committee members' judgments and financial reporting-related outcomes. In an experiment examining audit committee affiliation in an auditor-management dispute, DeZoort and Salterio (2001) found that outside experience as senior management was positively associated with audit committee member judgments that supported management's position while audit knowledge was positively associated with support for the auditor. DeZoort (1998) found that audit committee members made better internal control judgments when they had auditing and internal control evaluation experience. McDaniel et al. (2002) compared judgments between audit managers, surrogates for audit committee members with financial expertise, and executive MBA students, surrogates for financially literate audit committee members. The study found that the experts' frameworks for evaluating financial reporting quality were more closely linked to theoretically appropriate characteristics from Statement of Accounting Concepts No. 2 and that experts were more likely to identify reporting concerns related to recurring, but less prominent issues. All three studies concluded that including financial experts on audit committees is likely to affect the committee's overall assessment of the quality of a company's financial reports.

In a survey of 114 chief internal auditors, Raghunandan et al. (2001) found that audit committees with at least one member with an accounting or finance background were reported

more likely to provide private access to the chief internal auditor and review internal audit proposals and results. In an experiment utilizing 60 internal auditors, Asare et al. (2003) found assessments of fraud risk were lower when the audit committee was composed of independent members with accounting expertise than when it was composed of members lacking these traits. Both results are consistent with the conclusion that including financial accounting experts on audit committees is likely to increase the control of the audit committee over management processes.

Finally, a number of archival studies examined the impact of financial expertise directly on a variety of financial reporting outcomes. McMullen and Raghunandan (1996) found that companies with financial reporting problems were less likely to have CPAs on the audit committee. Archambeault and DeZoort (2001) found that companies with suspicious auditor changes were less likely to have audit committee members with experience in accounting, auditing, or finance. Both Abbott et al. (2004) and Agrawal and Chadha (2003) found a negative association between audit committee financial expertise and restatements. Agrawal and Chadha (2003) defined financial expertise as direct accounting or finance background, consistent with the prior literature. Abbott et al. (2004) used a broader definition of financial expertise and included experience as a CEO or other senior manager with financial responsibilities without explicit accounting experience. However, the Abbott et al. (2004) results were weaker than Agrawal and Chadha (2003) indicating the possibility that the results were driven by accounting expertise that was not separately tested.

Xie et al. (2003) and Chtourou et al. (2001) found a negative association between discretionary accruals, a proxy for earnings management, and audit committee financial expertise. Again, the definitions of financial expertise varied. Xie et al. (2003) examined

financial sophistication defined as the number of outside corporate directors. Chtourou et al. (2001) used the more common definition of financial expertise, direct experience in accounting or finance. Finally, Bryan et al. (2004) documented a positive association between audit committee financial literacy and the informativeness of earnings, measured by the earnings response coefficient. Financial literacy was based on firms' proxy disclosures. The only exception to these positive financial reporting outcomes is a study by Anderson et al. (2003) that found an insignificant association between audit committee financial expertise and cost of debt. The definition of financial expertise was the common definition of accounting or finance experience.

Overall, prior research supports a link between audit committee financial expertise, audit committee expert judgments, improved control of management processes such as internal control and various positive financial reporting outcomes. In spite of the generally consistent evidence over the last ten years suggesting the importance of financial expertise on the audit committee, it is not clear that composition of audit committees includes an adequate number of financial experts. Lee and Stone (1997) studied 100 U.S. multinational companies and found a mismatch between stated audit committee responsibilities and audit committee members' level of accounting, auditing, and internal control-related experience. Cohen et al. (2002) conducted semi-structured interviews of practicing auditors and found that audit committees are often believed to lack the expertise to perform their job effectively. Because of increased recognition of the importance of audit committee financial expertise and the noted lack of expertise on many audit committees, the issue has come under increasing regulatory scrutiny.

History of Audit Committee Financial Expertise Regulation

Regulators have increasingly recognized the importance of forming and properly utilizing an audit committee of the board of directors for oversight of the public reporting process. In 1940, the SEC recommended that companies utilize audit committees (SEC 1940). In 1978, the NYSE began requiring listed firms to maintain an audit committee. In 1987, the Treadway Commission recognized the importance of the audit committee in restraining fraudulent financial reporting (NCFRR 1987, p. 183). As a result, in 1989, the NASDAQ also began requiring issuers to maintain an audit committee. In 1990, incorporating the Treadway Commission's recommendations, auditing standards formally included the audit committee as one of several factors that "constrain improper conduct by senior management" (AICPA 1990, AU316). In summary, prior to the 90s, regulation addressed only formation of audit committees, requiring a majority or 100 percent of the committee members to be independent of management. Audit committee member qualifications related to financial expertise were not specified.

Beginning in the late 1990s, concerns about the effectiveness of audit committee composition became increasingly prevalent. Former Chairman of the SEC, Arthur Levitt, raised concerns about the composition of audit committees, including the lack of financial expertise among members of the committee in his now famous speech, "The Numbers Game" (Levitt 1998). In a review of 150 proxies from 1998, only 22 percent of audit committees were found to have individuals with explicit finance or accounting backgrounds (Barr 1999), suggesting considerable weakness in audit committee composition and supporting Levitt's concern. Early in 1999, in response to these concerns, NYSE and NASD collaborated to form the BRC. The BRC's recommendations called for firms to establish audit committees that include at least three "financially literate" directors and include at least one "financial expert." Both exchanges, and

the AMEX quickly adopted the recommendations and the SEC approved the changes in December 1999.

In 2001 and 2002, a number of large accounting scandals were uncovered and, as a result, SOX was passed to improve corporate governance and the financial reporting process, including revisiting and strengthening the financial expertise requirements. SOX 407 included new provisions requiring registrants to disclose whether or not the audit committee includes at least one member who is considered a financial expert.

Definitions of Financial Expertise

A primary and controversial issue in developing regulation is the definition of financial expertise. The audit committee is expected to understand how accounting policies impact financial reports so they can assess the firm's accounting policies and effectively challenge management and the auditors when appropriate. As a result, and consistent with most of the prior research and practitioner concerns, the common definition of a financial expert includes direct accounting or finance background. However, the listing requirements defined financial expertise much more broadly. NYSE left the interpretation of financial expertise to the board. NASD and AMEX rules described a financial expert as having past employment or other comparable background such that an individual is financially sophisticated. In addition to work experience as a public accountant, auditor, principal financial or accounting officer or controller, the rules include being or having been a CEO or other senior executive with financial oversight responsibilities. Therefore, the listing requirements leave considerable latitude to companies in retaining an audit committee financial expert.

