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The Economic Costs to Audit Firms of Ethical Violations and the Resulting PCAOB Disciplinary Orders

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THE ECONOMIC COSTS TO AUDIT FIRMS OF ETHICAL VIOLATIONS AND THE RESULTING PCAOB DISCIPLINARY ORDERS

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I dedicate this dissertation to my family and friends who have supported me throughout this journey, to Victor Timothy Joris who walked back into my life and made me whole again, and to my sons, Trey Anthony Rogers, Joel Patrick Rogers and Adam James Rogers who inspire and energize me every day of my life and who I hold dear and love with all my heart.

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VARIABLE DEFINITIONS

Dependent Variables

SWITCH	1 if a client changed auditors between the prior (*t-1)* and current (*t*) year, 0 otherwise.
Δ*AF*	Year-to-year change in the natural log of audit fees (in dollars).
LNAF	Natural log of audit fees clients paid to auditors. LOG(MATCHFY_SUM_AUDFEES)
FI (fee increase)	An indicator variable equal to 1 if the change in audit fees in the period t-1 to t is greater than zero, and zero otherwise.
AQ	|*DACC*|, |*DACCd*| and *RESTATE*
|*DACC*|	The absolute value of abnormal accruals based on the performance-adjusted modified Jones model (Kothari et al. 2005).
|*DACCd*|	The absolute value of abnormal accruals based on Dechow and Dichev (2002);
RESTATE	1 if the client subsequently restates the current-year financial statements due to a non-clerical error, 0 otherwise. The sample includes only "Big R" restatements in which the audit opinion also is revised to disclose the restatement.

Test Variables

POST	1 for the 3-year period following the public disclosure of the ethical violation through issuance of the PCAOB disciplinary order, 0 otherwise.
SANC_CY	1 if the affiliated firm of the sanctioned partner served as auditor in the current fiscal year, 0 otherwise.
SANC_PY	1 if the affiliated firm of the sanctioned partner served as auditor in the prior fiscal year, 0 otherwise.
CPA_ACM	1 if there is a CPA director on the client's audit committee, and 0 otherwise.

Other Variables

ABNRML_FEE	Abnormal audit fees calculated based on the residual of the audit fee model (2) estimated with no change and without the main and interactive test variables.
AUDIT_FEE	Natural log of annual audit fees paid to the company's auditor. LOG(MATCHFY_SUM_AUDFEES)
BANKRUPTCY	Bankruptcy risk using Altman's (1968) z-score. T1=(act-lct)/at; T2=re/at; T3=(ni+xint+txt)/at; T4=(csho*prcc_f)/lt; T5=sale/at; BANKRUPTCY = (1.2*T1 + 1.4*T2 + 3.3*T3+0.6*T4 + 0.999*T5);
BUSY	1 if firm fiscal year is December 31, 0 otherwise.
CASH	Total cash divided by total assets. (CHE/AT)
CATA	Ratio of current assets to total assets. (ACT/AT)
CFO	Operating cash flows deflated by lagged total assets. (OANCF/LAGAT)

CLIENT_INFLUENCE	Ratio of the client's annual fees for all services to the sum of annual fees for all clients.
EFFORT	Audit fees deflated by the square root of total assets. (MATCHFY_SUM_AUDFEES/sqrt(AT)
FOREIGN	1 if foreign operations, as indicated by foreign currency adjustments to income, 0 otherwise; (PIFO)
GC	1 if a client receives a going concern opinion, 0 otherwise.
GROWTH	Beginning Assets + Ending Assets scaled by Ending Assets (AT-LAG(AT)/LAG(AT)
ICW	1 if a firm has an internal control material weakness over financial reporting, 0 otherwise
INTANG	1 if a firm has intangible assets, 0 otherwise.
INVAR	Inventory plus receivables divided by total assets. (INVT + RECTR)/AT
LAG_ACCRUALS	Lagged total accruals. LAG((IB-OANCF)/AT))
LEVEL3	1 if a firm has Level 3 valued assets and/or liabilities, 0 otherwise.
LEVERAGE (LEV)	Ratio of debt to total assets. (DLTT + DLC)/AT
LIQUID	Total current assets divided by total current liabilities (ACT/LCT)
LIT	An indicator variable equal to 1 if the firm's SIC code is within one of the following SIC groups: 2833–2836, 3570–3577, 3600–3674, 5200–5961, or 7370–7374, and 0 otherwise.
LOSS	1 if net income less than 0, and 0 otherwise.
M_A	1 if the client was involved in a merger or acquisition in the current or preceding year, and 0 otherwise.
MB	Market value of equity divided by book value of equity. (MKVALT/BKVLPS)
MODOP	1 if the firm received a modified audit opinion for anything other than going concern, and 0 otherwise.
NON_AUDITFEE	Natural log of annual nonaudit fees paid to the company's auditor. LOG(MATCHFY_SUM_NONAUD)
QUICK	Ratio of current assets (excluding inventories) to current liabilities. (CHE + RECT)/LCT
ROA	Income before interest and taxes, divided by total assets. (IB/LAG(AT))
SEG	Natural log of the number of business segments.
SHORT	1 if auditor tenure is three years or less, and 0 otherwise.
SIZE	Natural log of total assets (in millions of $). LOG(AT)
TENURE	Number of years the incumbent auditor has served as the client's auditor.

ABSTRACT

This paper examines whether ethical violations committed by an audit partner and the public release of the resulting PCAOB disciplinary order affects the associated audit firms' switching risk, audit fees and audit quality relative to other comparable audit firms. I examine the effects of ethical violations on audit firms affiliated with a sanctioned auditor (also referred to as affiliated audit firm or sanctioned auditor) at the city (office), MSA, state, regional, and national (firm) level in order to determine if there is a spill-over effect. My findings suggest that at no level in my analysis did the public disclosure of the PCAOB sanction have a significant effect on sanctioned auditors losing or gaining clients. Furthermore, results indicate that there is no significant association between having a certified public accountant (CPA) serve on the audit committee and an affiliated audit firm's ability to retain clients or attract new clients. In regards to audit fees, findings suggest that audit fees were affected by the PCAOB sanction in that sanctioned auditors experienced audit fee growth after the sanction was made public. This result is consistent across all samples for all tests with the exception of the state and national (firm) samples. Again, there appears to be no significant association between having a CPA serve on the audit committee and audit fee growth rates. Finally, in the audit quality tests of discretionary accruals, there is no evidence to suggest that the sanctioned auditor's audit quality was different from that of other non-sanctioned audit firms during the three-year window either before or after the sanction. However, the results of the audit quality test using restatements indicate that after the sanction was made public, restatements increased at the regional and national (firm) level for sanctioned firms vs. non-sanctioned firms. At the city (office), MSA and state level there appears to be no effect on restatements as a result of the public disclosure of the PCAOB sanction. Consequently, it is difficult to infer that higher restatements at the regional and national (firm) levels are associated with the PCAOB sanction.

1. INTRODUCTION

In this paper, I examine whether ethical violations committed by audit partners and the resulting PCAOB disciplinary orders affect the associated audit firms' switching risks[1], audit fees and audit quality relative to other comparable audit firms over a three-year period following the date the ethical violation was made public through the release of the PCAOB disciplinary order.

The Sarbanes-Oxley Act (SOX) of 2002 mandated a number of reforms aimed at improving corporate governance and accountability, one of which was the creation of the Public Company Accounting Oversight Board (PCAOB). The PCAOB's mission is to "oversee the audits of public companies in order to protect the interests of investors" (PCAOB 2016a). To accomplish its mission, the PCAOB has the ability to set standards, conduct inspections of audit firms and discipline those auditors and/or audit firms that commit serious audit deficiencies (PCAOB 2016a).

Since 2005, the PCAOB has sanctioned a number of audit firms and auditors, including audit partners who improperly backdated, added, altered, and created audit work papers subsequent to the documentation completion date.[2] Sanctions levied against audit partners involved in this type of violation include monetary fines as well as disbarment from being an associated person of a registered audit firm. In four separate PCAOB disciplinary orders, audit

[1] Defined as in Boone et al (2015) as "an increased risk of losing an existing client and a decrease in the likelihood of attracting a new client."

[2] According to Auditing Standard No. 3(15), the documentation completion date occurs not more than 45 days after 1) the audit report release date or 2) the date the fieldwork was substantially complete or 3) the date the engagement ceased (PCAOB 2016c). Auditing Standard No. 3(16) states that "any (audit) documentation added must indicate the date the information was added, the name of the person who prepared the additional documentation, and the reason for adding it" (PCAOB 2016c). Furthermore, PCAOB Rule 4600 requires that an "associated person of a registered audit firm shall cooperate with the Board in the performance of any Board inspection" and "not provide misleading documents or information in connection with the Board's inspection processes" (PCAOB 2016d).

partners altered audit work papers and/or directed others to alter audit work papers in advance of a PCAOB or firm quality control inspection. These developments led the PCAOB to issue Staff Audit Practice Alert No. 14 which emphasizes that improperly altering audit documentation related to a PCAOB inspection or investigation is a violation of PCAOB rules and can result in severe disciplinary actions against the offending parties (PCAOB 2016e). Improper alteration of audit documentation undermines the integrity of the PCAOB's inspection process and impedes the PCAOB's efforts to improve the audit process (PCAOB 2016e). Staff Audit Practice Alert No. 14 makes clear that altering audit documentation is inconsistent with an auditor's professional duty to act with integrity and encourages those in leadership positions to reinforce the importance of compliance with Auditing Standards (PCAOB 2016e).

According to Taylor et al. (2003), what stakeholders truly seek is auditor reliability. Auditor reliability depends on auditor integrity and expertise rather than auditor independence and should be the profession's "cornerstone" for protecting public interest. Integrity is an essential and necessary component of reliability and without auditor integrity there cannot be auditor reliability. It is important to note that PCAOB enforcement actions due to ethical issues are significantly different from those due to audit failures. According to PCAOB board member Jay Hanson, the PCAOB uses the term "audit failure" to identify cases in which the auditing firm failed to obtain sufficient appropriate evidence to support its audit opinion (Tysiac 2014). Enforcement actions due to ethical issues suggest a lack of integrity by the audit partner and are not necessarily indicative of an audit failure, although both may ultimately damage an audit firm's reputation.

Economic theory (Klein and Leffler 1981; Shapiro 1983) suggests that the public disclosure of ethical violations and the resulting PCAOB disciplinary orders can damage an

auditor's reputation for audit quality resulting in increased auditor dismissals, an inability to attract new clients and decreased audit fees.[3] Because ethical violations committed by audit partners may taint the reputation of the affiliated office and the firm as a whole, I examine the effects of this type of violation at the city (office), MSA, state, regional[4] and national (firm) levels.[5] If an ethical violation and the resulting PCAOB disciplinary order imposes real costs to audit firms, I expect to find higher likelihood of auditor dismissals, an inability to attract new clients and lower audit fees. Furthermore, after an ethical violation has occurred, the audit firm may attempt to improve audit quality to compensate for any reputational damage. Therefore, I also examine if there are significant changes to audit quality following the public release of the PCAOB disciplinary order.

There are several reasons why clients may not switch auditors nor demand lower audit fees following the public disclosure of a PCAOB disciplinary order. Clients may not be aware of the ethical violation and the resulting PCAOB disciplinary order against the audit partner. While it is true that sanctions by the PCAOB against audit partners are made public and may be reported in some news outlets, all PCAOB sanctions remain private until after the PCAOB has completed its investigation and made its final decision (PCAOB 2016e, Rule 5203). By the time clients become aware of the violation, the audit firm may have assured clients that the offending

[3] The basic idea behind Klein and Leffler (1981) is that a firms' incentive to provide high quality is the desire to continue making sales. Further, based on past experiences and a firm's reputation, consumers will continue to patronize a firm. Shapiro (1983) developed a model that explored the implications of firm-specific reputation and posited that a firm has a good reputation if consumers believe it provides high quality products and the firm's decision to provide high quality products contributes to the firm's good reputation.

[4] Regional is defined as offices in the same state the violation occurred in as well as adjacent states.

