Audit Committee Expertise: An Examination of the Post-SOX Era

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Abstract

Audit Committee Expertise: An Examination of the Post-SOX Era

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I examine whether accounting experts on the audit committee outperform other financial experts in monitoring financial reporting in the post-SOX era. SOX changed both the audit committee composition and financial reporting quality, indicating that prior findings of the association between accounting expertise and financial reporting quality from the pre-SOX and SOX implementation eras may not generalize to periods after SOX implementation. I find, in the post-SOX era, that accounting experts fail to outperform other financial experts. I then test for the association using former audit partners and they too, even with their high levels of accounting expertise, fail to outperform other financial experts. I further investigate this lack of association by examining how the association varies within expert type, based on when the expert was appointed as an audit committee member. I find that pre-SOX appointment former audit partners are the only group consistently associated with higher financial reporting quality, suggesting that previously identified incremental associations have been diluted by more recently appointed experts. The results suggest that, broadly, regulation aimed at influencing audit committee composition and expertise altered the previously documented relation. Additionally, they suggest that changing the definition

of a financial expert to be more accounting focused, as recently requested by some investor advocates, is unlikely to improve financial reporting quality.

1. INTRODUCTION

I investigate whether accounting experts on the audit committee are better monitors of financial reporting quality than are other financial experts since the implementation of the Sarbanes-Oxley (SOX) Act of 2002. Investors and regulators have recently shown a renewed interest in the qualifications of audit committee members. In particular, some investor groups are requesting that the definition of an *audit committee financial expert* be tightened to be more accounting focused. The Securities Exchange Commission (SEC) has responded to these calls by asking for comments on the appropriate qualifications of audit committee members.[1,2] An important assumption underlying these calls by investor advocacy groups is that accounting experts, in their roles as audit committee members, provide better monitoring of financial reporting than other financial experts. I explicitly test this assumption post SOX implementation.

Although we do have archival evidence that accounting experts provide better monitoring of financial reporting than do other financial experts, most of this evidence focuses on the pre-SOX era (prior to 2002) and post-SOX studies are heavily influenced by pre-SOX appointments. Since SOX, both the composition of the audit committee and financial reporting quality have changed. Legislators recognized the potential importance of expertise to the audit committee's monitoring role and responded with section 407 of SOX. Section 407 requires that publicly traded companies disclose either that the audit committee has a financial expert or, if there is no such expert, the reasons why not. This requirement contributed to audit committee member turnover and lasting changes in the composition of audit committees. More specifically, it led to the increased appointment of those who could qualify as audit committee financial experts, many of whom could also be considered accounting experts. Indeed, I find that accounting experts average 19.5 percent of audit committees' membership in 2002. By 2014, this figure had increased to 36.7 percent.

[1] Section II discusses the definition of an audit committee financial expert.
[2] The SEC specifically asked if it should consider potential changes in the role and responsibilities of the audit committee, including changes related to the qualifications of audit committee members, in its Concept Release on Possible Revisions to Audit Committee Disclosure, dated July 1, 2015 (SEC 2015).

SOX also legislated many other changes meant to improve the quality of financial reporting. In addition to section 407's required disclosure of financial expertise (or lack thereof) on the audit committee, these changes included the establishment of the Public Company Accounting Oversight Board (PCAOB), the required testing and assessment of internal controls over financial reporting by the external auditor, enhancements to external auditor independence, and other changes. A number of studies examine the effects of SOX on financial reporting quality and find that, overall, SOX improved quality. Coates and Srinivasan (2014) provide a thorough review and discussion of this literature. Thus, both the composition of audit committees and the overall level of financial reporting quality have changed since the passage of SOX, and either or both of these changes may have altered the relation between accounting expertise and financial reporting quality. As a result, prior research of these relations may not be descriptive of current relations. For these reasons, I re-examine whether accounting expertise on the audit committee is more positively associated with financial reporting quality than financial expertise post SOX implementation.

I use BoardEx to identify designated audit committee financial experts and to identify audit committee members that have backgrounds suggesting accounting expertise. Financial experts are those specifically designated as such by the board. I designate accounting experts based on their work experience. "Other financial experts" are those that are designated financial experts but are not also accounting experts. I use three different proxies for financial reporting quality: restatements, accruals quality, and material weaknesses in internal controls over financial reporting (material weaknesses).

When directly testing for the association of expertise on the audit committee with financial reporting quality, I find that both accounting experts and other financial experts are associated higher accruals quality and lower levels of material weaknesses but not with restatements. However, the associations of accounting experts are not statistically different from those of other financial experts, suggesting that accounting experts do not outperform other financial experts when monitoring financial reporting subsequent to SOX implementation.

This is an unexpected result in the context of past empirical research and the recent calls to change the definition of an audit committee financial expert. In response, I partition accounting experts

into former audit partners and other accounting experts. I isolate former audit partners primarily because they strongly capture the construct of accounting expertise—they have very high levels of accounting expertise and a low type I error rate for accounting expertise. Additionally, former audit partners make up a meaningful and growing portion of audit committee members.[3] Lastly, prior research finds that former audit partners specifically are associated with better financial reporting quality (Naiker and Sharma 2009).

However, I do not find evidence that former audit partners are associated with better financial reporting quality in my sample period. Likewise, I do not find that they outperform other financial experts as monitors of financial reporting. This lack of incremental association between accounting experts—even former audit partners—and better financial reporting quality suggests that changing the definition of a financial expert to be more accounting focused would be unlikely to improve financial reporting quality.

These findings are inconsistent with past research that is influenced by the pre-SOX era. In response, I further investigate why the incremental monitoring of accounting expertise appears to have disappeared since SOX implementation. It is possible that the monitoring provided by the more recently appointed audit committee experts is different than the monitoring provided by experts appointed prior to SOX. Alternatively, it is possible that other improvements to monitoring of financial reporting put in place by SOX have raised financial reporting quality to a level at which incremental improvements to financial reporting quality from accounting expertise on the audit committee are unobtainable. That is, accounting expertise on the audit committee may have become redundant in the presence of other monitoring mechanisms now in place.

To distinguish between these causes, I further split accounting and financial experts based on when they were first appointed as an audit committee member to any U.S. publicly traded company. More specifically, I split all experts based on whether their first appointment was pre- or post-SOX. By splitting on initial appointment, I test if monitoring varies within type based on when the experts were appointed. Thus, I can assess whether post-SOX appointment accounting experts are differentially associated with

[3] In 2014, 28.0 percent of audit committees had a former audit partner, growing from 12.9 percent in 2002.

financial reporting quality. Key to these tests is that my sample is limited to the period after SOX implementation. This keeps SOX-related changes to financial reporting quality constant while still varying expertise between and within type, leading to a more thorough investigation of the benefits of expertise.[4] If the monitoring provided by audit committee accounting experts varies by appointment era, then I expect to only find a positive association between pre-SOX appointment former audit partners and financial reporting quality.[5] If, however, audit committee accounting expertise is redundant in this era, I expect no relation for both groups of former audit partners (those appointed before and after SOX).

Using this split, I find that pre-SOX appointment former audit partners are the only experts group to be associated with all three measures of financial reporting quality. Furthermore, in additional tests, I find the pre-SOX appointment former audit partner associations are present in firms that appointed these individuals subsequent to SOX. These results provide evidence that financial reporting quality has not changed to such an extent that accounting expertise on the audit committee is no longer capable of providing incremental monitoring of financial reporting. Rather, the results suggest that the monitoring provided by pre-SOX appointments is different than that provided by post-SOX appointments and that section 407 did not have lawmakers' intended effects. This combination of results also reconciles my findings of a lack of incremental association for accounting expertise to past empirical research of this association.

To further assess these main findings, I extend the tests in a number of ways. First, I find that the association between pre-SOX appointment former audit partners and financial reporting quality is generally stronger in firms with lower forms of alternative monitoring. Specifically, I find evidence that the association is stronger in non-S&P 500 firms than S&P 500 firms and is stronger in unregulated firms than within financial or utility firms. Second, I test for the association of financial reporting quality in time *t* and the future appointment of former audit partners in time *t+1*. I do not find evidence that

[4] This test design also allows me to investigate the influence of pre-SOX appointments on past empirical research.
[5] Although I also split other accounting and other financial experts based on initial appointed as audit committee members, I focus my analysis on former audit partners because of their high levels of accounting expertise.

financial reporting quality at *t* is associated with appointments at *t+1*, providing evidence that the identified associations are not the result of an endogenous process that sees former audit partners appointed to firms with higher financial reporting quality *ex ante.* Lastly, I replicate relevant portions of Naiker and Sharma (2009) and then apply the pre- and post-SOX appointment partition to former audit partners. Specifically, I find that former audit partners as a whole are associated with lower levels of material weaknesses in 2004, but when partitioned, only pre-SOX former audit partners maintain this association. This evidences that the relations I identify in 2006-2014 were present in the SOX implementation era. Moreover, it further reconciles my findings to extant research and addresses concerns that the results found herein are the product of the period sampled or the testing methodology.

These findings provide a number of insights and contributions. First, they provide evidence on the consequences of section 407– that it and its preceding events changed the relation between audit committee accounting expertise and financial reporting quality. By regulating the change in audit committee composition and expertise, the previously identified relations present, on average, in a voluntary compliance regime are no longer descriptive of the post-regulation relations. Second, they update our understanding of the association between accounting expertise and financial reporting quality subsequent to SOX implementation by evidencing that accounting expertise, on average, is no longer incrementally associated with financial reporting quality relative to other financial expertise. Third, they demonstrate that changing the definition of a financial expert to be more accounting focused is unlikely to lead to improved financial reporting quality.

II. BACKGROUND AND HYPOTHESIS DEVELOPMENT

Role of the Audit Committee

Audit committees of publicly traded companies are tasked with oversight of the company's accounting, reporting, and auditing functions and are required by the exchanges and SOX to be composed of at least three independent directors. For example, Microsoft's Audit Committee Charter states:

> *The Audit Committee assists the Board of Directors in fulfilling its responsibility for oversight of the quality and integrity of the accounting, auditing, and reporting practices of the Company, and such other duties as directed by the Board. The Committee's purpose is to oversee the accounting and financial reporting processes of the Company, the audits of the Company's financial statements, the qualifications of the public accounting firm engaged as the Company's independent auditor to prepare or issue an audit report on the financial statements of the Company and internal control over financial reporting, and the performance of the Company's internal audit function and independent auditor.*

With these responsibilities, the committee serves an important role in monitoring the company's external financial reporting directly and the mechanisms and systems used to detect accounting and financial reporting irregularities (Hayes 2014; Srinivasan 2005). It does this through direct oversight of management, the external auditor, and internal audit functions. Prior research finds that audit committees and characteristics of the committee, such as composition and expertise, influence the financial reporting quality. See Carcello et al. (2011) for a recent review of research examining the relation between audit committees and accounting outcomes.

Sarbanes-Oxley and Expertise

Current regulation of audit committee expertise traces its origins back to 1999. The SEC, the New York Stock Exchange (NYSE), and the National Association of Securities Dealers created the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees (BRC) with the goal of identifying ways to improve the audit committee's ability to oversee the financial reporting process (Abbott, Parker, and Peters 2004). One of the BRC's recommendations focused on audit committee expertise. Specifically, the BRC recommended that each audit committee member be financially literate and that "at least one member of the audit committee have accounting or related financial management expertise" (BRC 1999). The proposal stems from the belief that relevant expertise is necessary for effective oversight of the financial reporting process. The NYSE and NASDAQ adopted many of the BRC recommendations through formal listing requirements, including required independence and financial literacy for all audit committee members (Duchin, Matsusaka, and Ozbas 2010). However, neither exchange adopted the expertise requirement.

High-profile accounting failures at corporations like Enron and WorldCom prompted Congress to pass SOX, which attempted to address many different areas of concern within the financial reporting process.[6] One goal of SOX was to enhance governance (Huber 2004). In line with this goal, Congress incorporated or partially incorporated many of the recommendations from the BRC. Regarding audit committee expertise, section 407 of SOX requires publicly traded companies subject to the provision to have at least one financial expert on their audit committee and to disclose this or disclose why the audit committee does not have a financial expert (U.S. House of Representatives 2002).

Congress left the final definition of a financial expert to the SEC but included a guiding definition as part of SOX. SOX provided that a financial expert should have: "(1) an understanding of generally accepted accounting principles; (2) experience in— (A) the preparation or auditing of financial statements of generally comparable issuers; and (B) the application of such principles in connection with the accounting for estimates, accruals, and reserves; (3) experience with internal accounting controls; and (4) an understanding of audit committee functions" (U.S House of Representatives 2002). The SEC ultimately chose a broader definition of a financial expert that was less focused on direct experience in accounting and auditing than the guidelines that were part of SOX (SEC 2003).[7] The primary difference in the SEC's final definition was that it considered relevant experience to include active oversight in addition to direct performance and it also allowed for experience in analyzing or evaluating financial statements in addition to preparing and auditing them. These changes allowed individuals without direct experience in performing these tasks (e.g., CEOs and other senior executives) to qualify for the financial expert designation.

[6] Both houses of Congress passed the reconciled bill on July 25, 2002 and President George W. Bush signed the bill into law on July 30, 2002.

[7] As set in SEC release No. 338177, file No. S74002, released January 23, 2003, the SEC's final definition of a financial expert is a person who has: "An understanding of generally accepted accounting principles and financial statements; the ability to assess the general application of such principles in connection with the accounting for estimates, accruals and reserves; experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the registrant's financial statements, or experience actively supervising one or more persons engaged in such activities; an understanding of internal controls and procedures for financial reporting; and an understanding of audit committee functions."

The different definitions of a financial expert suggest that there is variation in the type and level of expertise that may be adequate to promote financial reporting quality. Additionally, the SEC's process of setting the definition highlighted practical concerns about the expertise requirement from those affected by the regulation. Of particular concern, as cited and acknowledged by the SEC, was the limited availability of potential directors with accounting expertise (SEC 2003). The SEC also acknowledged that several commenters questioned such a heavy focus on accounting given the audit committee's role of oversight. Such concerns influenced the SEC, and it ultimately allowed for the broader set of experience to qualify for financial expertise.

The topic of who should be considered an audit committee financial expert and what the definition should be has recently seen renewed debate. On July 1, 2015, the SEC issued a concept release on possible revisions to audit committee disclosures (SEC 2015). Within this concept release, the SEC seeks to gain insights about whether investors can adequately assess the performance of the audit committee and whether or not it should consider potential changes in the qualification of audit committee members. In response, the SEC received many comment letters requesting that it tighten the definition to be more accounting focused and consider no longer allowing supervision or oversight experience to qualify for the designation.[8] Additionally, in response to the renewed attention on the qualifications of audit committee members, the Center for Audit Quality (CAQ) included within its panel discussion on the "audit committee of the future" a discussion of the audit committee financial expert definition and whether this should be changed (CAQ 2016). Some panelists offered suggestions on tightening the definition while others stressed caution over such suggestions. The renewed interest and debates

[8] For example, Dennis Beresford, former chairman of the Financial Accounting Standards Board and former national director of accounting standards for Ernst & Young responded: "I urge the SEC to revisit the definition of an Audit Committee Financial Expert. More specifically, I believe the inclusion of the language "or experience actively supervising one or more persons engaged in such activities" has resulted in too many individuals being classified as ACFEs who do not have the necessary accounting and auditing knowledge." Robert Conway, a former regional associate director for the PCAOB suggested: "at least one member of the company's board of directors should be devoted to someone who truly is an audit committee financial expert in the fullest sense and is familiar with the inner workings of the regulatory framework for public reporting and auditor oversight."

demonstrate that even a decade after the passage of SOX, opinions on definition continue to vary with many believing that a stricter focus on accounting expertise would improve financial reporting quality.

Prior Research on Audit Committee Expertise and Financial Reporting Quality

Prior research generally finds that financial and accounting expertise within the audit committee is positively associated with financial reporting quality, supporting the inclusion of section 407 in SOX. For example, using a broad measure of financial expertise that focuses on the SEC's definition, prior empirical research finds that financial expertise is associated with lower restatements (Abbott et al. 2004 and Agrawal and Chadha 2005), lower abnormal accruals (Bédard, Chtourou, and Courteau 2004), lower likelihood of allowing managers to waive qualitatively or quantitatively material misstatements (Keune and Johnstone 2012), and lower abnormal accruals and lower accounting irregularities when the audit committee has sufficient status (Badolato, Donelson, and Ege 2014).

Potentially more relevant to monitoring financial reporting is expertise in *accounting* specifically.[9] Prior research finds that accounting expertise on the audit committee is associated with conservatism (Krishnan and Visvanathan 2008), shorter restatement "dark" periods (Schmidt and Wilkins 2013), and reduced earnings management for firms with weak alternative corporate governance mechanisms (Carcello, Hollingsworth, Klein, and Neal 2006a). Naiker and Sharma (2009) find that the inclusion of former audit partners on the audit committee is associated with lower levels of internal control material weaknesses and lower levels of performance-adjusted discretionary accruals. Beyond demonstrating the association between accounting expertise and financial reporting quality, prior research also demonstrates that capital markets value this expertise, as measured using three-day cumulative abnormal returns around audit committee director appointment announcements (DeFond, Hann, and Hu 2005). Singhvi, Rama, and Barau (2013) reach a similar conclusion after finding a negative market reaction to the departure of accounting experts, but not other types of experts or non-expert directors.

[9] Generally, prior research has designated those with "experience as a public accountant, auditor, principal financial or accounting officer, or controller" as accounting experts (DeFond et al. 2005).