We expect that in 2001, prior to SOX 407 but after the BRC implementation, audit committees will include more CEO / Presidents without accounting or finance experience than

accounting experts. This expectation is based on a combination of three factors. First, there is a relatively low level of audit committee financial expertise prior to regulation (Lee and Stone 1997; Cohen 2002). Second, the traditional structure of the board is routinely composed of CEOs or Presidents of other publicly traded corporations such that there is a larger, more established pool of such candidates than of accounting experts. Third, as discussed above, the definition of financial expert allows considerable latitude. In combination, these factors suggest firms may find it expeditious to consider CEO / Presidents as financial experts, even without any prior accounting or finance experience. Although some CEO / Presidents may indeed be financial experts through supervising financial reporting, such supervision is often at a high level and relies upon the judgment of the accounting expert. Indeed, Plitch and Ceron (2003) suggest that the majority of CEOs would not refer to themselves as a financial expert. Livingston (2003) suggests that considering a CEO without accounting or finance experience a financial expert is like considering CFOs legal experts just because the law department reports to them.

Supporting this expectation of a continuing lack of accounting expertise on audit committees subsequent to the new listing requirements is the fact that legislators felt the need to strengthen the financial expertise requirements as seen in SOX 407. The SEC issued final rules implementing SOX 407 in January 2003 (SEC 2003). Companies registered with the SEC must comply with the rules by fiscal years ending after July 15 or December 15 of 2003, depending on their size. The rules state that the board of directors as a whole is the most appropriate body to make a determination of the financial expertise of audit committee members. Disclosures are required to be included in Part III of Form 10-K and may be included in the proxy statement. The company must disclose whether it has at least one audit committee member financial expert and name the audit committee member. If an expert is not included on the committee, the

company must explain why this is the case. The rules define a financial expert as a person who has the following attributes:

- An understanding of financial statements and generally accepted accounting principles (GAAP),
- The ability to assess the general application of GAAP,
- Experience preparing, auditing, analyzing, or evaluating financial statements with a comparable level of complexity of issues expected to be raised in the company's financial statements, or experience actively supervising persons engaged in such activities,
- An understanding of internal control procedures for financial reporting,
- An understanding of audit committee functions.

The *proposed* rules required that a person could be deemed a financial expert only if they obtained the above skills directly through education and experience with accounting or auditing. Due to the large number of negative comments the final rules were relaxed to include experience actively supervising persons performing these functions (SEC 2003). As a result, there continues to be considerable latitude in determining and declaring a financial expert. The primary, substantive change imposed by SOX 407 is the requirement to disclose the financial expert in the 10-K report. In the final rules for SOX 407, the SEC states that they expect many companies to be unable to meet the requirements unless they are able to attract a new director with the requisite qualifications (SEC 2003). Disclosure requirements alone may or may not be sufficient to stimulate such change.

Competing Arguments for Disclosure Effectiveness

Two arguments suggest that SOX 407 will not result in significant audit committee composition changes. First, the broader definition of financial expertise in SOX 407 could allow firms to meet the requirement by identifying an existing audit committee member as their financial expert. Second, some prior research documents the ineffective role of disclosure. Marino and Neimark (1982) suggest that disclosure regulation is often disguised as meaningful

reform while, in reality, it represents nothing more than a tool to appease public perceptions about the credibility of the market. Marino and Neimark (1982) examined several historical disclosure provisions, including those under the 1933 and 1934 securities acts. They concluded that these acts' disclosure requirements did nothing more than restore the investing public's confidence in an inherently flawed equity market system. The skeptical psyche of the investing public leading up to the 1933 and 1934 acts parallels the current environment. For example, stock ownership is pervasive among the American public and regulatory reform was triggered by significant declines in the stock market's value.

On the other hand, agency theory suggests that the disclosure provisions may be effective. Jensen and Meckling (1976) concluded that separation of ownership and control engenders the need for external monitoring of management. To the extent that a firm's operations result in sophisticated accounting transactions, agency costs arise during the financial reporting process. Fama and Jensen (1983) suggest that agency costs are a function of the size of the rift between decision controllers and decision managers. In the financial reporting setting, decision controllers (i.e., audit committee) attempt to assess the appropriateness of accounting decisions made by decision managers (i.e., management). If audit committee members lack financial accounting expertise, they may be inept at identifying non-transparent accounting issues resulting in relatively higher agency costs surrounding the financial reporting process.

SOX 407 disclosure requirements potentially force firms to realize these agency costs. For example, if an audit committee discloses that it only meets the minimal expertise requirements (e.g., CEO / President without accounting or finance experience), investors may downgrade their assessment of the quality of the firm's financial information and possibly increase the firm's cost of capital. Consequently, firms with minimal expertise prior to SOX 407

may have incentives to avoid potential agency cost implications by increasing the audit committee's financial expertise.

In addition, the level of attention given to corporate governance following the recent accounting scandals may enhance the effectiveness of disclosure. Because the investing public's appreciation for financial reporting oversight has increased, expected agency costs of non-compliance may also have increased. Dyck and Zingales (2002) examined the impact of disclosure on compliance with corporate governance standards in the United Kingdom during the 1990s and found the number of non-compliant firms decreased from 66% in 1992 to 7% in 1996 after required disclosure went into effect. The disclosure requirements followed a series of scandals and there was widespread media coverage of the issues. Compliance research suggests that social influence and perceived legitimacy of legislation predict conformity more than legal sanctions alone (Mayhew and Murphy 2004). Since SOX 407 was in response to widely publicized scandals, similar positive effects of disclosure may be found in the United States.

Given that it is unclear whether or not disclosure will be an effective regulatory tool, we examine changes in audit committee composition without specifying an expected directional effect. Finding increased accounting experts in 2003 would suggest SOX 407 is effective. Finding few changes as a result of SOX 407 and more CEO / Presidents without accounting or finance experience than accounting experts prior to SOX 407 would suggest that SOX 407 is not effective. Finding few changes and a majority of accounting experts prior to SOX 407 would suggest that SOX 407 is superfluous.