[5] Prior research finds that local audit office effects are important in explaining auditor attributes including client dependence (Reynolds and Francis 2000), industry expertise (Ferguson et al. 2003; Francis et al. 2005) and audit quality in general (Francis and Yu 2009; Chaney and Philipich 2002; Nelson et al. 2008). According to Skinner and Srinivasan (2012), this suggests that there is a local office effect as well as an overall audit firm effect. If reputational or ethical problems are confined to a particular practice office, then there may be less concern about these issues by clients of other offices of the audit firm. On the other hand, the ethical violations committed by a partner at one office may be perceived to be pervasive throughout the firm and clients of other offices and the firm as a whole may react negatively to these issues.

partner has left the firm or has been properly disciplined, and the firm has taken steps to assure that this type of violation will not reoccur. As a result, clients may feel that the ethical violation has been remedied and may feel comfortable with the assurance provided by their audit firm. Consequently, they may not switch to a different auditor. Additionally, there are real and transactional costs involved in the decision to switch auditors and those costs may be considered too high (Skinner and Srinivasan 2012). On the other hand, clients may feel they did not get what they paid for if the audit partner has been found to have altered the audit working papers after the fact. Furthermore, clients may feel that the actions of an unethical audit partner are associated with the audit firm's "tone at the top" and as a result may feel they have not received a quality audit at a fair price. This reaction may ultimately lead to a switch in audit firms or a demand for lower audit fees as compensation for the perceived inadequate work performed on the original audit. Further, an audit firm may react to a PCAOB disciplinary order against one of its audit partners by reducing audit fees to retain clients. On the other hand, it may increase audit fees to improve training and ultimately the quality of the audit or in an attempt to compensate for any future PCAOB monetary sanctions. Furthermore, audit firms may find it necessary to raise audit fees to compensate for increases in professional liability insurance following PCAOB sanctions against an affiliated audit partner and/or the audit firm itself.

To examine the consequences of ethical violations, I examine the changes in the affiliated firm's switching risk over a six-year period – the pre-sanction period, which includes two years before and the year of the public disclosure of the sanction and the post-sanction period, which includes three years after the year of the disclosure. I examine the effect of the sanction at the city (office), MSA, state, regional and national (firm) levels. My results indicate that in the post-sanction period there is no significant difference between the sanctioned auditor's likelihood of

losing or gaining clients as compared to other non-sanctioned auditors during the same time period. However, in the test associated with client gains, at the city (office), MSA, and state level, the coefficients on the sanction variable are negative and significant indicating that in the pre-sanction period the likelihood of a client switching to a sanctioned auditor as compared to a non-sanctioned auditor was significantly less. This result does not hold at the regional or national (firm) levels. Furthermore, there appears to be no significant effect on auditor switches associated with having a CPA on the audit committee.

Next, I analyze the effect of the PCAOB sanction on audit fees. In these tests, I find that audit fee growth rates for sanctioned auditors, relative to non-sanctioned auditors increased in the post-sanction period. This result is consistent at the city (office), MSA, state, and regional levels. At the national (firm) level, only the Fee Increase analysis indicates an association between the PCAOB sanction and an increase in audit fees for sanctioned auditors as compared to non-sanctioned auditors. Consequently, since this result does not hold for the other two tests, it is difficult to conclude that there is an association between the PCAOB sanction and an increase in audit fees at the national (firm) level. In addition, it appears there is no significant effect on audit fees associated with having a CPA on the audit committee.

I also examine audit quality using absolute abnormal accruals and the likelihood of subsequent restatements over the same six-year period. Tests using absolute abnormal accruals indicate no significant difference in audit quality between sanctioned and non-sanctioned audit firms. However, according to the restatements analysis, there are higher restatements at the regional and national (firm) levels for sanctioned audit firms as compared to non-sanctioned audit firms in the post-sanction period. However, this result is not consistent at the city (office), MSA or state level. Consequently, it is difficult to infer that the higher restatement rate is

associated with the public disclosure of the PCAOB sanction. Furthermore, analysis shows that restatements are higher for sanctioned firms than for non-sanctioned firms (the coefficient on the sanction variable is positive and significant), but only in the pre-sanction period at the city (office), MSA, and state levels. There is no change in the post-sanction period at the city (office), MSA or state levels suggesting that the sanctioned firms had poorer audit quality than non-sanctioned firms in the pre-sanction period. However, it appears that the public disclosure had no effect in the post-sanction period. These results are not consistent with the discretionary accruals analysis. Consequently, there does not appear to be support for a change in audit quality after the public disclosure of the PCAOB sanction.

This study contributes to our understanding of the cost imposed by PCAOB regulations and oversight on annually inspected audit firms whose audit partners have committed ethical violations. Given that partners tend to recruit personnel similar to themselves, the ethics of the partner are important for setting the right tone of the organization (Burton et al. 2016). There is minimal research regarding auditor ethics. Consequently, to the best of my knowledge, this is the first paper to empirically analyze the costs associated with a failure of auditor integrity.

A monitoring mechanism is one of the motivations for auditors to provide high quality audits. Whether a monitoring system or a disciplinary system effectively improves audit quality continues to be an important research topic. Consequently, this study also contributes to existing literature on the effects of the PCAOB inspection and enforcement program on audit firms and their clients. The results may be used by the PCAOB to assess whether the inspection process, the public release of the PCAOB's findings and the resulting sanctions and fines are motivation enough for audit partners and/or audit firms to improve their ethical standards and the quality of their audits and for issuers to seek audit firms able to provide a quality audit. Additionally, my

analysis examines whether an ethical violation committed by an audit partner affects a firm's reputation and results in economic losses. My study adds to the literature examining whether reputation matters and helps to increase understanding of whether auditor integrity makes a difference to those that depend on the information contained in the audited financial statements.

My study and Boone et al. (2015) are related in that both analyze the actual costs to audit firms associated with the public disclosure of a PCAOB disciplinary order. Boone et al. (2015) studied the first-ever PCAOB censure of a Big 4 firm following a significant audit failure. However, they acknowledge that their study many not be generalizable to other PCAOB censures that precede or follow the Deloitte & Touche LLP (Deloitte) censure (Boone et al. 2015). Consequently, my analysis extends Boone et al. (2015) on the effects of the disclosure of a PCAOB disciplinary order. However, our studies differ in a very important aspect. Specifically, my analysis examines the effects of an ethical violation committed by an audit partner rather than the effects of an overall audit failure of a Big 4 audit firm. In the scenario I examine, the modification of audit documentation after the audit is complete is a failure of auditor integrity and not an indicator of nor a precursor to the failure of the overall audit. My analysis explores whether auditors need to act with integrity to maintain their reputation.

Weber et al. (2008) studied the stock and audit market effects associated with an accounting scandal involving a public company (ComROAD AG) and KPMG in Germany.[6] They used this event to explore whether an auditor's reputation helps to ensure audit quality and found an increase in KPMG's client losses in the year of the ComROAD scandal, as well as significant negative abnormal returns of 3% for KPMG's clients around events pertaining to the scandal. Weber et al. (2008) provide support for the rationale that reputation matters. While the

[6] In the ComROAD scandal, ComROAD created fictional sales and KPMG did not realize until two years after they started auditing ComROAD that ComROAD's largest customer did not exist.

analysis conducted by Weber et al. (2008) and Boone et al. (2015) indicate negative repercussions when an audit firm's reputation has been damaged, neither of them analyze the effects on an audit firm's reputation when an audit partner commits an ethical violation related to an audit. Weber et al. (2008) and Boone et al. (2015) both focus on a significant failure of the overall audit and on auditor competence. My analysis focuses on the failure of auditor integrity. Furthermore, Weber et al. (2008) used Germany as the backdrop for their analysis because of the substantial protection from shareholder legal liability provided to auditors in Germany. Lennox (1999) and Khurana and Raman (2004), suggest that litigation exposure, not reputation concerns, drives audit quality in the United Kingdom and the United States. In the United States, because of the stricter legal regime, it is more difficult to determine if auditor reputation is the force behind auditors acting with integrity or if the threat of legal action is the incentive or both. My analysis differs from Weber et al. (2008) in that I use data related to ethical violations and PCAOB disciplinary orders against audit partners of firms located in the United States where there is a stricter legal regime than in Germany. Weber et al. (2008) used German data in an attempt to isolate the effects of auditor reputational damage from the threat of legal action. In the scenario that I use, the threat of legal action should be minimal, if there is any at all, since the PCAOB disciplinary order is not for an audit failure, but for a documentation failure.

As stated in Abernathy et al. (2013), understanding the effects of the PCAOB are important to research because of the PCAOB's authority and oversight over the audit profession. This authority can ultimately affect many faucets of an audit including the pricing of audits, the auditor/client relationship, the consequences of audit failure, and the public's confidence in the auditing profession (Abernathy et al. 2013). While Boone et al. (2015) demonstrates that PCAOB enforcement actions due to audit failures impose actual costs on auditors, it appears

there are minimal actual costs to auditors when partners commit ethical violations. Boone et al. (2015) and Weber et al. (2008) show that investors, clients and audit committees value auditor competence whereas my study shows they do not appear to value auditor ethics.

This paper is organized as follows: Section 2 provides a background of prior research on the PCAOB inspection and enforcement process, ethics in auditing, auditor switching, audit quality, audit pricing and audit committee composition. It also contains my hypotheses development. Section 3 provides information regarding the sample and data. Section 4 presents the research methodology, Section 5 presents the results of analysis and the final section provides a summary of conclusions.

2. BACKGROUND AND HYPOTHESIS DEVELOPMENT

2.1 Background

2.1.1 The PCAOB Enforcement Process

The PCAOB, a private-sector, nonprofit corporation, was organized to oversee accounting professionals who provide independent audit reports for publicly traded companies (SEC 2013). This organization performs its work through four program areas: registration, inspections, standards, and enforcement. When violations are discovered, the PCAOB has the power to impose the appropriate disciplinary actions against the offending accounting firms and/or associated individuals.

The PCAOB enforcement program is overseen by the PCAOB's Department of Enforcement and Investigations. Information suggesting potential violations comes from a variety of sources including PCAOB inspections, the Securities and Exchange Commission (SEC), public information from sources such as newspapers and restatements, the audit firm itself and from tips provided by informants (Gaetano 2014). PCAOB enforcement proceedings occur when the PCAOB believes a serious violation has been committed.

According to the PCAOB Bylaws and Rules, investigations may be informal inquiries in which investigators request documents and conduct interviews or formal investigations in which there is sworn testimony, subpoenas and legal transcripts (PCAOB 2016e). Informal inquiries and formal investigations are confidential unless other agencies such as the SEC, the U.S. Attorney General and other regulators are asked to become involved (PCAOB 2016e, Rule 5108). Disciplinary proceedings commence if it appears that, as a result of an investigation, a hearing is justified in order to determine whether a registered public accounting firm, or an associated person of the firm, has committed any act in violation of SOX, PCAOB standards and rules, any securities laws relating to the preparation and issuance of audit reports or violation of

professional standards (PCAOB 2016e, Rule 5200(a)). As in Figure 1 of Gilbertson and Herron (2009, p. A17), a diagram of the PCAOB inspection and enforcement programs is presented in Figure 1.

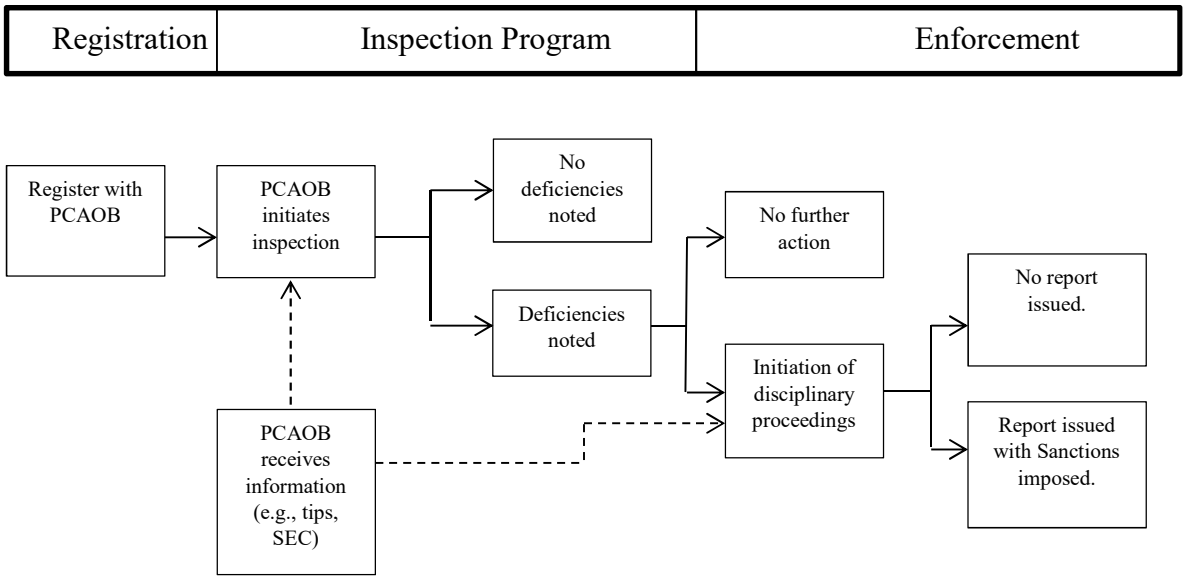

Figure 1. PCAOB Inspection and Enforcement Programs
Gilberson and Herron (2009)

If the PCAOB institutes a disciplinary proceeding, the auditor or audit firm has the choice of either settling the case or litigating it with the PCAOB's enforcement staff. If the firm or associated persons choose to settle a case prior to a formal hearing, they forfeit certain privileges and formal proceedings while neither admitting nor denying any allegations. If the choice is made to litigate, then a hearing is scheduled. As required by SOX, all proceedings remain private unless both the PCAOB and the respondent consent otherwise (PCAOB 2016e, Rule 5203). At the conclusion of a disciplinary proceeding – whether settled or adjudicated, the PCAOB publishes the resulting disciplinary order. Disciplinary orders are available on the PCAOB's website and describe violations in great detail including the names of the parties involved, the type(s) of violation(s) committed, and the sanction(s) imposed.

