Client Responses to Non-Compliant Audits: An Analysis of Clients Targeted by PCAOB Inspection

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ABSTRACT

PCAOB inspectors are afforded privileged insight into the quality of audits selected for inspection. Using inspection reports from 2005-2012, I create a unique sample of audits that were inspected by the PCAOB (i.e., all of an auditor's clients were selected for inspection). By tracing inspection findings to specific engagements, I directly identify compliant and non-compliant audits. I examine the contributing factors of 'audit quality' and provide evidence that higher audit fees and greater human capital are positively related to compliant PCAOB inspections. When PCAOB findings can be linked to a specific engagement, I also find that, on average, the client dismissal rate for deficient auditors is nearly twice as high as the dismissal rate for non-deficient auditors. I further generalize these findings to a larger sample and find some evidence that the smallest auditors are disproportionately impacted by inspection findings. That is, results indicate that client reactions to the PCAOB inspection process are disproportionately greater for the smallest audit firms that have a large proportion of their clients selected for inspection. Finally, I find no evidence that inspection findings affect the fees charged by the auditor and no evidence that the relation between client dismissals and inspection deficiencies has diminished since the initial inspection period. Taken together, these findings have implications for how stakeholders use inspection reports and how the PCAOB conducts and reports on the inspection process.

TABLE OF CONTENTS

I. INTRODUCTION **1**

II. BACKGROUND AND HYPOTHESES DEVELOPMENT **5**

Inspection Findings Directly Attributable to Specific Audit Clients 5

Effect of Inspection Findings Based on the Visibility of an Auditor's Clients 9

Effect of Inspection Findings after the Initial Round of Inspections 12

III. RESEARCH METHODOLOGY **15**

IV. SAMPLE SELECTION **21**

V. RESULTS **24**

Descriptive Statistics for Identifiable Inspected Audit Clients 24

Multivariate Results for Identifiable Inspected Audit Clients 25

Descriptive Statistics for the Sample of Domestic Audits of Triennially Inspected Auditors 26

Multivariate Results for All Audits of Triennially Inspected Auditors 27

Multivariate Results for Second and Third Round Inspection Reports 28

VI. ADDITIONAL TESTS AND SENSITIVITY ANALYSES **30**

Analysis of Client Dismissals and Engaged Auditors 30

Changes in Audit Fees and Auditor Resignations Following Inspection Findings 30

Alternative Specifications of the Dismissal Window 31

Inspection Finding Severity and Auditor Dismissals 33

VII. CONCLUSION **34**

LIST OF REFERENCES **36**

APPENDICES **41**

APPENDIX A: Tables 42

APPENDIX B: Variable Definitions 51

VITA **52**

LIST OF TABLES

TABLE 1: Sample Selection **42**

TABLE 2: Distribution of Sample Observations by Industry **43**

TABLE 3: Descriptive Statistics – Identifiable Inspected Audit Clients **44**

TABLE 4: Multivariate Determinants of Findings for Identifiable Clients **45**

TABLE 5: Multivariate Analyses of Auditor Dismissals for Identifiable Clients **46**

TABLE 6: Descriptive Statistics – All Domestic Audit Clients of Inspected Auditors **47**

TABLE 7: Multivariate Analyses of Auditor Dismissals for Clients of Inspected Auditors **48**

TABLE 8: Multivariate Analyses of Inter-Temporal Effect of Inspection Findings **49**

TABLE 9: Analyses of Contracted Auditors after Auditor Dismissals **50**

I. INTRODUCTION

The passage of the Sarbanes Oxley Act (SOX) marked a dramatic shift from a self-regulated to a government-regulated auditing profession. SOX begins by explicitly stating that its purpose is "to protect investors by improving the accuracy and reliability of corporate disclosures" (SOX 2002). To this end, the first section of SOX establishes the Public Company Accounting Oversight Board (PCAOB) to oversee the audits of public companies. The PCAOB is charged with conducting inspections of public company auditors and has effectively replaced the AICPA's system of peer review (Lennox and Pittman 2010). Under the new regime, the PCAOB publishes a written report containing a portion of its findings to the public. These reports however are not intended to be a 'balanced scorecard' of overall audit quality since the PCAOB uses non-random sampling techniques to identify audit failures. This approach has drawn criticism for lacking informativeness to decision makers. In fact, several observers criticized the lack of detail in inspection reports and called for disclosure of inspected audit clients (Whitehouse 2013). In this study, I compile a unique sample of inspections for small audit firms where clients are identifiable. I directly investigate the factors that contribute to compliant audits by examining the determinants of PCAOB deficiencies using client and auditor specific data. I then examine whether PCAOB deficient audits are followed by auditor dismissals for clients that are identifiable in the inspection process.

I extend the existing literature in several ways. First, previous literature has been unable to directly link PCAOB inspection findings (deficiencies) to specific clients. I overcome this issue by using a sample of inspection findings for auditors where all clients are subject to

inspection procedures.[1] As such, I directly evaluate the contributing factors and consequences of poor audit quality. I find evidence that PCAOB inspection findings are associated with low engagement-specific 'audit inputs' (i.e., low audit work measured by low audit fees and a low ratio of partners to clients). These results inform the ongoing discussion on valid metrics that can be used to infer quality audits (DeFond and Zhang 2013; PCAOB 2013b). Results also indicate that non-compliant audits have economic consequences for auditors. Specifically, clients with PCAOB inspection findings are significantly more likely to dismiss their auditor than clients with no PCAOB findings ('clean' reports).[2] I generalize this result to larger auditors whose clients are not directly identifiable. I also investigate whether inspection findings disproportionately impact clients that were more likely to be selected for PCAOB inspection. I find that PCAOB inspection findings are associated with increases in client dismissals as clients become more identifiable. Lastly, using a longitudinal sample of inspections, I find evidence that PCAOB inspection findings continue to be associated with auditor dismissals after multiple 'rounds' of inspections.

Small audit firms (those with less than 100 public clients) provide a unique setting to investigate the effects of PCAOB inspection findings. These firms tend to serve clients with high information risk suggesting a heightened need for high quality audits (Hogan and Martin 2009). Furthermore, outside of PCAOB inspection and registration reports, stakeholders have few sources of information related to the quality and reputation of small auditors (Goelzer 2008). Recently, the PCAOB expressed concern with the severity of inspection findings for small auditors (PCAOB 2013a). However, it remains unclear whether PCAOB inspection findings

[1] Throughout the paper I refer to 'identifiable' clients. These are instances where inspection outcomes can be traced to specific engagements.

[2] I recognize that the PCAOB does not provide an opinion on each audit inspected. In some cases, however, I refer to audits that were inspected but no findings were noted as 'clean' inspections for convenience.

have consequences for these auditors. Empirical evidence is somewhat limited and largely mixed regarding the relation between PCAOB inspection findings and auditor changes. Using a sample of initial inspection findings, Lennox and Pittman (2010) indicate that less is known about audit quality since the PCAOB inspections began. The authors document a decline in the content of the AICPA peer review reports after the inception of the PCAOB inspection program and find no evidence that clients rely on PCAOB inspection findings when selecting an auditor. Using a similar sample period, Abbott et al. (2013) find that larger companies with better governance characteristics are more likely to dismiss their auditor after the release of relatively infrequent but severe deficiencies related to the auditor's failure to identify or address a departure from generally accepted accounting principles (GAAP). Similar to Lennox and Pittman (2010), however, they do not find that clients respond to the most commonly noted deficiencies which relate to non-compliance with generally accepted auditing standards (GAAS). These studies investigate the effects of inspection findings on all clients in an auditor's portfolio. That is, inspection report findings are assumed to be indicative of audit quality provided to all clients. However, the PCAOB explicitly cautions against projecting inspection findings to assess the quality of the firm as a whole since the sample of clients selected by the PCAOB is not intended to be representative of the audit firm's overall audit work. These issues could contribute to the lack of evidence of an association between inspection findings and client decision making. Furthermore, the lack of statistical significance documented in prior literature does not necessarily provide evidence of a lack of association between inspection findings and stakeholder decisions (DeFond 2010).

While the PCAOB maintains confidentiality of the specific clients selected for inspection, it is less able to do so for smaller auditors whose clients are more easily identifiable. To construct

a sample of inspected audit clients, I identify PCAOB inspection reports where all of an auditor's clients are selected for inspection. In this way, I am the first to directly trace PCAOB inspection deficiencies to specific audits. I further investigate the effect of PCAOB inspection findings for larger triennially inspected firms. Inspection report deficiencies for auditors with fewer clients should be more consequential for both the auditor and the auditor's clients as any deficiencies are more easily traced to each individual audit. Following this logic, I investigate whether or not the PCAOB inspection process is more consequential for smaller auditors and for an auditor's largest clients. Lack of client anonymity could disadvantage small auditors by encouraging clients to contract a larger auditor where they would be less likely to be targeted for PCAOB inspection and less identifiable if selected. In other words, the inspection reports could be inadvertently creating a barrier to entry by granting larger firms a de facto advantage in the inspection process, possibly inhibiting competition from small auditors. On the other hand, consistent with the findings of DeFond and Lennox (2011), the inspection process could serve the public interest by driving the smallest and most deficient auditors out of the market for public company audits.

The remainder of the paper is organized as follows. The next section provides background information and develops hypotheses. In the third and fourth sections, I describe the research design and the sample respectively. The fifth and sixth sections present the results and sensitivity analyses. The final section concludes with a discussion of the study's contribution, implications, and potential limitations.