In addition, we examine the characteristics of companies who do change audit committee financial expertise. Firms with strong governance are associated with higher quality financial statement information, which suggests that these firms enjoy lower agency costs (Abbot, et. al

2002). Failing to demonstrate adequate compliance with financial expertise requirements via disclosure may increase the information risk associated with a firm's financial statements. Firms that have "earned" lower agency costs by adopting strong governance practices will seek to preserve their relatively low agency costs by maintaining or improving audit committee expertise. Given that the audit committee is a subset of the board of directors, it is reasonable to expect that firms with stronger overall board composition are more likely to either already have strong audit committee composition or to change their audit committee to improve the composition. Supporting this expectation, Beasley and Salterio (2001) found voluntary increases in audit committee knowledge and experience in Canadian firms were positively related to characteristics of the overall board, including size, proportion of outsiders on the board, and separation of board chair and CEO. In addition, Klein (2002) examines determinants of audit committee independence and, similarly, found a positive association between overall board size and independence and audit committee independence.

Klein (2002) also found a negative association between audit committee independence and growth opportunities and likelihood of prior losses. She attributes this relationship to the need for such firms to obtain expert information from inside or affiliated directors who are closer to the firms' complexities and uncertainties than an independent director. In the case of audit committee financial expertise, however, we expect the opposite relationship to hold such that the need for expert information will lead firms to include financial expertise on the audit committee. We also expect larger firms to have the ability and resources to locate an appropriate audit committee member and to be more likely to include more experts because of their more open information environment and their larger exposure to litigation.

III. SAMPLE SELECTION AND RESEARCH DESIGN

Sample Selection

We collected detail information on audit committee composition from proxy statements filed in the years 2002-2004. For each firm, we gathered the name and background data of each audit committee member. We coded the background based on positions held by each audit committee member. We coded as an accounting expert those individuals who had current or previous experience as VP of Finance, CFO, Controller, or other principal financial or accounting officer of a publicly traded company, or as a CPA in public practice. This classification is consistent with the SEC's proposed definition of a financial expert (SEC 2003). We coded as a CEO / President those individuals who had current or previous experience as a CEO or President of a publicly traded company, consistent with the SEC's final definition that includes experience actively supervising the accounting experts. We coded as a finance expert those individuals who had current or previous experience in investment banking, working at the SEC, loan/credit rating experience, or financial analyst experience. We include this classification because the final rules also consider as a financial expert individuals with experience analyzing or evaluating financial statements (SEC 2003). We coded as other all others.

For the data analysis presented, those individuals included initially in multiple categories were adjusted to reflect the following priority, accounting expert, finance expert, CEO / President. Therefore, some of the accounting experts are also CEO or Presidents, but the category CEO / President reflected in the results includes only CEO / Presidents without current or prior accounting or finance experience. We recognize that audit committee members' prior experience will only proxy for financial expertise and does not include all of the considerations

included in the final rules (such as understanding audit committee functions), but do not have access to the data necessary to more accurately assess financial expertise. This proxy is consistent with prior research (DeFond et al. 2004; Archambeault and DeZoort, 2001).

In order to compare our classification of financial expert with that disclosed by the firm, we also gathered data on the firm specified financial expert in the 2004 proxies. To provide more complete descriptive information or control variables in multivariate analyses we also gathered other audit committee and overall board data. Other audit committee data included audit committee size, number of meetings, and percent of members who are independent. Overall board data included the size, number of meetings, independence of the entire board of directors and whether the CEO was also Chairman of the Board.

Research Design

Our first set of analyses examines the extent of change in composition of the audit committee after SOX 407 is effective. The above described data from firms' proxy statements for the years 2002-2004 related to audit committee composition in years 2001-2003. The proxy statement provides the audit committee report on the prior fiscal year and presents the audit committee nomination for the following year. We used the former audit committee composition, not the upcoming nominations. However, we note that in 2004 there were only five firms nominating a new accounting expert for the following year. Audit committee composition in year 2001 reflects composition prior to SOX 407 while the year 2003 reflects composition post SOX 407. We verify that the 2004 proxy is after the effective date of SOX for each firm. Composition in the year 2002 reflects early adoption.

Our research design includes descriptive analyses of firms' average audit committee composition over time as well as changes over time. To more formally test for changes related to SOX 407 we estimate the following ordinary least squares regression:

$$\text{Expert \%}_t = \beta_0 + \beta_1 \text{Year2002}_{it} + \beta_2 \text{Year2003}_{it} + \beta_3 \text{Size}_{it-2} + \beta_4 \text{Explrtn}_{it} + \beta_5 \text{Trans}_{it} + \beta_6 \text{Retail}_{it} + \beta_7 \text{FinServ}_{it} + \beta_7 \text{Other}_{it} + e_{it} \quad (1)$$

Three different specifications of Expert% are tested. The first is the percent of accounting experts for firm *i* in time *t*. The second is the percent of finance experts and the third is the percent of CEO / Presidents.

Year2002 is an indicator variable equaling one if the year is 2002 and zero otherwise. A significant coefficient on Year2002 indicates significant changes after SOX 407 was passed but prior to the effective date. Similarly, Year2003 equals one if the year is 2003 and zero otherwise and a significant coefficient on the variable indicates significant changes after SOX 407 was effective. We also include control variables for size and industry obtained from Compustat. Larger companies may have more resources to more easily make changes in audit committee composition. Additionally, larger firms are subject to greater public scrutiny and may be more likely to change to maintain their reputation as suggested by Dyck and Zingales (2002). Size is defined as the log of total market capitalization. Indicator variables are used to represent industry classifications. The industry included in the intercept is manufacturing (SIC codes 2xxx and 3xxx). The indicator variable Explrtn is one for SIC codes 1xxx and zero otherwise, Trans is one for SIC codes 4xxx and zero otherwise, Retail is one for SIC codes 5xxx and zero otherwise, FinServ is one for SIC codes 6xxx and zero otherwise, and Other is one for all other SIC codes and zero otherwise.