If an audit firm or associated person of the audit firm is found to have violated any PCAOB rules, regulations or standards, the PCAOB has the power to impose disciplinary sanctions ranging from censure and/or fines to revocation of registration (PCAOB 2016e, Rule 5300(a)). Revocations can be temporary or permanent and may restrict the firm and/or individual(s) from auditing issuers (PCAOB 2016e, Rule 5300(a)). The sanctions administered by the PCAOB depend more on the egregiousness of the violation committed rather than whether the violation was related to an ethical violation or a complete audit failure. Both types of violations, ethical infractions and audit failures, have resulted in monetary penalties and disbarment of audit partners for various lengths of time. However, if it has been determined that the firm's policies and/or procedures are at fault then the firm itself is sanctioned, as well as the individuals involved. Firm sanctions have occurred in audit failures as well as general PCAOB violations.[7]

For this study, I analyze audit partners that violated AS3 (15 and 16 and PCAOB Rule 4006. AS3 (15) requires that the audit documentation completion date be not more than 45 days from the audit report release date or the date the fieldwork was substantially complete or the date the engagement ceased (PCAOB 2004). AS3 (16) requires that if documentation is added, the date the documents were added, the name of the responsible person and the reason why must be included (PCAOB 2004). PCAOB Rule 4006, *Duty to Cooperate with Inspectors*, requires that "[e]very registered public accounting firm, and every associated person of a registered public accounting firm…cooperate with the Board in the performance of any Board inspection." The duty to cooperate includes an obligation not to provide improperly altered documents or misleading information in connection with the Board's inspection processes (PCAOB 2016e).

[7] The PCAOB imposed a $2 million fine against Deloitte for permitting a former partner to perform activities as an "associated person" while suspended by the PCAOB (PCAOB Release No. 105-2013-008).

To date, the PCAOB has issued 18 disciplinary orders for failure to cooperate with inspections, as well as 16 disciplinary orders for failure to cooperate with a PCAOB investigation (PCAOB 2016b). A majority of those disciplinary orders include improper audit documentation alteration and resulted in sanctions of individuals being barred from auditing issuers. According to Claudius Modesti, the PCAOB's Director of Enforcement and Investigations,

> PCAOB Enforcement has zero tolerance for improper alteration of audit documentation in connection with a Board inspection or investigation. No patient would tolerate a health care provider falsifying records that potentially obscure a health issue. And investors, relying on audit opinions, should not have to tolerate auditors improperly altering their audit files risking that the actual quality of the audit is being obscured (PCAOB 2016g).

In this study, I examine whether censures by the PCAOB for ethical violations by audit partners of Big 4 and Tier 2 firms impacts client retention, audit fees and audit quality. I analyze four disciplinary orders involving partners of Big 4 and Tier 2 audit firms that committed ethical violations. A description of each of the disciplinary orders follows.

2.1.1.1 PCAOB Release No. 105-2007-008

Stephen J. Nardi, CPA (Nardi), the Practice Office Assurance Director for the Philadelphia office of BDO USA, LLP (BDO) was the engagement partner on an audit that was subject to a quality control inspection by BDO partners from other offices of the firm. The "purposes of the QC inspections (performed by BDO) were to determine the quality of work performed, to assess compliance with PCAOB auditing standards, generally accepted accounting principles, and BDO policy, to correct any identified deviations, and to provide recommendation for improvement." When Nardi was notified of the upcoming QC inspection, he directed staff in the Philadelphia office to review work papers for public audit engagements that he thought might be selected for the QC inspection. When Nardi subsequently learned that the audit selected for the QC inspection was that of Hemispherx fiscal year 2004, he directed a member of his staff in the

Philadelphia office to review the client's audit work papers. The staff member found missing initials and signatures, which indicated that a detailed review had not been performed. Nardi then directed the manager that had been on the audit and subsequently removed by Nardi to staff a different audit, to alter the work papers by backdating initials and signatures to dates preceding the March 16, 2005 issuance of BDO's audit report. Nardi also initialed, signed and backdated the audit work papers. When BDO discovered Nardi's activities, an investigation was launched and the PCAOB was notified. As a result of his actions, BDO asked Nardi to resign effective March 21, 2006. In addition, the PCAOB barred him from being an associated person of a registered public accounting firm for one year. The PCAOB disciplinary order against Nardi was settled on December 14, 2007. On February 12, 2010, the PCAOB issued an order granting Nardi termination of the bar against him which now allows him to associate with a registered public accounting firm.

2.1.1.2 PCAOB Release No. 105-2011-005

In March 2010, the PCAOB notified Ernst & Young's (EY) Boston office that the Board's Division of Registration and Inspection would inspect the audit of one of its issuer companies. Upon being notified of the impending PCAOB inspection, Peter C. O'Toole, CPA (O'Toole), the engagement partner for the selected audit, directed members of the audit engagement team to review the external working papers. Following the review, O'Toole directed two of the members of the audit engagement team to create, add, backdate and alter certain working papers in order to cover up the fact that some work on the audit had not been properly completed. As a result of his actions, O'Toole was barred from being an associated person of a registered public accounting firm for a minimum of three years. In addition, a civil monetary penalty in the amount of $50,000 was imposed. EY separated O'Toole from employment in September of

2010. However, the PCAOB disciplinary order was not settled against O'Toole until August 1, 2011.

2.1.1.3 PCAOB Release No. 105-2012-008

Three members of McGladrey & Pullen, LLP (McGladrey) (now known as RSM US LLP), created and replaced missing documentation in advance of a PCAOB inspection. The documentation included an engagement letter, a cash flow worksheet, and a fair-value memo. McGladrey discovered what had occurred and immediately notified the PCAOB. Consequently, according to the PCAOB disciplinary order settled on November 13, 2012, Dale A. Hotz, CPA (Hotz), the engagement partner at the firm's Frederick, Maryland office was censured by the PCAOB and barred from being an associated person of a registered public accounting firm for two years. Jyothi N. Manohar, CPA (Manohar), a director at the firm's Blue Bell, Pennsylvania office was also censured and suspended from being associated with a registered firm for one year. Michael J. Fadner, CPA (Fadner), also from the Blue Bell office, was censured by the PCAOB. McGladrey disciplined Hotz, Fadner and Manohar restricting them from serving on audit engagements.

2.1.1.4 PCAOB Release No. 105-2013-007

Nathan M. Suddeth, CPA (Suddeth) was the managing partner of the Pittsburgh, PA office of Deloitte and the engagement partner on an audit selected by the PCAOB for a routine inspection. In June of 2011, on the evening before the scheduled inspection, Suddeth created, backdated and added three memos to the original audit file. Upon learning of Suddeth's conduct, Deloitte removed Suddeth from his role as Partner-in-Charge and from all direct audit responsibility for any public or private client and self-reported the matter to the PCAOB. The PCAOB censured and barred Suddeth from being an associated person of a registered public accounting firm for

two years. In June 2013, Suddeth retired from Deloitte and on September 10, 2013 the PCAOB issued the disciplinary order against Suddeth.

2.1.2 Prior Research

Prior research on PCAOB disciplinary orders against auditors and/or audit firms can be categorized by market response, causes, consequences and the effects of disciplinary orders on auditor behavior (e.g., Boone et al. 2015; Dee et al. 2010; Gilbertson and Herron 2009; Messier et al. 2010). The focus of my analysis is on the effects of ethical violations and the consequences of the resulting PCAOB disciplinary orders on client and auditor behavior. While there is a significant amount of research on the effects of PCAOB inspection reports on clients, auditors and investors (e.g., Lennox and Pittman 2010; Dee et al. 2011; Gramling et al. 2011; Offermanns and Peek 2011; Abbott et al. 2013), to date, there is little research on the effect of PCAOB enforcement actions on auditor switching, audit fees, and audit quality.

Gilbertson and Herron (2009) analyzed various client and auditor characteristics of PCAOB enforcement actions through 2008 and found that many of the disciplined auditors had longer PCAOB reviews and more audit deficiencies in their inspection reports. They also found that the disciplined auditors were often small, less financially sound firms with only a few audit partners. Dee et al. (2011) studied the events surrounding the 2007 PCAOB sanction against Deloitte and found that the market returns for Deloitte clients were significantly more negative than clients of the other three Big 4 accounting firms. Boone et al. (2015) found that the PCAOB enforcement action against Deloitte led to negative client responses in regards to client losses and reduced audit fees, but found no significant difference in audit quality between Deloitte and other Big 4 audit firms. Huber (2013) posits that registered accounting firms pass on a sanction risk premium in the form of higher audit fees and he calls for research on the topic. A list of prior research

relating to the PCAOB inspection and enforcement process is provided in Appendix A of this document.

2.1.3 Auditors and Ethics

Auditing is a profession in which conflict of interest is an ever-present issue. Auditors are compensated by their clients, while their primary focus is providing audited financial information to the public who depends on this information to make informed decisions. While engagement partners are responsible for the audit engagement and its performance, proper supervision of the work performed and for compliance with PCAOB standards, the managing partner provides leadership and has accountability for the operations of the office and/or firm. Regardless of their position, both the engagement and managing partner should lead by example exhibiting the highest standards in integrity and reliability.

Most people are familiar with the traditional view of the role of ethics in the auditing profession – the need for auditors with integrity and objectivity. But, to date there is little research on this topic. Most research focuses on auditor independence (Ashbaugh et al. 2003; Frankel et al. 2002; Larcker and Richardson 2004; Lennox 1999b;), audit failures (DeFond and Zhang 2014; Hilary and Lennox 2005; Lennox and Pittman 2010; Skinner and Srinivasan 2012) and audit quality (Palmrose et al. 2004; Kinney et al. 2004; Francis et al. 2013) in regards to financial reporting. Furthermore, archival research based on individual auditors' personal characteristics is rare because in the United States the audit partner's name is not disclosed in the audit report, and even if it was, personal characteristics of that partner would most likely not be publicly available. Regardless, the importance of top management's attitudes and beliefs in creating and maintaining an ethical climate within an organization is reinforced throughout the general management research literature (Brown et al. 2005; Schminke et al. 2005) and the business ethics research literature (Schwartz et al. 2005). Kaplan et al. (2007) believe that it is

critical for the PCAOB to include assessments of the control environment and the ethical climate as part of their annual inspections of public accounting firms. They maintain that there is a need to consider the importance of character and ethics on the parts of the auditors and audit firms to ensure that "dishonest" behavior is neither encouraged nor tolerated (Kaplan et al. 2007). Bean (2004), Cunningham (2004), and Satava et al. (2006) all recommend that public accounting firms conduct periodic audits of their firm's ethical climate. According to Bean (2004), an audit firm is only as good as the ethical traits of their least ethical managing partners and executives.

According to Taylor et al. (2003), integrity, independence and expertise are the three underlying components of financial statement reliability. Prior literature has been unable to disentangle costs associated with auditor independence and expertise from auditor integrity. As Taylor et al. (2003) point out, criticism of Arthur Andersen in the Enron scandal focused mostly on the fact that Enron was a major client of the firm's Houston office. The related audit failure focused on independence issues since total engagement fees of $52 million per year included $27 million of non-audit fees (Taylor et al. 2003). Enron was a complex audit client demanding certain audit expertise and the paper-shredding incident perpetrated by Arthur Andersen is indicative of an issue with integrity rather than independence (Taylor et al. 2003). However, because of Arthur Andersen's economic dependence on Enron, it has proven difficult, if not impossible, to separate the costs associated with the independence issues from the obvious integrity challenges.