II. BACKGROUND AND HYPOTHESES DEVELOPMENT

Inspection Findings Directly Attributable to Specific Audit Clients

PCAOB inspections are intended to assess compliance with laws, rules, and professional standards for audits of public issuers (PCAOB 2012a). Under SOX, the PCAOB is required to inspect accounting firms with at least one public client (SOX 2002; Olson 2008). Large audit firms with greater than 100 public clients are subject to annual inspections from the PCAOB. Since 2005 only the eight largest auditors have been subject to annual inspections on a consistent basis.[3] Smaller auditors with less than 100 public clients are subject to periodic triennial inspections. Recently, PCAOB board member Jeannette Franzel expressed concern "about the level and types of deficiencies in the triennial firm inspections" (Hoffelder 2013). In a 2013 report, the PCAOB identified the following root causes of these deficiencies: lack of technical competence, lack of due professional care, ineffective oversight, and ineffective client continuance and acceptance practices (PCAOB 2013a). It should come as no surprise that, from the PCAOB's perspective, audit deficiencies noted during the inspection process are of significant consequence.[4] In fact, the PCAOB states that disclosed deficiencies indicate that "the firm did not satisfy its fundamental responsibility to obtain reasonable assurance about whether the financial statements are free of material misstatement" (PCAOB 2012a). In some cases, the deficiency remediation process identifies errors of such significance that the client's financial statements were subsequently restated. These instances indicate that the PCAOB identifies issues

[3] These firms include: BDO, Deloitte, Crowe, Ernst and Young, Grant Thornton, KPMG, McGladrey, and PwC. Nearly all of the remaining auditors have been subject to triennial inspections with the exception of Malone Bailey whose first annual inspection was released in 2010 (PCAOB 2012a).

[4] Some observers have indicated that no issue is too small to warrant PCAOB attention and that deficiencies are simply the result of differences in professional opinion or failure to document a procedure (Farrell and Shadab 2005). The PCAOB cautions users of these inspection reports to be skeptical of such claims as the PCAOB takes such factors into consideration when deciding whether or not to disclose them in the inspection report (PCAOB 2012a).

that, if uncorrected, could result in material errors in audited financial statements.[5] Further supporting the validity of inspection findings, Gunny and Zhang (2013) find that inspection deficiencies are positively related to restatements and abnormal accruals and negatively related to the likelihood of issuing a going concern modification. As such, inspection findings should be consequential to the client-auditor relationship.

Recent literature has begun to investigate the trends and effects of the PCAOB inspection program. Hermanson et al. (2007) and Church and Shefchik (2012) document trends in inspection findings. Using a sample of early inspection reports, Hermanson et al. (2007) finds that approximately 60 percent of small auditor inspections contained deficiencies. Further, the authors find that deficient auditors were generally smaller and growing faster than non-deficient auditors. Church and Shefchik (2012) show that deficiencies seem to be declining from 2005-2009 for large annually inspected auditors.[6] Several studies have also found that PCAOB inspections may have improved audit quality. Gramling et al. (2011) show that small audit firms are more likely to issue a going concern audit report following the initial inspection. Carcello et al. (2011) document a significant reduction in abnormal accruals in the years following the first and second PCAOB inspections of Big 4 firms. Lamoreaux (2013) finds that exposure to the PCAOB's international inspection program is associated with increased reporting of material weaknesses and going concern modifications. In an experimental setting, Robertson and Houston (2010) find that non-sophisticated investors perceive financial reporting credibility to improve following a PCAOB inspection.

[5] During the inspection process, inspectors review audit documentation and discuss issues with members of the audit team and firm leadership. The inspectors do not reperform audit procedures. However, if deficiencies are noted during the inspection, the auditor is required by professional standards to remediate the issue in a timely fashion. This remediation process can involve the performance of additional audit procedures. I discuss the remediation process further in Section III.

[6] However, the PCAOB continues to express concern with the rate of deficiencies at large annually inspected auditors, particularly those relating to the audit of internal controls (PCAOB 2012b).

Extant literature is somewhat inconclusive regarding the usefulness of inspection findings to interested parties. In a survey of audit professionals and investors, Christensen et al. (2013) highlight the differing perspectives on the value of inspection findings. In an archival setting, Hilary and Lennox (2005) examine the peer review inspection regime as an information signal to clients. They find that auditors lost clients following a modified or adverse peer review report indicating that the peer review program provided useful information to clients. Lennox and Pittman (2010) extend these findings by investigating the information value of different inspection regimes surrounding the initiation of PCAOB inspections. Using changes in auditor client portfolios surrounding inspection reports issued from 2005-2007, they find no association between PCAOB findings and subsequent client choices. The authors contend that less is known about audit firm quality under a PCAOB inspection regime than under the AICPA peer review regime. In a similar study, however, Abbott et al. (2013) find some evidence that client dismissals are associated with the public disclosure of inspection deficiencies. Specifically, they find that this relation is driven by GAAP (severe and infrequent) deficiencies and find no evidence that other inspection deficiencies (GAAS deficiencies) have an impact on auditor retention decisions. These studies are based on the assumption that users of inspection reports perceive inspection findings to be indicative of overall firm audit quality. However, the PCAOB does not consider the inspection program to be a signaling mechanism of audit quality. Rather, the PCAOB uses the inspection process as a tool to improve the auditor's processes and to identify and remediate any deficiencies in their audits. In this regard, the PCAOB has adopted an approach of targeting those areas where deficiencies are most likely to occur rather than obtaining a representative sample of a firm's audit work. As such, since the PCAOB's selection process is not random, inspection findings do not represent the overall work performed by the

auditor. This is particularly the case for large auditors where inspection findings cannot be attributed to specific clients. In a 2012 report titled "Information for Audit Committees about the PCAOB Inspection Process" the PCAOB states (emphasis added):

> …audit work is selected for inspection largely on the basis of an analysis of factors that, in the PCAOB inspection staff's view, heighten the possibility that auditing deficiencies are present, rather than through a process intended to identify a representative sample of the audit firm's work. Accordingly, the *Board cautions against extrapolating from the results presented in the public portion of the report to broader conclusions about the frequency of deficiencies throughout a firm's practice*. The Board also cautions against judging the relative quality of firms' audit practices solely on the basis of the number of deficiencies described in the public portions of inspection reports. Nevertheless, the public portion of a report can be a useful starting point for discussion between an audit committee and the audit firm it oversees about the inspection (PCAOB 2012a).

The PCAOB clearly cautions users to avoid projecting audit deficiencies to the uninspected population.[7] 'Anonymity' of clients inspected could explain the lack of association between PCAOB findings and subsequent client choices documented in previous literature. That is, PCAOB inspections are uninformative because the disclosure of findings is vague and non-representative. However, while the PCAOB maintains anonymity of those clients that were selected for inspection it is less able to do so for clients of smaller auditors. In some cases, when the auditor has a very small number of clients, the PCAOB will inspect all of the auditor's clients (CAQ 2012). That is, the inspected clients are identifiable and findings can be traced to specific engagements. These cases provide a unique setting to directly evaluate the potential effect of PCAOB inspection findings on a client's decision to retain its auditor (Abernathy et al. 2013). I make the following hypothesis (stated in alternative form):

[7] The PCAOB also states in each inspection report that "the express inclusion of certain deficiencies and potential deficiencies, however, should not be construed to support any negative inference that any other aspect of the firm's systems, policies, procedures, practices, or conduct is approved or condoned by the Board or judged by the Board to comply with laws, rules, and professional standards."

H1: PCAOB inspection findings for auditors with identifiable inspected clients are related to subsequent client dismissals.

Effect of Inspection Findings Based on the Visibility of an Auditor's Clients

The effects of inspection findings may also extend to larger audit firms where the proportion of clients subject to inspection is lower. However, I posit that inspection findings have differential effects based on client and auditor characteristics. Following the discussion above, I predict that inspection findings are more consequential for smaller auditors for several reasons. First, small auditors generally have less reputational capital than larger auditors. To the extent that inspection findings are a signal of audit quality, the effects may be less pronounced for a larger auditor that has already built a reputation with a more substantial track record on public company audits. For clients that contract small audit firms, the PCAOB registration and inspection information may weigh more heavily in its decision making process when assessing compliance with audit standards (Goelzer 2008). Second, following the theory of regulatory capture, small auditors may be at a disadvantage relative to large auditors since large auditors have greater resources and incentives to influence regulatory outcomes (Bozanic et al. 2012; Stigler 1971).[8] This theory would predict that PCAOB regulation would tend to be more favorable to larger audit firms. In fact, Daugherty and Tervo (2010) surveyed audit firm leadership regarding the inspection process and found that smaller auditors reported negative consequences of the PCAOB inspection program on their accounting firm while larger auditors

[8] This is further evidenced by the considerable reporting lag for quality control criticisms released on three of the Big 4 auditors. The PCAOB disclosed unremediated quality control criticisms approximately 3 years after the release of the original inspection report instead of the 12 months specified by SOX. This lag was likely due to differences in complexity as well as the large firms' ability to delay the process via appeal to the SEC. I show further evidence of this issue in descriptive analyses where reports for larger firms are associated with longer reporting delays.

reported more favorable impacts.[9] Lastly, anonymity of inspected clients is often cited as a limitation when investigating the effects of inspection findings on specific clients. While the PCAOB strives to maintain anonymity for those clients that were selected for inspection, it is less able to do so for clients of small audit firms and completely unable to do so for clients of the smallest audit firms. In other words, a single deficiency is less likely to be associated with a client whose auditor has 50 clients than a client whose auditor has five clients. Using data from all inspection reports released from 2005-2012, auditors with two to five public clients have, on average, over 70 percent of their engagements selected for review whereas those auditors with 70-100 public clients have approximately 10 percent of their clients selected for review. As audit firms get larger, the percentage of clients selected for inspection is monotonically declining. As discussed above, clients of smaller auditors are less 'shielded' by anonymity afforded to clients of larger audit firms. Additionally, inspection findings may be more representative of overall firm audit quality as the proportion of clients selected for inspection increases. As such, it stands to reason that inspection findings are more consequential for small audit firms.[10] This leads to my next hypothesis (stated in alternative form):

> H2: The relation between PCAOB inspection findings and client dismissals is stronger as clients selected for inspection become more identifiable (less anonymity).

[9] The smallest audit firms reported negative consequences related to "decreasing acceptance and retention of public audit clients, increasing hours and billings on engagements, and decreasing their ability to attract and retain audit personnel" (Daugherty and Tervo 2010).