Our second analysis examines the characteristics of firms associated with the decision to change audit committee composition. For this analysis, we estimate the following model using logistic regression:

$$\text{Prob(Change = 1)} = F(\beta_0 + \beta_1 \text{Size}_{it-2} + \beta_2 \text{Explrtn}_{it-2} + \beta_3 \text{Trans}_{it-2} + \beta_4 \text{Retail}_{it-2} + \beta_5 \text{FinServ}_{it-2} + \beta_6 \text{Other}_{it-2} + \beta_7 \text{BoardSize}_{it-2} + \beta_8 \text{BoardInd}_{it-2} + \beta_9 \text{CEOChair}_{it-2} + \beta_{10} \text{Expert}_{it-2} + \beta_{11} \text{Market/Book}_{it-2} + \beta_{12} \text{Debt/Assets}_{it-2} + \beta_{13} \text{ROA}_{it-2} + e_{it}) \quad (2)$$

The dependent variable is an indicator variable, Change, that is coded one if the firm made a change in either 2002 or 2003 and zero otherwise. $F(\cdot)$ represents the logistic response function. The independent variables test various firm characteristics as of the end of 2001 to reflect their approximate status when SOX was passed.

Size and Industry are included and defined as discussed above. BoardSize is defined as the number of members on the firm's board of directors. BoardInd is defined as the percent of members of the firm's board of directors that are independent of management. CEOChair is an indicator variable equaling one if the firm's CEO is also Chairman of the Board and zero otherwise. These three variables are included to proxy for the overall strength of the board of directors. Stronger boards are expected to be more likely to include a financial expert on the audit committee (Beasley and Salterio 2001; Klein 2002). Expert is an indicator variable equaling one if the firm's audit committee included an accounting expert in 2001 and zero otherwise. Firms with stronger audit committees may have less need to make changes.

Market/Book is defined as the firm's total market capitalization divided by equity and proxies for growth opportunities (Klein 2002). Debt/Assets is defined as total debt divided by total assets and proxies for influence of debt-holders' on audit committee composition. Finally, ROA is defined as net income divided by total assets and proxies for firm performance (Klein 2002). These three variables are obtained from data in Compustat.

IV. EMPIRICAL FINDINGS

Our initial sample is comprised of 210 publicly traded firms randomly selected from the IIRC board practices database in approximately equal numbers from the S&P 500, S&P Mid-Cap, and S&P Small-Cap, to assure a variety of firm sizes are included in the sample. After deleting 15 firms with incomplete data, our final sample consists of 195 firms, 65 S&P 500, 67 S&P Mid-Cap, and 63 S&P Small-Cap firms. Table 1 presents the industry profile by size category. A variety of industries are included in the sample. Approximately 50% of the sample is in manufacturing industries across size categories.

Table 2 presents descriptive statistics at the end of 2003 for selected financial measures, comparing firms with no change in audit committees across the three year period to firms with changes in 2002 and 2003. Based on both Total Assets and Total Market Capitalization, firms that changed audit committee membership in either 2002 or 2003 are significantly larger than firms that did not change ($p \leq .02$). Mean Market/Book, ROA, and Debt/Assets are not significantly different across the three groups.

Table 3 presents descriptive statistics for audit committee (Panel A) and board composition (Panel B) by year. In 2001, 45 percent of sample firms included at least one accounting expert on their audit committee. This percent increased to 49 in 2002 and 64 in 2003. Univariate t-tests indicate the percent is significantly higher in 2003 than either 2002 ($p = .002$) or 2001 ($p < .0001$), providing initial evidence that firms are changing audit committee composition subsequent to the passage of SOX 407. Panel A also demonstrates that over 90% of firms included at least one CEO / President on their audit committee throughout the period but that the percent decreased in 2003 ($p = .04$). The percent of CEO / Presidents is over twice that of accounting experts in 2001 consistent with our expectations. Approximately 60% of firms

included at least one finance expert and t-tests indicate no difference across years. Finally, the percent of firms including at least one member not included in the above three expert categories decreased from 62% in 2001 to 55% in 2003. This difference is marginally significant ($p=.05$).

In any given year, the percents in Panel A sum to greater than 100 percent because firms have multiple audit committee members. A given firm could have an accounting expert, a CEO / President, a finance expert, and other on their audit committee. We also find (not shown) that 99.5% percent of firms in 2003 have either an accounting expert, a CEO / President, or a finance expert on their audit committee and that this percent was stable over time. This finding suggests that firms are substantially in compliance with the listing requirements and SOX 407 in terms of the broader definition of financial expertise. Untabulated results also reveal that the number of firms with more than one accounting expert was 10 (13) in 2001 (2002). Following the implementation of SOX, the number of firms with multiple accounting experts increased to 22, suggesting that the disclosure standards of SOX prompted a few firms to exceed the minimum requirements.

Panel A also reports that the mean number of audit committee members increased from 3.65 in 2001 to 3.79 in 2003 and the difference is significant ($p=.03$). Further, the mean percent of independent directors increased from 95% to 97% and this difference is significant ($p=.03$). Finally, Panel A reveals that the number of audit committee meetings steadily increased from a mean of 4.79 in 2001 to 6.68 in 2002 to 7.91 in 2003. The differences are all significant ($p<.0001$). In summary, univariate results suggest indicators of audit committee composition and effort have increased subsequent to the passage of SOX 407. Panel B shows that total board size was approximately 9 members throughout the period. T-tests indicate that size did not

change significantly. Board independence however did significantly increase from approximately 70% of members in 2001 and 2002 to 77% in 2003 ($p < .0001$).

Table 4 presents descriptive statistics for audit committee composition in 2003, comparing firms with no change in committee composition since 2001 to firms that changed in 2002 or 2003. Firms changing in both time periods are included in the 2002 column. The percent of firms with at least one accounting expert was 55 for firms that did not change their audit committee composition compared to 63 for those changing in 2002 and 68 for those changing in 2003. Only the difference between the No Change group and the 2003 Change group is significant ($p = .04$), suggesting again that some firms did increase the accounting experts on their audit committee. It is also interesting to note that the 55 percent of firms including at least one accounting expert in the No Change group is significantly higher than the 45 percent of all firms in the base year of 2001 per Table 3 ($p = .05$), suggesting that firms that already included an accounting expert were less likely to change. There were no significant differences in the remaining classifications.