The Committee of Sponsoring Organizations (COSO) highlighted the importance of leaders setting a "tone at the top" by establishing integrity as the very first principle of internal controls (COSO, 2013). According to Gerstein and Friedman (2016), if the executives and auditors at the top of the hierarchy are concerned about integrity and ethics, their moral example

will work its way down to all employees. Those at the top serve as examples and inspiration for those that they supervise and train. Lennick and Kiel (2011) state:

> The integrity crises of the first decade of the 21st century have been devastating. But they have not yet convinced enough leaders of the importance of morally intelligent leadership. How many wake-up calls do leaders need to get the message that their ultimate success depends on moral leadership? Will leaders get another chance to do the right thing? Given the precarious nature of the global economy, we fear that this wake-up call to choose integrity over greed might very well be our last … how can any leader afford to ignore the call to put moral values at the center of what they do?

Gentry (2013) believes that integrity is the most important character strength in predicting performance of top-level executives and Doty (2014) cites several studies that demonstrate that companies with integrity are significantly more profitable than those that lack it. Doty (2014) observes:

> Integrity – or lack thereof – remains a critical challenge for companies today. Every day, every leader faces opportunities or even pressure to side step the truth, fudge the numbers, play politics, or pass the buck on hard decisions. In the moment doing the right thing, or doing things right, always seems to cost more.

Doty's observations are validated by the PCAOB ethical violations that I analyze. In my opinion, the unethical acts committed by the audit partners were committed with their own self-interest in mind and the price they paid (being disciplined by the PCAOB, losing their jobs and their CPA license) was most likely higher than if they would have just done the right thing from the beginning. As stated in the Staff Audit Practice Alert No. 14,

> The consequences of providing improperly altered audit documentation to PCAOB inspectors or investigators may in many cases be far more severe than would be the consequences of the PCAOB staff identifying the audit deficiency that the revisions to the documentation attempt to obscure (PCAOB 2016f).

The ethical behavior of audit partners is paramount as they set the standard for those they train and supervise. Moreover, those individuals at the "top" ultimately set the tone of the ethical culture in the audit firm. Tone at the top is the foundation upon which the culture of a firm is

constructed. In an audit firm, the ethical climate is set at many levels including the firm level, the office level and the staff level. Many individuals in an audit firm are responsible for setting the right ethical tenor from the senior partner of the firm down to the senior associate of a specific office of the firm.

The ethical culture of a firm positively affects ethical behavior of those employed at the firm (Kaptein 2011). Furthermore, accounting literature has found that auditors' ethical decisions are influenced by the ethical culture of their audit firms (Sweeney et al. 2010). According to Deloitte's 2015 transparency report, the firm's senior leaders take leading roles in emphasizing the need to maintain a strong culture of ethical integrity and independence. In Deloitte's 2016 transparency report, Glenn Stastny, Chief Ethics and Compliance Officer for Deloitte, states that

> Trust and honesty are deeply rooted in Deloitte's culture and essential to our continuing success. Our ability to rely on the professional judgments, skills, and integrity of one another is crucial to fulfilling our professional obligations to the public, our clients, and each other (Deloitte 2016).

A strong ethical climate may induce the right ethical response from an auditor, while a weak ethical climate may facilitate and reinforce any tendency an auditor may have to violate ethical standards. While the audit partner(s) that committed the ethical violation(s) suffered the repercussions of doing so, my research question addresses the effect that these ethical violations have on the affiliated firm's reputation. Do the ethical violations committed by audit partners negatively affect the reputation of the affiliated audit office(s) and/or audit firm?

2.2 Hypothesis Development

2.2.1 Spillover Effect

Prior research finds that local audit office effects are important in explaining auditor attributes including audit quality (Francis and Yu 2009; Chaney and Philipich 2002; Nelson et al. 2008). According to Skinner and Srinivasan (2012), this suggests that there is a local office effect as well as an overall audit firm effect. If reputational or ethical problems are confined to a

particular practice office, then there may be less concern about these issues by clients of other offices of the audit firm. On the other hand, there may be a spill-over effect in which the problems found at one office may be perceived to proliferate through the entire firm, especially if the violations are committed by those at the top. Consequently, in my analysis, I examine the effect of the ethical violations not only at the city (office) level, but also at the MSA, state, regional and national (firm) levels.

2.2.2 Auditor Switching and Auditor Reputation

Deloitte supports the concept of the appropriate tone at the top and maintains that "reputation risks today are at least as great as strategic, operating and financial risks" and any rumor or hint of impropriety can damage or destroy corporate or brand reputations instantaneously (Deloitte 2014). There is a significant amount of research into the reasons cited for client-initiated auditor switching including opinion shopping, audit fees, audit firm characteristics, auditor solicitation, client characteristics, shareholder preferences and client satisfaction (Stefaniak et al. 2009). However, research on the effect of damaged reputations as it relates to auditor selection and client retention is somewhat limited (Swanquist and Whited 2015). Furthermore, the research that is available on auditor switches and reputation focuses on damaged reputations brought about by infrequent and significant audit failures (Boone et al. 2015; DeFond and Zhang 2014; Weber et al. 2008).

Theory suggests that auditors have an incentive to maintain reputational capital to attract and retain audit work (DeAngelo 1981). DeFond and Zhang (2014) assert that regulatory sanctions are likely to damage an auditor's reputation ultimately impairing the audit firm's ability to attract and retain clients. DeFond and Zhang's (2014) assertion is supported by the Boone et al. (2015) study which shows that a PCAOB disciplinary order against Deloitte resulted in reputational damage leading to a decrease in Deloitte's ability to retain clients and attract new

ones. Nagy (2014) found that audit firms lose a significant amount of market share following the public disclosure of quality control issues indicating that the disclosure damages the auditors' reputation. Buslepp and Victoravich (2014) find that clients of triennially inspected audit firms are more likely to change auditors after the release of a negative Part II report.

While the research by Boone et al. (2015), Nagy (2014) and Buslepp and Victoravich (2014) consider some aspects of the effect of reputational damage on an audit firm, they do not consider the effect on auditor switches when there is damage to a firm's reputation associated with an ethical violation committed by an audit partner rather than quality of the audit work. Furthermore, with the exception of Boone et al. (2015), the research cited above focuses primarily on triennially inspected audit firms, whereas my study focuses on annually inspected audit firms.

There are at least three factors that may deter an audit client from taking steps to switch auditors. First, there are significant costs associated with switching auditors including search costs in identifying and hiring a new audit firm (Boone et al. 2015; Skinner and Srinivasan 2012). Second, the incumbent auditor possesses firm-specific knowledge and expertise about their client which is costly for a new auditor to acquire (DeAngelo 1981). Lastly, the supply of auditors may be constrained, especially if many companies are searching for new auditors at the same time (Kohlbeck et al. 2008; Ramnath and Weber 2008). How strongly clients feel about the unethical behavior of the partner of an audit firm will ultimately determine whether they are willing to accept the costs of switching auditors.

The first type of economic loss that firms associated with a partner that has committed an ethical violation may experience is a decline in the demand for the firm's audit services due to reputational damage. Therefore, the first hypothesis, stated in the alternative form, is as follows:

H1: A lack of auditor integrity taints the reputation of the affiliated audit firm leading to a decreased ability to retain clients and/or attract new clients.

2.2.3 Audit Fees and Auditor Reputation

Audit fee research contends that auditors incur costs to develop brand name reputations, including top-tier designation and recognition for industry specialization, to generate higher audit fees (premiums). Several studies find evidence that clients pay a premium for a Big N auditor with the presumption being that these auditors have the reputation of providing a higher quality audit. For example, Hay et al. (2006) contend that higher audit fees may be expected when an auditor has the reputation of being of superior quality. Furthermore, auditor industry specialization has also been found to be positively associated with audit fees (Craswell et al. 1995; Ferguson et al. 2003; Francis et al. 2005; Mayhew and Wilkins 2003; Numan and Willekens 2012). While Craswell et al. (1995) find evidence of an industry-specific premium which is distinct from the Big N general brand name, Bae et al. (2016) conclude that the premium associated with industry specialists is not necessarily associated with reputation, but is evidence that industry specialists exert much more effort during the audit than do non-industry specialists.

Just as auditors with reputations for superior quality and industry expertise can demand higher audit fees, those firms that experience damage to their reputation may expect a decrease in audit fees or an inability to raise audit fees. Boone et al. (2015) found that the PCAOB disciplinary order against Deloitte was associated with a decrease in Deloitte's audit fee growth rates as compared to other Big 4 audit firms indicating that reputational damage to an audit firm results in a decrease of client's willingness to pay audit fee premiums. However, the Boone et al. (2015) study investigates the impact of an audit failure (i.e., a competence failure) rather than the effect of an ethical violation by a partner of an audit firm as is the focus of this study.

Firms affiliated with a partner that commits an ethical violation may experience a decline in audit fees and/or the inability to raise audit fees. The affiliated firm may reduce audit prices in order to retain audit clients or to attract new clients following the reputational damage resulting from the audit partner committing an ethical violation. On the other hand, audit firms may find it necessary to increase their audit effort to compensate for the perceived lack of quality (as a result of the ethical violation) resulting in an audit fee increase. Greater effort might be expected by an audit firm associated with a partner that has been found to have committed an ethical violation. Additionally, Stefaniak et al. (2017) notes that sanctions imposed by regulatory agencies contribute to higher audit fees. Brumfield et al. (1983) find that sanctions are costly to auditors both monetarily and in the loss of reputation. Huber (2013) suggests that auditors have a strong incentive to increase audit fees to compensate for losses due to sanctions and/or potential sanctions. However, most research has found a decrease in audit fees and/or an inability to raise audit fees as a result of reputational damage.

As such, I propose the second hypothesis stated in the alternative form:

H2: A lack of auditor integrity taints the reputation of the affiliated firm leading to a decrease in audit fees and/or an inability to raise audit fees.

2.2.4 CPA Member on Audit Committee

The primary purpose of an audit committee is to provide oversight of the financial reporting process, the audit process, the system of internal controls and compliance with laws and regulations (DeFond and Francis 2005). CPAs that serve on audit committees should have, at a minimum, knowledge of generally accepted auditing standards (GAAS), an understanding of generally accepted accounting principles (GAAP) and financial statements, experience in preparing, auditing, and analyzing complex financial data, knowledge of the bylaws and rules of the PCAOB, as well as familiarity and appreciation of the ethical standards of the profession.

Consequently, having a CPA serve on an audit committee may affect the reaction by the audit committee to an ethical violation committed by an audit partner.

Research indicates that a company is more likely to have strong internal controls (Krishnan 2005), report earnings conservatively (Krishnan and Visvanathan 2008) and are less likely to restate (Abbott et al. 2004) when at least one member of the audit committee possesses financial accounting expertise. In related research, Abbott et al. (2016) examined the propensity of a CPA audit committee member to dismiss a GAAP-deficient auditor that employs a dispute disclosure strategy.[8] One of the reasons offered by Abbot et al. (2016) for why a CPA audit committee member (CPA-ACM) may be more prone to dismiss an auditor is that the CPA-ACM is likely to have a greater appreciation for authoritative bodies such as the AICPA, the FASB and the PCAOB. A second reason is that the CPA-ACM is uniquely qualified to understand and appreciate the circumstances surrounding the PCAOB's findings as compared to the auditor's version of events (Abbott et al. 2016). On the other hand, Abbott et al. (2016) offer two reasons why a CPA-ACM may not dismiss an auditor that utilizes a dispute disclosure strategy. The first reason is that the CPA-ACM may be susceptible to confirmation bias which Abbott et al. (2016) describe as "the tendency to search for, interpret, favor, and recall information in a way that confirms one's preexisting beliefs or hypotheses, while giving disproportionately less consideration to alternative possibilities." As explained by Abbott et al. (2016), the CPA-ACM has been involved to some degree in the hiring or endorsement of the audit firm affiliated with the unethical auditor. Consequently, the CPA-ACM may be susceptible to justification and

[8] Abbott et al. (2016) examine the auditor response to PCAOB inspection report findings. They describe the dispute disclosure strategy as one in which the auditor disputes the PCAOB findings in the inspection report. According to Abbott et al. (2016), the response of the auditor is that the audit was performed in accordance with PCAOB standards and that the "GAAP deficiency identified by the inspection team relates to a highly subjective area and that the PCAOB inspection involves examining the audit with perfect knowledge of the future."

defense of their original decision to retain the services of the auditor. The second reason is that the CPA-ACM may have experience with the review process and given this experience may discount what they believe to be a superficial review of an overall audit (Abbott et al. 2016). In addition, because a CPA-ACM may have extensive experience as an audit partner, they may sympathize with the predicament of the audit partner and attempt to mitigate the reaction of the audit committee.

Abbott et al. (2016) analyze the reaction of an audit committee with a CPA member to the auditor reaction of the public release of a PCAOB Part II report. They find that auditors that dispute PCAOB findings are less likely to be dismissed by their audit clients and this effect is magnified when there is a CPA on the audit committee. I analyze whether a CPA-ACM makes a difference in the audit committee reaction to an audit partner committing an ethical violation. Because the CPA-ACM's reaction may go either way, I do not make a directional prediction for this analysis. This leads to the following hypothesis stated in the alternative form:

H3: An audit committee's response (auditor dismissals and changes in audit fees) following an ethical violation varies based on whether one of the members of the audit committee is a CPA.