[10] Using a sample of largely first round inspections, Abbott et al. (2013) have a control variable that indicates the relation between GAAP (significant) deficiencies and client switches is exacerbated for auditors with less than 5 clients in first round inspections. While this is not a focus of their study, I further explore this finding for all types of deficiencies. This section of my study is different in that I investigate the effects of all PCAOB findings on clients that were likely (or certain) to be targeted for inspection. This is the first study to my knowledge to estimate the differential client reactions to deficiencies based on the likelihood of inspection.

Since the PCAOB selects clients based on size and risk, it is also likely that findings relate to the largest and most complex clients of each auditor. The PCAOB's risk factors include: nature and industry of the issuer, likelihood of audit deficiencies, market capitalization, operations in emerging markets, and other firm, office, or partner specific considerations.[11] The PCAOB generally selects those areas that represent the greatest risk of deficiency (PCAOB 2012a). This process is consistent with the PCAOB's objective to improve overall quality controls for inspected auditors. By identifying those areas that are most likely to prompt inspection findings, the PCAOB can isolate where the system of quality controls was not operating effectively (Whitehouse 2013). A consequence of this method is that targeted clients may be more likely to switch if deficiencies are traceable to their audits. Similarly, relatively large and sophisticated clients of small auditors may change auditors to avoid future inspection findings. To illustrate, if Client A makes up a large fraction of an auditor's portfolio, the chance of Client A's audit being selected for inspection is relatively high. However, if Client A switched to a larger auditor where Client A made up a smaller portion of the auditor's portfolio, then Client A's chances of being selected for inspection are lower. In other words, I expect the relation between client dismissals and inspection findings to be greater for relatively large clients. This leads to the next hypothesis (stated in alternative form):

H3: The relation between PCAOB inspection deficiencies and client dismissals is stronger for clients that represent a larger proportion of the auditor's client portfolio.

[11] Based on discussions with partners at triennially inspected firms, the PCAOB is predicable in its selection process by inspecting the largest clients. This is consistent with survey findings of Houston and Stefaniak (2013) documenting that auditors believe they can effectively anticipate which clients will be inspected.

Effect of Inspection Findings after the Initial Round of Inspections

I extend prior literature by examining auditor changes following inspections using a sample period from 2005-2012 with multiple inspection reports for each firm. A longer sample period allows for more statistical power as well as an inter-temporal analysis of inspection findings. It is an empirical question as to whether inspection findings have become more or less informative over time. If inspections have increased adherence to professional standards then the first round of inspections likely contained the most consequential and relevant information related to deficient audits. That is, the most severe deficiencies in public company audits were likely identified in the first round of inspections. Furthermore, DeFond and Lennox (2011) find that small low quality auditors left the market following SOX. Any auditors that 'survived' the initial phase of inspections may be of higher quality and have less severe deficiencies in future inspections. Lastly, clients that were likely to respond to inspection findings may have already changed auditors after the initial inspection period.

There are also several reasons that inspection report findings may have become more informative over time. First, when the PCAOB began releasing inspection reports, clients did not have a benchmark to compare inspection findings. In other words, it was difficult to differentiate audit quality between two auditors without any historical basis for how inspection findings reflect audit quality. Second, since the inspectors tend to select high risk audits and high risk accounts, between-auditor variation in inspection findings may simply be the result of differences in auditors' portfolios. Hermanson et al. (2007) find evidence that the first PCAOB inspections targeted small, risky, and rapidly growing audit firms. Lennox and Pittman (2010) confirm this trend by showing that PCAOB inspectors targeted those audit firms with deficient peer review findings in the initial round of inspections. It is possible then that clients were

already aware of the quality provided by these auditors and any inspection deficiencies were expected. Subsequent inspections, however, allow stakeholders to observe inter-temporal improvement or deterioration in audit deficiencies within each audit firm. Third, the PCAOB may have become more competent in conducting inspections after the initial round of inspections. The change from a self-regulated to a government-regulated regime is often characterized as a tradeoff between expertise and objectivity (DeFond and Zhang 2013; DeFond 2010; Peltzman 1976; Stigler 1971). Lack of peer reviewer objectivity was a primary reason that SOX sought to establish the PCAOB as an independent, quasi-governmental regulator.[12] Despite the PCAOB's focus on objectivity, one of the early criticisms of the PCAOB was that the agency was not prepared or did not have the technical expertise to regulate the auditing industry (DeFond 2010). In an attempt to increase the independence of the regulatory body, SOX requires the PCAOB to have a majority of board members who are not certified public accountants (CPAs). Critics argue that this design creates a shortage of accounting and auditing expertise required to regulate the industry (Palmrose 2005; Wallison 2005). It is therefore possible that the initial inspections suffered from the PCAOB's lack of preparedness or technical expertise as it focused on developing inspection methodology and training inspectors.[13] However, to the extent that this impaired the informativeness of inspection reporting, it is also possible that the PCAOB has improved the inspection process over the past decade. This is evidenced by the evolution of the PCAOB inspection process as the PCAOB has continued to revise its approach to

[12] The PCAOB is a public institution in the sense that the SEC appoints the members of the board and approves PCAOB actions. Further, the PCAOB is granted the ability to tax public audit clients to fund its operations. The PCAOB is private in the sense that its charter states that it is not a public agency and its employees do not work for any government agency (Coates 2007). This unique quasi-governmental structure is designed to give the PCAOB independence from the auditing profession while maintaining the ability to attract high quality professionals.

[13] While the PCAOB may have been able to hire talented inspectors with relevant attestation experience, it is unlikely that many of these new employees initially had substantial experience as inspectors. Additionally, if the PCAOB allocated its best inspectors to the largest and most complex accounting firms, it stands to reason that any lack of competent inspectors would be exacerbated for small auditor inspections.

inspections. In 2008 former PCAOB Chairman Mark Olson stated "in the course of inspecting an audit firm (large or small), the PCAOB takes a risk-based approach, which over time has evolved. In particular, the program has become more effective and efficient in identifying the large clients to inspect, and we are now better able to scope our inspections based on the size and complexity of the firm and the audits under review" (Olson 2008). To the extent that these revisions assist in making the process more effective, clients and stakeholders may also find the report content more informative. As such, it is an empirical question as to whether the PCAOB inspection process has become more or less informative to clients. This leads to my next hypotheses (stated in null form):

H4: The relation between PCAOB inspection deficiencies and auditor dismissals has not changed since the initial round of inspections.

III. RESEARCH METHODOLOGY

I expect that companies will be more likely to dismiss audit firms with PCAOB inspection findings than firms with clean inspection reports. While the timing of PCAOB inspections is exogenously determined, it is possible that the likelihood of PCAOB findings is driven by auditor and client characteristics. As such, I use a multivariate logistic regression framework to estimate the likelihood of client dismissal. To test H1, I use the following model estimated on a sample of clients that were inspected by the PCAOB:

$$\begin{aligned} DISMISS = \; & \beta_0 + \boldsymbol{\beta_1 * FINDING} + \beta_2 * PARTNERS + \beta_3 * AUDITDELAY + \beta_4 * GCO + \\ & \beta_5 * AUDITFEES + \beta_6 * GROWTH + \beta_7 * SIZE + \beta_8 * LEVERAGE + \\ & \beta_9 * FIN\text{-}UTIL + \varepsilon \end{aligned} \quad (1)$$

Dismissals are gathered from the Audit Analytics auditor changes dataset. *DISMISS* is an indicator variable equal to one if the client announced a dismissal of the inspected auditor during the two year period following the PCAOB's inspection procedures.[14] While the PCAOB does not typically contact client management during the inspection process, an inspection finding may result in the client being aware of the inspection. In the inspection reports, the PCAOB states that identified deficiencies constitute violations of professional standards such that it appears the auditor "did not obtain sufficient competent evidential matter to support its opinion on the issuer's financial statements." AU 390 further states that if the auditor determines that an omitted procedure impairs the auditor's ability to support a previously expressed opinion then the auditor

[14] I include auditor resignations in the sample as non-dismissals. However, results are robust to their exclusion. Furthermore, I test the sensitivity of the two-year cutoff to several alternative specifications and inferences are unchanged. Refer to Section VI.

should *promptly* apply the procedures or perform alternative procedures to support the previously issued opinion. As such, these deficiencies may have been addressed before the inspection report release date. In 2012, the PCAOB released a document titled "Information for Audit Committees about the PCAOB Inspection Process" to inform interested parties about the PCAOB inspection process and how to gather useful information about the inspections (PCAOB 2012a). The report states that when the inspection team identifies potential deficiencies, they engage in dialogue with members of the engagement team and firm leadership. The PCAOB states that "through that dialogue, the staff also seeks to understand what steps, if any, the firm has undertaken or intends to undertake to obtain audit evidence sufficient to determine whether it can support its previously expressed audit opinion." This can include the determination that the auditor involves the client to perform the necessary work for previous and subsequent audits. Some inspection reports have even noted that additional procedures prompted a client restatement. It follows that inspected clients are likely to be aware of PCAOB findings if deficiencies can result in restatements of previous filings.[15] Since the PCAOB reports to the SEC on its inspection process, the client may be concerned about potential ramifications. As such, it stands to reason that some clients may change auditors before the inspection findings become public. I perform several sensitivities to the specification of the dismissal window in Section VI.

PCAOB findings (*FINDING*) are collected from PCAOB inspection reports and are represented by an indicator variable equal to one if the PCAOB identified deficiencies in all of the auditor's clients.[16] Following H1, I predict that β_1 will be positive and significant. I include

[15] In fact, based on discussion with firm leadership at a large annually inspected firm, some firms have a policy of notifying clients of a PCAOB inspection regardless of the inspection outcome. However, the client is more likely to be aware and willing to react in the event of inspection related deficiencies.