Based on Table 3 and Table 4, the number of members in 2003 increased from that in 2001 (3.65 per Table 3) only for the Change groups (4.03 for 2002 and 3.85 for 2003). The No Change group (3.31) decreased. The differences are significant ($p < .001$) suggesting that firms may be more likely to add an additional position than simply replacing an existing member when making a change. The percent of independent directors is similarly significantly higher for the Change than the No Change group ($p \leq .03$) suggesting new members are likely to be independent. Finally, there is no difference in the number of meetings held between the three groups suggesting all audit committees tended to increase the number of meetings in 2003 compared to 2001.

An analysis of the mean composition of audit committees in each of the change conditions is provided in Panel B. This panel calculates the percent of the total audit committee represented by each category of member and then calculates a mean across all firms. Consistent with Panel A, the mean percent of accounting experts is higher in both the 2002 and 2003 Change groups than in the No Change group. The disclosure requirements also appear to have improved the overall expertise requirements of the audit committee because the increase in accounting experts appears to be offset by a decrease in the percent of other members, those with no accounting or finance background or CEO / President background.

Panel C indicates the number of members on the overall board is higher for firms that changed (9.29 for 2002 and 9.65 for 2003 Change group) than for those that did not change (8.33). Further, the percent of independent board members also increased (73 for No Change, 78 for 2002 Change, and 79 for 2003 Change) even though more board chairs were held by the CEO for change firms (.63 for No Change, .70 for 2002 Change, and .72 for 2003 Change). These findings are generally consistent with those documented in Beasley and Salterio (2001), who find that larger, more independent boards are more likely to improve the audit committee composition.

To further analyze the change firms made in audit committee composition, Table 5 presents a summary of the classification of individuals added or removed for the 76 2002 Change and 68 2003 Change firms. For these 144 firms, 223 members were removed and 254 members were added, confirming the increase in size of audit committees. Note that members removed may or may not have continued to serve on the Board of Directors. Seventy-four accounting experts were added and only 22 were removed confirming a net gain (52) in accounting experts.

Table 5 also reveals that CEO / Presidents gained 8 new members. The only category with a net loss of membership was other, the least qualified category of audit committee members.

Table 6 analyzes the audit committee members firms claimed as experts and compares their claimed expert to our expertise categories. Panel A reports the number of audit committee members claimed as expert. Only 18 firms (approximately nine percent of the 195 total firms in the sample) did not disclose a financial expert. Of these, four firms indicated they were not currently in compliance but were planning on adding an expert in 2004. Seven firms indicated they did not have a financial expert. Only seven firms omit the disclosure completely suggesting substantial compliance with the disclosure requirements. Approximately 30 percent of the firms indicated more than one audit committee member was a financial expert. For these firms the number ranged from two to all members of the audit committee.

Panel B shows the number of accounting experts, CEO / Presidents, finance experts, and others who were identified by the firm as the financial expert, partitioned on the number of experts claimed by the sample firms. The number of accounting experts claimed corresponds well to the 64 percent of firms with at least one accounting expert shown in Table 3 consistent with firms claiming an accounting expert where possible. We note, however, that about 24 percent of firms claiming one expert use a CEO / President without accounting or finance experience to meet the regulatory requirements.

Table 7 presents the ordinary least squares regression results for the estimation of Equation 1, a multivariate test of the significance of changes in 2002 and 2003 after controlling for size and industry effects. In Panel A, the dependent variable is the percent of each audit committee that includes an accounting expert. The model is significant with an R^2 of .11. Year2002 is positive and significant ($p=.007$) and Year2003 is positive and significant ($p<.0001$)

suggesting that the percent of accounting experts on audit committees did increase subsequent to SOX 407. These results are consistent with the univariate results. Size is not significant ($p=.58$) suggesting that the percent of accounting experts on audit committees is not related to the size of the firm. Panel A also indicates firms in retail, financial services, or other industries have a higher percent of accounting experts than manufacturing firms and firms in exploration industries have a lower percent.

In Panel B, the dependent variable is the percent of each audit committee that includes a finance expert. After controlling for size and industry effects, Year2002 and Year2003 are again significant ($p=.01$ and $p<.0001$, respectively) suggesting that the percent of finance experts also increased. Here Size is significant ($p=.02$) and negative, indicating that larger firms have a lower percent of finance experts than smaller firms.

Finally, in Panel C, the dependent variable is the percent of each audit committee that includes a CEO / President. Contrary to the univariate results presented above, Year2002 and Year2003 are both significantly positive ($p<.0001$) indicating that the percent of CEO / Presidents on audit committees increased subsequent to SOX 407. Interestingly, size is significant ($p=.009$) indicating that larger firms have a higher percent of CEO / Presidents on their audit committees.

Overall, the results in Table 7 are consistent with an increase in the expertise of the audit committee after SOX 407 was implemented. However, the results also suggest that some firms continue to rely on the broader definition of financial expertise to meet regulatory requirements. It is interesting to note that size was not significantly associated with the percent of accounting expertise contrary to anecdotal reports of the difficulty of finding accounting experts.

Table 8 presents the logistic regression results from estimating equation 2, examining the characteristics of firms associated with the decision to change audit committee composition. Though the model is significant, the only variable that is significantly associated with the change decision is Size ($p=.02$), suggesting that larger firms are more likely to change either in 2002 or 2003. We do not provide evidence to support variation in the decision to change based on characteristics of the board of directors or various financial measures.

We perform additional analyses to determine whether the lack of results reported in Table 8 result from multicollinearity issues. Pearson correlations (untabulated) reveal that the debt-to-assets ratio, firm size and ROA are correlated with several of the Board of Director variables. To ensure that these correlations are not influencing our interpretation of the coefficient estimates, we re-estimate the model using ordinary least squares and observe variance inflation factors below 2, suggesting that multicollinearity is not an issue.

V. CONCLUSIONS

This study examines the work experience backgrounds of members of 195 audit committees from 2001-2003, representing the period of time immediately surrounding the implementation of SOX 407. We classify each audit committee member into one of four groups: accounting expert, CEO / President, finance expert, or other. We first present descriptive analysis of the percent of firms with at least one audit committee member in each group and then perform multivariate tests of significance of changes in 2002 and 2003. We find that the percent of firms with at least one accounting expert increased from 45 percent in 2001 to 49 percent in 2002 and to 64 percent in 2003. The increase is significant in both univariate t-tests and in a multivariate analysis after controlling for size and industry effects. These results suggest that a number of firms of all sizes did increase accounting expertise on their audit committee

subsequent to the passage of SOX 407, consistent with agency theory suggestions and Dyck and Zingales' (2002) results that disclosure can act as a catalyst for change.