2.2.5 Audit Quality and Auditor Reputation

Auditors have reputational incentives to provide high audit quality because audit quality is valuable to clients and they are willing to pay a premium for it (Skinner and Srinivasan 2012). However, in the United States there is also a litigation incentive to provide high audit quality. Auditors are legally liable for audit failures so they have an incentive to provide high-quality audits to avoid litigation costs. As Skinner and Srinivasan (2012) point out, it is difficult to separate the effects of litigation incentives from those of reputational incentives in the United States because the largest audit firms have both the largest litigation incentives and the strongest reputations.

Weber et al. (2008) and Skinner and Srinivasan (2012) chose a setting to examine the importance of auditor reputation absent the confounding effects of litigation. Skinner and Srinivasan (2012) studied the case of ChuoAoyama, a former PricewaterhouseCoopers (PwC) affiliate in Japan, which was implicated in a major accounting fraud with a large Japanese cosmetics company called Kanebo. Skinner and Srinivasan (2012) find evidence that after the accounting fraud was discovered at Kanebo, ChuoAoyama lost a large number of clients to other auditors indicating the importance of auditor reputation. Weber et al. (2008), as discussed previously, used Germany as the backdrop for their analysis because of the substantial protection from shareholder legal liability provided to auditors in Germany. In the scenario that I analyze, there has been no audit failure so the audit firm should not be subject to any type of litigation issues. The audit partner committed the ethical violation and the research question is whether this violation ultimately affected the reputation of the firm.

The Financial Reporting Council (FRC) in London states that a high-quality auditor's personal attributes must include expertise, experience, high ethical values, business knowledge, and integrity (FRC 2006). It stands to reason that the perceived ethical behavior of the auditor can affect the stakeholder's perception of audit quality. Because audit quality is not directly observable and nor are the personal attributes of the auditor, users of financial information often must rely on external measures of quality, one of which is the audit firm's reputation (Irani et al. 2015). As Firth (1990) summarizes, "firms producing high quality audits have a significant investment in reputation and any deterioration in product and service quality will seriously erode their 'reputational capital'." According to Irani et al. (2015) audit clients consider the quality of their auditor, as evidenced by the auditor's reputation, as a signal of the quality of their financial statements. In order to counteract the reputational damage that an unethical partner projects on

the firm they are affiliated with, the firm may compensate by attempting to improve audit quality.

Most prior literature finds mixed support for the importance of auditor reputation as a driver of audit quality (Lennox 1999a; Willenborg 1999; Khurana and Raman 2004). However, Skinner and Srinivasan (2012) and Weber et al. (2008) find evidence that audit quality and reputation are important in an economy where litigation threats do not provide auditors with incentives to deliver superior audit quality. However, Boone et al. (2015) find no difference in audit quality between Deloitte and the other Big 4 after the public release of the PCAOB disciplinary order against Deloitte.

In order to tests whether there is an improvement in audit quality after the disclosure of an ethical violation committed by an audit partner, I use the two most common proxies of audit quality in accounting literature – restatements (Palmrose and Scholz 2004) and abnormal accruals (Francis et al. 1999). Both proxies are described in more detail in the paragraphs following.

A restatement occurs when a company revises previously reported audited financial information. The announcement of a restatement is most often made through a press release and/or on Form 8-k, although some restatements, called stealth restatements, are revealed in a periodic report without a prior disclosure. A "Big R" restatement occurs when the audit opinion is revised to disclose the restatement and reference is made to the financial statement footnote that describes the error and related correction (EY 2015). The financial restatement represents a breakdown in a company's financial reporting and of the audit. Prior research has used financial restatements as a proxy for audit quality because restatements of previously audited financial statements indicate that the original audit was not of the highest quality (Palmrose and Scholz

2004). Stanley and DeZoort (2007) argue that financial restatements due to errors or fraud are in fact auditing failures and Larcker and Richardson (2004) argue that a restatement resulting from some form of earnings management is essentially an audit failure since the external auditor did not discover and/or prevent the deception. Both of the studies cited above indicate that the financial restatement is essentially an indicator of low audit quality. Financial restatements raise questions about the effectiveness, the independence, the level of expertise and the ability of the auditor to provide a high-quality audit service.

Discretionary accruals are the most commonly used proxy for audit quality in archival research. According to DeFond and Zhang (2014), high quality auditors are believed to constrain opportunistic earnings management as evidenced by lower discretionary accruals. Krishnan (2003) argues that high-quality auditors are more likely to deter and detect questionable accounting practices and report material errors and irregularities than are low-quality auditors. Therefore, auditors that provide high-quality audit services have the expertise and ability to enhance the informativeness of discretionary accruals by constraining managers' aggressive and opportunistic reporting of accruals (Krishnan 2003).

The fourth hypothesis, stated in the alternative form, is as follows:

H4: A lack of auditor integrity taints the reputation of the affiliated audit firm leading to improvements in audit quality.

3. SAMPLE AND DATA

As summarized in Table 1, Panel A, I use 15 samples to test my study's hypotheses. My sample includes observations at the city (office), MSA, state, regional, and national (firm) levels. As shown in Table 1, Panel A, my initial samples begin with client-year observations from Audit Analytics with complete panel data for the years 2005-2016 applicable to each PCAOB sanction for each test. My tests require switch and audit fee data from Audit Analytics, financial statement data from Compustat and audit committee data from BoardEx. I exclude observations not in Compustat, observations without BoardEx data (except for the restatement samples), banking and financial services observations (SIC codes 6000 - 6999) and observations missing Compustat data relevant to each test. I require a minimum of six years of data per client.[9] For the restatements analysis, the sample is limited to the sanctions associated with BDO and EY.[10] The metropolitan statistical areas (MSAs) included in my samples are presented in Table 1, Panel B-1 through B-4. According to the Geographic Areas Reference Manual published by the United States Census Bureau, "an MSA consists of one or more counties that contain a city of 50,000 or more inhabitants, or contain a Census Bureau-defined urbanized area and have a total population of at least 100,000 (75,000 in New England). Counties containing the principal concentration of population – the largest city and surrounding densely settled area – are components of the MSA" (US Census 1994). The MSAs in my sample are concentrated in the northeastern part of the Unites States. The locations of the offices affiliated with an audit partner

[9]A six-year time frame is used because engaging a new auditor is a serious decision. Clients must consider the substantial costs involved including search expenses, time spent explaining accounting methods to a new auditor, and potentially lower audit quality due to the steep learning curve in the early years of a new audit (Boone et al. 2015). Consequently, as in Boone et al. (2015), I include three years after the sanction was made public in order to give the client sufficient time to make a decision to retain their auditor or engage a new one.

[10] Because it is necessary to allow at least two years for a restatement to become public, I am limited to using data associated with the BDO and EY sanctions since the Deloitte and McGladrey (RSM) sanction periods end in 2015 and 2016, respectively and would bias results in supporting a reduction in restatements. See Table 1, Panel C for the periods of analysis.

that committed an ethical violation include Philadelphia, PA, Boston, MA, Frederick, MD, Bluebell, PA and Pittsburgh, PA. Years related to each sanction are depicted in Table 1, Panel C. Regional information, which includes the state the affiliated audit office resides in as well as surrounding states, is provided in Figure 2. Table 1, Panel C provides the periods of analysis for each audit firm affiliated with a sanctioned audit partner.

Table1. Sample Formation and Characteristics

Panel A: Sample Formation

	CITY (office)			
			Audit Quality	
	Switch	Audit Fee	Discretionary Accruals	Restatements
Client-year observations from Audit Analytics with complete panel data 2005-2016	14,645	14,645	14,645	8,335
Exclude observations not in Compustat	-7,277	-7,277	-7,277	-6,085
Exclude observations without BoardEx data	-3,047	-3,047	-3,047	0
Exclude banking and financial service firms	-810	-810	-810	-296
Exclude observations missing Compustat data	-2,306	-2,269	-2,815	-1,084
Sample used	1,205	1,242	696	870

	MSA			
			Audit Quality	
	Switch	Audit Fee	Discretionary Accruals	Restatements
Client-year observations from Audit Analytics with complete panel data 2005-2016	18019	18019	18019	8622
Exclude observations not in Compustat	-8,549	-8,549	-8,549	-6,309
Exclude observations without BoardEx data	-3,554	-3,554	-3,554	0
Exclude banking and financial service firms	-1,246	-1,246	-1,246	-314
Exclude observations missing Compustat data	-2,908	-2,866	-3,625	-1,093
Sample used	1,762	1,804	1,045	906

(Table 1 continued)

	STATE			
			Audit Quality	
	Switch	Audit Fee	Discretionary Accruals	Restatements
Client-year observations from Audit Analytics with complete panel data 2005-2016	16,449	16,449	16,449	9,002
Exclude observations not in Compustat	-8,291	-8,291	-8,291	-6,488
Exclude observations without BoardEx data	-3,257	-3,257	-3,257	0
Exclude banking and financial service firms	-925	-925	-925	-356
Exclude observations missing Compustat data	-2,168	-2,118	-2,846	1,172
Sample used	1,808	1,858	1,130	3,330

	REGION			
			Audit Quality	
	Switch	Audit Fee	Discretionary Accruals	Restatements
Client-year observations from Audit Analytics with complete panel data 2005-2016	35,956	35,956	35,956	28,716
Exclude observations not in Compustat	-15,987	-15,987	-15,987	-20,352
Exclude observations without BoardEx data	-7,117	-7,117	-7,117	0
Exclude banking and financial service firms	-3,257	-3,257	-3,257	-1,863
Exclude observations missing Compustat data	-3,769	-3,572	-5,968	-3,333
Sample used	5,826	6,023	3,627	3,168

(Table 1 continued)

	NATIONAL (firm)			
			Audit Quality	
	Switch	Audit Fee	Discretionary Accruals	Restatements
Client-year observations from Audit Analytics with complete panel data 2005-2016	88,066	88,066	88,066	57,779
Exclude observations not in Compustat	-27,319	-27,319	-27,319	-12,659
Exclude observations without BoardEx data	-22,667	-22,667	-22,667	0
Exclude banking and financial service firms	-7,298	-7,298	-7,298	-9,763
Exclude observations missing Compustat data	-2,803	-1,517	-14,525	-15,840
Sample used	27,979	29,265	16,257	19,517

Panel B: Distribution of clients by Metropolitan Statistical Areas (MSAs) and by sample

Panel B-1: Switch sample

Metropolitan Statistical Areas	Number of clients associated with Sanc Auditors	% of sample	Number of clients associated with Non-Sanc Auditors	% of sample	Total	% of sample
Boston-Cambridge-Newton, MA-NH	36	62.07%	75	36.95%	111	42.53%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	10	17.24%	83	40.89%	93	35.63%
Pittsburgh, PA	4	6.90%	9	4.43%	13	4.98%
Washington-Arlington-Alexandria, DC-VA-MD-WV	3	5.17%	33	16.26%	36	13.79%
Providence-New Bedford-Fall River, RI-MA	2	3.45%	0	0.00%	2	0.77%
Chicago-Naperville-Joliet, IL-IN-WI	1	1.72%	0	0.00%	1	0.38%
Dallas-Fort Worth-Arlington, TX	1	1.72%	0	0.00%	1	0.38%
New York-Newark-Jersey City, NY-NY-PA	1	1.72%	1	0.49%	2	0.77%
Cleveland-Elyria-Mentor, OH	0	0.00%	1	0.49%	1	0.38%
Miami-Fort Lauderdale-Miami Beach, FL	0	0.00%	1	0.49%	1	0.38%
Total	58	100.00%	203	100.00%	261	100.00%

The Metropolitan Statistical Area follows the 2010 U.S. Census Bureau metropolitan statistical areas (MSA) definitions.