[16] Following previous literature, PCAOB findings can further be categorized into several different types. I use the taxonomy (GAAS and GAAP) as determined by Abbott et al. (2013) in alternative analyses. The results are not explained by relatively more severe GAAP deficiencies. See Section VI for discussion.

several control variables that measure client and auditor characteristics. *PARTNERS* represents the auditor's ratio of partners to public clients. Client-auditor controls include: *AUDITDELAY*, *AUDITFEES*, and *GCO*. *AUDITDELAY* represents the number of days between the client's fiscal year end and the date of the audit opinion. *AUDITFEES* is the natural log of the total audit fees charged by the auditor. *GCO* is an indicator variable equal to one if the client received a going concern audit report and zero otherwise. I also control for client characteristics that might relate to audit deficiencies as well as the likelihood of an auditor change. *GROWTH* represents the percentage change in assets from t-1 to t winsorized at a maximum value of 2.[17] *SIZE* is the natural log of total assets. *LEVERAGE* represents debt to assets at time t. Lastly, I include an indicator variable, *FIN-UTIL*, for financial and utility firms (for clients with SIC codes 4900-4949 and 6000-6999).[18]

To test H2-H4, I expand the sample to all clients of inspected auditors. The models for H2 and H3 are as follows:

[17] Alternatively I specify *GROWTH* using revenue consistent with Francis and Yu (2009) and results are unchanged. To limit the potential effect of outliers, all other client specific variables are winsorized at the 1st and 99th percentile using the entire population of observations with triennially inspected auditors. All inferences are unchanged if variables are unwinsorized.

[18] In untabulated analysis, I include industry fixed effects (using the Fama-French 12 factor taxonomy) in place of FIN-UTIL in Model 1. Given the small sample sizes used to test H1, I have some industries without client dismissals. These observations are excluded in this analysis since logit models have difficulty estimating coefficients for independent variables that perfectly predict outcomes (client dismissals). All inferences are unchanged and a Wald test does not indicate a significant difference between test variables.

$$DISMISS = \beta_0 + \beta_1 * MAJORFINDING + \mathbf{\beta_2 * MAJORFINDING \times PERCENTINSPECTED} + \beta_3 * PERCENTINSPECTED + \beta_4 * RELATIVESIZE + \beta_5 * PARTNERS + \beta_6 * CLIENTS + \beta_7 * AUDITDELAY + \beta_8 * GCO + \beta_9 * AUDITFEES + \beta_{10} * GROWTH + \beta_{11} * SIZE + \beta_{12} * LEVERAGE + Industry_FE + \varepsilon \quad (2)$$

$$DISMISS = \beta_0 + \beta_1 * MAJORFINDING + \mathbf{\beta_2 * MAJORFINDING \times RELATIVESIZE} + \beta_3 * PERCENTINSPECTED + \beta_4 * RELATIVESIZE + \beta_5 * PARTNERS + \beta_6 * CLIENTS + \beta_7 * AUDITDELAY + \beta_8 * GCO + \beta_9 * AUDITFEES + \beta_{10} * GROWTH + \beta_{11} * SIZE + \beta_{12} * LEVERAGE + Industry_FE + \varepsilon \quad (3)$$

Tests of H2 and H3 are similar in nature. I expect that PCAOB findings will result in increased auditor dismissals when the findings are likely to be related to specific audit clients. In this model I specify *MAJORFINDING* as an indicator variable equal to one if more than half of an auditor's inspected clients were deemed to have deficient audits.[19] *PERCENTINSPECTED* represents the percentage of an auditor's clients that were selected for inspection. As *PERCENTINSPECTED* increases, the more likely a particular audit was selected for PCAOB inspection. In model 2, I interact *PERCENTINSPECTED* with *MAJORFINDING* to determine the differential impact of PCAOB findings as clients become more identifiable. The coefficient on *MAJORFINDING* x *PERCENTINSPECTED* (β_2) provides a test of H2. To test H3, I include

[19] Alternatively, I specify *MAJORFINDING* as a continuous variable representing the percentage in the auditor's inspected clients that were deemed to have deficient audits. Inferences are unchanged.

an interaction of *MAJORFINDING* and *RELATIVESIZE*. *RELATIVESIZE* represents the client's total assets scaled by the total assets of all clients audited by the firm. Since the PCAOB is explicit that it selects the largest and most complex clients, relatively large clients are more likely to have been targeted by inspectors. Since the audit firms in this sample vary in size and number of clients, I add a control variable for the total number of audit clients (*CLIENTS*).[20] Lastly, I include industry fixed effects.

To test H4, I estimate the following model on the sample of all clients of triennially inspected auditors:

$$\begin{aligned} DISMISS = {} & \beta_0 + \beta_1 * MAJORFINDING + \boldsymbol{\beta_2 * MAJORFINDING \times NTHROUND} + \\ & \beta_3 * NTHROUND + \beta_4 * PERCENTINSPECTED + \beta_5 * RELATIVESIZE + \\ & \beta_6 * PARTNERS + \beta_7 * CLIENTS + \beta_8 * AUDITDELAY + \beta_9 * GCO + \\ & \beta_{10} * AUDITFEES + \beta_{11} * GROWTH + \beta_{12} * SIZE + \beta_{13} * LEVERAGE + \\ & Industry_FE + \varepsilon \end{aligned} \quad (4)$$

I include a variable indicating a second or third round inspection (*NTHROUND*). That is, *NTHROUND* is equal to one for all inspections other than the first round. The interaction of *FINDING* and *NTHROUND* provides a test of H4 and indicates whether the relation between inspection findings and auditor dismissals has changed since the first round of inspections.[21] As an additional test of H4, I explore whether inspection reports are more informative for those auditors that improve or worsen by limiting the sample to only second and third round

[20] I measure *CLIENTS* as the total number of all audit clients in Audit Analytics with an opinion signed within 18 months of the inspection procedures date. I do not require clients to be included in the final sample to be included in this calculation. Alternatively, I specify the auditor size variable using total assets under audit. Inferences are unchanged.

[21] Linear combination of $\beta_1 + \beta_2$ indicates the total effect of deficient second and third round inspections.

inspections. In this setting, I measure the change in inspection findings as the variable of interest (*ΔPERCENTFINDING*).

IV. SAMPLE SELECTION

I hand collect available data from triennial inspection reports released from 2005-2012.[22] From these reports, I gather information related to auditor characteristics and the inspection process. This data includes the beginning and ending dates of the inspection's primary procedures, the date the report was finalized, the number of issuer audits that were selected for inspection, and the number of issuer audits that included PCAOB findings. While the inspection reports detail the number of audits inspected as well as the number of audits with PCAOB findings, they do not trace individual findings to specific issuers. To be included in the sample of 'identifiable' audit clients, the PCAOB must have selected all the auditor's clients for inspection *and* found that all of the audits contained findings or none of the audits contained findings. The number of clients at each audit firm is determined similar to the *CLIENTS* variable described above. That is, the number of clients subject to inspection is determined by the count of the most recent audit opinions signed for each client within 18 months of the initial inspection procedures in Audit Analytics.[23] By tracing inspection findings to specific audit clients, I can identify instances where an experienced and trained inspector reviewed the work performed by the auditor and found (or did not find) issues. While many studies rely on financial statement or audit reporting outcomes to infer audit quality, this sample allows unique insight into the quality of audits.

[22] In October 2013 Audit Analytics released the Accounting and Oversight module in beta version. This module includes a dataset with PCAOB inspection findings. Since the dataset is not in final version, I do not rely on this dataset in this paper. However, I have reconciled my data against the data collected by Audit Analytics and verified any differences.

[23] I alter this definition to include the most recent audit opinion signed within 12 or 24 months and results are similar although significance is slightly diminished for H1 using 24 months. To test the completeness of the Audit Analytics dataset, I select, at random, 20 inspection reports from the sample and search the auditor's name in the WRDS SEC Analytics Suite. I did not identify any clients for these auditors that are missing in Audit Analytics. Alternatively, auditors self-report the number of issuer clients in each inspection report. According to the PCAOB inspection reports, this balance "does not reflect any determination concerning which, or how many, of the Firm's audit clients are "issuers" as defined in the Act." As such, the self-reported issuer clients may be unreliable. Nonetheless, results are quantitatively and qualitatively similar if I measure *CLIENTS* using the self-reported balance.

(Insert Table 1 Here)

Merging the inspection report data with Audit Analytics, I am able to trace the content of inspection reports to the clients that were subject to inspection by identifying the most recently signed audit opinion for each client leading up to the date of the inspection procedures. In this way, I identify a population of audits that were sampled by the PCAOB at the time of inspection. Table 1 describes the sample selection. Client specific variables are gathered from Audit Analytics and Compustat. To be included in the sample, I require observations to have the requisite data for the control variables listed above. I eliminate clients that discontinue SEC filings after the PCAOB inspection by requiring all client observations to be included in Audit Analytics for one year after the PCAOB inspection. I also exclude observations for PCAOB sanctioned auditors and observations with unclear inspection information. I identify 4,454 audits of triennially inspected auditors with requisite client data that *could* have been selected for inspection by the PCAOB. This sample is used to test H2-H4.

I further reduce the sample by excluding clients of firms with partially deficient PCAOB inspection findings. That is, I exclude those observations where inspection reports reveal findings for only a portion of the inspected audits. To test H1, I compose two samples of identifiable issuer audits. First, I limit the sample to inspections that selected all of the auditor's clients and found all audits to be either deficient or clean. This sample includes 350 audits that were inspected by the PCAOB. I further limit the sample to those auditors that only have one audit client. This sample includes 143 issuer audits. Since inspection findings can be traced to these subgroups of clients, I use these samples to test H1.

(Insert Table 2 Here)

Table 2 presents the industry distribution of the sample. I classify clients into industries using the Fama-French 12 industry taxonomy. Small audit firms tend to have clients in the financial industry. As such, financial firms make up a disproportionate amount of the sample. In all analyses, I include either industry fixed effects or an indicator for financial services and utilities (*FIN-UTIL*) to control for any differential impact these firms may have on tests of hypotheses.[24]

[24] Alternatively, inferences are qualitatively and quantitatively similar if I drop financial and utility observations from the sample.