The consensus of these prior studies is that expertise within the audit committee is generally associated with positive accounting and financial reporting outcomes – see Appendix A for a summary of extant empirical research on the association between audit committee expertise and financial reporting quality. This is also a conclusion of the Carcello, Hermanson, and Ye (2011) corporate governance in accounting literature review. However, prior research of this association either investigates the pre-SOX period and/or investigates post periods that are heavily influenced by pre-SOX appointments to the audit committee. Relying on this research to inform the current relation between audit committee expertise and financial reporting quality is potentially problematic because of improvements to financial reporting quality and changes in the composition of audit committees (as seen in Figure 1), including the regulation of expertise by section 407 of SOX.

SOX and Changes to Financial Reporting Quality and Audit Committee Composition

In an attempt to enhance monitoring of financial reporting, lawmakers established the PCAOB, mandated external auditor testing of internal controls over financial reporting, increased external auditor independence requirements, and made many other changes through SOX (U.S. House of Representatives 2002). Prior research examining the impact of SOX on financial reporting quality finds that financial reporting quality increased on average subsequent to SOX, even if it is difficult to attribute how much of the increase is directly or indirectly attributable to SOX. Coates and Srinivasan (2014) discuss this extensively in their review paper on SOX, which focuses on research that evaluates the impact of SOX. Consistent with this, Scholz (2014) highlights that non-reliance restatements decreased steadily between 2005 and 2012. Overall, extant research finds that financial reporting quality, as measured by many different proxies, has improved subsequent to SOX.

As previously discussed, lawmakers also targeted increased disclosure of financial expertise on the audit committee (section 407 of SOX) as a means of enhancing monitoring. All companies subject to the Securities and Exchange Act of 1934, except for small business issuers, had to comply with section

407 for fiscal years ending on or after July 15, 2003 (SEC 2003).[10] The provision impacts audit committee composition quickly as shown in Figure 1 and as investigated by Carcello, Hollingsworth, and Neal (2006b). In Figure 1, I measure the average audit committee percentage of accounting experts by year from 2002 to 2014. I find that, on average, accounting experts average 19.5 percent of the audit committee in 2002 with this figure growing to 36.7 percent in 2014. Furthermore, I partition the accounting experts between those appointed prior to or subsequent SOX, 2001/2002, to highlight changes *within* accounting experts. Although it is apparent that there is an immediate response to section 407, it is also apparent that it took a number of years for this response to unfold. This could be expected given that audit committee appointments typically serve in this role for a number of years.[11]

Linck, Netter, and Yang (2009) provide further evidence on changes in board composition by testing for changes in board member supply and demand as a result of SOX and contemporaneous changes in listing standards enacted at the NYSE and NASDAQ. They find that SOX increased director pay, workload, and risk—all of which caused changes in boards' structure and composition. As part of their investigation of board composition, they conclude that "the director pool changed substantially" and that "directors' turnover increased substantially," particularly within the audit committee.

Hypothesis Development

Enhancements to monitoring of financial reporting caused by SOX and other related regulation have changed the financial reporting process. This includes changes to the audit committee composition and monitoring. Other forms of financial reporting monitoring meant to improve financial reporting quality may have done so to such an extent or in such a manner that accounting expertise on the audit committee no longer provides incremental monitoring. Thus, it is unclear if the suspected and previously identified relation between accounting expertise on the audit committee and financial reporting quality still holds *and* if the distinction between accounting expertise and other financial expertise is still relevant.

[10] Small business issuers are not in my sample, which is restricted to accelerated filers (firms with public floats of at least $75 million).
[11] Using 2010 firm-years for example, the mean tenure of an audit committee member in my sample is 6.2 years.

Despite the changes to monitoring of financial reporting, including the composition of the audit committee, many still believe that accounting expertise provides incremental improvements over financial expertise to financial reporting quality. Familiarity and expertise in the financial reporting process are necessary to providing effective monitoring of this process, as demonstrated by prior research of this relation. Firsthand experience in preparing and auditing financials provides the greatest amount of this experience and expertise. Without relevant expertise in the areas being overseen, it is more difficult to provide effective monitoring, especially in increasingly complex processes and more regulated environments. For these reasons, I may find that accounting expertise continues to provide incremental monitoring of financial reporting above and beyond that provided by other financial expertise.

Thus, whether or not the definition of an audit committee financial expert should be changed to be more accounting focused is an open question. Central to the argument that the definition should be changed is the assumption that accounting experts provide better monitoring of financial reporting than other financial experts. To guide my investigation of this question, specific to periods subsequent to SOX implementation, I state the following hypothesis:

Accounting expert audit committee members have a more positive association with financial reporting quality than other financial expert audit committee members in the era after SOX implementation.

III. DATA, RESEARCH DESIGN, AND DESCRIPTIVE STATISTICS

Identifying and Measuring Accounting and Financial Experts

I parse the titles and backgrounds of audit committee members, as captured by BoardEx, to determine if they are financial experts and/or accounting experts. I provide Figure 2 to visually describe how I identify and capture expertise within the audit committee. First, I split audit committee members based on whether they have an indicator of financial expertise. Specifically, this includes individuals that are designated as an audit committee financial expert by the board in accordance with section 407 of SOX against the SEC authoritative definition of an audit committee financial expert or that have backgrounds

that meet the definition of an accounting expert (U.S House of Representatives 2002; SEC 2003).[12] My second split is of those having accounting expertise versus those not having accounting expertise. I follow DeFond et al. (2005) and other prior research that designate those with accounting-focused backgrounds as accounting experts. Specifically, this includes individuals that have prior experience as an auditor, CFO (chief financial officer), chief accounting officer, or controller, or those who are certified public accountants (i.e. those with direct experience in preparing or auditing financial statements).

My primary test variables are the percentage of the audit committee composed of financial experts, the percentage of the audit committee composed of accounting experts, and the percentage of the audit committee composed of other financial experts (financial experts that are not also accounting experts): *%Financial*, *%Accounting*, and *%OtherFinancial*, respectively. I use the percentage of the audit committee as my primary test variables because I want to capture the incremental influence that these experts have over the audit committee. Some companies have multiple experts on the audit committee, and audit committees range in size from three to ten members, though 98.6 percent of firm-years in the sample have between three and seven audit committee members.

Other potential ways to empirically measure expertise on the audit committee include using a count of applicable experts in each category without scaling, taking the natural log of the counts, or using indicator variables to dichotomously identify what audit committees have each expertise type. Indicator variables and the percentage measure that I use have both been used by related prior research. In addition to capturing the incremental influence, I use the percentage measure because it represents a middle ground approach to either extreme of using a count variable or an indicator variable. Please note the results of Tables 4-7 are robust to measuring expertise using the natural log of the count or indicator variables (not tabulated).

[12] The alternative design choice would be to limit my identification of financial experts only to those designated as such by the board. However, some audit committees have multiple members with expertise, per the SEC's definition, but only designate one such member in their filings with the SEC. My primary goal for this design choice is to capture the underlying construct of financial expertise, which accounting experts have. Prior research has used both options and is inconsistent in this design choice. However, the effects of this design choice are limited to Table 4, and my results are robust to using either option.

Sample Selection

My primary sample period covers 2006 to 2014. I begin my primary analyses in 2006 to avoid the implementation of SOX between 2002 and 2005.[13] By limiting my sample to the post-SOX and post-implementation period, I hold other SOX-related changes to financial reporting relatively constant. This allows me to more accurately examine the effects of expertise on monitoring of financial reporting. Additionally, because I measure restatements and material weaknesses, the adoption and familiarization with all of SOX's requirements in 2004 and 2005 potentially adds noise to firm-years from this period. For this reason, I also limit my sample to accelerated filers. Non-accelerated filers are not consistently subject to mandatory audits of internal controls over financial reporting during my sample period, making them difficult to compare to accelerated filers. However, as discussed in Appendix B, my results are robust to starting the sample in 2004. I end the sample in 2014 to allow sufficient time for restatements to be identified, investigated, and publicly disclosed.

I describe my sample selection process in Table 1. Within the parameters of accelerated filers between 2006 and 2014, I identify an initial sample of 24,928 firm-years that have BoardEx data and basic Compustat identification data (firm and year identifiers).[14] I search BoardEx databases to identify audit committee members, their prior employment histories, and whether they are designated by the board as a financial expert. I then remove 512 firm-years with missing financial statement data from Compustat and an additional 253 with missing audit reports, audit fees, and/or filer status from Audit Analytics. This selection process results in a sample of 24,163 firm-year observations for the primary sample. However, the sample size is smaller for tests examining accruals quality because it requires an additional two to four years of data for each observation. From the primary sample, I remove 8,486 observations that do not

[13] The lack of reliable data on audit committee member backgrounds and the lack of financial expert designations prior to SOX prevent me from accurately identifying audit experts and, therefore, testing the period prior to SOX.
[14] I hand investigate companies with "outlier" director counts based on BoardEx data by pulling the applicable proxy statements from the SEC's Edgar database. I find that some firms listed as having four or nineteen directors match the proxy statement. When looking at companies with three or 20 directors, I find a much lower match rate with the proxy statement. For this reason, I remove all firm-years with fewer than four or greater than 19 directors. I also remove all firm-years that list fewer than three audit committee members, which is a listing requirement of both the NYSE (New York Stock Exchange Listing Manual 303A.07) and NASDAQ (NASDAQ Listing Rule IM-5605-4).

have sufficient data to calculate accruals quality, cash flow volatility, or sales volatility, which results in a sample of 15,677 firm-year observations for tests of accruals quality.[15]

Measuring Financial Reporting Quality

I use multiple proxies of financial reporting quality to more completely capture the construct. This includes proxies that represent inputs and outputs of the financial reporting process, discrete and continuous measures, and more and less egregious departures from quality. I provide a summary description of each proxy and discuss related strengths and weaknesses within Appendix C, Panel A.

First, I capture restatements that are considered so severe that the erroneous financial statements should no longer be relied on and, thus, provide strong evidence of low financial reporting quality. *Restated* is an indicator variable taking a value of one if the 10-K for the fiscal year was restated for non-GAAP financial reporting *and* this restatement was highlighted to investors through an item 4.02 disclosure in form 8-K.[16, 17] It takes a value of zero otherwise. Second, I use the accruals quality measure developed by Dechow and Dichev (2002) and modified by McNichols (2002). This measure identifies accruals that do not become cash flows (i.e., low quality accruals). Specifically, *AQ5* is the standard deviation of the residual from this cross-sectional regression estimated within industry by year for the current year and the four previous years. The measure is multiplied by negative one so that a positive association indicates a relation with higher financial reporting quality. Third, I use the disclosure of a material weakness in internal controls over financial reporting, which is an assessment of the actual

[15] I do not specifically remove banks and utilities when testing accruals quality. Companies without classified balances sheets, such as banks, will be removed because of data requirements. However, if I specifically remove financial institutions (SIC 6000-6999) and utilities (SIC 4900-4999) from the accruals quality regressions (not tabulated), the inferences are unchanged.

[16] As noted by Szerwo and Palmrose (2016): "In August 2004, the SEC issued a final rule mandating that companies report certain restatements on Form 8-K Item 4.02, which the SEC specifically created for disclosure of these restatements. Item 4.02 restatements are defined as those where the company or its auditor conclude that the company's previously issued financial statements no longer should be relied upon because of an error in such financial statements. Because the prior financial statements are unreliable, these restatements eventually involve filing corrected financial statements on Form 10-K/A and/or Form 10-Q/A."

[17] The results in tables 4-7 are robust to alternative measurements of restatements. I find a similar pattern of results when *Restated* captures a) all restatements of the financials within forms 10-K and 10-Q, b) when it captures restatements of forms 10-K and 10-Q that are also highlighted with an item 4.02 disclosure in a form 8-K, or c) when it captures all restatements of the financials within forms 10-K. These results are not tabulated.

financial reporting process. *MW* is an indicator variable and takes a value of one when the audit report on internal control over financial reporting discusses a material weakness for the given firm-year and value of zero otherwise.[18]

In Appendix C, Panel B, I present the Spearman correlations among the different proxies, including lagged values of the proxies. The different proxies show statistical correlation in the expected direction at the one-percent level or better. Overall, the correlations between the proxies provide support that they are jointly capturing the larger construct (though the correlations are not high, suggesting they may be capturing different aspects of financial reporting quality). I present the tests of the different proxies discretely to provide a richer analysis of the influence of audit committee expertise on financial reporting quality.

Research Design

To test my hypothesis, I use the following general research design, which I then customize:

$$\begin{aligned} FinRepQuality_{it} &= \alpha_0 + \beta_k \%Expertise_{it} + \gamma_1 LN\_Assets_{it} + \gamma_2 ROA_{it} + \gamma_3 Current_{it} + \gamma_4 ACCR_{it} \\ &+ \gamma_5 LIAB_{it} + \gamma_6 Segments_{it} + \gamma_7 Loss_{it} + \gamma_8 Foreign\_Op_{it} + \gamma_9 Merger_{it} \\ &+ \gamma_{10} Restructure_{it} + \gamma_{11} Going\_Concern_{it} + \gamma_{12} Director\_Count_{it} \\ &+ \gamma_{13} Consultant_{it} + \gamma_{14} BigN_{it} + \gamma_{15} DEC_{it} + \gamma_{16} Lag_{it} + \gamma_{17} Lag2_{it} \\ &+ \gamma_{18} LN\_AuditFees_{it} + \gamma_{19} MW_{it} + YearFE_t + \varepsilon_{it}. \end{aligned}$$

First, *FinRepQuality* is one of three measures of financial reporting quality: *Restated*, *AQ5*, or *MW*. Second, *%Expertise* is either *%Financial*, which provides a baseline measure of the association with financial expertise, or by the combination of *%Accounting*, and *%OtherFinancial*, which allow for distinct effects of accounting experts and other financial experts, respectively, and also for a comparison between the two types.

I include a number of control variables in the regressions to better assess the influence of expertise on financial reporting quality. To control for specific aspects of the firm and its operations, I

[18] As all observations in the sample are subject to external audits of internal controls over financial reporting, the instances of communication of material weaknesses by management are identical to communications of material weaknesses by the external auditor. The results are unchanged if I use material weaknesses that are communicated by management in Item 9A of the 10-K (results not tabulated).

include variables for the firm's size, profitability, current assets, accruals, leverage, and number of segments. Similarly, I control for the presence of losses, foreign operations, mergers/acquisitions, and formal restructurings. To control for heightened concerns about the future of the business, I include an indicator variable for the presence of a going concern paragraph in the audit report. I include a count of the number of directors (board size) to control for the benefits and costs of monitoring. Boone, Field, Karpoff, and Raheja (2007) demonstrate that board size grows with a firm's size, age, and number of business segments (in response to the benefits of monitoring) but that it is negatively correlated to the market-to-book ratio, research and design expenditures, return variance, and CEO ownership (in response to costs of monitoring). To control for the external auditor, I indicate whether the auditor is one of the big-four accounting firms and whether the company has a "busy season" December or January yearend. I also control for the effort level and risk premium of the audit with the natural log of audit fees. I control for difficulty in completing the financial close process and the audit with a count of the number of days between the end of the fiscal year and when the fourth quarter's earnings release is announced and a separate count of the number of days between the earnings release and the audit report date (*Lag* and *Lag2*, respectively). Lastly, for the regressions of *Restated* and *AQ5*, I also control for the presence of material weaknesses in internal controls because they are predictive of restatements and associated with accruals quality. Appendix D provides full descriptions and definitions of all variables. The majority of the control variables are from or similar to control variables used in extant related research, including: Carcello et al. (2006b), Krishnan and Visvanathan (2008), Hoitash et al. (2009), Naiker and Sharma (2009), Dhaliwal et al. (2010), Schmidt and Wilkins (2013), and Badolato et al. (2014). New control variables include *Dec*, *Lag*, *Lag2*, and *MW*. I add these variables because I anticipate they could be associated with both the presence of expertise on the audit committee and financial reporting quality.

From Table 2, it is apparent that many of the 4,543 unique firms within the sample are present across multiple firm-years. In response, I cluster standard errors by firm to correct their calculation as suggested by Petersen (2009). A company' audit committee membership, accruals quality, and other variables tend to be persistent and clustering by firm will help mitigate resulting econometric concerns. I

do not have a sufficient number of years to also cluster the standard errors by year (Petersen 2009). However, I include year fixed effects to capture systematic variation in *FinRepQuality* across time. For example, restatements have generally fallen since 2006 (Scholz 2014).

Descriptive Statistics

In Table 2, I present counts of the firm-years, unique companies, and unique audit committee members that are part of the sample. I find evidence of the significance of accounting experts on the audit committee based on the frequency of their presence. The sample has 24,163 firm-years, including 20,143 firm-years (83.4 percent) that have at least one accounting expert audit committee member. When focusing on the unique firm counts, 3,998 of 4,543 unique firms (88.0 percent) have had an accounting expert on the audit committee at some point during this sample period. This demonstrates the prevalence of these directors to audit committees and boards in general. It also highlights that most companies are voluntarily complying with the stricter, non-authoritative definition of an audit committee financial expert. Within individual director counts, there are 5,693 unique accounting experts (27.4 percent of total unique audit committee members). The lower percentages when looking at individual audit committee members in comparison to firm-years and unique companies are expected; within my sample, a firm-year has a mean of 7.9 directors and 4.2 audit committee members.