(Table 1 continued)

Panel B-2: Audit Fee Sample

Metropolitan Statistical Areas	Number of clients associated with Sanc Auditors	% of sample	Number of clients associated with Non-Sanc Auditors	% of sample	Total	% of sample
Boston-Cambridge-Newton, MA-NH	37	63.79%	77	37.93%	114	43.68%
Washington-Arlington-Alexandria, DC-VA-MD-WV	3	5.17%	33	16.26%	36	13.79%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	10	17.24%	85	41.87%	95	36.40%
Pittsburgh, PA	4	6.90%	9	4.43%	13	4.98%
Chicago-Naperville-Joliet, IL-IN-WI	1	1.72%	1	0.49%	2	0.77%
Dallas-Fort Worth-Arlington, TX	1	1.72%	0	0.00%	1	0.38%
New York-Newark-Jersey City, NY-NY-PA	1	1.72%	1	0.49%	2	0.77%
Cleveland-Elyria-Mentor, OH	0	0.00%	1	0.49%	1	0.38%
Madison, WI	0	0.00%	1	0.49%	1	0.38%
Miami-Fort Lauderdale-Miami Beach, FL	0	0.00%	1	0.49%	1	0.38%
Milwaukee-Waukesha-West Allis, WI	0	0.00%	1	0.49%	1	0.38%
Providence-New Bedford-Fall River, RI-MA	2	3.45%	0	0.00%	2	0.77%
San Francisco-Oakland-Fremont, CA	1	1.72%	0	0.00%	1	0.38%
San Jose-Sunnyvale-Santa Clara, CA	1	1.72%	0	0.00%	1	0.38%
Total	61	105.17%	210	103.45%	271	103.83%

The Metropolitan Statistical Area follows the 2010 U.S. Census Bureau metropolitan statistical areas (MSA) definitions.

(Table 1 continued)

Panel B-3: Audit Quality Sample (discretionary accruals)

Metropolitan Statistical Areas	Number of clients associated with Sanc Auditors	% of sample	Number of clients associated with Non-Sanc Auditors	% of sample	Total	% of sample
Boston-Cambridge-Newton, MA-NH	27	46.55%	52	25.62%	79	30.27%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	5	8.62%	45	22.17%	50	19.16%
Washington-Arlington-Alexandria, DC-VA-MD-WV	1	1.72%	23	11.33%	24	9.20%
Pittsburgh, PA	2	3.45%	8	3.94%	10	3.83%
Cleveland-Elyria-Mentor, OH	0	0.00%	1	0.49%	1	0.38%
Miami-Fort Lauderdale-Miami Beach, FL	0	0.00%	1	0.49%	1	0.38%
Providence-New Bedford-Fall River, RI-MA	2	3.45%	0	0.00%	2	0.77%
Dallas-Fort Worth-Arlington, TX	1	1.72%	0	0.00%	1	0.38%
New York-Newark-Jersey City, NY-NY-PA	1	1.72%	0	0.00%	1	0.38%
Total	39	67.24%	130	64.04%	169	64.75%

The Metropolitan Statistical Area follows the 2010 U.S. Census Bureau metropolitan statistical areas (MSA) definitions.

Panel B-4: Audit Quality Sample (restatements)

Metropolitan Statistical Areas	Number of clients associated with Sanc Auditors	% of sample	Number of clients associated with Non-Sanc Auditors	% of sample	Total	% of sample
Boston-Cambridge-Newton, MA-NH	29	50.00%	61	30.05%	90	34.48%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	6	10.34%	55	27.09%	61	23.37%
Providence-New Bedford-Fall River, RI-MA	2	3.45%	0	0.00%	2	0.77%
Dallas-Fort Worth-Arlington, TX	1	1.72%	0	0.00%	1	0.38%
New York-Newark-Jersey City, NY-NY-PA	1	1.72%	1	0.49%	2	0.77%
Washington-Arlington-Alexandria, DC-VA-MD-WV	1	1.72%	0	0.00%	1	0.38%
Cleveland-Elyria-Mentor, OH	0	0.00%	1	0.49%	1	0.38%
Total	40	68.97%	118	58.13%	158	60.54%

The Metropolitan Statistical Area follows the 2010 U.S. Census Bureau metropolitan statistical areas (MSA) definitions.

http://www.freeworldmaps.net/united-states/northeast/

Figure 2. Regional Information

4. RESEARCH METHOD

4.1 Auditor Switches

I use Krishnan (2005) and Boone et al.'s (2015) methodology to examine the effects of the audit partner's ethical violation and the resulting PCAOB disciplinary order on auditor switches, audit fees and audit quality. I do the same analysis at the city (office), MSA, state, regional and national (firm) level for each test. While local clients of the audit firm where the ethical violation was committed may be aware of the violation(s) committed by the audit partner before the public release of the PCAOB disciplinary order, this most likely is not the case for the audit firm's clients located in other states and/or regions. Therefore, in order to test the reaction of clients not located near the office where the ethical violation was committed, I test the reaction at the regional and national levels as well. For all tests, I use cluster-robust standard errors, clustered by auditor (Boone et al. 2015). To reduce the influence of outliers, I winsorize all continuous variables at the 1st and 99th percentiles.

The first hypothesis focuses on the propensity for clients to switch auditors following the discovery of the ethics violation and the subsequent disclosure to the public. Following Boone et al. (2015), switching activity is analyzed by comparing the rate of auditor change to or from the firm affiliated with the sanctioned partner relative to the rate of auditor change for audit firms not affiliated with the sanctioned partner over a 6-year period covering three years before (which includes the year of the public disclosure of the violation) and three years after the violation was made public. Boone et al. (2015) chose three years before and three years after the disciplinary order because of the substantial costs to clients of switching auditors. These tests will be performed with the following logistic regression models:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_PY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_PY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t} \quad \textbf{(1a)}$$

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t} \quad \textbf{(1b)}$$

SWITCH is equal to 1 if a client changed auditors between the prior (*t-1*) and current (*t*) year, 0 otherwise. *SANC_PY* is equal to 1 if the firm affiliated with the sanctioned partner was the auditor in the prior (*t-1*) year, and 0 otherwise; *SANC_CY* is equal to 1 if the firm affiliated with the sanctioned partner was the auditor in the current (*t*) year, and 0 otherwise; and *POST* is equal to 1 for the three years after the PCAOB disciplinary order date (to be determined for each disciplinary order).

As in Boone et al. (2015), both models include industry dummy variables that allow the intercept to vary for each of the *j* two-digit SIC industry groups (β_{0j}). The model also controls for year fixed effects. The variable *SANC_PY* (*SANC_CY*) measures the difference in the likelihood of the affiliated audit office losing (gaining) a client from that of other annually inspected auditors (Big 4 or 2nd tier) in the pre-sanction period. The variable *POST* captures the incremental likelihood in switching risk for auditors not affiliated with a partner that has committed an ethical violation in the post-sanction period, compared to the pre-sanction period. The variable *SANC_PY*POST (SANC_CY*POST)* captures the incremental likelihood of the affiliated firm losing (gaining) a client in the post-sanction period (compared to the pre-sanction period) relative to that of firms not affiliated with an audit partner that has committed an ethical violation. The coefficient on *SANC_PY * POST* is expected to be positive in Model (1a) and the

coefficient on *SANC_CY*POST* is expected to be negative in Model (1b) if there is a negative reputational effect for the affiliated firm associated with the public release of the PCAOB disciplinary order.[11]

In addition, the variable *CPA_ACM* is added to the analysis. *CPA_ACM* tests whether switching frequency differs between audit committees with a CPA versus audit committees with no CPA. *CPA_ACM* is coded 1 if a CPA served on the audit committee and 0 otherwise.

To test H3, the interaction variable *CPA_ACM*SANC_PY*POST* (*CPA_ACM*SANC_CY*POST*) is added to the switching models (1a) and (1b). I make no prediction for the coefficient estimates pertaining to *CPA_ACM*SANC_PY*POST* (*CPA_ACM*SANC_CY*POST*).

The control variables included in models (1a) and (1b) are designed to capture audit and financial risk factors and are listed and defined in Appendix B. Asset growth (*GROWTH*) is included because growth is indicative of a high audit risk environment (Stice 1991). DeFond and Subramanyam (1998) find that large negative discretionary accruals incentivize clients to dismiss their auditor in the hopes of finding one more agreeable to their agenda. Consequently, as in prior research, the absolute value of discretionary accruals (|*DACC*|) is used to proxy for a client's accounting quality. Higher values of |*DACC*| imply lower accounting quality. Therefore, the probability of an auditor switch is positively associated with |*DACC*|.[12] *INVAR*, inventories

[11] Model (1a) analyzes the loss of clients after the disciplinary order while Model (1b) analyzes the gain of clients after the disciplinary order.

[12] |*DACC*| is the absolute value of the difference between total accruals and the fitted normal accruals estimated by using the following Jones (1991) model by fiscal year and two-digit industry SIC code:
$TA_{it}/Assets_{i,t-1}=\delta(1/Assets_{i,t-1}) + \beta_1((\Delta SALES_{it} - \Delta AR_{it})/Assets_{i,t-1}) + \beta_2(PPE_{it}/Assets_{i,t-1}) + \beta_2(IB_{it-1}/Assets_{i,t-1} + \varepsilon_{i,t}$,
where: *TA* is total accruals using the indirect cash flow method (i.e., income before extraordinary items minus operating cash flows from continuing operations) as in Hribar and Collins (2002); *ΔSALES* is the change in total sales revenue; *ΔAR* is the change in accounts receivable; *PPE* is gross property, plant, and equipment; *IB* is income before discontinued operations and extraordinary items; *i* and *t* are company and year indicators, respectively. Asset deflated income (*ROA*) is included in performance-adjusted abnormal accruals (Kothari et al. 2005).

and receivables, is included as a control variable because of the higher audit risk associated with higher values of inventories and receivables as a fraction of total assets (Dopuch et al. 1987; Krishnan 1994). The expectation is that the probability of an auditor switch will increase as *INVAR* increases.

Clients may switch auditors if they are not satisfied with the opinion(s) they receive. Consequently, the variables for going concern opinions (*GC*), internal control weaknesses (*ICW*), and modified opinions (*MODOP*) are included in the models.[13] Auditor *TENURE* is included because shorter tenure results in less client-specific knowledge and a greater likelihood of audit failure (Krishnan and Krishnan 1997). On the other hand, longer auditor tenure suggests auditor independence concerns. Consequently, there is no sign predicted for the *TENURE* variable. Less profitable companies (*ROA* and *LOSS*) and highly leveraged firms (*LEVERAGE*) are more financially risky. Therefore, I expect the probability of an auditor switch to decrease with *ROA* and to increase with *LOSS* and *LEVERAGE*. Less *CASH* on hand increases the likelihood of financial difficulty and the likelihood of an auditor switch (Landsman et al. 2009).

DeAngelo (1981) suggests that the cost of switching auditors is higher for larger clients so *SIZE* is included as a control variable. As in Boone et al. (2015), the variable *M_A* is included because companies are more likely to switch auditors following a merger/acquisition. Annual change in size (*ΔSIZE*) and annual change in leverage (*ΔLEV*) are included as control variables because in prior research it has been noted that changes in agency costs preceding an auditor change may affect the decision to change auditors (DeFond 1991; Francis and Wilson 1988).

[13] As in Boone et al. (2015), *MODOP* is measured based on the Compustat item variable AUOP, which contains a code that indicates the auditor's opinion on a company's financial statement. Code 0 = No opinion; Code 1 = unqualified opinion; Code 2 = Qualified opinion; Code 3 = No opinion; Code 4 = Unqualified with additional language; Code 5 = Adverse opinion. Therefore, an unqualified opinion with additional explanatory language would be considered a modified opinion – Code 4. As in Boone et al. (2015), this definition is the same as in Landsman et al. (2009).

Abnormal audit fees (*ABNRML_FEE*) control for a client's desire to pay lower audit fees (Boone et al. 2015).

4.2 Audit Fees

To test the effect of the ethical violation and the subsequent release of the PCAOB disciplinary order on audit fees, three models are estimated for the period three years before (which includes the year the PCAOB order was released to the public) and three years after the date of the PCAOB disciplinary order.

$$\Delta AF = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 \Delta SIZE_{,t} + \beta_2 \Delta FOREIGN_{i,t} + \beta_3 \Delta GC_{i,t} + \beta_4 \Delta MODOP_{i,t} + \beta_5 \Delta LOSS_{i,t} + \beta_6 \Delta ROA_{i,t} + \beta_7 \Delta LEV_{i,t} + \beta_8 \Delta SEG_{i,t} + \beta_9 \Delta QUICK_{i,t} + \beta_{10} \Delta CATA_{i,t} + \beta_{11} \Delta ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t} \quad \textbf{(2a)}$$

$$LNAF = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 SIZE_{i,t} + \beta_2 M\_A_{i,t} + \beta_3 FOREIGN_{i,t} + \beta_4 SEG_{i,t} + \beta_5 LEVEL3_{i,t} + \beta_6 INTANG_{i,t} + \beta_7 INVAR_{i,t} + \beta_8 GC_{i,t} + \beta_9 ICW_{i,t} + \beta_{10} ROA_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} LIT_{,t} + \beta_{13} LOSS_{i,t} + \beta_{14} LIQUID_{i,t} + \beta_{15} BUSY_{i,t} + \beta_{16} TENURE_{i,t} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t} \quad \textbf{(2b)}$$

$$FI = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 SIZE_{i,t} + \beta_2 M\_A_{i,t} + \beta_3 FOREIGN_{i,t} + \beta_4 SEG_{i,t} + \beta_5 LEVEL3_{i,t} + \beta_6 INTANG_{i,t} + \beta_7 INVAR_{i,t} + \beta_8 GC_{i,t} + \beta_9 ICW_{i,t} + \beta_{10} ROA_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} LIT_{i,t} + \beta_{13} LOSS_{i,t} + \beta_{14} LIQUID_{i,t} + \beta_{15} BUSY_{i,t} + \beta_{16} TENURE_{i,t} + \beta_{17} ABNRML\_FEE_{i,t} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t} \quad \textbf{(2c)}$$

As in Boone et al. (2015), ΔAF is defined as the natural log of change in audit fees in dollars relative to the previous year. *LNAF* is the natural log of audit fees and *FI* is an indicator variable equal to 1 if audit fees increased from one year to the next and 0 otherwise (Johnson 2015). The control variables included in the analysis are those used in audit fee research literature (e.g., Francis et al. 2005; Simunic 1980; Johnson 2015; Boone et al. 2015), described in detail at the end of this section and listed and defined in level form in Appendix B of this paper. The models also control for industry and year fixed effects.