V. RESULTS

Descriptive Statistics for Identifiable Inspected Audit Clients

Table 3 presents descriptive analyses for the sample of all identifiable audits and for the sample of auditors with only one client in Panels A and B respectively. Inferences are consistent in each sample. In support of H1, clients are substantially more likely to dismiss their auditor if the audit has inspection findings than if the audit has no inspection findings. However, I find no evidence of a relation between PCAOB findings and auditor resignations.[25] Univariate findings also indicate that firm resources and audit inputs are positively related to clean inspection findings. Specifically, the ratio of partners to clients (*PARTNERS*) is positively and significantly related to clean inspection findings. Additionally, audit fees (*AUDITFEES*) are also positively related to clean inspection findings. This indicates that effort and resources are positively associated with PCAOB compliance. Another interesting inference is that the PCAOB takes approximately six months longer to report deficient inspection findings than clean inspection findings (*INSPECTIONTOREPORT*). This is likely a result of the remediation and communication process between the inspectors and the auditors. Furthermore, audit firms are more likely to 'push back' on the PCAOB if the report contains deficiencies. While these are valid reasons for the longer delay in disclosing inspection deficiencies, the inspection reports may become less consequential as the information content becomes 'stale'.[26]

(Insert Table 3 Here)

As noted above, the partner to client ratio (*PARTNERS*) and audit fees (*AUDITFEES*) are positively associated with inspection compliance. I further explore these findings in Table 4

[25] I explore auditor resignations in a multivariate setting in sensitivity analyses. Refer to Section VI.

[26] Timeliness of inspection findings may be a factor in previous studies finding no evidence of client reaction to PCAOB deficiencies. However, as discussed above, inspected clients of deficient audits are likely to be aware of PCAOB issues during remediation or subsequent audits before inspection reports are released.

using a deficiency prediction model. While I have no formal hypotheses related to these tests, the results confirm some of the interesting inferences described above. First, in both columns 1 and 2, a greater partner to client ratio (*PARTNERS*) is associated with a lower likelihood of deficiency.[27] Extant theoretical research suggests that auditor size is a driver of audit quality since larger firms are associated with greater independence and have more reputational capital at risk in the event of an audit failure (DeAngelo 1981). Additionally, larger auditors may provide better audit quality due to 'in house' expertise and support networks (Francis and Yu 2009). While the number of partners per client is likely a noisy measure of the resources devoted to a single engagement, it is a proxy for institutional knowledge and reputational capital. These findings provide direct evidence that audit firm size is a driver of audit quality even at the smallest audit firms. Additionally, the coefficient on *AUDITFEES* is significant and negative, indicating that higher audit fees are associated with better audit quality. This is likely an indication that the auditor is performing more audit work resulting in greater compliance with PCAOB standards.

(Insert Table 4 Here)

Multivariate Results for Identifiable Inspected Audit Clients

I present multivariate tests of H1 in Table 5. Consistent with H1, clients are more likely to dismiss their current auditor if the audit is associated with deficiencies. I also find that this result is economically significant. The average marginal effect of *FINDING* for columns 1 and 2 is 6 percent and 11 percent respectively. This indicates that the likelihood of dismissal increases by 6-11 percent for auditors receiving deficiencies. Table 3 indicates that the rate of dismissal for

[27] It is important to note that *PARTNERS* does not necessarily capture the number of *audit* partners at the firm. Nonetheless, it is a proxy for the size and resources of the accounting firm relative to the number of public clients.

auditors receiving clean inspections is 9-10 percent, so the conditional likelihood of dismissal substantially increases when inspectors identify issues. These results indicate that, for clients subject to inspection, poor audit quality is followed by an increased rate of client dismissal.[28]

(Insert Table 5 Here)

Descriptive Statistics for the Sample of Domestic Audits of Triennially Inspected Auditors

To test H2-H4, I expand the sample to all clients of triennially inspected auditors. Auditors in this sample exhibit variation in the percentage of audits inspected with deficiencies. Previous studies have classified inspection reports as deficient if an inspection includes at least one deficiency and non-deficient otherwise. For purposes of my tests, I classify firms based on the percentage of audits found to be deficient. If the majority of the audits inspected by the PCAOB for a given auditor are found to be deficient, I classify these in the majority findings group. For larger auditors, I find this specification to be more appealing since larger auditors have more clients subject to inspection. The more audits inspected invariably increases the likelihood of at least one PCAOB finding. This is further evidenced by annual inspections of large auditors (Big 4 and "Second Tier" firms) which always include deficiencies. It is unlikely though that annually inspected audit firms provide inferior audit quality to triennially inspected firms. I instead classify clients whose auditors have findings for a majority (or a minority) of the inspected audits. Table 6 presents descriptive characteristics of audits that were completed before a PCAOB inspection occurred. Inferences for client dismissals are consistent with Table 3. That

[28] The 'one client' sample used in estimation of column 2 of Table 5 is a subsample of the larger sample used in column 1. In other words, the 350 observations in column 1 include all of the 143 observations from column 2. In untabulated analysis, I estimate model 1 on a limited sample of clients that are unique to the larger sample from column 1 (207 observations). The coefficient on *FINDING* is positive but insignificant. It is possible that the reaction to deficiencies is negatively related to firm size for the reasons listed above. I further investigate this relation in tests of H2.

is, clients are more likely to dismiss auditors with PCAOB findings. Additionally, audit fees, firm size, and a greater partner to client ratio are also associated with PCAOB compliance.[29] Consistent with the significant reporting delay documented in Table 3, *INSPECTIONTOREPORT* is approximately one year for observations where the majority of inspected audits were deemed to be clean and nearly a year and a half on average where the majority of inspected audits were deemed to be deficient.[30]

(Insert Table 6 Here)

Multivariate Results for All Audits of Triennially Inspected Auditors

Table 7 presents results for H2 and H3. *MAJORFINDING* represents an indicator variable equal to one if the majority of the auditor's inspected clients were associated with findings. Column 1 indicates that PCAOB inspection findings are positively related to client dismissals in the full sample of triennially inspected audit clients. In column 2, I include control variables for the percentage of audit clients that were inspected by the PCAOB (*PERCENTINSPECTED)* and a variable representing the client's relative size (i.e., assets scaled by the auditor's total assets under audit) (*RELATIVESIZE*). The positive and significant coefficient on *RELATIVESIZE* indicates that large clients are more likely to dismiss their auditors than small clients following an inspection. This indicates that clients are more likely to dismiss their auditors if they were likely to be targeted by inspection. The interactions in columns 3 and 4 present direct tests of H2 and H3 respectively. The positive and significant

[29] The going concern rate (GCO) for firms with findings for the majority of inspected clients is nearly 50%. This is consistent with a similar sample using PCAOB inspections in Abbott et al. (2013).

[30] The max *INSPECTIONTOREPORT* in this sample is 1,182 days for Weiser LLP. The report was dated December 18, 2007 and inspection procedures began on September 7, 2004 (PCAOB Release 104-2007-170). In untabulated analyses, I drop all observations with reporting delays greater than 2 years. Results and inferences are unchanged. Additionally, I include *INSPECTIONTOREPORT* as a control variable in all tests and results are unchanged.

coefficient on *MAJORFINDING* x *PERCENTINSPECTED* indicates that clients are *more* likely to react to inspection findings as they become more identifiable. The combination of *MAJORFINDING* + *MAJORFINDING* x *PERCENTINSPECTED* indicates that identifiable clients during the inspection process are more likely to dismiss their auditor if deficiencies are noted (consistent with the findings in Table 5 for H1). The positive and insignificant coefficient on *MAJORFINDING* x *RELATIVESIZE* does not indicate that the relatively large clients are more likely to respond to inspection findings by dismissing the auditor than relatively small clients. However, the combination of *MAJORFINDING* + *MAJORFINDING* x *RELATIVESIZE* indicates that larger clients are more likely to dismiss their auditor if deficiencies are noted. Taken together, I find direct support for H2 but not H3.[31] This table provides evidence that PCAOB inspections are more consequential for smaller audit firms where the percentage of audits inspected is likely to be higher and therefore the clients are more easily identifiable.

(Insert Table 7 Here)

Multivariate Results for Second and Third Round Inspection Reports

Table 8 presents tests of H4. In column 1, I include an indicator for second or third round inspections (*NTHROUND*). The coefficient on *NTHROUND* is insignificant indicating no detectable relation between second or third round inspections and client dismissals. The interaction between *MAJORFINDING* and *NTHROUND* in column 2 represents the differential impact of PCAOB findings on client dismissals for subsequent inspections and provides a test for H4. The coefficient on *MAJORFINDING x NTHROUND* does not indicate that client reactions

[31] To ensure that these findings are not explained by the smallest firms that have all clients selected for inspection. I reperform tests in Table 7 excluding these observations and inferences are quantitatively and qualitatively unchanged.

to PCAOB inspection findings have changed over time. Interestingly, the linear combination of *MAJORFINDING* and *MAJORFINDING x NTHROUND* indicates that PCAOB inspection findings are still related to client dismissals after the first round of inspections. That is, inspection findings exhibit a relation with client dismissals over time. Lastly, I investigate whether changes in inspection findings relate to auditor dismissals. I limit the sample to second and third round inspection reports and calculate a change in findings variable (*ΔPERCENTFINDING*). I do not find that changes in inspection findings between first and second round inspections influence client dismissal decisions.

(Insert Table 8 Here)

VI. ADDITIONAL TESTS AND SENSITIVITY ANALYSES

Analysis of Client Dismissals and Engaged Auditors

Using the client initiated dismissals in each sample, I evaluate the characteristics of newly engaged auditors. Based on the discussion above, I predict that clients will select larger auditors where the likelihood of future inspection is lower. Table 9 presents descriptive analysis of client dismissals and newly engaged auditors for each sample used in the study. The columns present auditor dismissals in each sample in aggregate and by inspection outcome (i.e., majority or minority findings). Each row classifies auditor dismissals by the characteristics of the newly engaged auditor. Dismissals are classified as engaging a large annually inspected auditor (Big 4 or Second Tier) or as engaging another non-annually inspected audit firm. I further classify a dismissal as engaging a larger triennially inspected auditor with more assets under audit than the dismissed auditor (excluding the switching client's assets). Not surprisingly, most clients switching auditors following inspection tend to select larger auditors. Approximately 60 percent of client dismissals in the full sample and 90 percent of all dismissals in the identifiable samples result in contracting an auditor of larger size. Even though there are many options among very small local auditors, clients leaving small auditors may be somewhat restricted to selecting larger auditors. Nonetheless, this finding remains interesting because switching clients tend to select auditors where the likelihood of future inspection is lower.