In Table 3, I present descriptive statistics, split by whether the firm-year has at least one accounting expert. I also report the *t*-statistics from a two-tailed *t*-test of difference in means. I find no statistically significant difference in the means of restatement levels, accruals quality, or material weaknesses between the two groups. The differences between the expertise variables demonstrate that firm-years with an accounting expert have higher overall financial expertise (*%Financial*) and that accounting experts are often supplementary to other financial experts (*%Accounting* versus *%OtherFinancial*). Many audit committees appear to add accounting expertise through expanding the size of the audit committee as indicated by *AC_Count*.[19]

[19] I control for the size of the board, *DirectorCount*, and not audit committee size, *AC_Count*, because the influence of board size to monitoring of financial reporting has been studied more thoroughly and because they are highly

I also find numerous differences in the control variables between the groups, which highlights the importance of controlling for other characteristics of the company. In particular, the firms with at least one accounting expert tend to be larger, have more merger and restructuring activities, have larger boards, take longer to issue their 10-Ks, and pay higher audit fees. Thus, the descriptive statistics suggest that accounting experts are on the audit committees of larger and more complex firms with more complex operations. The data also suggests that these firms respond by increasing the size of the board and audit committee, taking longer to issue the 10-K, and paying higher audit fees in addition to increasing the accounting expertise on the audit committee.

IV. MAIN RESULTS

Financial Experts

Before testing my hypothesis, I test for the association between all financial experts (*%Financial*) and financial reporting quality, which I present in Table 4. I do this to provide a baseline association of the current audit committee financial expert definition. I find evidence of a positive association between financial experts and financial reporting quality for two of the three proxies for financial reporting quality. Specifically, I find that *%Financial* is associated with higher accruals quality, *AQ5* (coefficient = 0.002; *t*-statistic = 2.12), and a lower probability of disclosed material weaknesses in internal controls, *MW* (coefficient = -0.398; *z*-statistic = -2.42). These tests provide evidence that financial expertise is incrementally associated with higher financial reporting quality. However, I find no association with restatements, which may be because there are only 666 non-reliance 10-K restatements in the test, possibly lowering the power of the test. The lack of association with restatements is counter to the earlier findings of Abbott et al. (2004) and Agrawal and Chadha (2005).

correlated. I provide descriptive statistics of *AC_Count* because it is the denominator of my test variables. My results are robust to using *AC_Count* as the control variable in place of *DirectorCount*.

Accounting Experts versus Other Financial Experts

To test my hypothesis, I compare the association between accounting experts and financial reporting quality to the association between other financial experts and financial reporting quality. Table 5 displays the results of these tests. Focusing first on the estimated associations of accounting experts (*%Accounting*), I find evidence that accounting experts are associated with higher accruals quality, *AQ5* (coefficient = 0.002; t-statistic = 1.49), and fewer material weaknesses in internal controls, *MW* (coefficient = -0.324; z-statistic = -1.58). Similarly, when focusing on other financial experts (*%OtherFinancial*), I find evidence of an association with higher accruals quality, *AQ5* (coefficient = 0.003; t-statistic = 2.06), and fewer material weaknesses in internal controls, *MW* (coefficient = -0.470; z-statistic = -2.59). I find no such association with restatements for either group.

For both *AQ5* and *MW*, the estimated association with *%Accounting* appears to be less meaningful and less statistically significant than with *%OtherFinanacial*. In the direct test of my hypothesis, I do not find evidence that accounting experts have a more positive, or incremental, association with financial reporting quality over other financial experts. That is, I do not find evidence that the coefficients on *%Accounting* and *%OtherFinancial* are statistically different for *Restated* (χ^2 = 0.21), *AQ5* (F-stat = 0.17), or *MW* (χ^2 = 0.52). Thus, I do not find evidence to support that accounting expertise has a stronger effect on financial reporting quality than other financial expertise and I reject my hypothesis.

This series of results is counter to the general findings of prior research (Krishnan and Visvanathan 2008; Dhaliwal et al. 2010; Schmidt and Wilkins 2013) and the assumptions of those calling for a tighter and more accounting focused definition of an accounting expert, both of which were the basis for my hypothesis. To further investigate, in the next section, I partition accounting experts to perhaps better identify accounting expertise and to assess whether a more restrictive definition of accounting expertise might be incrementally associated with higher financial reporting quality.

Former Audit Partners and Financial Reporting Quality

In response to the results in Table 5, I want to ensure that my tests capture accounting expertise and I further split accounting experts into former audit partners and all other accounting experts. Figure 2 visually presents this split. Former audit partners are a potentially more powerful test of my hypothesis. Former audit partners have extensive experience assessing financial reporting quality and financial reporting processes. This gives them very high levels of accounting expertise. Stated differently, former audit partners potentially better capture the presence and attainment of accounting expertise. Additionally, their levels of expertise and experience allow me to test an "extreme" definition of an audit committee financial expert—one that would focus on work experience in directly assessing financial reporting quality. I also find that that former audit partners are a sizeable group of audit committee members. Of the 24,163 firm-years in my study, 6,420 firm-years (26.6 percent), from 1,381 unique companies, have at least one former audit partner on the audit committee as shown in Table 2.

Similar to other expertise variables, *%Partners* (*%OtherAccounting*) measures the percentage of the audit committee composed of former audit partners (accounting experts other than former audit partners). To identify former audit partners, I begin with BoardEx's listing of former employment history and identify the numerous iterations of the 15 largest auditing firms in the United States—those corresponding to Audit Analytics's listing of the largest audit firms based on SEC clients.[20] After identifying the audit firms, I search the employment titles for those containing the word "partner" and designate these individuals as former audit partners. For the initially identified partners, I review their entire employment histories within BoardEx and attempt to remove tax partners and consulting partners. I do this by searching for designations such as "tax," "consulting," and "advisory." When ambiguous, I look up biographies online to aid in the designation.

I present my tests for an association between former audit partners and financial reporting quality in Table 6. Therein, I find a lack of association between former audit partners and financial reporting

[20] The presence of former audit partners from audit firms other than the eight largest firms within my data is not meaningful and I do not extend my background beyond the 15 largest audit firms for this reason.

quality. *%Partners* is not statistically significant for any of the three proxies: *Restated* (coefficient = -0.311; z-statistic = -0.63), *AQ5* (coefficient = 0.001; t-statistic = 0.35), and *MW* (coefficient = -0.424; z-statistic = -1.28). However, I do find evidence of an association between other accounting expertise (*%OtherAccounting*) and higher accruals quality, *AQ5* (coefficient = 0.002; t-statistic = 1.59), and lower levels of material weaknesses, *MW* (coefficient = -0.302; z-statistic = -1.45). This indicates that the association *of %Accounting* with *AQ5* and *MW* in Table 5 is driven by the association of *%OtherAccounting* and not *%Partners*. Furthermore, I do not find evidence that the coefficients on *%Partners* and *%OtherFinancial* are statistically different for *Restated* (χ^2 = 0.14), *AQ5* (F-stat = 0.47), or *MW* (χ^2 = 0.03). Similarly, I do not find evidence that the coefficients on *%Partners* and *%OtherAccounting* are different. Thus, even when using former audit partners as a stricter representation of accounting expertise, I fail to find support for my hypothesis.

The lack of association between former audit partners and financial reporting quality provides additional evidence that financial reporting quality is neither improved by accounting expertise outright nor incrementally improved above more general financial expertise post SOX implementation. This suggests that changing the audit committee financial expert regulatory definition will not lead to improved financial reporting quality. Additionally, it suggests that regulatory attempts to improve financial reporting quality should be focused on other areas or other characteristics of the audit committee. The findings are in contrast to extant empirical findings of a higher association of accounting expertise with financial reporting than other financial expertise (Krishnan and Visvanathan 2008; Dhaliwal et al. 2010; Schmidt and Wilkins 2013). Moreover, the lack of association with material weaknesses in internal controls is directly in contrast to the findings of Naiker and Sharma (2009). Given the sharp contrast to general beliefs and to prior empirical evidence of the association, I investigate why I do not find a positive relation, as suggested by Hayes (2014) in her critique of Badolato et al. (2014). Additionally, I attempt to replicate relevant findings of Naiker and Sharma (2009) using the observations from the same period, 2004, as used in that study – see Appendix B.

V. INVESTIGATING THE LACK OF INCREMENTAL ASSOCIATION

Changes in Financial Reporting Quality versus Changes in Audit Committee Composition

I next attempt to investigate why I do not find an incremental association for accounting expertise relative to other financial expertise and why there is no association for former audit partners post SOX implementation. Uncovering why could help inform regulators and those calling for a change in the definition about what caused the change and, thus, provide insights on better ways to improve financial reporting quality. It will also help reconcile my findings to earlier empirical findings. As previously discussed, both audit committee composition and financial reporting quality have changed since SOX. Thus, it is possible that one or both of the changes mitigated the relation. With regard to the change in the composition of the audit committee, it is possible that the monitoring provided by more recently appointed accounting experts is different than the monitoring provided by previously appointed accounting experts. As discussed previously, prior empirical research on the relation was conducted using either pre-SOX data or was heavily influenced by pre-SOX appointments of accounting experts. With regard to improved financial reporting quality, it is possible that financial reporting quality has changed in such a way or to such an extent that the presence of accounting expertise on the audit committee no longer provides incremental monitoring of financial reporting on average. Stated differently, accounting expertise on the audit committee and other forms of monitoring that were put in place by SOX may be redundant.

To simultaneously test both possible explanations, I split within expertise type while holding constant the SOX-generated improvements to financial reporting monitoring. More specifically, I identify when each expert was first appointed as a member to any audit committee of a U.S. publicly traded company and then split the experts within type based on whether this first appointment was prior or subsequent to SOX. I divide former audit partners *(%PreSOXPartners* vs. *%PostSOXPartners*), other accounting experts *%PreSOXOtherAcc* vs. *%PostSOXOtherAcc*), and other financial experts (*%PreSOXOtherFin* vs. *%PostSOXOtherFin*) based on whether they were first appointed in 2001 and

earlier or 2002 and later, respectively.[21] I continue to separate former audit partners from other accounting experts to increase the power of my tests. By again limiting my sample to 2006–2014, I hold other SOX changes to monitoring of financial reporting constant at their post-SOX heightened levels.

If the monitoring provided by pre-SOX appointment former audit partners is stronger than post-SOX appointment former audit partners, then I would expect a positive association between pre-SOX appointment former audit partners and financial reporting quality. I would also expect that this association is stronger than the association with post-SOX appointment former audit partners. However, if financial reporting quality has improved in such a way that accounting expertise on the audit committee no longer provides incremental monitoring, then I would expect to find no association between either pre- or post-SOX appointment former audit partners and financial reporting quality and no difference in association. I present my tests using the pre- and post-SOX splits in Table 7.

I find that pre-SOX appointment former audit partners are the only group statistically associated with all three financial reporting quality proxies. The coefficients on *%PreSOXPartners* are all in the direction of higher financial reporting quality and significant at the 5% level: *Restated* (coefficient = -2.281; z-statistic = -1.90), *AQ5* (coefficient = 0.008; t-statistic = 1.85), and *MW* (coefficient = -2.156; z-statistic = -2.14). To assess economic significance, I calculate the predicted probability of a non-reliance restatement for a firm with one pre-SOX appointment former audit partner versus a firm with no such individuals. I hold other variables constant at their means and use a four person audit committee – the median size. Adding one pre-SOX appointment former audit partner to a four person audit previously without such an individual decreases the predicted probability of a non-reliance restatement from 2.1 percent to 1.2 percent – a decrease of 42.9 percent. Similarly, adding one pre-SOX appointment former audit partner to the audit committee decreasing the predicted probability of material weakness by 41.1

[21] I split at 2001/2002 because President Bush enacted the law on July 30, 2002 after it was first introduced to the House of Representatives on February 14, 2002. Thus, even early in 2002, the passage of the law or similar requirements could have been anticipated. As a robustness check, my results are consistent if I use a 2003/2004 split to designate the pre- and post-SOX period, which is more in alignment with the required compliance dates of many of SOX's provisions (not tabulated).

percent (from 2.4 percent to 1.4 percent) and improves accruals quality by 6.8 percent. The consistently statistically and economically significant association between pre-SOX appointment former audit partners and financial reporting quality suggests that financial reporting quality has not improved in such a way that accounting expertise on the audit committee can no longer improve financial reporting quality.

I do not find a similar set of associations with post-SOX appointment former audit partners. Post-SOX appointment former audit partners are not associated with any of the financial reporting quality proxies: *Restated* (coefficient = 0.040; z-statistic = 0.08), *AQ5* (coefficient = -0.001; t-statistic = -0.30), and *MW* quality (coefficient = -0.149; z-statistic = -0.44). This, in combination with the pre-SOX former audit partner associations, provides evidence that the monitoring provided by former audit partners appointed after SOX is different that than provided by those appointed prior to SOX. I also find that the coefficients on *%PreSOXPartners* and *%PostSOXPartners* for *Restated* (χ^2 = 3.40), *AQ5* (F-statistic = 3.06), and *MW* (χ^2 = 3.90) are statistically different, further supporting the finding.

This series of results is specific to former audit partners. I do not find consistent associations with other accounting experts or other financial experts appointed pre- or post-SOX. The combination of results provides evidence that accounting expertise on the audit committee can provide incremental monitoring of financial reporting over financial expertise and over other forms of monitoring enacted by SOX. The results also suggest that section 407 changed this relation – that the addition of audit committee expertise disclosure regulation, even if not directly mandating certain forms of expertise, changed the on-average relations identified in prior periods by earlier research. Figure 3 summarizes the tests performed and inferences from each test performed.

Cross Sectional Tests

The tests in Table 7 indicate that, on average, financial reporting quality and the monitoring mechanisms over financial reporting quality have not changed in such a way or to such an extent that the presence of pre-SOX appointment former audit partners on audit committees can no longer provide incremental monitoring of financial reporting. However, alternative forms of monitoring are not uniform across firms. To further understand the interplay of expertise on the audit committee and other forms of

monitoring, I attempt to identify and partition firms with higher and lower alternative monitoring mechanisms. I expect that the association between expertise on the audit committee and financial reporting quality will be weaker (stronger) in firms with better (worse) alternative monitoring mechanisms. To test this prediction, I separately estimate the association in S&P 500/non-S&P 500 firms, firms with high and low analyst following, and firms in regulated/unregulated industries.

Firms within the S&P 500 tend to be very large, giving them relatively higher resources to use on monitoring. They also tend to be economically important firms, which is further enhanced by inclusion in the S&P 500. This ultimately results in increased external monitoring from the media, analysts, institutional investors, and others. To evidence the higher financial reporting quality in S&P 500 firms, the 3,838 S&P 500 firm-years within the sample have restatement and material weakness rates of 0.5 percent and 1.1 percent, respectively. The 20,355 non-S&P 500 firm-years have restatement and material weakness rates of 3.2 percent and 5.6 percent, respectively. The additional resources to devote to monitoring financial reporting and the additional external monitoring should result in a weakened association between expertise and financial reporting quality within S&P 500 firms

I present the results of the split between S&P 500 and non-S&P 500 firms in Table 8. In Panel A, which estimates the associations for S&P 500 firms, I find that the association between pre-SOX appointment former audit partners and accruals quality and material weaknesses is not statistically significant. Additionally, the statistical significance of the association with restatements is lower than the significance found in the pooled regression (Table 7). Pre-SOX former audit partners were the only group consistently associated with each of the three proxies for financial reporting quality in Table 7. Interestingly, Panel A of Table 8, shows that other accounting experts are now associated with two of the proxies for better financial reporting quality: lower restatement levels and higher accruals quality.

In Panel B of Table 8, I present the estimated associations of non-S&P 500 firms. Therein, I find evidence that the association between pre-SOX former audit partners and financial reporting quality is stronger relative to the pooled results and S&P 500 results. Specifically, in comparison to the pooled results, the association with restatements and material weaknesses remains relatively constant and the

association with accruals quality gains statistical significance. In total, the split based on S&P 500 membership provides evidence that incremental association of pre-SOX former audit partners with financial reporting quality is stronger in non-S&P 500 firms than S&P 500 firms. This is consistent with pre-SOX appointment former audit partners having greater influence over financial reporting quality when resources for other internal forms of monitoring and the presence of external monitoring are lower.

Analysts are one of the monitoring mechanisms that may contribute to the differences in the relation between S&P 500 and non-S&P 500 firms. As analyst coverage increases, the number of professionals that are monitoring the financial performance, management, operations, etc. of the firm increases. For example, Liu (2014) finds that mangers shift from earnings management to expectations management as analyst following increases and Degeorge et al. (2013) finds that earnings management decreases as within-firm analyst coverage increases in countries with high financial development. Because of the alternative form of monitoring, firms with higher (lower) analyst coverage should have weaker (stronger) associations between expertise and financial reporting quality. To test, I partition the sample based on the median number of analysts following the firm (median = 7 analysts). Firm-years with seven or more (six or fewer) analysts have higher (lower) analyst coverage.

I present the result of this split in Table 9. In Panel A, I display the estimated coefficients for the firm-years with higher analyst coverage. Within this partition, pre-SOX appointment former audit partners are associated with lower levels of restatements (coefficient = -3.099; z-statistic = -2.19) and material weaknesses (coefficient = -1.716; z-statistic = -1.48) but not with higher accruals quality (coefficient = -0.001; t-statistic = -0.13). For firms with seven or more analysts, pre-SOX appointment former audit partners are associated with two of the three financial reporting quality proxies. However, the incremental association over pre-SOX appointment other financial experts is only statistically significant for restatements (χ^2 = 3.22). When investigating the associations within firms that have six or fewer analysts, I find that pre-SOX appointment former audit partners are association with higher accruals quality (coefficient = 0.018; t-statistic = 2.91) and fewer material weaknesses (coefficient = -2.524; z-statistic = -1.58) but not with fewer restatements (coefficient = -1.582; z-statistic = -0.92), as shown in

Panel B. The incremental association over pre-SOX appointment other financial experts is only statistically significant for accruals quality ($\chi^2 = 5.18$).