The variable *SANC_CY* captures the change in audit fees (ΔAF) between the firm affiliated with the audit partner that committed the ethical violation and other annually inspected non-sanctioned audit firms in the pre-sanction period. The variable *POST* captures the change in audit fees (ΔAF) for firms other than the sanctioned audit firms for the post-sanction period, compared to the pre-sanction period. *SANC_CY*POST* captures the incremental effect in change in audit fees (ΔAF) for the sanctioned auditors in the post-sanction period (compared to the pre-sanction period) relative to other annually inspected non-sanctioned auditors. If the ethical violation and subsequent PCAOB disciplinary order led to an audit fee reduction by the affiliated firm(s), then the coefficient on *SANC_CY*POST* is expected to be negative. However, if the sanctioned audit firm was able to pass on higher costs to clients, the coefficient would be positive.

As in Boone et al. (2015), the control variables enter the ΔAF model in change form with the exception of prior-year abnormal audit fees ($ABNRML\_FEE_{t-1}$) which is included in level form. $ABNRML\_FEE_{t-1}$ controls for the effect of pricing pressure on audit fee growth rates. *CPA_ACM* is also included in the model and is coded 1 for firms with at least one audit committee member that is a CPA and 0 otherwise. *CPA_ACM* tests whether audit fees differ between audit committees with a CPA compared to audit committees without a CPA. To test H3, the interaction variables (*CPA_ACM*POST*) and (*CPA_ACM*POST*SANC_CY)* are included in all three audit fee models. *CPA_ACM*POST* tests whether having a CPA on the audit committee makes a difference in the post-violation period and *CPA_ACM*POST*SANC_CY* tests whether having a CPA on the audit committee makes a difference to the sanctioned auditors in the post-violation period. I make no prediction for the outcome on the *CPA_ACM* variable or the associated interaction variables.

In the *LNAF* model, a significant negative/positive coefficient on *SANC_CY*POST* would support the second hypothesis that audit fees change after the disclosure of the ethical violation. A negative coefficient would indicate that the reputation of the audit firm has been damaged by the disclosure of the ethical violation and has adversely affected the ability of the audit firm to charge audit fee premiums. On the other hand, a positive coefficient may indicate that the audit firms are able to charge the clients for any extra effort made by the firm to improve its reputation or possibly to compensate for PCAOB sanction risk.

A third iteration of the model above is estimated to determine if the post violation period is associated with increased audit fees. The dependent variable is Fee Increase (*FI*) - an indicator variable equal to 1 if the change in audit fees in the period *t-1* to *t* is greater than zero, and zero otherwise. A significant negative coefficient on *SANC_CY*POST* would support the idea that the audit firm has suffered reputational damage and could not increase audit fees as a result of the public disclosure of the PCAOB sanction.

The control variables included in the audit fee models measure the influence of client size (*SIZE*), client complexity (*SEG*), liquidity (*CATA*), merger and acquisition activity (*M_A*), and foreign operations (*FOREIGN*). Client size (*SIZE*) is expected to have a positive relation to audit fees (Simunic 1980). Greater client financial risk and more audit effort should result in higher audit fees (Simunic 1980; Hackenbrack and Knechel 1997). To control for audit effort and risk, the amount of inventory and receivables (*INVAR*), the issuance of a going concern (*GC*) and modified opinions (*MODOP*), internal control weaknesses (*ICW*), return on assets (*ROA*), the quick ratio (*QUICK*), *LEVERAGE*, companies with high litigation risk (*LIT*), and companies with losses (*LOSS*) are included in the analysis (Johnstone and Bedard 2004; Choi et al. 2008; Hogan and Martin 2009). Additionally, I control for busy season demands (i.e., companies with

December year-ends), (*BUSY*) and the length of auditor tenure (*TENURE*). Finally, current year abnormal audit fees (*ABNRML_FEE*) are included in the *FI* model to control for the effect of pricing pressure on audit fee growth rates.

4.3 Audit Quality

To test H4, I use two proxies frequently used in audit quality research literature – abnormal accruals (Francis et al. 1999), and restatements (Palmrose and Scholz 2004; Francis and Michas 2013). To examine how an ethical violation committed by an audit partner and the subsequent PCAOB disciplinary order affects the affiliated audit clients' level of discretionary accruals, I estimate the absolute value of abnormal accruals using two measures: Kothari et al. (2005) performance adjusted discretionary accrual (|*DACC*|) and Dechow and Dichev (2002) accruals quality measure (|*DACCd*|). Additionally, I analyze audit quality by examining Big R restatements (*RESTATE*) due to failures in applying GAAP (Palmrose and Scholz 2004; Francis and Michas 2013). *RESTATE* is equal to 1 for observations where the client subsequently restates the current-year financial statements and the auditor modifies their opinion (Big R restatements), and 0 otherwise.

$$\begin{aligned} AQ\ (|DACC|, |DACCd| \text{ or } RESTATE) = {} & \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \\ & \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \beta_1 CLIENT\_INFLUENCE_{i,t} + \beta_2 SHORT_{i,t} + \\ & \beta_3 AUDIT\_FEE_{i,t} + \beta_4 NONAUDIT\_FEE_{i,t} + \beta_5 EFFORT_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 SEG_{i,t} + \\ & \beta_8 LOSS_{i,t} + \beta_9 GROWTH_{i,t} + \beta_{10} MB_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} FOREIGN_{i,t} + \\ & \beta_{13} M\_A_{i,t} + \beta_{14} INVAR_{i,t} + \beta_{15} ROA_{i,t} + \beta_{16} BANKRUPTCY_{i,t} + \beta_{17} GC_{i,t} + \beta_{18} ICW_{i,t} + \\ & \beta_{19} CFO_{i,t} + \beta_{20} LAG\_ACCRUALS_i + \beta_{21} LIT_{i,t} + YEAR\_FE + SIC2\_FE + \varepsilon_{i,t} \end{aligned} \quad \textbf{(3)}$$

The dependent variable Audit Quality (*AQ*) represents |*DACC*|, |*DACCd*| or *RESTATE*. The control variables are a set of control variables used in prior studies described below and defined in Appendix B. These variables control for various auditor and client characteristics. All other variables are defined as before. The model also controls for industry and year fixed effects.

The variable *SANC_CY*POST* captures the change in audit quality for the affiliated firm in the post-sanction period (compared to the pre-sanction period) relative to other annually inspected auditors. Under H4, I expect the coefficient on *SANC_CY*POST* to be negative if the ethical violation and the subsequent disclosure was followed by an improvement in audit quality. *CLIENT_INFLUENCE* is included as a control variable to capture the importance of a client to the local practice office as this variable can affect auditor objectivity and audit quality for that client. Kinney et al. (2004) argue that high levels of fees have the potential to create an economic bond that gives the client leverage over the auditor and may reduce the auditor's objective and professional skepticism. Therefore, *AUDIT_FEE* and *NONAUDIT_FEE* are included as control variables and a positive sign is predicted for both. Prior research also suggests that greater audit effort can curb earnings management (Caramanis and Lennox 2008). Therefore, *EFFORT*, as measured by audit fees deflated by the square root of total assets, is included as a control variable and a negative sign is expected.

Company and audit firm control variables related to discretionary accruals are included in the model (Simunic 1980; Francis et al. 2005; Reynolds and Francis 2000; Ashbaugh et al. 2003; Reichelt and Wang 2010; Bills et al. 2016). These variables include client size (*SIZE)*, clients that report a loss (*LOSS)*, clients that received going-concern opinions (*GC*), clients with internal control weaknesses (*ICW*); cash flows from operations (*CFO*), leverage (*LEVERAGE*), client inventory and receivables (*INVAR*), clients in higher litigation industries (*LIT*), operating performance (*ROA*), client complexity (*M_A*, *FOREIGN,* and *SEG*), and clients in distress (*BANKRUPTCY*). *SHORT* is included because Johnson et al. (2002) find that a short tenure of the auditor is related to a higher magnitude of discretionary accruals and hence, lower audit quality. Consequently, the predicted sign for *SHORT* is positive. The variables *SEG*, *INVAR*, and

FOREIGN are included in the model to control for complexity which could increase auditor risk in conducting the audit. Larger clients (*SIZE*), clients with high lagged accruals (*LAG_ACCRUALS*) and clients with higher operating cash flows (*CFO*) are expected to have lower discretionary accruals, whereas clients with higher leverage (*LEVERAGE*), higher growth (*GROWTH*) and higher litigation risk (*LIT*) are expected to have higher discretionary accruals since riskier firms and growth firms may have greater incentives for earnings management (Becker et al. 1998; DeFond and Jiambalvo 1994; Francis and Yu 2009). Market-to-book ratio (*MB*) is included because of the fact that capital market pressure can influence earnings management behavior (Francis and Yu 2009). Clients with losses (*LOSS*), clients in distress (*BANKRUPTCY*) [14] and clients with high operating performance (*ROA*) are also expected to have higher absolute value discretionary accruals.

5. RESULTS

5.1 Descriptive Statistics

Table 2 provides a descriptive analysis of changes in the sanctioned auditors' client attrition rates during the pre- and post-sanction periods. There is a limitation to my study in that I do not have exact dates as to when clients first became aware that their audit firm was associated with an unethical audit partner sanctioned by the PCAOB. This is evident in the case of BDO in which the office affiliated with the audit partner that committed the ethical violation was essentially void of audit clients by the time the PCAOB sanction was made public. The ethical violation committed by the audit partner occurred in August of 2005. Referring to my city (office) sample, BDO had 13 clients in the Philadelphia office at the beginning of 2005, the year

[14] The following equation from Altman (1968) is used to calculate this measure: 1.2*working capital/total assets + 1.4*retained earnings/total assets + 3.3*earnings before interest and taxes/total assets + .6*book value of equity/total liabilities + .999*sales/total assets.

my sample starts for BDO. By the end of 2007 (Year 3 in Table 3), the year the sanction was disclosed, BDO had no clients at the Philadelphia office. They all switched to other auditors. In fact, BDO had no audit clients at the Philadelphia office until 2012. The ethical violation at Deloitte's Pittsburgh office occurred in 2011 (Year 1 in Table 2) at which time the office lost three of its twelve clients. Another two clients switched in the year the violation was disclosed by the PCAOB (Year 3). Ernst & Young had 207 audit clients in their Boston office in 2009. They only lost a net of four in the year the violation occurred (2010) and gained a net of twenty-two in the year the PCAOB disclosed the violation. There was also a net gain in 2012 followed by two years of net losses. McGladrey lost three clients the year the violation occurred (2010), but gained three clients in the year the violation was made public. They ended the sample period with a net gain of two. Overall, there was a net loss of forty-seven clients associated with sanctioned auditors over my analysis period. While there were net losses of clients associated with sanctioned auditors at all five levels of my analysis, according to my auditor switching risk tests, overall the losses were not statistically significant.