(Insert Table 9 Here)

Changes in Audit Fees and Auditor Resignations Following Inspection Findings

In untabulated analyses, I estimate the relation between inspection findings and changes in audit fees. I have no directional prediction for the effect of inspection findings on changes in

audit fees. On one hand, if inspection findings indicate inferior audit quality, the client may wish to negotiate a discount with the auditor. On the other hand, inspection findings are likely to require more audit work in future engagements. As such, additional compliance costs to the auditor may be shared with the client. To test this relation, I specify changes in audit fees for one and two year periods surrounding the inspection procedures excluding clients that changed auditors. I find no detectable relation between inspection findings and changes in audit fees. While a lack of evidence of a relation is not evidence of a lack of a relation (DeFond 2010), it seems that clients prefer dismissing auditors with deficiencies rather than renegotiating fees.

It is possible that auditors may resign from clients following difficulties with PCAOB inspections. I reperform the tests above using auditor initiated resignations instead of client initiated dismissals as the dependent variable. Similar to the specification above, I generate an indicator variable, *RESIGN*, equal to one if the client announced an auditor resignation by the inspected auditor during the two year window following the beginning of inspection procedures. I do not find strong evidence for previous tests using auditor resignations instead of client dismissals in a multivariate setting. This analysis is important since it indicates that auditor changes following PCAOB inspection findings seem to be driven by demand-side rather than supply-side forces.

Alternative Specifications of the Dismissal Window

In analyses of H1-H4 I specify *DISMISS* as a client dismissal of the inspected auditor within 24 months of the inspection procedures. This window should capture the period when the auditor becomes aware of any findings and remediates issues if necessary. It also captures the period where the inspection findings are disclosed to the public. In untabulated analyses, I test

the robustness of this specification to several alternative specifications. First, I respecify the dismissal window from 24 months following inspection procedures to 12 months following inspection procedures and find similar results. Next, I specify the dismissal window to include the period from the beginning of the inspection procedures to 12 months after the inspection findings are released to ensure that the reporting delay does not affect the period of time that the inspection findings are public. Since this window is, on average, longer for auditors with inspection findings, I include a control variable for the reporting delay in all tests (i.e., the time lapse between the inspection procedures until the report is released to the public - *INSPECTIONTOREPORT*).[32] Results using this specification are also quantitatively and qualitatively similar. In fact, I find strong support for H3. Lastly, I also specify *DISMISS* as a one year period following the release of the inspection report similar to Abbott et al. (2013). I find directionally consistent results with those presented above, but significance is diminished below levels of conventional significance in most tests. It seems that many clients that were likely targeted for inspection may react to inspection findings as the auditor addresses the issues identified by the inspectors instead of waiting for the inspection report to be released.

Lastly, it is possible that PCAOB inspection findings are correlated with other auditor characteristics that increase the likelihood of dismissal. In other words, some auditors may have been more likely to be dismissed for reasons outside of (but correlated with) inspection outcomes. To alleviate this concern, I specify the dismissal period as beginning on the most recent audit report date and ending on the date of the inspection procedures. This 'pre-inspection' window covers the period *before* the inspection procedures begin, thus any client

[32] Since the time lapse between inspection procedures and report release is a product of the inspection findings (variable of interest), I do not include *INSPECTIONTOREPORT* in the primary tests. Since *INSPECTIONTOREPORT* is not 'predetermined' relative to the variable of interest (*FINDING*) it is a 'bad control' as described by (Angrist and Pischke 2008).

dismissals should not be related to the inspection process or outcomes. I generally find no difference in dismissal rates for auditors with findings compared to those without findings using the pre-inspection window alleviating some concern that unobservable client or auditor factors explain the results. In fact, the coefficients on *FINDING* (*MAJORFINDING*) are *negative* and marginally significant in some tests suggesting that deficient audits were *less* likely to be associated with dismissals before the inspection procedures began. Taken together, clients that dismiss their auditors seem to do so in the period following the PCAOB inspection procedures.

Inspection Finding Severity and Auditor Dismissals

Using a sample of first round inspections, Abbott et al. (2013) do not find evidence that clients react to GAAS related PCAOB findings by dismissing their auditor. However, they do find a client reaction to relatively infrequent but possibly more severe findings related to the auditor's failure to appropriately identify or address a departure from GAAP. To ensure that the results above are not explained by only GAAP deficiencies I perform several additional tests. First, I specify model 1 to include a separate control variable for GAAP related deficiencies. Alternatively, I drop observations that included GAAP findings. Results for H1 are unchanged. For H2-H4, I specify models 2-4 to include a control variable for the percentage of audits that included a GAAP related deficiency. Results for H2-H4 are unchanged by the inclusion of a separate GAAP findings control variable.[33]

[33] I caution the reader against drawing any strong conclusions from these findings. GAAP findings are infrequent in my sample (occurring in less than 20% of inspections) while GAAS findings are relatively common (occurring in over 50% of inspections). Furthermore, Abbott et al. (2013) use a different model specification, earlier time period, and different sample for GAAP deficiencies.

VII. CONCLUSION

The effect of the PCAOB inspection process on audit firms is an understudied topic in the accounting literature. This study documents contributing factors of PCAOB compliance and investigates client reactions to inspection findings based on the likelihood of inspection. Most of the existing literature infers audit quality using financial reporting outcomes. I measure audit quality by tracing PCAOB inspection findings to specific engagements. In this way, I identify a sample of engagements where I can assess the auditor's compliance with professional standards. Results indicate that audit inputs and firm resources are positively related to PCAOB compliance. I also find that PCAOB inspection findings have negative consequences for auditors whose clients are identifiable. Clients that are more likely to be inspected are also more responsive to inspection findings. I find no evidence that the reaction to PCAOB inspection findings has declined over time. Taken together, this study indicates the potential consequences of the PCAOB inspection program for auditors of inspected clients. Furthermore, the PCAOB inspection process seems to be disproportionately burdensome for the smallest audit firms which may have consequences for audit market competitiveness. These findings are also relevant to ongoing policy debates over PCAOB's inspection process. The PCAOB and SEC may want to consider increasing the level of detail in inspection reports. As Lynn Turner stated, "the report loses most of its value if you don't give us a company name" (Whitehouse 2013). Even though the current process as prescribed by SOX does not permit much flexibility regarding the inspection reporting process, the SEC and PCAOB may want to revisit how inspections are conducted and how findings are disclosed.

This research is subject to several limitations. As in most archival studies, any inferences are limited by the ability of the measures to capture the intended constructs as well as each

model's ability to establish causal inferences. In addition, since the focus of this paper is on small triennially inspected audit firms, some inferences might not be generalizable to large and international audit firms. However, the effect of PCAOB inspection reports on clients of large firms is an important area for future research.

LIST OF REFERENCES

Abbott, L. J., K. A. Gunny, and T. C. Zhang. 2013. When the PCAOB Talks, Who Listens? Evidence from Stakeholder Reaction to GAAP-Deficient PCAOB Inspection Reports of Small Auditors. *Auditing: A Journal of Practice & Theory* 32 (2):1-31.

Abernathy, J. L., M. Barnes, and C. M. Stefaniak. 2013. A Summary of 10 Years of PCAOB Research: What Have We Learned? Working paper, Oklahoma State University.

Angrist, J., and J.-S. Pischke. 2008. *Mostly Harmless Econometrics: An Empiricist's Companion*: Princeton University Press.

Bozanic, Z., M. W. Dirsmith, and S. Huddart. 2012. The Social Constitution of Regulation: The Endogenization of Insider Trading Laws. *Accounting, Organizations and Society* 37 (7):461-481.

CAQ. 2012. Guide to PCAOB Inspections: Center for Audit Quality, 16.

Carcello, J. V., C. Hollingsworth, and S. A. Mastrolia. 2011. The Effect of PCAOB Inspections on Big 4 Audit Quality. *Research in Accounting Regulation* 23 (2):85-96.

Christensen, B. E., S. M. Glover, T. C. Omer, and M. K. Shelley. 2013. Understanding Audit Quality: Insights from Audit Partners and Investors. Working paper, Texas A&M University, Brigham Young University, and University of Nebraska.

Church, B. K., and L. B. Shefchik. 2012. PCAOB Inspections and Large Accounting Firms. *Accounting Horizons* 26 (1):43-63.

Coates, J. C. 2007. The Goals and Promise of the Sarbanes–Oxley Act. *Journal of Economic Perspectives* 21 (1):91-116.

Daugherty, B., and W. Tervo. 2010. PCAOB Inspections of Smaller CPA Firms: The Perspective of Inspected Firms. *Accounting Horizons* 24 (2):189-219.

DeAngelo, L. E. 1981. Auditor Size and Audit Quality. *Journal of Accounting & Economics* 3 (3):183-199.

DeFond, M., and J. Zhang. 2013. A Review of Archival Auditing Research. Working paper, University of Southern California.

DeFond, M. L. 2010. How Should the Auditors be Audited? Comparing the PCAOB Inspections with the AICPA Peer Reviews. *Journal of Accounting & Economics* 49 (1/2):104-108.

DeFond, M. L., and C. S. Lennox. 2011. The effect of SOX on small auditor exits and audit quality. *Journal of Accounting & Economics* 52 (1):21-40.

Farrell, J. J., and H. B. Shadab. 2005. The Focus of Future PCAOB Auditor Inspections. *CPA Journal* 75 (6):9-9.

Francis, J. R., and M. D. Yu. 2009. Big 4 Office Size and Audit Quality. *The Accounting Review* 84 (5):1521-1552.

Goelzer, D. L. 2008. What Audit Committees Should Know About the Work of the Public Company Accounting Oversight Board. *The Review of Securities and Commodities Regulation* 41 (61):14.

Gramling, A. A., J. Krishnan, and Z. Yinqi. 2011. Are PCAOB-Identified Audit Deficiencies Associated with a Change in Reporting Decisions of Triennially Inspected Audit Firms? *Auditing: A Journal of Practice & Theory* 30 (3):59-79.