We also find that over 90 percent of firms have at least one CEO / President with no accounting or finance experience on their audit committee and that, after controlling for size and industry effects, this percent also increased subsequent to the passage of SOX 407. Further, we find that around 24 percent of experts specifically identified by firms are CEO / Presidents with no accounting or finance experience. These findings suggest that many firms continue to rely on the broader definition of financial expertise (in both the stock exchange requirements and SOX 407) for regulatory compliance. Given prior research indicating the importance of accounting expertise on audit committees and the fact that many firms have been successful in attracting accounting experts to the audit committee in a relatively short period of time, future regulation may re-consider more narrowly defining financial expertise consistent with SOX 407 as originally proposed.

We also analyze the association between the decision to change in 2002 or 2003 and various firm characteristics, including size, industry, overall board size, independence, role of the CEO as chairman of the board, pre-existence of an accounting expert in 2001, market/book, debt/assets, and ROA. The model does not explain much of the variation and size is the only significant variable. These results are consistent with larger firms having greater resources to accomplish change as well as having greater incentives to change because they are subject to greater public scrutiny. These results also may suggest that the primary reason firms are changing is to meet SOX 407 requirements. Future research should consider other firm characteristics that may be associated with the decision to change.

Future research should also extend the sample period to determine the longer term effects of SOX 407. Changes that are difficult to make in the short term may be implemented over the longer term. On the other hand, existing changes may be temporary due to the recent heightened attention to the audit committee. Examining a longer time frame may serve as a more comprehensive test of Merino and Neimark's (1982) theory. In addition, we are in the process of collecting data from the years 1998-2000 to compare the extent of change in audit committees resulting from the 1999 financial expertise listing requirements to that resulting from SOX 407.

One limitation of the study is the use of work experience to determine financial expertise and not individual skills and abilities due to the lack of data availability. To the extent that our measure of accounting expert and finance expert are imperfect proxies for financial expertise, our results may understate or overstate the presence of financial expertise on audit committees. Another limitation is that firms may have made changes in 2002 and 2003 in the ordinary course of business that were unrelated to the passage of SOX 407. We are unable to separate these changes out, but such changes would likely reduce our ability to find significant changes in accounting expertise.

In spite of these limitations, our results indicate that some progress is being made to increase representation of accounting experts on audit committees. These results are consistent with SOX 407 disclosure provisions exerting a positive influence for change. However, because of the continued latitude in the definition of financial expert, many firms continue to increase representation and identify CEO / Presidents with no accounting or finance experience as financial experts. As a result, the controversy about the definition of a financial expert will likely continue into the future.

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Table 1
Industry Profile of 195 Sample Firms by Standard and Poore's (S&P) Classification

Industry	S&P 500 (N=65)	S&P MidCap (N=67)	S&P SmallCap (N=63)
Mining/ Oil and Gas/ Construction (SIC 1XXX)			
Number	5	1	2
%	7.69	1.49	3.17
Manufacturing 1: Food/ Tobacco/ Chemicals/ Wood (SIC 2XXX)			
Number	20	12	8
%	30.77	17.91	12.70
Manufacturing 2: Plastic/ Leather/ Electronics/ Machinery (SIC 3XXX)			
Number	17	21	25
%	26.15	31.34	39.68
Transportation (SIC 4XXX)			
Number	7	11	5
%	10.77	16.42	7.94
Retail (SIC 5XXX)			
Number	11	8	9
%	16.92	11.94	14.29
Financial Services (SIC 6XXX)			
Number	1	4	5
%	1.54	5.97	7.94
Entertainment/ General Services (SIC 7XXX)			
Number	3	5	7
%	4.62	7.46	11.11
Healthcare (SIC 8XXX)			
Number	0	3	1
%	0.00	4.48	1.59
Other			
Number	1	2	1
%	1.54	2.99	1.59

Table 2
Descriptive Statistics for 195 Sample Firms in 2003

	No Change (N=51)	2002 Change (N=76)	2003 Change (N=68)
Total Assets (\$000)			
Mean	2,829.96	6,712.50	5,812.18
Median	792.80	2,663.06	1,996.64
Standard deviation	4,991.03	14,012.32	8,785.91
Total Market Capitalization			
Mean	3,390.07	11,222.2	8,033.17
Median	1,311.65	2,889.85	1,924.07
Standard deviation	4,595.01	36,018.39	17,937.06
Market/Book ^a			
Mean	2.88	3.62	3.14
Median	2.11	2.48	2.08
Standard deviation	2.09	5.18	3.98
ROA ^b			
Mean	.49	4.24	.23
Median	3.10	4.87	4.24
Standard deviation	.17	.14	.31
Debt/Assets ^c			
Mean	.22	.21	.32
Median	.20	.25	.24
Standard deviation	.24	.14	.65

^a Market/Book= the ratio of the firm's market capitalization to book value of assets.

^b ROA= the ratio of the firm's net income to total assets, expressed as a percent.

^c Debt/Assets= the ratio of the firm's total debt to total assets.

Table 3			
Descriptive Statistics – Audit Committee and Board Composition of 195 Sample Firms in 2001-2003			
	2001	2002	2003
<i>Panel A: Audit Committee Composition</i>			
% Accounting Expert ^a			
Mean	.45	.49	.64
Median	.00	0	1.00
Standard deviation	.50	.50	.48
% CEO / President ^b			
Mean	.96	.95	.93
Median	1.00	1.00	1.00
Standard deviation	.19	.22	.25
% Finance Expert ^c			
Mean	.60	.62	.62
Median	1.00	1.00	1.00
Standard deviation	.49	.49	.49
% Other ^d			
Mean	.62	.61	.55
Median	1.00	1.00	1.00
Standard deviation	.49	.49	.50
Number of Members			
Mean	3.65	3.70	3.7
Median	3	4	4
Standard deviation	.88	.85	.91
% Independent Members			
Mean	.95	.96	.97
Median	1.00	1.00	1.00
Standard deviation	.11	.10	.10
Number of Meetings			
Mean	4.79	6.68	7.91
Median	5	7	8
Standard deviation	2.20	2.66	3.10
<i>Panel B: Board Composition</i>			
Number of Members			
Mean	9.03	9.03	9.15
Median	9	9	9
Standard deviation	2.53	2.59	2.42
% Independent Members			
Mean	.70	.70	.77
Median	.73	.73	.80
Standard deviation	.16	.15	.12

^a The percent of firms with at least one audit committee member with current or previous experience as VP of Finance, CFO, Controller, or other principal financial or accounting officer of a publicly traded company, or as a CPA in public practice.