The results from Table 9 provide mixed evidence on how the presence of analysts influences the relation between pre-SOX appointment former audit partners and financial reporting quality. In both partitions, pre-SOX appointment former audit partners are associated with two the measures for higher financial reporting quality. That firms from both partitions contribute to the pooled association with financial reporting quality could indicate that analysts and accounting expert audit committee members do not provide substitute forms of monitoring.

Regulated industries also have additional forms of financial reporting monitoring. For example, banks are subject to regulatory reporting requirements from and inspections/audits by the Federal Reserve Board, the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and state regulators. The extra monitoring provided by regulators should improve controls and overall financial reporting quality, on average, and lessen the impact that experts on the audit committee can have on financial reporting quality. As shown in Table 10, I split the pooled sample of Table 7 into regulated industries and non-regulated industries.[22] With the extra monitoring provided by regulators, I expect that pre-SOX former audit partners will provide less (more) incremental versus the pooled aggregate for regulated (non-regulated) industries.

As shown in Panel A of Table 10, which summarizes the regressions of the regulated sample, I find that the association between pre-SOX former audit partners and financial reporting quality is generally weaker in comparison to unregulated industries and the pooled average. Specifically, I find that there is no association with *Restated* (coefficient = -0.099; z-statistic = -0.04) or *AQ5* (coefficient = -0.011; t-statistic = -1.46), which actually suggests a possible association with lower accruals quality. The association with fewer material weaknesses (coefficient = -3.852; z-statistic = -1.84) remains robust. This contrasts with the estimates from on-regulated industries (Panel B). Therein, pre-SOX former audit

[22] Following Bryan et al. (2014), I designate financial service firms (SIC 6000-6999) and utilities (SIC 4949-4999) as regulated industries.

partners remain associated with all three financial reporting quality proxies. Additionally, they display strengthened coefficients and statistical significance, relative to Table 7 for *Restated* (coefficient = -2.991; z-statistic = -2.29) and *AQ5* (coefficient = 0.010; t-statistic = 2.26). Overall, the association between pre-SOX former audit partners and financial reporting quality is stronger in unregulated industries when using restatements and accruals quality. It appears weaker when using material weaknesses, but the association is still present and economically significant.

This combination of results is consistent with expectations, demonstrating the incremental association of pre-SOX appointment former audit partners is strongest in the absence of alternative forms of monitoring. The results also provide evidence that changing the definition of an audit committee financial expert would not have a uniform impact to financial reporting quality – firms with stronger alternative forms of monitoring would see less of an impact from a potential change in the composition of the audit committee. Additionally, the results support that pre-SOX former audit partners are associated with higher financial reporting quality and that other groups of experts continue to not be consistently associated with higher financial reporting quality.

VI. ROBUSTNESS CHECKS AND ADDITIONAL ANALYSIS

Determinants of Former Audit Partner Appointment

It is possible that companies with poor financial reporting quality specifically target and hire former audit partners to help increase or restore financial reporting quality or that former audit partners specifically avoid companies with poor financial reporting quality. Either of these would confound my tests. To investigate these possibilities, I construct a test of the determinants of their audit committee appointment based on the tests by Agrawal and Chadha (2005), Erkens and Bonner (2013), and Bryan, Liu, Tiras, and Zhuang (2013). I test whether non-reliance restatement announcements (*Restate_Announ*), accruals quality, and material weaknesses in time *t* are associated with the audit committee appointment of former audit partners in time *t+1* (*Partner_Appoint*) and whether the inclusion of these variables changes the predictive ability of the model. I present these results in Table 11.

In the second regression of Table 11, Panel A, I find that restatement announcements and material weaknesses are not associated with the appointment of a former audit partner in the following year, though higher accruals quality is. Furthermore, using a χ^2 test for equality of the area under the ROC curve between columns (1) and (2), I find the inclusion of the financial reporting quality variables does not change the area under the ROC curve, providing additional evidence that financial reporting quality does not significantly impact the appointment of former audit partners.

Within Panel B, I also use a determinants test to further investigate the impact of SOX on the appointment of former audit partners to audit committees. Column (1) tests the pre-SOX period of 2000–2001 while column (2) tests the post-SOX period of 2003–2014.[23] I exclude 2002 because it is a transition year; however, the results are robust to including 2002 within the post-SOX period (not tabulated). Of particular interest when comparing columns (1) and (2) to assess how SOX affected the appointment of former audit partners are the pseudo R^2 measures and areas under the ROC curves. While a statistical test for difference between the two models using the area under the ROC curve is not feasible because they are formed with different observations, there is a decrease in the predictive ability of the model subsequent to SOX as measured by the pseudo R^2 (0.074 versus 0.022) and the area under the ROC curve (0.718 versus 0.630). These findings provide evidence that SOX changed the appointment of former audit partners in such a way that their appointment is now less predictable.

The Influence of Continued Pre-SOX Appointments

I next examine if the findings regarding pre-SOX appointment former audit partners are driven by the firms that had appointed these individuals prior to SOX. Of the 1,276 firm-years with a pre-SOX former audit partner, 565 of these observations come from firms in which the former audit partner was on that specific audit committee prior to SOX. The remaining 711 firm-years are from firms that appointed these individuals to their audit committees after SOX. In these untabulated tests, I find that both groups

[23] In comparison to Table 11, Panel A, I remove *MW* because disclosures of internal controls over financial reporting were not required throughout the expanded testing period. Additionally, *Restate_Announ* captures all 10-K restatements since item 4.02 disclosures were not required consistently throughout the expanded testing period.

contribute to the observed relation. By examining these firm-years separately, I provide evidence that these individuals can improve financial reporting quality even within firms that they were appointed to post-SOX. Thus, appointing high-quality accounting experts in the post-SOX era can improve financial reporting quality.

VII. CONCLUSIONS

In conclusion, changing the definition of an audit committee financial expert to be stricter and more focused on accounting is unlikely to lead to improved financial reporting quality. I find evidence that, on average, accounting expertise on the audit committee does not outperform other financial expertise in monitoring financial reporting subsequent to SOX implementation. This conclusion remains even when examining former audit partners specifically. Moreover, 85.5 percent of observations in the sample already have at least one accounting expert. This suggests that most firms would not have to change the composition of their audit committees to comply with a more accounting-focused definition.

The lack of incremental association between accounting expertise and financial reporting quality is inconsistent with the beliefs of those requesting that the SEC change the definition of an audit committee financial expert. It is also inconsistent with prior empirical research that investigates this association using earlier data. In response, I investigate why accounting expertise is not incrementally associated with financial reporting quality. I find that pre-SOX appointment former audit partners are associated with higher financial reporting quality, even in the post-SOX era, but that post-SOX appointment former audit partners are not. These results evidence variation of monitoring within expert type—that the monitoring of financial reporting provided by pre- and post-SOX appointment former audit partners is different. More broadly, they suggest that the changes in audit committee composition and expertise, largely the result of section 407, altered the relation between expertise on the audit committee and financial reporting quality. This discovery helps to reconcile my findings with earlier research of this association, which either examined the pre-SOX period or was influenced by the presence of pre-SOX appointment former audit partners.

An unexplored question is why former audit partners have different associations with financial reporting quality based on when they were first appointed to an audit committee. When setting the definition of an audit committee financial expert, the SEC heard concerns that the supply of individuals who could meet the accounting-focused definition was insufficient. Conversely, nominating committees may be more inclined to comply with section 407 in form but not in spirit. This could explain why 85.5 percent of in-sample observations have at least one accounting expert.

More broadly, the disparities between the association with financial reporting quality and other accounting experts and other financial experts, based on when the experts were first appointed to an audit committee, indicate that addition research is necessary to understand what groups are driving the overall associations seen in Tables 4 and 5. Inconsistencies in the associations, as seen in Table 7, indicate that the overall associations are more complex than may be understood and that additional research on the topic could be informative.

My research and analysis is subject to limitations. Although I perform a determinants model to test whether audit committee members that are former audit partners tend to monitor certain types of companies or are appointed in response to either high or low financial reporting quality, endogeneity may remain a concern. Moreover, my research question and design are partially driven by interest in a possible change in regulation, highlighting a need to have a current understanding of the relations between expertise on the audit committee and financial reporting quality. SOX and the provisions within it, including section 407, were the result of massive and well-publicized accounting failures. SOX was not an exogenous shock to audit committee composition, and it is not possible to completely separate the reaction to the law itself from the events that led to its passage. Regardless, I believe the analysis provides insights on the current relations between audit committee accounting and financial expertise and what is influencing these relations, which should be useful to those contemplating changes to the regulation and to those who would benefit from an updated and disaggregated examination of the relation.

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APPENDIX A

Summary of Prior Empirical Research on the Association of Audit Committee Expertise and Financial Reporting Quality

Reference	Period Examined	Findings
General Financial Expertise		
Abbott, Parker, and Peters (2004)	1991–1999	There is a negative association between audit committees with at least one member with financial expertise and restatements.
Agrawal and Chadha (2005)	2000–2001	There is a negative association between companies whose boards or audit committees have an independent director with financial expertise and the probability of restatements.
Bédard, Chtourou, and Courteau (2004)	1996	There is a negative association between the financial and governance expertise of audit committee members and aggressive earnings management (the level of income-increasing and income-decreasing abnormal accruals).
Keune and Johnstone (2012)	2003–2006	Audit committees with greater financial expertise are less likely to allow managers to waive material misstatements compared to audit committees with less expertise.
Badolato, Donelson, and Ege (2014)	2001–2008	There is a negative association between audit committees with both financial expertise and high relative status and lower levels of earnings management (accounting irregularities and abnormal accruals). However, there is no association between expertise itself and accounting irregularities.
Accounting Expertise		
Carcello, Hollingsworth, Klein, and Neal (2006b)	2003	Accounting financial expertise reduces earning management in firms with weak alternative corporate governance mechanisms.
Krishnan and Visvanathan (2008)	2000–2002	There is a positive association between audit committee accounting financial expertise and conservatism, but this association is limited to instances in which the board is characterized by strong governance. There is no such association with nonaccounting or nonfinancial experts.
Hoitash, Hoitash, and Bedard (2009)	2004–2006	There is a negative association between audit committees having more accounting and more supervisory (other financial) expertise and the likelihood of disclosing a section 404 material weakness in internal controls (but not section 302 material weaknesses). There is no association with non-supervisory other financial expertise.

APPENDIX A (continued)

Dhaliwal, Naiker, and Navissi (2010)	2004–2006	There is a positive association between audit committee accounting expertise and accruals quality. Additionally, when investigating other characteristics of the audit committee members, accruals quality is positively associated with independence, low levels of multiple directorships, and lower tenure in the firm. There is no similar association between audit committee finance expertise and accruals quality.
Schmidt and Wilkins (2013)	2004–2009	There is a negative association between audit committees with accounting expertise and a restatement's dark period (the length of time between a company's discovery that it will need to restate and the subsequent disclosure of the restatement's effect on earnings). There is no such association with other financial expertise.
Former Audit Partners		
Naiker and Sharma (2009)	2004	There is a negative association between former audit partners on the audit committee and material weaknesses in internal controls and performance-adjusted discretionary accruals. There is no similar association when tested using other accounting experts or finance experts.

APPENDIX B

Replication of Naiker and Sharma (2009) and Estimating the Associations in 2004

My analysis examines the association between expertise on the audit committee and financial reporting quality between 2006 and 2014. I begin the sample in 2006 to more accurately measure the association between different types of expertise and financial reporting quality subsequent to SOX implementation. SOX was passed in 2002 and had various provisions that went into effect between 2003 and 2004. This caused some companies to begin implementing SOX as early as 2002. Implementation and adjustment to SOX generally continued for a number of years. The implementation and adjustment to SOX may have resulted in an association between expertise and financial reporting quality not representative of a non-implementation period or otherwise may have introduced noise to the association, each of which could hinder accurately examining the non-implementation period.

My findings are generally different from prior research. Specifically, I do not find support that accounting experts have a more positive association with financial reporting quality than other financial experts during my sample period. However, this prior research examines earlier periods, with 2004 being the mostly heavily researched year (see Appendix A for further detail). To alleviate the possibility that the difference between my findings and past research is a result of the sample period studied or they research design, I replicate certain findings of Naiker and Sharma (2009) and then apply my research design in 2004.

When examining 2004, Naiker and Sharma find evidence that the association between expertise on the audit committee and material weaknesses in internal controls is limited to former audit partners.[24] They find no evidence of an association with other forms of accounting or financial expertise, including other certified public accountants and former auditors, other accounting experts, or other financial

[24] The motivation of their paper is to investigate the difference in association between former audit partners that are affiliated with the firm's external auditor versus those that are not affiliated and not to measure the difference in association between former audit partners and other accounting experts. However, their research does provide evidence that the accounting expertise association is limited to former audit partners only. I do not attempt to replicate their findings regarding affiliated versus non-affiliated former audit partners as it is not relevant to my research question and motivation.

experts. Rather, they find the association with lower levels of material weaknesses in internal controls is limited to former audit partners, whether affiliated or unaffiliated (former employment) with the company's current external auditor.

Using currently available data, I attempt to replicate their sample and research design. This includes the use of indicator test variables that take a value of one when the audit committee has such an expert and zero otherwise. While I do approximate their sample and research design, there remain differences. I do not include a control variable for the number of audit committee meetings because of data availability. Additionally, it appears that my sample has a higher rate of former audit partners, possibly because of differences in data availability and collection techniques.

As presented in Table B1, I find that the overall association between accounting experts and financial reporting quality is limited to former audit partners: *Partners_i* (coefficient = -0.379; z-statistic = -1.98). Then, when split between post- and pre-SOX appointment former audit partners, only pre-SOX appointment former audit partners are associated with lower levels of material weaknesses in internal controls (coefficient = -0.508; z-statistic = -1.51) while there is no statistical association for pre-SOX appointment former audit partners (coefficient = -0.251; z-statistic = -1.18).

To further reconcile my results with extant research that examines 2004 and adjacent years, I apply my primary research design to firm-years from 2004.[25] I present these results in Table B2. As shown therein, I find evidence that pre-SOX appointment former audit partners are associated with lower levels of restatements (coefficient = -2.406; z-statistic = -2.00) and material weaknesses (coefficient = -3.510; z-statistic = -2.48). However, the associations with post-SOX appointment former audit partners is not statistically significant for *Restated* (coefficient = -0.109; z-statistic = -0.15) or *MW* (coefficient = -0.516; z-statistic = -0.72). Neither group has a statistically significant association with accruals quality in this period. These results evidence that, even during the implementation period, pre-SOX appointment

[25] The results are robust to testing for the associations in 2004 and 2005, jointly (untabulated). This includes using year fixed effects and clustering standard errors by firm.

former audit partners are differentially associated with financial reporting quality in comparison to post-SOX appointment former audit partners.

In addition to pre-SOX appointment former audit partners being associated with financial reporting quality, Table B2 provides evidence that all forms of experts appointed prior to SOX are associated with lower levels of restatements and material weaknesses in 2004. The coefficients for pre-SOX appointment other accounting experts and other financial experts, *%PreSOXOtherAcc* and *%PreSOXOtherFin* respectively, are all negative and significant at the 10% for restatements and material weaknesses. These results suggest that all pre-SOX appointment accounting and finance experts were associated with higher financial reporting quality during the SOX implementation period while more recently appointed experts, post-SOX appointments, were not. These findings suggest, that at least during SOX implementation, that only pre-regulation voluntary appointments and/or experienced expertise was associated with higher financial reporting quality. Interestingly, the incremental association of other pre-SOX appointment accounting experts and other financial experts is no longer present in later periods (see Table 7).

Overall, replicating the relevant findings from Naiker and Sharma (2009) and finding largely consistent results (with the exception of the lack of association between pre-SOX appointment former audit partners and accruals quality) when investigating SOX implementation years demonstrates that the main results of this paper can be further reconciled to extant research and that they are not a function of the sample period or testing design. The findings also suggest that the association of pre-SOX appointment former audit partners is robust to the entire post-SOX era.

APPENDIX C
Summary of Financial Reporting Proxies

Panel A provides a description and discusses strengths and weaknesses of the different financial reporting proxies that I use. The discussion of these proxies by Dechow, Ge, and Schrand (2010) was helpful in constructing this appendix. Panel B provides the Spearman correlations, (p-values), and n for the proxies and the lagged values of the proxies using the observations described in Table 1.

Panel A: Descriptions and Strengths/Weaknesses

Restatements with non-reliance disclosures (*Restated*)	
Description: An acknowledgement from the company that previously issued financial statements contained errors (regardless of cause) and that these errors are egregious enough that users should no longer rely on the previously issued financials. This is a discrete output based measure.	*Strengths:* Captures the culmination of the entire financial reporting process. This measure has low type I errors. *Weaknesses:* The occurrence rate is low, and type II errors may be present. It does not capture subtle changes in quality.
Accruals quality (*AQ5*)	
Description: Captures the extent to which current accruals do not map into past, current, or future cash flows whether through management discretion or estimation errors. This is a continuous output-based measure. This measure was originated by Dechow and Dichev (2002) and McNichols (2002)	*Strength:* Can capture within-GAAP financial reporting quality. *Weaknesses:* The use is a joint test of the theory and the abnormal accrual metric as a proxy for quality. The inability of accruals to map into cash flows may not be indicative of non-GAAP accounting. Requires additional data, including from lead and lag years.
Material weaknesses in internal controls (*MW*)	
Description: Communications with the annual report by management and the external auditor of known problems in the financial reporting process within the company. This is a discrete input-based measure.	*Strengths:* Captures the quality of the company's underlying financial reporting process. This measure has low type I errors with regard to the quality of the underlying financial reporting systems. *Weaknesses:* The occurrence rate is low, and type II errors may be present. Compensating controls and other financial reporting governance mechanisms (e.g. the external auditor) may still correct balances and disclosures, leading to type I errors with regard to the quality of the reported balances and disclosures in accurately and completely communicating the financial results of the firm in accordance with GAAP.