Gunny, K. A., and T. C. Zhang. 2013. PCAOB Inspection Reports and Audit Quality. *Journal of Accounting and Public Policy* 32 (2):136-160.

Hermanson, D. R., R. W. Houston, and J. C. Rice. 2007. PCAOB Inspections of Smaller CPA Firms: Initial Evidence from Inspection Reports. *Accounting Horizons* 21 (2):137-152.

Hilary, G., and C. Lennox. 2005. The Credibility of Self-Regulation: Evidence from the Accounting Profession's Peer Review Program. *Journal of Accounting & Economics* 40 (1-3):211-229.

Hoffelder, K. 2013. Accounting Watchdog Raps Small Audit Firms. *CFO, The Magazine for Senior Financial Executives*, 2013/03//, 10.

Hogan, C. E., and R. D. Martin. 2009. Risk Shifts in the Market for Audits: An Examination of Changes in Risk for "Second Tier" Audit Firms. *Auditing: A Journal of Practice & Theory* 28 (2):93-118.

Houston, R. W., and C. M. Stefaniak. 2013. Audit Partner Perceptions of Post-Audit Review Mechanisms: An Examination of Internal Quality Reviews and PCAOB Inspections. *Accounting Horizons* 27 (1):23-49.

Lamoreaux, P. T. 2013. Does PCAOB Inspection Exposure Affect Auditor Reporting Decisions? Working paper, Arizona State University.

Lennox, C., and J. Pittman. 2010. Auditing the Auditors: Evidence on the Recent Reforms to the External Monitoring of Audit Firms. *Journal of Accounting & Economics* 49 (1/2):84-103.

Olson, M. W. 2008. Remarks on PCAOB Inspections, Audit Risks, and Standard-Setting Priorities Paper read at Association of Audit Committee Members at Philadelphia, PA

Palmrose, Z. V. 2005. Maintaining the Value and Viability of Independent Auditors as Gatekeepers Under SOX: An Auditing Master Proposal. Working paper, University of Southern California.

PCAOB. 2012a. Information for Audit Committees about the PCAOB Inspection Process, 26.

———. 2012b. Observations from 2010 Inspections of Domestic Annually Inspected Firms Regarding Deficiencies in Audits of Internal Control over Financial Reporting, 31.

———. 2013a. Executive Summary Report on 2007-2010 Inspections of Domestic Firms That Audit 100 or Fewer Public Companies.49.

———. 2013b. Standing Advisory Group Meeting Discussion - Audit Quality Indicators, 34.

Peltzman, S. 1976. Toward a More General Theory of Regulation. *Journal of Law & Economics* 19 (2):211-240.

Petersen, M. A. 2009. Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches. *Review of Financial Studies* 22 (1):435-480.

Robertson, J. C., and R. W. Houston. 2010. Investors' Expectations of the Improvement in the Credibility of Audit Opinions following PCAOB Inspection Reports with Identified Deficiencies. *Accounting & the Public Interest* 10:36-56.

107th Congress. 2002. *Sarbanes-Oxley Act*. 7201.

Stigler, G. J. 1971. The Theory of Economic Regulation. *The Bell Journal of Economics and Management Science* 2 (1):3-21.

Wallison, P. J. 2005. Rein in the Public Company Accounting Oversight Board. In *AEI Online*: American Enterprise Institute, 5.

Whitehouse, T. 2013. Investors Want Transparent Audit Inspection Reports. *Compliance Week*, October 18, 2013.

APPENDICES

APPENDIX A: Tables

TABLE 1: Sample Selection

	Observations with requisite client data
Domestic audits subject to inspection from Audit Analytics for reports released from 2005-2012 (triennially inspected auditors only)	5,203
Less:	
Observations without necessary data at t+1	(682)
Observations with PCAOB sanctions dated before or during the dismissal window	(63)
Observations with unclear inspection information	(4)
Total domestic audits of triennially inspected auditors	**4,454**
Less:	
Observations related to partially deficient PCAOB inspections (less than all inspected clients had findings)	(2,342)
Observations where less than all of the auditor's clients were selected for inspection	(1,762)
Total inspected client observations for auditors with 100% deficient or 100% clean inspected audits (identifiable client sample)	**350**
Less:	
Observations where the auditor has more than one client	(207)
Total domestic audits linked directly to inspection findings (one client sample)	**143**

TABLE 2: Distribution of Sample Observations by Industry

	Fama-French 12 Industry Classifier	Total Sample of Audits Subject to PCAOB Inspection	Identifiable Client Sample	One Client Sample
Consumer Non-Durables	1	164	14	7
Consumer Durables	2	61	2	2
Manufacturing	3	268	29	7
Energy	4	298	26	13
Chemicals	5	136	11	8
Business Equipment	6	719	44	18
Telecommunications	7	124	9	2
Utilities	8	37	4	0
Wholesale and Retail	9	238	17	6
Healthcare	10	501	28	8
Financial Services and Banking	11	1,220	122	55
Other	12	688	44	17
Total		4,454	350	143

TABLE 3: Descriptive Statistics – Identifiable Inspected Audit Clients

Panel A: Sample of Audits Subject to Inspection (All Inspected Sample)

VARIABLES	Total n =350	No Findings n = 271	Findings n =79	Prediction	Difference in Means	Test of Difference
DISMISS	0.117	0.103	0.165	-	-0.061	*
RESIGN	0.049	0.048	0.051	?	-0.003	
PARTNERS	5.239	5.663	3.788	+	1.875	***
AUDITDELAY	74.149	74.959	71.367	+	3.592	
GCO	0.226	0.192	0.342	?	-0.150	**
INSPECTIONTOREPORT	214.763	168.513	373.418	-	-204.905	***
AUDITFEES	11.232	11.337	10.873	+	0.465	***
GROWTH	0.220	0.238	0.156	?	0.082	
SIZE	16.911	17.056	16.414	?	0.642	*
LEVERAGE	0.670	0.637	0.784	?	-0.148	***
FIN-UTIL	0.360	0.351	0.392	?	-0.042	

Panel B: Sample of Audits Subject to Inspection Where the Auditor Has Only One Client (One Client Sample)

VARIABLES	Total n = 143	No Findings n = 94	Findings n =49	Prediction	Difference in Means	Test of Difference
DISMISS	0.126	0.085	0.204	-	-0.119	**
RESIGN	0.070	0.074	0.061	?	0.013	
PARTNERS	5.993	6.649	4.735	+	1.914	**
AUDITDELAY	73.483	74.351	71.816	+	2.535	
GCO	0.196	0.138	0.306	?	-0.168	**
INSPECTIONTOREPORT	227.622	172.915	332.571	-	-159.657	***
AUDITFEES	11.125	11.269	10.849	+	0.421	***
GROWTH	0.183	0.243	0.068	?	0.175	*
SIZE	16.922	17.168	16.448	?	0.720	
LEVERAGE	0.661	0.596	0.786	?	-0.190	***
FIN-UTIL	0.385	0.362	0.429	?	-0.067	

***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Significance is based on one (two) tailed p-values when a prediction is (not) made. Significance is determined without the assumption of equal variances.

TABLE 4: Multivariate Determinants of Findings for Identifiable Clients

		(1) All Inspected Sample	(2) One Client Sample
VARIABLES		FINDING	FINDING
PARTNERS	-	-0.055**	-0.096***
		(-1.901)	(-2.491)
AUDITDELAY	-	-0.002	-0.004
		(-0.333)	(-0.519)
GCO	+	0.360	0.537
		(0.775)	(0.758)
AUDITFEES	-	-0.747***	-0.616*
		(-3.126)	(-1.553)
GROWTH	?	-0.258	-1.120**
		(-0.942)	(-2.162)
SIZE	?	0.086	-0.076
		(0.809)	(-0.499)
LEVERAGE	?	1.277**	2.064**
		(2.383)	(2.527)
FIN-UTIL	?	0.056	0.565
		(0.131)	(0.981)
Intercept	?	5.033**	6.608**
		(2.496)	(2.102)
Observations		350	143
Pseudo R^2		0.101	0.182
Area Under ROC Curve		0.722	0.778

Models are estimated using logistic regression with standard errors that are robust to heteroskedasticity and clustered by audit firm (Petersen 2009). ***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Significance is based on one (two) tailed p-values when a prediction is (not) made.

TABLE 5: Multivariate Analyses of Auditor Dismissals for Identifiable Clients

		(1) All Inspected Sample	(2) One Client Sample
VARIABLES		DISMISS	DISMISS
FINDING	+	**0.604***	**1.090****
		(1.552)	**(2.182)**
PARTNERS	?	0.028**	0.050
		(1.996)	(1.071)
AUDITDELAY	?	0.002	-0.000
		(0.497)	(-0.001)
GCO	+	-0.303	-1.099
		(-0.568)	(-1.282)
AUDITFEES	?	0.227	0.367
		(0.947)	(0.851)
GROWTH	+	-0.179	0.551
		(-0.741)	(1.259)
SIZE	?	-0.119	-0.372**
		(-0.921)	(-2.088)
LEVERAGE	?	0.471	1.116
		(0.875)	(1.258)
FIN-UTIL	?	-0.431	0.258
		(-0.807)	(0.344)
Intercept	?	-3.100	-1.365
		(-1.414)	(-0.352)
Observations		350	143
Pseudo R^2		0.031	0.103
Area Under ROC Curve		0.648	0.730

Models are estimated using logistic regression with standard errors that are robust to heteroskedasticity and clustered by audit firm (Petersen 2009). ***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Significance is based on one (two) tailed p-values when a prediction is (not) made.