^b The percent of firms with at least one audit committee member with current or previous experience as a CEO or President of a publicly traded company.

^c The percent of firms with at least one audit committee member with current or previous experience in investment banking, working at the SEC, loan/credit rating experience, or financial analyst experience.

^d The percent of firms with at least one audit committee member with current or previous experience that does not meet the definitions of Accounting Expert, Finance Expert, or CEO / President.

Table 4
Descriptive Statistics for 195 Sample Firms by Change Condition in 2003

	No Change (N=51)	2002 Change (N=76)	2003 Change (N=68)
<i>Panel A: Audit Committee Composition</i>			
% Accounting Expert ^a			
Mean	.55	.63	.68
Standard deviation	.50	.49	.47
% CEO / President ^b			
Mean	.92	.92	.96
Standard deviation	.27	.27	.21
% Finance Expert ^c			
Mean	.57	.62	.66
Standard deviation	.50	.49	.48
% Other ^d			
Mean	.55	.62	.49
Standard deviation	.50	.49	.50
Number of Members			
Mean	3.31	4.03	3.85
Standard deviation	.62	.96	.84
% Independent			
Mean	.95	.99	.98
Standard deviation	.12	.14	.08
Number of Meetings			
Mean	7.59	8.21	7.71
Standard deviation	3.35	2.87	3.15
<i>Panel B: Mean % of Total Members by Composition</i>			
Accounting Expert	18.89	19.77	23.63
CEO / President	34.93	38.41	37.85
Finance Expert	25.99	18.89	23.03
Other	20.19	22.93	15.49
Total	100.00	100.00	100.00
<i>Panel C: Board of Directors Composition</i>			
Number of Members			
Mean	8.33	9.29	9.65
Standard deviation	2.52	2.43	2.08
% Independent			
Mean	.73	.78	.79
Standard deviation	.12	.10	.12
% CEO=Chair			
Mean	.63	.70	.72
Standard Deviation	.24	.46	.45

^a The percent of firms with at least one audit committee member with current or previous experience as VP of Finance, CFO, Controller, or other principal financial or accounting officer of a publicly traded company, or as a CPA in public practice.

^b The percent of firms with at least one audit committee member with current or previous experience as a CEO or President of a publicly traded company.

^c The percent of firms with at least one audit committee member with current or previous experience in investment banking, working at the SEC, loan/credit rating experience, or financial analyst experience.

^d The percent of firms with at least one audit committee member with current or previous experience that does not meet the definitions of Accounting Expert, Finance Expert, or CEO / President.

Table 5
Analysis of 144 Firms with either 2002 Change or 2003 Change

	Members Removed	Members Added	Net Change
Accounting Expert ^a	22	74	52
CEO / President ^b	99	107	8
Finance Expert ^c	43	50	7
Other ^d	59	22	-37
Total	223	253	30

^a The number of audit committee members with current or previous experience as VP of Finance, CFO, Controller, or other principal financial or accounting officer of a publicly traded company, or as a CPA in public practice.

^b The number of audit committee members with current or previous experience as a CEO or President of a publicly traded company.

^c The number of audit committee members with current or previous experience in investment banking, working at the SEC, loan/credit rating experience, or financial analyst experience.

^d The number of audit committee members with current or previous experience that does not meet the definitions of Accounting Expert, Finance Expert, or CEO / President.

Table 6
Analysis of Firms' Claimed Expert

<i>Panel A: Number of Experts Claimed</i>					
	<u>Claimed Experts</u>	<u>Number of Firms</u>	<u>% of Firms</u>		
	Not Disclosed	18	9.23		
	1	118	60.51		
	2	16	8.21		
	3	28	14.36		
	4	10	5.13		
	5	3	1.54		
	6	2	1.02		
		195	100.00		

<i>Panel B: Composition of Claimed Experts</i>					
	<u>Accounting Expert^a</u>	<u>CEO / President^b</u>	<u>Finance Expert^c</u>	<u>Other^d</u>	<u>Total</u>
1	68	28	18	4	118
	(57.63%)	(23.73%)	(15.25%)	(3.39%)	(100%)
2	17	11	3	1	32
	(53.13%)	(34.38%)	(9.38%)	(3.13%)	(100%)
3	25	30	23	6	84
	(29.76%)	(35.71%)	(27.38%)	(7.14%)	(100%)
4	10	18	8	4	40
	(25.00%)	(45.00%)	(20.00%)	(10.00%)	(100%)
5	3	5	5	2	15
	(20.00%)	(33.33%)	(33.33%)	(13.33%)	(100%)
6	2	3	5	2	12
	(16.67%)	(25.00%)	(41.67%)	(16.67%)	(100%)
Total	125	95	62	19	301
	(41.54%)	(31.56%)	(20.59%)	(6.31%)	(100%)

^aThe number of audit committee members with current or previous experience as VP of Finance, CFO, Controller, or other principal financial or accounting officer of a publicly traded company, or as a CPA in public practice.

^bThe number of audit committee members with current or previous experience as a CEO or President of a publicly traded company.

^cThe number of audit committee members with current or previous experience in investment banking, working at the SEC, loan/credit rating experience, or financial analyst experience.

^dThe number of audit committee members with current or previous experience that does not meet the definitions of Accounting Expert, Finance Expert, or CEO / President.