APPENDIX C (continued)

Panel B: Spearman Correlations

	$Restated_t$	$AQ5_t$	MW_t	$Restated_{t-1}$	$AQ5_{t-1}$	MW_{t-1}
$Restated_t$	1.000	-0.040	0.255	0.514	-0.036	0.054
		(<.0001)	*(<.0001)*	*(<.0001)*	*(<.0001)*	*(<.0001)*
		15,677	24,163	24,108	16,629	23,164
$AQ5_t$		1.000	-0.072	-0.056	0.887	-0.055
			(<.0001)	*(<.0001)*	*(<.0001)*	*(<.0001)*
			15,677	15,677	15,082	15,511
MW_t			1.000	0.329	-0.067	0.294
				(<.0001)	*(<.0001)*	*(<.0001)*
				24,108	16,629	23,154
$Restated_{t-1}$				1.000	-0.040	0.073
					(<.0001)	*(<.0001)*
					16,629	23,164
$AQ5_{t-1}$					1.000	-0.062
						(<.0001)
						16,464
MW_{t-1}						1.000

APPENDIX D
Variable Definitions

Variable	Definition
Test variables	
%Accounting	Percentage of the audit committee composed of directors who are accounting experts. Accounting experts include those who are currently or previously a certified public accountant or employed as an external auditor, chief financial officer, chief accounting officer, or controller. (Source: BoardEx)
%Partner	Percentage of the audit committee composed of directors who are former audit partners. (Source: BoardEx)
%PostSOXPartners	Percentage of the audit committee composed of directors who are former audit partners that first became audit committee members in 2002 or later. (Source: BoardEx)
%PreSOXPartners	Percentage of the audit committee composed of directors who are former audit partners that first became audit committee members in 2001 or earlier. (Source: BoardEx)
Partner_i	Takes a value of one when the audit committee has at least one member who is a former audit partner; zero otherwise. (Source: BoardEx)
PostSOXPartner_i	Takes a value of one when the audit committee has at least one member who is a former audit partner and s/he first became an audit committee member in 2002 or later; zero otherwise. (Source: BoardEx)
PreSOXPartner_i	Takes a value of one when the audit committee has at least one former audit partner and s/he first became an audit committee member in 2001 or earlier; zero otherwise. (Source: BoardEx)
%OtherAccounting	Percentage of the audit committee composed of directors who are accounting experts other than former audit partners. Accounting experts include those who are currently or previously a certified public accountant or employed as an external auditor, chief financial officer, chief accounting officer, or controller. (Source: BoardEx)
%PostSOXOtherAcc	Percentage of the audit committee composed of directors who are accounting experts other than former audit partners that first became audit committee members in 2002 or later. (Source: BoardEx)
%PreSOXOtherAcc	Percentage of the audit committee composed of directors who are accounting experts other than former audit partners that first became audit committee members in 2001 or earlier. (Source: BoardEx)
OtherAccounting_i	Takes a value of one when the audit committee has at least one member who is an accounting expert other than a former audit partner; zero otherwise. (Source: BoardEx)
PostSOXOtherAcc_i	Takes a value of one when the audit committee has at least one member who is an accounting expert other than a former audit partner and s/he first became an audit committee member in 2002 or later; zero otherwise. (Source: BoardEx)

APPENDIX D (continued)

PreSOXOtherAcc_i Takes a value of one when the audit committee has at least one member who is an accounting expert other than a former audit partner and s/he first became an audit committee member in 2001 or earlier; zero otherwise. (Source: BoardEx)

%Financial Percentage of the audit committee composed of directors who are designated as financial experts by the company's board. (Source: BoardEx)

%OtherFinancial Percentage of audit committee composed of directors who are designated as financial experts but that are not considered accounting experts. (Source: BoardEx)

%PostSOXOtherFin Percentage of the audit committee composed of directors who are designated as financial experts, but that are not considered accounting experts, that first became audit committee members in 2002 or later. (Source: BoardEx)

%PreSOXOtherFin Percentage of the audit committee composed of directors who are designated as financial experts, but that are not considered accounting experts, that first became audit committee members in 2001 or earlier. (Source: BoardEx)

OtherFinancial_i Takes a value of one when the audit committee has at least one member who designated as a financial expert but that is not considered an accounting expert; zero otherwise. (Source: BoardEx)

PostSOXOtherFin_i Takes a value of one when the audit committee has at least one member who designated as a financial expert but that is not considered an accounting expert and s/he first became an audit committee member in 2002 or later; zero otherwise. (Source: BoardEx)

PreSOXOtherFin_i Takes a value of one when the audit committee has at least one member who designated as a financial expert but that is not considered an accounting expert and s/he first became an audit committee member in 2001 or earlier; zero otherwise. (Source: BoardEx)

Dependent variables

AQ5 AQ5 is measured by estimating the following regression within industry by year:

$$\Delta WC_t = \beta_0 + \beta_1 CFO_{t-1} + \beta_2 CFO_t + \beta_3 CFO_{t+1} + \beta_4 \Delta Rev_t + \beta_5 PPE_t + \varepsilon_t.$$

The variables in the above equation are calculated in the same way used in Francis, LaFond, Olsson, and Schipper (2005). *WC* captures current accruals, *CFO* captures cash flows, *Rev* captures sales, and *PPE* captures property, plant, and equipment. *AQ5* is the firm-specific standard deviation of the residual for the current year and the past four years multiplied by -1. Note that the measure is firm-specific standard deviation of the residual for the current year and the past three (two) years when five (four) years of data are not available. The calculation requires a minimum of three years' data.

This is the measure developed by Dechow and Dichev (2002) and modified by McNichols (2002). (Source: Compustat)

MW Takes a value of one when the firm-year has a material weakness in internal controls over financial reporting as disclosed within the audit report; zero otherwise. Note that when *MW* is used as a control variable for the regressions of *Restated*, the material weakness must be disclosed in the original 10-K to take a value of one. (Source: Audit Analytics)

APPENDIX D (continued)

Partner_Appoint	Takes a value of one when a former audit partner joins the audit committee; zero otherwise. (Source: BoardEx)
Restated	Takes a value of one when the original 10-K for the firm-year was restated for non-GAAP financial reporting and the restatement was accompanied by an 8-K with an Item 4.02 announcing that the original 10-K should no longer be relied on; zero otherwise. (Source: Audit Analytics)
Control variables	
AC_Count	Count of the number of audit committee members. (Source: BoardEx)
ACCR	Absolute value of net income less cash flows from operations, all scaled by total assets. (Source: Compustat)
BHAR	The two-year buy-and-hold return less the value-weighted industry (Fama-French 48-industry group classification) return compounded monthly return over the same period. (Source: Center for Research in Security Prices (CRSP))
BigN	Takes a value of one when the firm-year's auditor is Deloitte & Touche, Ernst & Young, KPMG, or PricewaterhouseCoopers; zero otherwise. (Source: Audit Analytics)
BoardInd	Proportion of the board members that are nonexecutive directors. (Sorce: BoardEx)
CapIntensity	Gross property, plant, and equipment scaled by total assets. (Source: Compustat)
Current	Ending cash, receivables, and inventory scaled by total assets. (Source: Compustat)
CF_Vol	Standard deviation of cash flows from operations, scaled by average total assets, from the current and previous four years. (Source: Compustat)
Dec	Takes a value of one when the firm-year has a December or January yearend; zero otherwise. (Source: Compustat)
Director_Count	Count of the number of directors on the board. (Source: BoardEx)
Duality	Takes a value of one when the CEO is also the chairman of the board; zero otherwise. (Source: BoardEx)
Foreign_Op	Takes a value of one when the firm reports foreign pre-tax income; zero otherwise. (Source: Compustat)
Going_Concern	Takes a value of one when the audit report contains a going concern paragraph; zero otherwise. (Source: Audit Analytics)
HumanCapIntensity	Number of employees scaled by total assets. (Source: Compustat)
InvAR	Inventory plus accounts receivable scaled by total assets. (Source: Compustat)
Lag	Count of the number of days between the fiscal yearend and the fourth quarter's earnings press release date. (Source: Compustat)
Lag2	Count of the number of days between the fourth quarter's earnings press release date and audit opinion date. (Source: Audit Analytics and Compustat)
Leverage	Debt scaled by total assets. (Source: Compustat)

APPENDIX D (continued)

Liab	Total liabilities scaled by total assets. (Source: Compustat)
Loss	Takes a value of one when net income is negative; zero otherwise. (Source: Compustat)
LN_Age	Natural log of the firm's age in years (current fiscal year less the first year appearing within Compustat. (Source: Compustat)
LN_Assets	Natural log of total assets at the end of the year. (Source: Compustat)
LN_Fees	The natural log of audit and related fees paid by the firm for the fiscal year's audit, quarterly reviews, and related charges and expenses. (Source: Audit Analytics)
Merger	Takes a value of one when the firm completed a merger or acquisition during the year; zero otherwise. (Source: Compustat)
Restate_Announ	Takes a value of one when, during the fiscal year, the firm announces a restatement of its 10-K and the restatement was accompanied by an 8-K with an Item 4.02 announcing that the 10-K should no longer be relied on; zero otherwise. (Source: Audit Analytics)
Restructure	Takes a value of one when the firm completed a restructuring during the year; zero otherwise. (Source: Compustat)
ROA	Net income scaled by total assets. (Source: Compustat)
Sales_Vol	Standard deviation of sales, scaled by average total assets, from the current and previous four years. (Source: Compustat)
Segments	Count of the number of business segments. (Source: Compustat)
SP_Items	Special items scaled by total assets. (Source: Compustat)
Stock_Vol	The firm's total stock return volatility over the preceding 24 months using monthly returns. (Source: CRSP)
Super	Takes a value of one when the audit committee has at least one member who has work experience as a chief executive officer or company president; zero otherwise. (Source: BoardEx)
Switches	Takes a value of one if the firm-year made a switch to a new external auditor in the current year; zero otherwise. (Source: Audit Analytics)

Figure 1
Average Percentage of the Audit Committee Composed of Accounting Experts

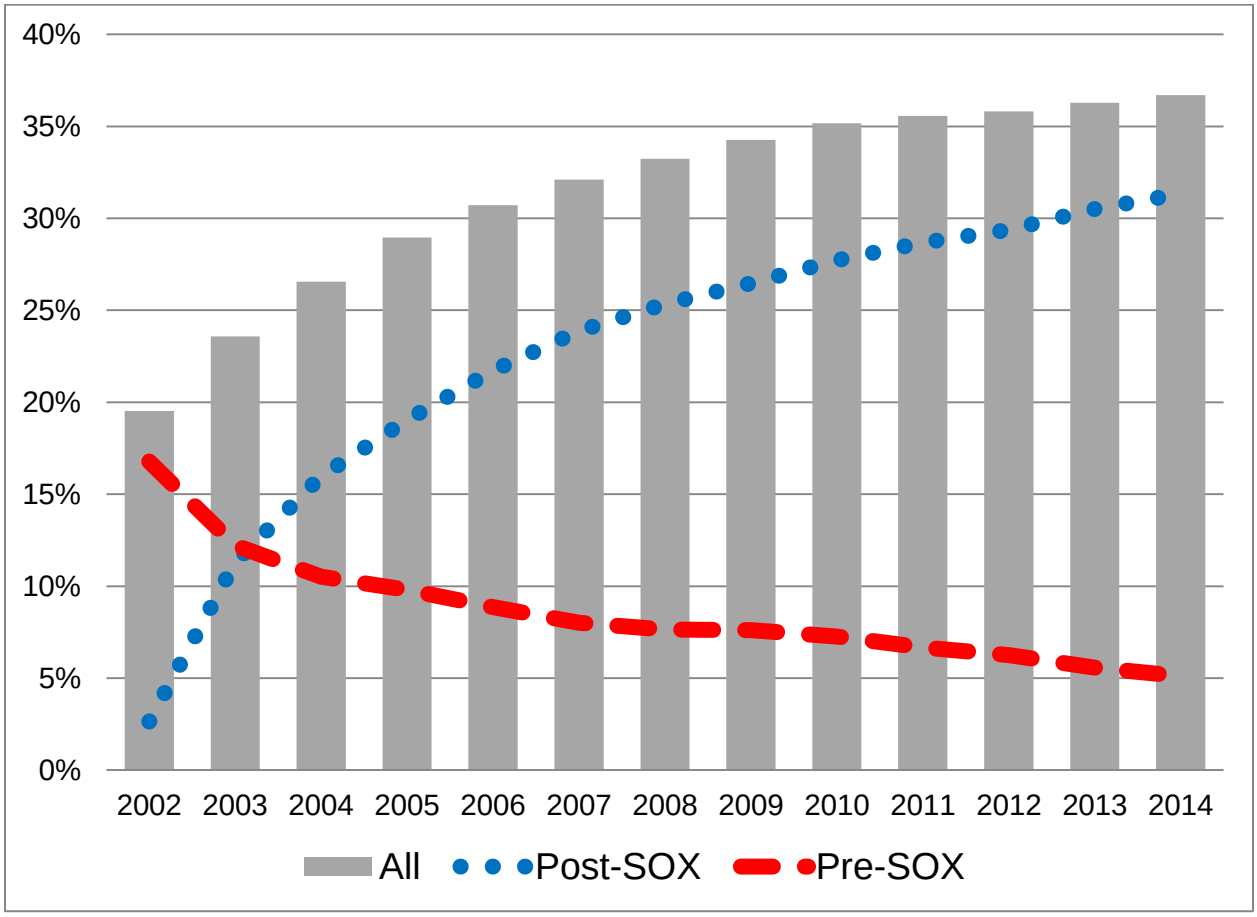

Figure 2
Expertise on the Audit Committee and Related Variables

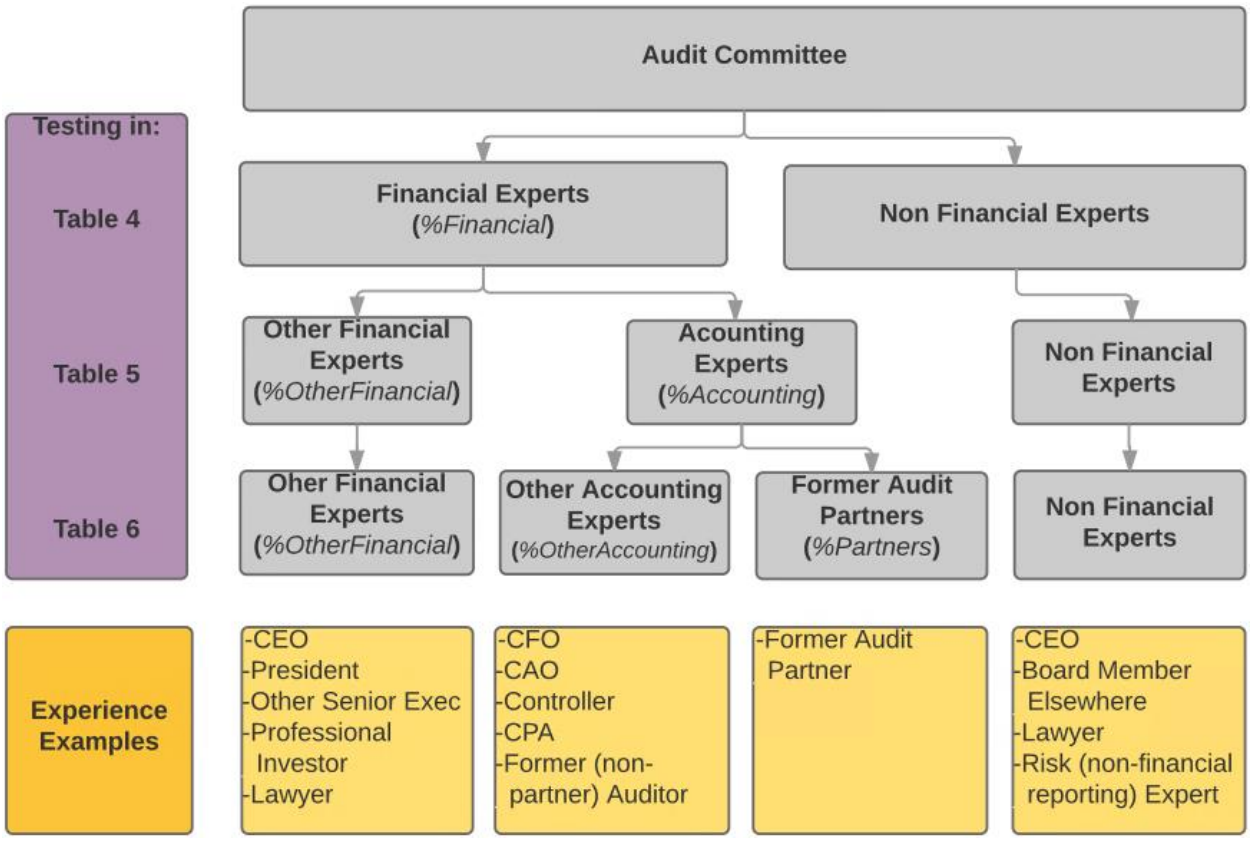

Figure 3
Summary of Tests, Findings, and Inferences

Table 4: Financial Expertise and Financial Reporting Quality		
Designed to: This collection of tests examines whether there is a relation between financial experts and financial reporting quality in the years subsequent to SOX implementation.	**Findings:** The percentage of financial experts is associated with better accruals quality and fewer material weaknesses in internal control.	**Inferences:** Those designated and meeting the current definition (SEC definition) of an audit committee financial expert are associated with two of the three measures of higher financial reporting quality. There is evidence that, in years subsequent to SOX implementation, higher levels of financial expertise are associated with higher financial reporting quality.
Table 5: Accounting versus Other Financial Expertise and Financial Reporting Quality		
Designed to: This collection of tests examines whether accounting experts are incrementally associated with higher financial reporting quality.	**Findings:** The percentage of accounting experts and the percentage of financial experts are similarly associated with financial reporting quality.	**Inferences:** Accounting experts, as generally defined by the SOX definition of an audit committee financial expert, do not have an incremental association with financial reporting quality beyond the association of other financial experts and financial reporting quality.
Table 6: Former Audit Partners and Financial Reporting Quality		
Designed to: This collection of tests examines whether former audit partners specifically are associated with higher financial reporting quality. Former audit partners provide a potentially more powerful test of the hypothesis because of their high levels of accounting expertise.	**Findings:** There is no evidence of an incremental association of accounting experts (including retired audit partners) over other financial experts.	**Inferences:** In years after the implementation of SOX, accounting experts are not incrementally associated with financial reporting quality beyond other financial experts. The lack of an incremental association with financial reporting quality is even for those who meet a potentially extreme definition of an accounting expert.