TABLE 6: Descriptive Statistics – All Domestic Audit Clients of Inspected Auditors

Descriptive Statistics for Clients of All Triennially Inspected Auditors

VARIABLES	Total N = 4,454	Majority non-Findings N = 3,266	Majority Findings N =1,188	Prediction	Difference in Means	Test of Difference
DISMISS	0.118	0.101	0.163	-	-0.062	***
RESIGN	0.037	0.030	0.058	?	-0.028	***
PERCENTINSPECTED	0.322	0.316	0.339	?	-0.023	**
RELATIVESIZE	0.166	0.149	0.214	?	-0.065	***
PARTNERS	2.079	2.316	1.426	+	0.890	***
CLIENTS	30.258	32.097	25.204	+	6.893	***
AUDITDELAY	79.720	78.788	82.283	?	-3.495	***
GCO	0.309	0.244	0.490	?	-0.246	***
INSPECTIONTOREPORT	390.549	344.822	516.258	-	-171.436	***
AUDITFEES	11.322	11.532	10.749	?	0.783	***
GROWTH	0.239	0.225	0.277	?	-0.053	**
SIZE	16.408	16.929	14.977	?	1.953	***
LEVERAGE	0.684	0.670	0.724	?	-0.055	***
FIN-UTIL	0.282	0.318	0.184	?	0.135	***

***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Significance is based on one (two) tailed p-values when a prediction is (not) made. Significance is determined without the assumption of equal variances.

TABLE 7: Multivariate Analyses of Auditor Dismissals for Clients of Inspected Auditors

VARIABLES		(1) DISMISS	(2) DISMISS	(3) DISMISS	(4) DISMISS
MAJORFINDING	+	0.397***	0.374***	0.183	0.313**
		(3.688)	(3.439)	(1.152)	(2.494)
MAJORFINDING x PERCENTINSPECTED	+			**0.578***	
				(1.664)	
MAJORFINDING x RELATIVESIZE	+				**0.325**
					(1.025)
PERCENTINSPECTED	+		0.264	0.0244	0.263
			(1.004)	(0.0786)	(1.000)
RELATIVESIZE	+		0.451**	0.440**	0.303
			(2.118)	(2.047)	(1.176)
PARTNERS	?	0.000	-0.008	-0.005	-0.006
		(0.022)	(-0.417)	(-0.297)	(-0.349)
CLIENTS	?	0.005***	0.009***	0.008***	0.008***
		(2.725)	(3.731)	(3.633)	(3.681)
AUDITDELAY	?	0.002*	0.002**	0.002**	0.002**
		(1.891)	(1.997)	(2.000)	(1.981)
GCO	+	-0.196	-0.180	-0.176	-0.179
		(-1.391)	(-1.268)	(-1.236)	(-1.260)
AUDITFEES	?	0.086	0.099	0.093	0.097
		(1.281)	(1.474)	(1.370)	(1.432)
GROWTH	+	0.187***	0.185***	0.189***	0.186***
		(3.032)	(2.985)	(3.047)	(2.999)
SIZE	?	-0.142***	-0.151***	-0.151***	-0.152***
		(-5.580)	(-5.815)	(-5.819)	(-5.842)
LEVERAGE	?	-0.148	-0.154	-0.170	-0.165
		(-0.907)	(-0.937)	(-1.031)	(-1.001)
Intercept	?	-1.309**	-1.594**	-1.429**	-1.521**
		(-1.967)	(-2.303)	(-2.034)	(-2.194)
Fixed Effects		Industry	Industry	Industry	Industry
Observations		4,454	4,454	4,454	4,454
Pseudo R^2		0.041	0.044	0.045	0.044
Area Under ROC Curve		0.652	0.659	0.659	0.659
MAJORFINDING + Interaction	+			**0.761*** **	**0.638** **
				(2.98)	**(2.30)**

Models are estimated using logistic regression with standard errors that are robust to heteroskedasticity and clustered by client (Petersen 2009). ***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Significance is based on one (two) tailed p-values when a prediction is (not) made.

TABLE 8: Multivariate Analyses of Inter-Temporal Effect of Inspection Findings

VARIABLES		(1) DISMISS	(2) DISMISS	(4) DISMISS
MAJORFINDING	+	0.397***	0.467***	
		(3.694)	(3.297)	
MAJORFINDING x NTHROUND	?		**-0.162**	
			(-0.776)	
ΔPERCENTFINDING	?			**0.075**
				(0.388)
NTHROUND	?	-0.058	-0.002	
		(-0.597)	(-0.020)	
PARTNERS	?	0.001	0.001	-0.004
		(0.050)	(0.077)	(-0.156)
CLIENTS	?	0.005***	0.005***	0.005**
		(2.780)	(2.845)	(2.056)
AUDITDELAY	?	0.002**	0.002*	0.001
		(1.962)	(1.925)	(0.777)
GCO	+	-0.196	-0.193	-0.065
		(-1.392)	(-1.375)	(-0.303)
AUDITFEES	?	0.090	0.087	0.047
		(1.335)	(1.284)	(0.467)
GROWTH	+	0.183***	0.183***	0.164*
		(2.964)	(2.968)	(1.705)
SIZE	?	-0.142***	-0.142***	-0.123***
		(-5.581)	(-5.581)	(-3.168)
LEVERAGE	?	-0.155	-0.155	0.017
		(-0.946)	(-0.941)	(0.072)
Intercept	?	-1.337**	-1.340**	-1.378
		(-2.009)	(-2.015)	(-1.448)
Fixed Effects		Industry	Industry	Industry
Observations		4,454	4,454	2,187
Pseudo R^2		0.041	0.042	0.036
Area Under ROC Curve		0.652	0.652	0.637
MAJORFINDING + Interaction	?		**0.305***	
			(1.92)	

Models are estimated using logistic regression with standard errors that are robust to heteroskedasticity and clustered by client (Petersen 2009). ***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Significance is based on one (two) tailed p-values when a prediction is (not) made.

TABLE 9: Analyses of Contracted Auditors after Auditor Dismissals

	Full Sample			All Audits Inspected Sample			One Client Sample		
	Total	No/Minority Findings	Majority Findings	Total	No Findings	Findings	Total	No Findings	Findings
	n = 4,454	n = 3,266	n = 1,188	n = 350	n = 271	n = 79	n = 143	n = 94	n = 49
Total Client Dismissals Following Inspections	**525**	**331**	**194**	**41**	**28**	**13**	**18**	**8**	**10**
Clients Engaging Annually Inspected (Big N or Second Tier) Auditors	**112** **21%**	**84** **25%**	**28** **14%**	**10** **24%**	**8** **29%**	**2** **15%**	**4** **22%**	**3** **38%**	**1** **10%**
Clients Engaging Larger Non-Annually Inspected Auditors	**194** **37%**	**103** **31%**	**91** **47%**	**25** **61%**	**16** **57%**	**9** **69%**	**13** **72%**	**5** **63%**	**8** **80%**
Clients Engaging Smaller (or Equal Sized) Non-Annually Inspected Auditors	**219** **42%**	**144** **44%**	**75** **39%**	**6** **15%**	**4** **14%**	**2** **15%**	**1** **6%**	**0** **0%**	**1** **10%**

APPENDIX B: Variable Definitions

Variable	Variable Definition
AUDITDELAY	Number of days between the fiscal year end and the signature date of the audit report at time t. (Audit Analytics)
AUDITFEES	Natural log of total audit fees at time t. (Audit Analytics)
CLIENTS	The number of audits subject to inspection by the PCAOB. An audit is defined as subject to inspection if the audit opinion signature date occurs within 18 months of the PCAOB's inspection procedures. If a client has two audits completed during this window, only the most recent audit is included in the calculation. (Audit Analytics)
DISMISS	Indicator variable equal to 1 if the client announced a dismissal of the inspected auditor during the 2 year window following the beginning of inspection procedures, 0 otherwise. (Audit Analytics)
FIN-UTIL	Indicator variable equal to 1 if the client is a financial or utility company. Based on industry classifications 8 and 11 using the Fama-French 12 industry taxonomy (SIC codes 4900-4949 and 6000-6999). (Audit Analytics)
FINDING	Indicator variable equal to 1 if the client's auditor received a deficient PCAOB inspection report, 0 otherwise. (PCAOB Reports)
GROWTH	Change in client total assets from t-1 to t scaled by total assets at t-1. Maximum value winsorized at 2. (Audit Analytics and Compustat)
GCO	Indicator variable equal to 1 if the client receives a going-concern report at time t, 0 otherwise. (Audit Analytics)
PERCENTINSPECTED	Number of issuer audits selected for inspection by the PCAOB scaled by the number of clients in the auditor's portfolio. (Audit Analytics and PCAOB Reports)
INSPECTIONTOREPORT	Number of days between the first date of inspection and the release of the inspection report. (PCAOB Reports)
LEVERAGE	Total debt at time t scaled by total assets at time t. Maximum value winsorized at 1. (Audit Analytics and Compustat)
NTHROUND	Indicator variable equal to 1 if for second or third round inspections, 0 otherwise. (Audit Analytics)
MAJORFINDING	Indicator variable equal to 1 if more than half of the auditor's inspected clients were found to be deficient, 0 otherwise. (PCAOB Reports)
PARTNERS	The number of the firm's partners scaled by number of the firm's clients. (PCAOB Reports and Audit Analytics)
PERCENTFINDING	The number of inspected audits that included PCAOB findings scaled by the total number of audits selected for inspection. (PCAOB Reports)
RELATIVESIZE	Total client assets at time t scaled by total assets under audit for the client's auditor. (Audit Analytics and Compustat)
RESIGN	Indicator variable equal to 1 if the client announced an auditor resignation by the inspected auditor during the 2 year window following the beginning of inspection procedures, 0 otherwise. (Audit Analytics)
SIZE	Natural log of total assets at time t. (Audit Analytics and Compustat)
Variables are based on data hand collected from PCAOB inspection reports or downloaded from Audit Analytics and Compustat databases.	

VITA

Quinn Thomas Swanquist was born outside Chicago, Illinois in 1984. He obtained his B.S. degree in Accounting from Samford University and his MAcc from The University of Tennessee. He began his professional career as a CPA within the audit practice at KPMG, LLP in the firm's Miami and Fort Lauderdale offices. Quinn started the doctoral program at The University of Tennessee in 2010 and has research and teaching interests in auditing and corporate governance. He will begin his academic career at Georgia State University in the fall of 2014. Quinn and his wife, Deborah, are expecting their first daughter, Kaylee Quinn Swanquist, in May 2014.