Table 7
Ordinary Least Squares Regression Analysis of Percent of Firms with Financial Expertise

$$\text{Expert \%}_t^a = \beta_0 + \beta_1 \text{Year2002}_{it} + \beta_2 \text{Year2003}_{it} + \beta_3 \text{Size}_{it-2} + \beta_4 \text{Explrtn}_{it} + \beta_5 \text{Trans}_{it} + \beta_6 \text{Retail}_{it} + \beta_7 \text{FinServ}_{it} + \beta_8 \text{Other}_{it} + e_{it}$$

	Coefficient Estimate	t-statistic	p-value
Panel A: Expert % = Accounting Expert Percent (N=575)			
Intercept	0.110	3.03	0.003
Year2002 ^b	0.051	2.69	0.007
Year2003 ^c	0.139	7.26	<.0001
Size ^d	-0.002	-0.55	0.583
Explrtn ^e	-0.094	-2.36	0.019
Trans ^f	-0.023	-0.92	0.359
Retail ^g	0.048	2.09	0.037
FinServ ^h	0.105	2.92	0.004
Other ⁱ	0.054	2.01	0.044
Adjusted R ²	0.111		
Panel B: Expert % = Finance Expert Percent (N=575)			
Intercept	0.290	5.53	<.0001
Year2002 ^b	0.069	2.51	0.0124
Year2003 ^c	0.167	6.07	<.0001
Size ^d	-0.015	-2.41	0.0161
Explrtn ^e	0.092	1.61	0.1069
Trans ^f	-0.045	-1.24	0.2150
Retail ^g	-0.046	-1.40	0.1629
FinServ ^h	-0.047	-0.90	0.3700
Other ⁱ	0.090	2.36	0.0185
Adjusted R ²	0.0812		
Panel C: Expert % = CEO/President Percent (N=575)			
Intercept	0.271	4.79	<.0001
Year2002 ^b	0.187	6.25	<.0001
Year2003 ^c	0.344	11.53	<.0001
Size ^d	0.018	2.62	0.0090
Explrtn ^e	0.062	0.99	0.3220
Trans ^f	0.093	2.38	0.0716
Retail ^g	0.074	2.05	0.0409
FinServ ^h	-0.079	-1.40	0.1606
Other ⁱ	0.016	0.380	0.7008
Adjusted R ²	0.205		

^a Expert% is the percent of the audit committee that includes an accounting expert (Panel A), a finance expert (Panel B), or a CEO / President (Panel C). An *accounting expert* is an audit committee member with experience as a chief financial officer, vice-president of finance, controller, accounting manager, or a certified public accountant. A *finance expert* is an audit committee member with experience as an investment banker, a security analyst, a loan or credit officer, or experience working with the SEC. A *CEO / President* is an audit committee member with experience as a chief executive officer, president, or managing director of a corporation.

^b Y2002= 1 if the fiscal year end is 2002; 0 otherwise.

^c Y2003= 1 if the fiscal year end is 2003; 0 otherwise.

^d Size= natural log of market capitalization at the end of fiscal year 2001.

^e Explrtn=1 if the firm is in the mining, petroleum, gas or oil industries (SIC codes 1xxx); 0 otherwise.

^f Trans=1 if the firm is in the transportation industry (SIC codes 4xxx); 0 otherwise.

^g Retail= 1 if the firm is in the retail industry (SIC codes 5xxx); 0 otherwise.

^h FinServ= 1 if the firm is in the financial services industry (SIC codes 6xxx); 0 otherwise.

ⁱ Other= 1 if the firm is in other services or miscellaneous industries (SIC codes 7000-9999); 0 otherwise.

Table 8
Logistic Regression Analysis of Firms' Likelihood of Changing the Audit Committee in 2002 or 2003

$$\text{Prob}(\text{Change}^a = 1) = F(\beta_0 + \beta_1 \text{Size}_{it-2} + \beta_2 \text{Explrtn}_{it-2} + \beta_3 \text{Trans}_{it-2} + \beta_4 \text{Retail}_{it-2} + \beta_5 \text{FinServ}_{it-2} + \beta_6 \text{Other}_{it-2} + \beta_7 \text{BoardSize}_{it-2} + \beta_8 \text{BoardInd}_{it-2} + \beta_9 \text{CEOChair}_{it-2} + \beta_{10} \text{Expert}_{it-2} + \beta_{11} \text{Market/Book}_{it-2} + \beta_{12} \text{Debt/Assets}_{it-2} + \beta_{13} \text{ROA}_{it-2} + e_{it})$$

Variable	Coefficient Estimate	Chi-Square	p-value
Intercept	-2.486	4.128	0.0422
Size ^b	0.288	5.052	0.0246
Explrtn ^c	0.446	0.159	0.6906
Trans ^d	-0.036	0.004	0.9490
Retail ^e	0.010	0.0004	0.9850
FinServ ^f	1.643	2.18	0.1396
Other ^g	-1.033	3.35	0.0673
BoardSize ^h	0.085	1.05	0.3063
BoardInd ⁱ	1.143	0.930	0.3349
CEOChair ^j	0.529	1.083	0.2981
Expert ^k	-0.505	1.822	0.1771
Market/Book ^l	0.001	0.027	0.8703
Debt/Assets ^m	0.225	0.042	0.8383
ROA ⁿ	-2.357	2.96	0.0856
Pseudo R ²	0.062		
Number of Observations	192		

This table reports results of logistic estimations of the probability firm *i* includes an accounting expert on the audit committee in year *t*. *F*(·) is the logistic cumulative density function. All variables are at the end of fiscal year 2001.

^a Change = 1 if firm made change to the audit committee composition in 2002 or 2003; 0 otherwise.

^b Size = natural log of market capitalization.

^c Explrtn = 1 if the firm is in the mining, petroleum, gas or oil industries (SIC codes 1xxx); 0 otherwise.

^d Trans = 1 if the firm is in the transportation industry (SIC codes 4xxx); 0 otherwise.

^e Retail = 1 if the firm is in the retail industry (SIC codes 5xxx); 0 otherwise.

^f FinServ = 1 if the firm is in the financial services industry (SIC codes 6xxx); 0 otherwise.

^g Other = 1 if the firm is in other services or miscellaneous industries (SIC codes 7000-9999); 0 otherwise.

^h BoardSize = the number of board of directors.

ⁱ BoardInd = the percentage of the board of directors who are independent directors.

^j CEOChair = 1 if the chief executive officer was also the chairman of the board of directors; 0 otherwise.

^k Expert = 1 if the firm's audit committee included an *accounting expert*, where *accounting expert* is defined as an audit committee member with experience as a chief financial officer, vice-president of finance, controller, accounting manager, or a certified public accountant; 0 otherwise.

^l Market/Book = the ratio of the firm's market capitalization to book value of assets.

^m Debt/Assets = the ratio of the firm's total debt to total assets.

ⁿ ROA = the ratio of the firm's net income to total assets.