Figure 3 (continued)

Table 7: Pre- and Post-SOX Appointment Experts and Financial Reporting Quality		
Designed to: This collection of tests examines why there is no incremental association with financial reporting quality for accounting experts by splitting experts based on their initial audit committee appointments.	**Findings:** Only retired audit partners that are appointed to their first audit committee before SOX are consistently associated with the proxies for financial reporting quality. All other expert variables are associated with at most one measure of financial reporting quality.	**Inferences:** Pre-SOX appointment former audit partners continue to be associated with higher financial reporting quality in the years after SOX implementation and they are the only group with a consistent association across financial reporting quality proxies. Their associations provide evidence that expertise on the audit committee can be associated with financial reporting quality, on average, even in the years after SOX implementation, an era that has higher overall financial reporting quality. However, this association is not replicated by other expert groups included in this test.
Table 8: Experts and Financial Reporting Quality by S&P 500 Membership		
Designed to: This collection of tests examines how inclusion in or exclusion from the S&P 500 influences the relation between expertise and financial reporting quality. Splitting the sample in this way is designed to partition firms to those with higher alternative forms of monitoring (S&P 500 firms) and lower alternative forms of monitoring (non-S&P 500 firms).	**Findings:** Pre-SOX appointment partners are only associated with better accruals quality for firms within the S&P 500. Yet, for firms not within the S&P 500, they are associated with all three measures of financial reporting quality.	**Inferences:** The association between pre-SOX appointment former audit partners and financial reporting quality is weaker (stronger) in firms with higher (lower) alternative forms of monitoring. Pre-SOX appointment former audit partners have more influence on financial reporting quality in the absence of alternative forms of monitoring.
Table 9: Experts and Financial Reporting Quality by Analyst Following		
Designed to: This collection of tests focuses on one specific alternative form of monitoring: analysts. Inclusion in the S&P 500 generally includes higher alternative forms of monitoring from analysts, institutional investors, and the media. This collection of tests focuses on just one alternative form of monitoring to better isolate the influence of this mechanism.	**Findings:** Pre-SOX appointment former audit partners are associated with fewer restatements and fewer material weaknesses in internal controls for firms with higher levels of analyst following. They are associated with better accruals quality and fewer material weaknesses in internal control in firms with lower analysts following.	**Inferences:** The results are mixed on how the presence of analysts influences the relation between pre-SOX appointment former audit partners and financial reporting quality. Analysts alone may not be responsible for the differences in association between pre-SOX appointment former audit partners and financial reporting quality based on S&P 500 membership and/or analysts and accounting expert audit committee members do not provide substitute forms of monitoring.

Figure 3 (continued)

Table 10: Experts and Financial Reporting Quality with and without Governmental Regulators		
Designed to: This collection of tests examines how governmental regulators, acting as an alternative monitor, influence the relation between expertise and financial reporting quality.	**Findings:** Pre-SOX appointment partners are only associated with fewer material weaknesses for firms in industries with governmental regulators. However, for firms in industries without governmental regulators, they are associated with all three measures of financial reporting quality.	**Inferences:** The association between pre-SOX appointment former audit partners and financial reporting quality is weaker (stronger) in (not in) industries with governmental regulators. Pre-SOX appointment former audit partners have more influence on financial reporting quality in the absence of alternative forms of monitoring.
Table 11: Determinants of Former Audit Partner Appointment		
Designed to: This collection of tests examines if firms with poor financial reporting quality attempt to appoint former audit partners to help improve financial reporting quality or if former audit partners avoid firms with low financial reporting quality. Additionally, the tests examine the influence of financial reporting quality on the predictive ability of former audit partner appointment models. They are designed to address reverse causality and endogeneity concerns.	**Findings:** For the primary sample period, financial reporting quality at *t* does not influence the appointment of former audit partners at *t+1*. Moreover, the predictive ability of the model does not statistically vary depending the inclusion or exclusion of measures of financial reporting quality at *t*.	**Inferences:** Within the primary sample period, financial reporting quality is not a significant factor in determining which firms appoint former audit partners to their audit committees. Thus, the evidence suggests that former audit partners are not appointed, on average, to firms with higher or lower financial reporting quality before they begin their roles as audit committee members.
Table B1: Replication of Naiker and Sharma (2009)		
Designed to: This collection of tests replicates certain portions of Naiker and Sharma (2009) to alleviate the possibility that the difference between my findings and those of prior research is due to the sample period studied or the research design.	**Findings:** Only former audit partners (jointly) are associated with fewer material weaknesses; other accounting experts do not have this association. When split between pre- and post-SOX appointments, only pre-SOX appointment former audit partners are associated with fewer material weaknesses.	**Inferences:** When pooled, former audit partners are associated with higher financial reporting quality in earlier periods more commonly studied by related research. When split by first appointment, the association is only significant in pre-SOX appointment former audit partners. Thus, the differences between the findings herein (Tables 4-7) and prior related research can be reconciled. The findings herein do not appear to be a product of sample period or research design.

Figure 3 (continued)

Table B2: Pre- and Post-SOX Appointment Experts and Financial Reporting Quality in 2004		
Designed to: This collection of tests applies the research design of Table 7 to an earlier period – 2004.	**Findings:** Pre-SOX appointment former audit partners, but not post-SOX appointment former audit partners, are associated with fewer restatements and material weaknesses. Additionally, all pre-SOX appointment experts are associated with fewer restatements and material weaknesses.	**Inferences:** The findings of Tables 4-7 are not a product of the sample period selected.

TABLE 1
Sample Selection

	Firm-Year Observations (n)
Firm-years with director information from BoardEx [a]	24,928
Less: Firm-years missing Compustat data	*(512)*
Less: Firm-years missing Audit Analytics data	*(253)*
Primary sample	24,163
Less: Firm-years missing accruals quality data	*(8,486)*
Supplementary accruals quality sample	15,677

[a] This sample uses fiscal years 2006 through 2014 in which the fiscal year captures companies with years ending June of that year through May of the following year.

TABLE 2
Accounting and Financial Expertise within the Sample

	Firm-Years (n)	Unique Firms (n)	Unique Audit Committee Members (n)
Total	24,163	4,543	20,744
With financial expert(s) on the AC	23,893	4,503	9,066
With accounting expert(s) on the AC	20,143	3,998	5,693
With former audit partner(s) on the AC	6,420	1,381	985
With pre-SOX appointment former audit partner(s) on the AC	1,276	269	139
With post-SOX appointment former audit partner(s) on the AC	5,370	1,191	846

This table displays counts of the applicable firm-years, unique companies, and unique audit committee (AC) members by applicable category.

TABLE 3
Descriptive Statistics

	Firm-years without an accounting expert audit committee member n = 4,020			Firm-years with an accounting expert audit committee member n = 20,143			Diff. in means
Variables	**Mean**	**S.D.**	**Med.**	**Mean**	**S.D.**	**Med.**	**t stat**
Financial Reporting Quality Proxies							
Restated	0.030	0.170	0.000	0.027	0.162	0.000	0.970
AQ5	-0.029	0.035	-0.019	-0.028	0.030	-0.019	-1.468
MW	0.050	0.217	0.000	0.049	0.216	0.000	-0.242
Expertise Variables							
%Financial	0.411	0.276	0.333	0.572	0.192	0.500	-35.681***
%Accounting	0.000	0.000	0.000	0.412	0.192	0.333	-140.00***
%Partners	0.000	0.000	0.000	0.088	0.140	0.000	-39.913***
%OtherFinancial	0.411	0.276	0.333	0.160	0.223	0.000	62.718***
AC_Count	3.968	1.127	4.000	4.201	1.161	4.000	-11.676***
Control Variables							
LN_Assets	7.080	1.820	7.060	7.232	1.843	7.180	-4.779***
ROA	-0.011	0.306	0.021	-0.012	0.473	0.029	0.067
Current	0.400	0.258	0.380	0.382	0.237	0.359	4.346***
ACCR	0.070	0.117	0.041	0.085	0.303	0.050	-3.028***
Liab	0.593	0.298	0.584	0.571	0.336	0.560	3.870***
Segments	4.682	4.395	3.000	5.403	4.685	3.000	-9.010***
Loss	0.222	0.415	0.000	0.261	0.439	0.000	-5.270***
Foreign_Op	0.337	0.473	0.000	0.486	0.500	0.000	-17.465***
Merger	0.135	0.342	0.000	0.190	0.392	0.000	-8.230***
Restructure	0.180	0.384	0.000	0.302	0.459	0.000	-15.743***
Going_Concern	0.015	0.120	0.000	0.013	0.113	0.000	0.897
DirectorCount	7.412	2.796	7.000	8.011	2.704	8.000	-9.204***
BigN	0.700	0.458	1.000	0.838	0.368	1.000	-20.696***
Dec	0.823	0.381	1.000	0.800	0.400	1.000	3.350***
LN_Fees	13.367	1.133	13.587	14.140	1.061	14.042	-25.247***
Lag	45.318	17.724	44.000	45.803	16.338	44.000	-1.695*
Lag2	18.386	16.751	15.500	15.316	14.333	14.000	12.038***

***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in two-tailed tests. The observation sizes for the *AQ5* variable are 2,372 (firm-years without an accounting expert audit committee member) and 13,305 (firm-years with an accounting expert audit committee member). The smaller observation sizes are due to increased data requirements to calculate accruals quality. Variable definitions are given in Appendix D.

TABLE 4
Financial Expertise and Financial Reporting Quality

Variables	Exp. sign	DV = *Restated* Coeff.	*z*	DV = *AQ5* Coeff.	*t*	DV = *MW* Coeff.	*z*
Intercept	-/?/-	-4.116***	-3.80	0.003	0.44	-18.221***	-20.01
%Financial	-/+/-	-0.191	-0.81	0.002**	2.12	-0.398***	-2.42
LN_Assets	-/+/-	-0.042	-0.70	0.003***	6.63	-0.119***	-2.40
ROA	+/-/+	0.191***	2.39	-0.004	-0.84	0.141**	1.99
Current	+/-/+	-0.013	-0.05	-0.009***	-4.71	0.329*	1.64
ACCR	?	-0.030	-0.29			0.116	1.17
Liab	+/-/+	0.430***	2.55	-0.007***	-3.58	0.324***	2.82
Segments	-/+/-	0.003	0.25	0.000**	2.02	-0.023**	-2.23
Loss	+/-/+	0.229**	1.92	-0.003***	-2.57	0.361***	4.17
Foreign_Op	+/-/+	-0.009	-0.07	0.002	2.47	-0.119	-1.23
Merger	+/?/+	0.325***	2.64	0.000	0.83	0.098	0.99
Restructure	+/?/+	0.131	1.09	0.001*	1.78	-0.036	-0.39
Going_Concern	?	-0.513	-1.61	-0.003	-0.51	-0.340	-1.61
DirectorCount	-/+/-	-0.050**	-1.76	0.000	0.17	-0.033**	-1.78
BigN	-/+/-	-0.062	-0.41	0.000	-0.09	-0.458***	-4.80
Dec	?	-0.108	-0.72	0.000	0.42	-0.086	-0.83
LN_Fees	+/-/+	-0.011	-0.12	-0.003***	-4.56	0.730***	9.91
Lag	+/-/+	0.030***	5.78	0.000	1.11	0.105***	20.84
Lag2	+/-/+	0.016***	3.38	0.000	1.54	0.083***	12.69
MW	+/-	0.773***	4.59	0.000	-0.18		
CF_Vol	-			-0.207***	-7.98		
Sales_Vol	-			-0.012***	-3.61		
n		24,163		15,677		24,163	
Fixed effects		Year		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.070		0.445		0.248	

When the dependent variable is *Restated* or *MW*, the coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. When the dependent variable is *AQ5*, the coefficients are estimated using an OLS regression and the t-statistic is shown. In all regressions, standard errors are clustered by firm. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in one-tailed tests for variables with predicted signs and two-tailed tests otherwise. Variable definitions are given in Appendix D.

TABLE 5
Accounting versus Other Financial Expertise and Financial Reporting Quality

	Exp.	DV = *Restated*		DV = *AQ5*		DV = *MW*	
Variables	**sign**	**Coeff.**	***z***	**Coeff.**	***t***	**Coeff.**	***z***
Intercept	-/?/-	-4.122***	-3.81	0.003	0.44	-18.220***	-20.01
%Accounting	-/+/-	-0.258	-0.91	0.002*	1.49	-0.324*	-1.58
%OtherFinancial	-/+/-	-0.133	-0.51	0.003**	2.06	-0.470***	-2.59
LN_Assets	-/+/-	-0.044	-0.75	0.003***	6.64	-0.116**	-2.31
ROA	+/-/+	0.192**	2.43	-0.004	-0.84	0.139**	1.96
Current	+/-/+	-0.014	-0.06	-0.009***	-4.71	0.328**	1.64
ACCR	?	-0.028	-0.27			0.115	1.16
Liab	+/-/+	0.431***	2.56	-0.007***	-3.58	0.322***	2.80
Segments	-/+/-	0.003	0.24	0.000**	2.01	-0.023**	-2.22
Loss	+/-/+	0.231**	1.93	-0.003***	-2.57	0.359***	4.16
Foreign_Op	+/-/+	-0.009	-0.06	0.002	2.47	-0.120	-1.24
Merger	+/?/+	0.326***	2.65	0.000	0.85	0.097	0.98
Restructure	+/?/+	0.131	1.10	0.001*	1.79	-0.037	-0.41
Going_Concern	?	-0.512	-1.61	-0.003	-0.51	-0.340	-1.61
DirectorCount	-/+/-	-0.050**	-1.76	0.000	0.18	-0.033I*	-1.78
BigN	-/+/-	-0.060	-0.40	0.000	-0.08	-0.461***	-4.84
Dec	?	-0.108	-0.72	0.000	0.42	-0.086	-0.83
LN_Fees	+/-/+	-0.009	-0.09	-0.003***	-4.55	0.728***	9.85
Lag	+/-/+	0.029***	5.77	0.000	1.11	0.105***	20.84
Lag2	+/-/+	0.016***	3.36	0.000	1.53	0.083***	12.71
MW	+/-	0.773***	4.59	0.000	-0.17		
CF_Vol	-			-0.207***	-7.98		
Sales_Vol	_			-0.012***	-3.60		
n		24,163		15,677		24,163	
Fixed effects		Year		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.069		0.446		0.248	
Coefficient Tests		χ^2	***p***	**F**	***p***	χ^2	***p***
$\beta_{\%Accounting} = \beta_{\%OtherFinancial}$		0.21	0.649	0.17	0.679	0.52	0.469

When the dependent variable is *Restated* or *MW*, the coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. When the dependent variable is *AQ5*, the coefficients are estimated using an OLS regression and the t-statistic is shown. In all regressions, standard errors are clustered by firm. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in one-tailed tests for variables with predicted signs and two-tailed tests otherwise. Variable definitions are given in Appendix D.

TABLE 6
Former Audit Partners and Financial Reporting Quality

	Exp.	DV = *Restated*		DV = *AQ5*		DV = *MW*	
Variables	**sign**	**Coeff.**	***z***	**Coeff.**	***t***	**Coeff.**	***z***
Intercept	-/?/-	-4.124***	-3.81	0.003	0.45	-18.229***	-20.02
%Partners	-/+/-	-0.311	-0.63	0.001	0.35	-0.424	-1.28
%OtherAccounting	-/+/-	-0.246	-0.86	0.002*	1.59	-0.302*	-1.45
%OtherFinancial	-/+/-	-0.135	-0.51	0.003**	2.03	-0.475***	-2.61
LN_Assets	-/+/-	-0.044	-0.74	0.003***	6.65	-0.115**	-2.30
ROA	+/-/+	0.192***	2.43	-0.004	-0.84	0.139**	1.95
Current	+/-/+	-0.014	-0.06	-0.009***	-4.72	0.327*	1.63
ACCR	?	-0.028	-0.28			0.115	1.16
Liab	+/-/+	0.431***	2.56	-0.007***	-3.58	0.322***	2.80
Segments	-/+/-	0.003	0.24	0.000**	1.99	-0.023**	-2.23
Loss	+/-/+	0.231**	1.92	-0.003***	-2.59	0.357***	4.14
Foreign_Op	+/-/+	-0.009	-0.07	0.002	2.44	-0.122	-1.26
Merger	+/?/+	0.326***	2.65	0.000	0.84	0.097	0.98
Restructure	+/?/+	0.131	1.10	0.001*	1.78	-0.037	-0.40
Going_Concern	?	-0.511	-1.60	-0.003	-0.50	-0.338	-1.60
DirectorCount	-/+/-	-0.050**	-1.77	0.000	0.18	-0.033**	-1.78
BigN	-/+/-	-0.059	-0.39	0.000	-0.08	-0.460***	-4.84
Dec	?	-0.108	-0.72	0.000	0.41	-0.086	-0.83
LN_Fees	+/-/+	-0.009	-0.09	-0.003***	-4.55	0.729***	9.85
Lag	+/-/+	0.030***	5.79	0.000	1.11	0.105***	20.87
Lag2	+/-/+	0.016***	3.35	0.000	1.52	0.083***	12.71
MW	+/-	0.773***	4.59	0.000	-0.16		
CF_Vol	-			-0.207***	-7.97		
Sales_Vol	-			-0.012***	-3.58		
n		24,163		15,677		24,163	
Fixed effects		Year		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.069		0.446		0.248	

Coefficient Tests	χ^2	***p***	**F**	***p***	χ^2	***p***
$\beta_{\%Partners} = \beta_{\%OtherFinancial}$	0.14	0.704	0.47	0.492	0.03	.874
$\beta_{\%Partners} = \beta_{\%OtherAccounting}$	0.02	0.886	0.33	0.568	0.16	.685

When the dependent variable is *Restated* or *MW*, the coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. When the dependent variable is *AQ5*, the coefficients are estimated using an OLS regression and the t-statistic is shown. In all regressions, standard errors are clustered by firm. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in one-tailed tests for variables with predicted signs and two-tailed tests otherwise. Variable definitions are given in Appendix D.

TABLE 7

Pre- and Post-SOX Appointment Experts and Financial Reporting Quality

	Exp.	DV = *Restated*		DV = *AQ5*		DV = *MW*	
Variables	sign	**Coeff.**	***z***	**Coeff.**	***t***	**Coeff.**	***z***
Intercept	-/?/-	-4.306***	-3.94	0.003	0.42	-18.436***	-20.02
%PostSOXPartners	-/+/-	0.040	0.08	-0.001	-0.30	-0.149	-0.44
%PreSOXPartners	-/+/-	-2.281**	-1.90	0.008**	1.85	-2.156**	-2.14
%PostSOXOtherAcc	-/+/-	-0.139	-0.45	0.002	1.02	-0.274*	-1.32
%PreSOXOtherAcc	-/+/-	-0.521	-1.04	0.004**	2.09	-0.455	-0.96
%PostSOXOtherFin	-/+/-	0.098	0.31	0.005***	2.92	-0.226	-1.06
%PreSOXOtherFin	-/+/-	-0.458	-1.02	0.000	-0.21	-1.139***	-3.56
LN_Assets	-/+/-	-0.037	-0.63	0.003***	6.66	-0.110**	-2.21
ROA	+/-/+	0.189***	2.39	-0.004	-0.84	0.134**	1.95
Current	+/-/+	-0.015	-0.06	-0.009***	-4.74	0.319*	1.60
ACCR	?	-0.017	-0.17			0.125	1.27
Liab	+/-/+	0.412***	2.43	-0.007***	-3.61	0.302***	2.60
Segments	-/+/-	0.004	0.31	0.000**	1.94	-0.022**	-2.11
Loss	+/-/+	0.227**	1.89	-0.003***	-2.57	0.356***	4.15
Foreign_Op	+/-/+	-0.007	-0.05	0.002	2.36	-0.122	-1.27
Merger	+/?/+	0.319***	2.59	0.000	0.80	0.091	0.92
Restructure	+/?/+	0.134	1.13	0.001*	1.93	-0.031	-0.34
Going_Concern	?	-0.485	-1.52	-0.003	-0.50	-0.315*	-1.50
DirectorCount	-/+/-	-0.048**	-1.69	0.000	0.29	-0.032*	-1.68
BigN	-/+/-	-0.051	-0.34	0.000	-0.05	-0.457***	-4.78
Dec	?	-0.123	-0.82	0.000	0.42	-0.102	-0.97
LN_Fees	+/-/+	0.004	0.04	-0.003***	-4.52	0.746***	9.97
Lag	+/-/+	0.029***	5.59	0.000	1.06	0.104***	20.66
Lag2	+/-/+	0.016***	3.28	0.000	1.52	0.083***	12.66
MW	+/-	0.769***	4.55	0.000	-0.16		
CF_Vol	-			-0.207***	-7.99		
Sales_Vol	-			-0.012***	-3.59		
n		24,163		15,677		24,163	
Fixed effects		Year		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.071		0.446		0.250	

Coefficient Tests	χ^2	***p***	**F**	***p***	χ^2	***p***
$\beta_{\%PreSOXPartners} = \beta_{\%PostSOXPartners}$	3.40*	0.065	3.06*	0.080	3.90**	0.048
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherAcc}$	1.86	0.173	0.66	0.415	3.64*	0.056
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherFin}$	2.13	0.144	3.30*	0.069	0.96	0.327

When the dependent variable is *Restated* or *MW*, the coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. When the dependent variable is *AQ5*, the coefficients are estimated using an OLS regression and the t-statistic is shown. In all regressions, standard errors are clustered by firm. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in one-tailed tests for variables with predicted signs and two-tailed tests otherwise. Variable definitions are given in Appendix D.

TABLE 8
Experts and Financial Reporting Quality by S&P 500 Membership

Panel A: S&P 500 Firms

	Exp.	DV = *Restated*		DV = *AQ5*		DV = *MW*	
Variables	sign	**Coeff.**	***z***	**Coeff.**	***t***	**Coeff.**	***z***
Intercept	-/?/-	-9.389	-0.84	-0.010	-0.98	-21.807***	-6.17
%PostSOXPartners	-/+/-	-3.740	-0.81	-0.006	-1.21	1.116	0.59
%PreSOXPartners	-/+/-	-4.286*	-1.31	0.000	0.05	-2.790	-0.75
%PostSOXOtherAcc	-/+/-	-3.898**	-1.89	0.004**	1.68	-0.064	-0.04
%PreSOXOtherAcc	-/+/-	-3.692**	-1.86	0.004*	1.40	-0.159	-0.14
%PostSOXOtherFin	-/+/-	-0.776	-0.56	-0.001	-0.45	-0.298	-0.31
%PreSOXOtherFin	-/+/-	0.971	0.82	0.002	1.03	-0.112	-0.13
LN_Assets	-/+/-	-0.207	-0.46	0.001	1.15	-0.373*	-1.34
ROA	+/-/+	-8.391**	-2.10	-0.011*	-1.37	-2.331	-0.76
Current	+/-/+	1.648**	1.73	-0.007**	-1.84	-0.420	-0.43
ACCR	?	-1.218	-0.24			-1.622	-0.44
Liab	+/-/+	-3.956**	-1.77	-0.002	-0.49	0.739	0.80
Segments	-/+/-	-0.054	-0.97	0.000	0.47	-0.007	-0.25
Loss	+/-/+	-0.984	-1.00	0.001	0.55	1.314***	2.55
Foreign_Op	+/-/+	-1.012**	-2.10	-0.002***	-2.24	-0.127	-0.27
Merger	+/?/+	-1.113**	-1.65	-0.001*	-1.72	-0.913*	-1.48
Restructure	+/?/+	0.645*	1.33	0.000	-0.4	0.022	0.04
Going_Concern	?			0.000			
DirectorCount	-/+/-	0.238	2.22	0.000***	2.38	0.026	0.32
BigN	-/+/-			0.009	1.24		
Dec	?	-1.177**	-2.21	0.001	1.07	-0.234	-0.44
LN_Fees	+/-/+	0.429	0.46	-0.001**	-1.90	1.033***	3.12
Lag	+/-/+	0.032**	1.91	0.000	1.46	0.097***	6.39
Lag2	+/-/+	0.026**	1.70	0.000	2.07	0.073***	4.68
MW	+/-	1.814**	2.09	-0.007**	-1.92		
CF_Vol	-			-0.273***	-6.53		
Sales_Vol	-			-0.025***	-2.87		
n		3,838		3,141		3,838	
Fixed effects		None		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.230		0.382		0.291	

Coefficient Tests	χ^2	***p***	**F**	***p***	χ^2	***p***
$\beta_{\%PreSOXPartners} = \beta_{\%PostSOXPartners}$	0.01	0.919	0.64	0.422	1.51	0.219
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherAcc}$	0.02	0.880	0.45	0.502	0.51	0.476
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherFin}$	2.43	0.119	0.13	0.721	0.49	0.483

TABLE 8 (continued)

Panel B: Non-S&P 500 Firms

Variables	Exp. sign	DV = *Restated* Coeff.	*z*	DV = *AQ5* Coeff.	*t*	DV = *MW* Coeff.	*z*
Intercept	?	-5.392***	-4.60	-0.003	-0.41	-19.533***	-19.18
%PostSOXPartners	-/+/-	-0.034	-0.06	0.000	-0.09	-0.276	-0.81
%PreSOXPartners	-/+/-	-2.125**	-1.75	0.010**	2.00	-2.029**	-1.98
%PostSOXOtherAcc	-/+/-	-0.115	-0.37	0.001	0.65	-0.278*	-1.32
%PreSOXOtherAcc	-/+/-	-0.287	-0.58	0.004**	1.84	-0.403	-0.82
%PostSOXOtherFin	-/+/-	0.111	0.34	0.006***	2.89	-0.238	-1.10
%PreSOXOtherFin	-/+/-	-0.558	-1.16	-0.001	-0.35	-1.079***	-3.09
LN_Assets	-/+/-	0.010	0.16	0.004***	6.79	-0.059	-1.16
ROA	+/-/+	0.149**	1.69	-0.005	-1.06	0.076*	1.58
Current	+/-/+	-0.089	-0.35	-0.010***	-4.38	0.273*	1.38
ACCR	?	0.002	0.02			0.184*	1.90
Liab	+/-/+	0.334**	1.84	-0.010***	-4.02	0.188*	1.48
Segments	-/+/-	0.005	0.34	0.000*	1.52	-0.026***	-2.33
Loss	+/-/+	0.216**	1.84	-0.004***	-2.71	0.306***	3.62
Foreign_Op	+/-/+	0.021	0.15	0.003	3.05	-0.120	-1.21
Merger	+/?/+	0.322***	2.60	0.001	1.24	0.108	1.07
Restructure	+/?/+	0.121	0.99	0.001*	1.73	-0.052	-0.57
Going_Concern	?	-0.404	-1.27	-0.002	-0.35	-0.260	-1.21
DirectorCount	-/+/-	-0.039*	-1.37	0.000	-0.07	-0.016	-0.88
BigN	-/+/-	-0.118	-0.78	-0.001	-0.67	-0.506***	-5.23
Dec	?	-0.096	-0.62	0.000	-0.07	-0.117	-1.09
LN_Fees	+/-/+	0.077	0.76	-0.002***	-3.36	0.814***	10.28
Lag	+/-/+	0.026***	5.02	0.000	0.51	0.103***	19.40
Lag2	+/-/+	0.014***	2.94	0.000	1.30	0.084***	12.22
MW	+/-	0.738	4.35	0.000	-0.03		
CF_Vol	-			-0.202***	-7.68		
Sales_Vol	-			-0.011***	-3.15		
n		20,325		12,536		20,325	
Fixed effects		Year		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.059		0.441		0.250	

Coefficient Tests	χ^2	*p*	**F**	*p*	χ^2	*p*
$\beta_{\%PreSOXPartners} = \beta_{\%PostSOXPartners}$	2.69	0.101	3.22*	0.073	2.84*	0.092
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherAcc}$	1.95	0.163	1.16	0.286	3.19*	0.074
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherFin}$	3.36*	0.067	3.67*	0.055	0.79	0.375

When the dependent variable is *Restated* or *MW*, the coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. When the dependent variable is *AQ5*, the coefficients are estimated using an OLS regression and the t-statistic is shown. In all regressions, standard errors are clustered by firm. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in one-tailed tests for variables with predicted signs and two-tailed tests otherwise. Variable definitions are given in Appendix D.

TABLE 9
Experts and Financial Reporting Quality by Analyst Following

Panel A: High Analyst Following

	Exp.	DV = *Restated*		DV = *AQ5*		DV = *MW*	
Variables	sign	**Coeff.**	***z***	**Coeff.**	***t***	**Coeff.**	***z***
Intercept	-/?/-	-3.337*	-1.73	0.007	1.16	-17.275***	-13.05
%PostSOXPartners	-/+/-	-0.583	-0.80	-0.002	-0.84	-0.621	-1.14
%PreSOXPartners	-/+/-	-3.099**	-2.19	-0.001	-0.13	-1.716*	-1.48
%PostSOXOtherAcc	-/+/-	-0.353	-0.74	0.002	0.98	-0.279	-0.89
%PreSOXOtherAcc	-/+/-	-1.115**	-1.65	0.002	0.95	-0.782*	-1.43
%PostSOXOtherFin	-/+/-	-0.409	-0.78	0.004**	2.28	-0.257	-0.75
%PreSOXOtherFin	-/+/-	-0.516	-0.97	-0.002	-0.67	-1.080***	-2.47
LN_Assets	-/+/-	-0.037	-0.41	0.002***	4.75	-0.175***	-2.49
ROA	+/-/+	0.756*	1.33	-0.001	-0.24	1.224***	3.07
Current	+/-/+	0.409	1.10	-0.006***	-2.56	0.399*	1.42
ACCR	?	0.663	1.26			0.740	1.46
Liab	+/-/+	0.672**	2.29	-0.005**	-1.99	0.539***	2.80
Segments	-/+/-	0.008	0.39	0.000	-0.14	-0.037***	-2.48
Loss	+/-/+	0.388**	1.91	-0.002	-1.21	0.713***	4.74
Foreign_Op	+/-/+	0.094	0.46	0.001	1.04	-0.122	-0.86
Merger	+/?/+	0.209	1.18	0.000	-0.09	0.027	0.19
Restructure	+/?/+	0.324**	2.00	0.001	1.09	0.161	1.20
Going_Concern	?	-1.168	-1.16	0.004	0.57	-1.138**	-2.23
DirectorCount	-/+/-	-0.079**	-1.85	0.000	0.35	-0.048*	-1.62
BigN	-/+/-	0.310	1.14	0.001	0.50	-0.348*	-1.78
Dec	?	-0.029	-0.13	0.002**	2.14	-0.087	-0.51
LN_Fees	+/-/+	-0.062	-0.37	-0.002***	-3.83	0.722***	6.32
Lag	+/-/+	0.025***	3.49	0.000	-0.07	0.095***	13.79
Lag2	+/-/+	0.014**	2.26	0.000	0.34	0.070***	9.01
MW	+/-	1.086***	4.47	-0.001	-0.65		
CF_Vol	-			-0.299***	-12.93		
Sales_Vol	-			-0.004	-0.88		
n		12,577		8,877		12,577	
Fixed effects		Year		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.088		0.490		0.236	

Coefficient Tests	χ^2	***p***	**F**	***p***	χ^2	***p***
$\beta_{\%PreSOXPartners} = \beta_{\%PostSOXPartners}$	3.03*	0.082	0.12	0.729	0.81	0.368
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherAcc}$	1.75	0.185	0.35	0.552	0.60	0.439
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherFin}$	3.22*	0.073	0.05	0.830	0.28	0.599

TABLE 9 (continued)

Panel B: Low Analyst Following

Variables	Exp. sign	DV = *Restated* Coeff.	*z*	DV = *AQ5* Coeff.	*t*	DV = *MW* Coeff.	*z*
Intercept	?	-5.214***	-3.63	-0.004	-0.36	-20.272***	-15.37
%PostSOXPartners	-/+/-	0.520	0.72	0.001	0.26	0.053	0.13
%PreSOXPartners	-/+/-	-1.582	-0.92	0.018***	2.91	-2.524*	-1.58
%PostSOXOtherAcc	-/+/-	0.013	0.03	0.002	0.76	-0.297	-1.11
%PreSOXOtherAcc	-/+/-	-0.079	-0.12	0.006**	1.92	-0.084	-0.12
%PostSOXOtherFin	-/+/-	0.478	1.24	0.005**	2.01	-0.272	-1.06
%PreSOXOtherFin	-/+/-	-0.733	-0.96	0.003*	1.29	-1.150***	-2.46
LN_Assets	-/+/-	-0.051	-0.68	0.004***	5.56	-0.073	-1.05
ROA	+/-/+	0.127*	1.39	-0.004	-0.87	-0.004	-0.04
Current	+/-/+	-0.198	-0.64	-0.012***	-4.19	0.294	1.16
ACCR	?	-0.038	-0.29			0.210	1.54
Liab	+/-/+	0.316*	1.51	-0.010***	-3.51	0.136	0.86
Segments	-/+/-	0.001	0.04	0.000*	1.47	-0.011	-0.84
Loss	+/-/+	0.135	0.93	-0.003**	-1.99	0.206**	1.93
Foreign_Op	+/-/+	-0.109	-0.58	0.003	2.58	-0.135	-1.03
Merger	+/?/+	0.458***	2.81	0.001	0.67	0.112	0.82
Restructure	+/?/+	-0.048	-0.28	0.001	1.12	-0.172	-1.41
Going_Concern	?	-0.283	-0.81	-0.008	-1.07	-0.087	-0.36
DirectorCount	-/+/-	-0.015	-0.43	0.000	0.01	-0.012	-0.54
BigN	-/+/-	-0.229	-1.24	0.000	0.07	-0.542***	-4.80
Dec	?	-0.158	-0.79	-0.001	-0.77	-0.113	-0.87
LN_Fees	+/-/+	0.042	0.34	-0.003***	-2.55	0.827***	8.11
Lag	+/-/+	0.033***	4.98	0.000	0.89	0.112***	14.15
Lag2	+/-/+	0.016***	2.42	0.000	1.57	0.094***	9.08
MW	+	0.549***	2.37	0.000	-0.18		
CF_Vol	-			-0.172***	-5.72		
Sales_Vol	-			-0.016***	-3.41		
n		11,586		6,800		11,586	
Fixed effects		Year		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.068		0.436		0.253	

Coefficient Tests	χ^2	*p*	F	*p*	χ^2	*p*
$\beta_{\%PreSOXPartners} = \beta_{\%PostSOXPartners}$	1.31	0.253	4.37**	0.037	2.61	0.101
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherAcc}$	0.64	0.424	3.11*	0.078	3.56*	0.059
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherFin}$	0.21	0.646	5.18**	0.023	0.70	0.404

When the dependent variable is *Restated* or *MW*, the coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. When the dependent variable is *AQ5*, the coefficients are estimated using an OLS regression and the t-statistic is shown. In all regressions, standard errors are clustered by firm. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in one-tailed tests for variables with predicted signs and two-tailed tests otherwise. Variable definitions are given in Appendix D.

TABLE 10

Experts and Financial Reporting Quality with and without Governmental Regulators

Panel A: Regulated Industries

	Exp.	DV = *Restated*		DV = *AQ5*		DV = *MW*	
Variables	sign	**Coeff.**	***z***	**Coeff.**	***t***	**Coeff.**	***z***
Intercept	-/?/-	-7.146***	-3.81	0.014	1.25	-16.851	-9.46
%PostSOXPartners	-/+/-	0.093	0.06	-0.002	-0.39	0.212	0.29
%PreSOXPartners	-/+/-	-0.099	-0.04	-0.011	-1.46	-3.852**	-1.84
%PostSOXOtherAcc	-/+/-	-0.913	-1.19	0.007**	2.10	-0.253	-0.44
%PreSOXOtherAcc	-/+/-	-1.868*	-1.33	-0.011	-2.05	-0.340	-0.35
%PostSOXOtherFin	-/+/-	0.456	0.71	0.003	1.09	-0.747*	-1.51
%PreSOXOtherFin	-/+/-	-0.264	-0.25	0.003	0.96	-0.447	-0.64
LN_Assets	-/+/-	-0.026	-0.17	0.002***	2.65	0.261	1.88
ROA	+/-/+	0.843	0.93	-0.002	-0.29	-0.691	-0.84
Current	+/-/+	0.308	0.63	-0.012***	-3.83	0.508	1.23
ACCR	?	-0.225	-0.23			0.033	0.04
Liab	+/-/+	1.095	1.01	-0.004	-1.19	-0.308	-0.49
Segments	-/+/-	0.011	0.49	0.000	0.48	0.012	0.59
Loss	+/-/+	0.247	0.85	-0.005**	-2.07	0.573***	2.94
Foreign_Op	+/-/+	0.570*	1.41	-0.001	-0.83	0.129	0.41
Merger	+/?/+	-0.020	-0.06	0.001	0.43	-0.499	-1.86
Restructure	+/?/+	-1.039	-2.12	0.000	-0.24	0.083	0.30
Going_Concern	?	-0.367	-0.33	0.003	0.49	-0.525	-0.80
DirectorCount	-/+/-	-0.063	-1.21	0.000	0.83	-0.035	-1.00
BigN	-/+/-	-0.281	-0.71	0.003	0.97	-0.579***	-2.57
Dec	?	-0.885**	-2.49	0.001	0.26	-0.242	-0.80
LN_Fees	+/-/+	0.163	0.88	-0.003***	-2.57	0.313**	2.16
Lag	+/-/+	0.039***	3.31	0.000	-0.41	0.132***	11.15
Lag2	+/-/+	0.028***	2.67	0.000	0.10	0.116***	9.11
MW	+/-	1.024***	2.75	0.001	0.45		
CF_Vol	-			-0.271***	-8.41		
Sales_Vol	-			0.001	0.20		
n		6,488		2,145		6,488	
Fixed effects		Year		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.121		0.522		0.257	

Coefficient Tests	χ^2	***p***	**F**	***p***	χ^2	***p***
$\beta_{\%PreSOXPartners} = \beta_{\%PostSOXPartners}$	0.01	0.941	0.97	0.325	3.36	0.067
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherAcc}$	0.43	0.511	0.00	0.996	2.39	0.122
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherFin}$	0.01	0.941	3.67*	0.056	2.47	0.116

TABLE 10 (continued)

Panel B: Unregulated Industries

Variables	Exp. sign	DV = *Restated* Coeff.	*z*	DV = *AQ5* Coeff.	*t*	DV = *MW* Coeff.	*z*
Intercept	?	-3.152**	-2.16	0.000	-0.02	-20.047***	-18.15
%PostSOXPartners	-/+/-	-0.014	-0.03	-0.001	-0.24	-0.068	-0.18
%PreSOXPartners	-/+/-	-2.991**	-2.29	0.010**	2.26	-1.625*	-1.48
%PostSOXOtherAcc	-/+/-	-0.033	-0.10	0.001	0.60	-0.220	-0.98
%PreSOXOtherAcc	-/+/-	-0.350	-0.64	0.006***	2.76	-0.345	-0.65
%PostSOXOtherFin	-/+/-	-0.051	-0.14	0.006***	2.85	-0.061	-0.26
%PreSOXOtherFin	-/+/-	-0.520	-1.04	-0.001	-0.56	-1.162***	-3.28
LN_Assets	-/+/-	-0.015	-0.18	0.003***	6.19	-0.289***	-5.26
ROA	+/-/+	0.168**	2.09	-0.003	-0.68	0.126**	2.15
Current	+/-/+	-0.155	-0.50	-0.008***	-3.37	-0.315	-1.39
ACCR	?	-0.025	-0.24			0.123	1.46
Liab	+/-/+	0.382**	2.28	-0.008***	-3.43	0.191*	1.55
Segments	-/+/-	0.001	0.06	0.000*	1.38	-0.024**	-2.04
Loss	+/-/+	0.180*	1.32	-0.003**	-2.03	0.245***	2.61
Foreign_Op	+/-/+	-0.113	-0.79	0.002	2.66	-0.146	-1.39
Merger	+/?/+	0.383***	2.95	0.001	0.90	0.154*	1.42
Restructure	+/?/+	0.215**	1.75	0.001**	2.37	-0.032	-0.34
Going_Concern	?	-0.478	-1.44	-0.003	-0.52	-0.320	-1.44
DirectorCount	-/+/-	-0.030	-0.87	0.000	-0.53	-0.040**	-1.76
BigN	-/+/-	0.026	0.16	0.000	-0.27	-0.386***	-3.58
Dec	?	0.014	0.09	0.000	0.26	-0.087	-0.79
LN_Fees	+/-/+	-0.088	-0.66	-0.002***	-3.74	0.992***	10.30
Lag	+/-/+	0.027**	4.84	0.000	1.21	0.099***	19.72
Lag2	+/-/+	0.014**	2.54	0.000	1.82	0.072***	11.22
MW	+	0.735***	3.84	0.000	-0.27		
CF_Vol	-			-0.203***	-7.51		
Sales_Vol	-			-0.013***	-3.60		
n		17,675		13,532		17,675	
Fixed effects		Year		Year		Year	
S/E clustering		Firm		Firm		Firm	
R^2 / Pseudo R^2		0.069		0.437		0.256	

Coefficient Tests	χ^2	*p*	F	*p*	χ^2	*p*
$\beta_{\%PreSOXPartners} = \beta_{\%PostSOXPartners}$	5.02**	0.025	4.19**	0.041	2.01	0.156
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherAcc}$	3.69*	0.055	0.93	0.336	1.82	0.178
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherFin}$	3.36*	0.067	5.41**	0.020	0.17	0.684

When the dependent variable is *Restated* or *MW*, the coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. When the dependent variable is *AQ5*, the coefficients are estimated using an OLS regression and the t-statistic is shown. In all regressions, standard errors are clustered by firm. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in one-tailed tests for variables with predicted signs and two-tailed tests otherwise. Variable definitions are given in Appendix D.

TABLE 11
Determinants of Former Audit Partner Appointment

Panel A: Appointment of former audit partners in response to financial reporting quality (2006–14)

	DV = *Partner_Appoint*$_{t+1}$			
	(1)		(2)	
Variables	**Coeff.**	***z***	**Coeff.**	***z***
Intercept	-6.673***	-5.11	-6.436***	-4.94
Restate_Announ$_t$			-0.093	-0.29
AQ5$_t$			4.044*	1.67
MW$_t$			0.294	1.05
%Partners$_t$	0.152	0.33	0.130	0.28
%OtherAccounting$_t$	-0.795***	-2.63	-0.799***	-2.65
DirectorCount$_t$	-0.034	-1.16	-0.031	-1.07
Inst_Ownership$_t$	0.168	0.67	0.159	0.63
Leverage$_t$	-0.695*	-1.92	-0.756**	-2.08
BigN$_t$	-0.110	-0.56	-0.104	-0.52
LN_Fees $_t$	0.180	1.49	0.170	1.42
LN_Assets$_t$	0.089	1.29	0.085	1.22
Segments$_t$	0.004	0.37	0.004	0.36
LN_Age$_t$	0.104	0.90	0.098	0.85
CapIntensity$_t$	-0.094	-0.62	-0.132	-0.85
HumanCapIntensity$_t$	0.000***	2.82	0.000***	2.69
MB$_t$	0.002	1.58	0.002*	1.71
Loss$_t$	0.053	0.33	0.058	0.35
Foreign_Op$_t$	-0.091	-0.65	-0.092	-0.66
Merger$_t$	-0.182	-1.03	-0.190	-1.08
Restructure$_t$	0.039	0.28	0.037	0.26
Stock Vol$_{t-2,\,t}$	1.118**	2.27	1.582***	2.69
BHAR$_t$	0.000	0.02	0.003	0.23
n	13,410		13,410	
Fixed Effects	Year		Year	
S/E Clustering	Firm		Firm	
Pseudo R^2	0.020		0.021	
Area under ROC	0.623		0.628	
Test of difference between the areas under the ROC curves: (1) vs. (2)				
χ^2	1.88			
P	0.170			

TABLE 11 (continued)

Panel B: Appointment of former audit partners pre- and post-SOX

	DV = *Partner_Appoint*$_{t+1}$			
	(1) Period: 2000 and 2001		(2) Period 2003 to 2014	
Variables	**Coeff.**	***z***	**Coeff.**	***z***
Intercept	-9.788***	-3.65	-5.685***	-6.43
Restate_Announ$_t$	0.806	1.27	0.192	1.32
AQ5$_t$	17.789	1.61	-0.303	-0.20
%Partners$_t$	0.790	0.48	0.302	0.87
%OtherAccounting$_t$	-0.311	-0.30	-0.360	-1.22
DirectorCount$_t$	-0.071	-1.15	-0.038*	-1.79
Inst_Ownership$_t$	-0.155	-0.27	0.120	0.70
Leverage$_t$	1.052	1.14	-0.798***	-2.77
BigN$_t$	-1.117*	-1.68	0.182	1.11
LN_Fees $_t$	0.508*	1.73	0.149*	1.75
LN_Assets$_t$	0.006	0.03	0.064	1.16
Segments$_t$	-0.017	-0.53	0.000	0.05
LN_Age$_t$	0.088	0.39	0.098	1.23
CapIntensity$_t$	-0.218	-0.43	-0.109	-0.89
HumanCapIntensity$_t$	0.000	-1.28	0.000	1.55
MB$_t$	-0.029	-0.72	0.000	0.88
Loss$_t$	0.057	0.15	0.001	0.01
Foreign_Op$_t$	0.345	1.03	-0.120	-1.18
Merger$_t$	-0.204	-0.31	-0.012	-0.08
Restructure$_t$	-0.452	-1.17	0.070	0.65
Stock Vol$_{t-2,\,t}$	1.545*	1.71	1.159**	2.55
BHAR$_t$	0.066	1.43	0.006	0.61
n	1,924		21,404	
Fixed Effects	Year		Year	
S/E Clustering	Firm		Firm	
Pseudo R^2	0.074		0.022	
Area under ROC	0.718		0.630	

The coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in two-tailed tests. Variable definitions are given in Appendix D.

TABLE B1
Replication of Naiker and Sharma (2009)

	DV = *MW*			
	(1) Without Pre/Post Splits		(2) With Pre/Post Splits	
Variables	**Coeff.**	***z***	**Coeff.**	***z***
Intercept	-0.739	-1.03	-0.916	-1.26
Partners_i	-0.379**	-1.98		
PostSOXPartners_i			-0.251	-1.18
PreSOXPartners_i			-0.508*	-1.51
OtherAccounting_i	-0.056	-0.36		
PostSOXOtherAcc_i			0.708*	1.29
PreSOXOtherAcc_i			0.196	0.29
OtherFinancial_i	-0.125	-0.82		
PostSOXOtherFin_i			-0.467	-0.97
PostSOXOtherFin_i			-0.298	-0.75
Super_i	-0.121	-0.41	-0.018	-0.06
AC_Count	0.526***	3.24	0.501***	3.09
BoardInd	-0.096	-0.12	-0.184	-0.24
Duality	0.525**	1.69	0.522**	1.67
LN_Assets	-0.256***	-4.70	-0.245***	-4.24
ROA	-0.032	-0.38	-0.037	-0.44
Loss	0.948***	5.67	0.938***	5.57
Switches	1.108***	4.56	1.104***	4.54
Segments	0.031**	1.91	0.033**	2.06
Foreign_Op	0.670***	4.34	0.685***	4.42
Leverage	0.316	1.11	0.296	1.03
InvAR	0.303	0.68	0.275	0.61
SP_Items	1.588*	1.40	1.640*	1.43
n	1,719		1,719	
Fixed Effects	Industry		Industry	
S/E Clustering	Firm		Firm	
Pseudo R^2	0.091		0.093	

The coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in one-tailed tests for variables with predicted signs and two-tailed tests otherwise. Variable definitions are given in Appendix D.

TABLE B2

Pre- and Post-SOX Appointment Experts and Financial Reporting Quality in 2004

	Exp.	DV = *Restated*		DV = *AQ5*		DV = *MW*	
Variables	sign	**Coeff.**	***z***	**Coeff.**	***t***	**Coeff.**	***z***
Intercept	-/?/-	-6.104***	-5.21	-0.009	-0.97	-13.293***	-10.09
%PostSOXPartners	-/+/-	-0.109	-0.15	-0.005	-0.95	-0.516	-0.72
%PreSOXPartners	-/+/-	-2.406**	-2.00	-0.005	-0.65	-3.510***	-2.48
%PostSOXOtherAcc	-/+/-	-0.029	-0.05	-0.007	-1.69	0.367	0.73
%PreSOXOtherAcc	-/+/-	-0.863*	-1.34	0.000	-0.04	-0.989*	-1.49
%PostSOXOtherFin	-/+/-	-0.308	-0.65	0.002	0.45	0.282	0.64
%PreSOXOtherFin	-/+/-	-0.637**	-1.73	0.001	0.48	-0.545*	-1.42
LN_Assets	-/+/-	0.059	0.85	0.003**	4.54	-0.224***	-3.08
ROA	+/-/+	0.203	0.39	-0.009***	-2.89	0.860**	1.92
Current	+/-/+	0.438*	1.43	-0.019***	-7.06	0.473*	1.50
ACCR	?	1.087	1.49			0.515	0.68
Liab	+/-/+	-0.362	-1.28	-0.009***	-4.50	0.266	1.04
Segments	-/+/-	-0.004	-0.24	0.000	0.74	-0.010	-0.66
Loss	+/-/+	0.222	1.07	-0.004***	-2.36	0.462***	2.43
Foreign_Op	+/-/+	0.024	0.15	0.000	0.07	0.083	0.53
Merger	+/?/+	0.241	0.84	-0.003	-1.14	-0.158	-0.50
Restructure	+/?/+	0.031	0.19	0.001	0.85	0.015	0.09
Going_Concern	?	-1.554	-1.44	0.005	1.06	-0.997	-1.36
DirectorCount	-/+/-	-0.090***	-2.99	0.000	-0.06	0.034	1.14
BigN	-/+/-	0.217	0.85	0.002	1.12	-1.332***	-5.96
Dec	?	-0.073	-0.34	-0.002	-1.14	0.078	0.36
LN_Fees	+/-/+	0.293***	2.76	-0.001	-1.24	0.519***	4.70
Lag	+/-/+	0.001	0.40	0.000	0.90	0.093***	12.32
Lag2	+/-/+	0.002	0.99	0.000	-0.98	0.084***	11.19
MW	+	0.799***	4.61	-0.001	-0.91		
CF_Vol	-			-0.139***	-20.98		
Sales_Vol	-			-0.010***	-4.79		
n		2,288		1,633		2,288	
Fixed effects		None		Year		None	
S/E clustering		None		None		None	
R^2 / Pseudo R^2		0.051		0.402		0.246	

Coefficient Tests	χ^2	***p***	**F**	***p***	χ^2	***p***
$\beta_{\%PreSOXPartners} = \beta_{\%PostSOXPartners}$	2.83*	0.093	0.00	0.945	3.65*	0.056
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherAcc}$	1.34	0.247	0.30	0.586	2.70	0.101
$\beta_{\%PreSOXPartners} = \beta_{\%PreSOXOtherFin}$	2.06	0.151	0.63	0.427	4.26**	0.039

When the dependent variable is *Restated* or *MW*, the coefficients are estimated using a logistic regression and the corresponding z-statistic is shown. When the dependent variable is *AQ5*, the coefficients are estimated using an OLS regression and the t-statistic is shown. ***, **, * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively, in one-tailed tests for variables with predicted signs and two-tailed tests otherwise. Variable definitions are given in Appendix D.