Table 2. Attrition of Sanctioned Auditor's Clients

	Pre-Sanction Period						Post-Sanction Period						
	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Net
	+	-	+	-	+	-	+	-	+	-	+	-	Effect
City Sample													
BDO	3	6	0	6	0	4	0	0	0	0	0	0	-13
Deloitte	0	3	0	0	0	2	0	1	1	1	0	3	-9
E&Y	18	31	11	17	36	14	18	11	7	17	12	39	-27
McGladrey	0	3	0	0	3	0	4	1	0	0	2	3	2
Totals	21	43	11	23	39	20	22	13	8	18	14	45	-47
MSA Sample													
BDO	3	6	0	6	0	4	0	0	0	0	0	0	-13
Deloitte	0	3	0	0	0	2	0	1	1	1	0	3	-9
E&Y	14	30	13	19	33	15	17	11	6	19	11	40	-40
McGladrey	1	3	0	0	3	1	4	1	0	0	2	3	2
Totals	18	42	13	25	36	22	21	13	7	20	13	46	-60

(Table 2 continued)

	Pre-Sanction Period						Post-Sanction Period						
	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Net
	+	-	+	-	+	-	+	-	+	-	+	-	Effect
State Sample													
BDO	3	6	0	6	0	4	0	0	0	0	0	0	-13
Deloitte	15	13	14	10	13	10	4	8	2	11	1	29	-32
E&Y	18	31	11	17	36	14	18	11	7	18	12	41	-30
McGladrey	1	3	1	0	2	0	4	1	0	0	2	3	3
Totals	37	53	26	33	51	28	26	20	9	29	15	73	-72
Region Sample													
BDO	37	16	14	14	8	26	5	16	4	13	7	6	-16
Deloitte	22	184	26	26	19	27	10	20	23	35	6	88	-274
E&Y	40	60	35	37	51	28	53	31	36	45	29	63	-20
McGladrey	5	6	1	3	5	2	8	3	7	4	6	6	8
Totals	104	266	76	80	83	83	76	70	70	97	48	163	-302
National Sample													
BDO	84	49	47	51	32	49	21	50	23	45	21	32	-48
Deloitte	87	174	107	122	120	117	105	94	78	154	28	547	-683
E&Y	159	184	142	218	160	185	180	158	154	194	105	289	-328
McGladrey	45	27	17	15	19	21	28	22	22	29	21	18	20
Totals	375	434	313	406	331	372	334	324	277	422	175	886	-1039

Years 1, 2 and 3 are included in the pre-sanction period with year 3 being the year the sanction occurred.
Years 4, 5, and 6 are included in the post-sanction period.
+' indicates clients gained each year and '-' indicates clients lost each year.

Table 3 provides the descriptive statistics for all models and all samples used in the empirical analysis. Panel A tabulates the descriptive statistics for the switch models, Panel B for the audit fee models, Panel C for the discretionary accruals models and Panel D for the restatement models. For select samples and models, I report the mean, median and standard deviation amounts for variables for the total sample as well as the pre- and post- sanction periods and the sanctioned and non-sanctioned auditors. For the city (office) samples, I also report the p-value for the test of differences between the sanctioned and non-sanctioned auditors in the pre- and post-sanction periods.

Table 3. Descriptive Statistics

Panel A: Switch Sample
Panel A-1: City Sample

Definitions: Pre-Sanc period includes two years before and the year of the sanction. Post-Sanc period includes the three years after the sanction. Sanc Auditor includes clients of firms affiliated with a sanctioned auditor and non-sanc auditor includes clients of those firms not involved in a sanction. Firms included in the analysis are annually inspected by the PCAOB.

VARIABLE		ALL (n=1,205)	PRE-SANC PERIOD (n=602)	POST-SANC PERIOD (n=603)	SANC AUDITOR (n=254)	NON-SANC AUDITOR (n=951)
SWITCH	Mean	0.038	0.038	0.038	0.031	0.040
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.192	0.192	0.192	0.175	0.196
SANC_CY	Mean	0.211	0.228	0.194	1.000	0.000
	Median	0.000	0.000	0.000	1.000	0.000
	StdDev	0.408	0.420	0.396	0.000	0.000
SANC_PY	Mean	0.221	0.241	0.201	0.984	0.017
	Median	0.000	0.000	0.000	1.000	0.000
	StdDev	0.415	0.428	0.401	0.125	0.129
POST	Mean	0.500	0.000	1.000	0.461	0.511
	Median	1.000	0.000	1.000	0.000	1.000
	StdDev	0.500	0.000	0.000	0.499	0.500
CPA_ACM	Mean	0.449	0.447	0.451	0.496	0.436
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.498	0.498	0.498	0.501	0.496
GROWTH	Mean	0.098	0.118	0.079	0.118	0.093
	Median	0.053	0.055	0.051	0.056	0.052
	StdDev	0.339	0.370	0.304	0.342	0.338
|DACC|	Mean	0.068	0.073	0.063	0.079	0.065
	Median	0.041	0.043	0.039	0.051	0.039
	StdDev	0.087	0.095	0.079	0.099	0.084
MODOP	Mean	0.357	0.410	0.303	0.224	0.392
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.479	0.492	0.460	0.418	0.489
CASH	Mean	0.252	0.255	0.247	0.287	0.243
	Median	0.164	0.167	0.160	0.190	0.159
	StdDev	0.245	0.247	0.244	0.252	0.242

In Table 3, Panel A-1 (the city (office) sample for the switch model), the mean values of the client-year variables show an auditor switching rate of 3.8 percent. There is an 9.8 percent growth in assets (*GROWTH*), absolute abnormal accruals (*ABSDACC*) of 6.8 percent, and a 22.5 percent investment of total assets in inventory and receivables (*INVAR*). Clients included in the sample experienced a 1.2 percent rate of going concern opinions (*GC*) with an increase from 1 (0.2 percent) going concern opinion in the pre-sanction period to 13 (2.2 percent) going concern

opinions in the post-sanction period. Sample clients also experienced 35.7 percent in modified audit opinions excluding going concern opinions (*MODOP*) and 6 percent in internal control weaknesses (ICW). The mean auditor tenure (*TENURE*) is 12.76 years. ROA for the sample is -2.9 percent suggesting large losses during the sample years. Approximately 33 percent of client-year observations in the city (office) sample experienced a net loss (*LOSS*). Clients were leveraged (*LEVERAGE*) at 17.8 percent and had cash holdings (*CASH*) of 25.2 percent. Sanctioned auditors (*SANC_CY*) provided audit services in 21.1 percent of the firm-years, and 50 percent of the observations relate to the post-sanction period (*POST*). Furthermore, CPAs (*CPA_ACM*) served on the audit committee in approximately 45 percent of the client-year observations. All switch model statistics are consistent with those of Boone et al. (2015) with the exception of *ABNRML_FEE*. In my city (office) sample, *ABNRML_FEE* has a mean of 0.27 percent and a median of 2.1 percent, while in Boone et al. (2015) the mean is 2.1 percent and the median is 0. The descriptive statistics in Table 3, Panel A also show that differences between the pre- and post-sanction periods and differences between the sanctioned and non-sanctioned auditors are, for most variables, not significant indicating there is not a significant difference between the sanctioned and non-sanctioned groups. *MODOP* is statistically different ($p < 0.01$) in the pre- and post-sanction periods as well as between the sanctioned and non-sanctioned auditors. All other sample descriptive statistics for the switch model are consistent with the city (office) sample results.

(Table 3 continued)

Panel A-1: City (office) sample with test of means

VARIABLE		PRE-SANC PERIOD/ SANC AUDITOR (n=137)	POST-SANC PERIOD/ SANC AUDITOR (n=117)	Test Diff p-value	PRE-SANC PERIOD/ NON-SANC AUDITOR (n=465)	POST-SANC PERIOD/ NON-SANC AUDITOR (n=486)	Test Diff p-value
SWITCH	Mean	0.022	0.043	0.3573	0.043	0.037	0.6392
	Median	0.000	0.000		0.000	0.000	
	StdDev	0.147	0.203		0.203	0.189	
SANC_CY	Mean	1.000	1.000	0.0000	0.000	0.000	0.0000
	Median	1.000	1.000		0.000	0.000	
	StdDev	0.000	0.000		0.000	0.000	
SANC_PY	Mean	0.978	0.991	0.3801	0.024	0.010	0.1124
	Median	1.000	1.000		0.000	0.000	
	StdDev	0.147	0.092		0.152	0.101	
POST	Mean	0.000	1.000	<.0001	0.000	1.000	<.0001
	Median	0.000	1.000		0.000	1.000	
	StdDev	0.000	0.000		0.000	0.000	
CPA_ACM	Mean	0.511	0.479	0.6093	0.428	0.444	0.6087
	Median	1.000	0.000		0.000	0.000	
	StdDev	0.502	0.502		0.495	0.497	
GROWTH	Mean	0.127	0.108	0.0940	0.115	0.072	0.1626
	Median	0.046	0.067		0.058	0.042	
	StdDev	0.371	0.306		0.370	0.303	
|DACC|	Mean	0.090	0.065	0.2371	0.068	0.062	0.5613
	Median	0.054	0.046		0.041	0.038	
	StdDev	0.114	0.075		0.088	0.080	
INVAR	Mean	0.242	0.234	0.5460	0.222	0.222	0.8900
	Median	0.231	0.224		0.206	0.202	
	StdDev	0.165	0.167		0.142	0.145	
GC	Mean	0.000	0.009	0.3194	0.002	0.025	0.0023
	Median	0.000	0.000		0.000	0.000	
	StdDev	0.000	0.092		0.046	0.155	
MODOP	Mean	0.350	0.077	0.0003	0.428	0.358	<.0001
	Median	0.000	0.000		0.000	0.000	
	StdDev	0.479	0.268		0.495	0.480	
ICW	Mean	0.073	0.060	0.8821	0.067	0.049	0.0733
	Median	0.000	0.000		0.000	0.000	
	StdDev	0.261	0.238		0.250	0.217	
TENURE	Mean	11.774	12.231	0.4457	13.125	12.817	0.0160
	Median	12.000	13.000		14.000	14.000	
	StdDev	4.174	4.211		3.654	3.884	
ROA	Mean	-0.059	-0.030	0.2367	-0.027	-0.021	0.4458
	Median	0.033	0.033		0.036	0.038	
	StdDev	0.236	0.224		0.212	0.195	

(Table 3. Panel A-1 continued)

VARIABLE		PRE-SANC PERIOD/ SANC AUDITOR (n=137)	POST-SANC PERIOD/ SANC AUDITOR (n=117)	Test Diff p-value	PRE-SANC PERIOD/ NON-SANC AUDITOR (n=465)	POST-SANC PERIOD/ NON-SANC AUDITOR (n=486)	Test Diff p-value
LOSS	Mean	0.423	0.368	0.4119	0.299	0.331	0.0121
	Median	0.000	0.000		0.000	0.000	
	StdDev	0.496	0.484		0.458	0.471	
LEVERAGE	Mean	0.145	0.121	0.5661	0.188	0.191	0.5306
	Median	0.079	0.080		0.151	0.140	
	StdDev	0.179	0.145		0.206	0.213	
Δ*LEV*	Mean	-0.017	0.009	0.0179	0.000	0.007	0.1857
	Median	-0.005	0.000		0.000	0.000	
	StdDev	0.085	0.087		0.078	0.084	
CASH	Mean	0.280	0.297	0.9373	0.248	0.238	0.6776
	Median	0.176	0.206		0.164	0.154	
	StdDev	0.247	0.257		0.247	0.237	
SIZE	Mean	5.990	6.292	0.2684	6.418	6.556	0.4008
	Median	5.845	6.096		6.260	6.429	
	StdDev	1.814	1.800		1.821	1.885	
Δ*SIZE*	Mean	0.108	0.054	0.0674	0.071	0.038	0.0302
	Median	0.063	0.051		0.064	0.035	
	StdDev	0.248	0.221		0.225	0.246	
M_A	Mean	0.197	0.342	0.0717	0.153	0.319	<.0001
	Median	0.000	0.000		0.000	0.000	
	StdDev	0.399	0.476		0.360	0.467	
ABNRML_FEE	Mean	-0.114	-0.067	0.0294	0.032	0.025	0.6742
	Median	-0.096	-0.032		0.033	0.042	
	StdDev	0.441	0.454		0.470	0.391	

(Table 3 continued)

Panel A-2: MSA and State Samples

VARIABLE		MSA					State				
		ALL (n=1,762)	PRE-SANC PERIOD (n=852)	POST-SANC PERIOD (n=910)	SANC AUDITOR (n=262)	NON-SANC AUDITOR (n=1,500)	ALL (n=1,808)	PRE-SANC PERIOD (n=1,003)	POST-SANC PERIOD (n=805)	SANC AUDITOR (n=307)	NON-SANC AUDITOR (n=1,501)
SWITCH	Mean	0.035	0.032	0.038	0.038	0.035	0.035	0.030	0.041	0.033	0.035
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	StdDev	0.184	0.175	0.192	0.192	0.183	0.183	0.170	0.198	0.178	0.185
SANC_CY	Mean	0.149	0.165	0.133	1.000	0.000	0.170	0.167	0.173	1.000	0.000
	Median	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000
	StdDev	0.356	0.372	0.340	0.000	0.000	0.376	0.374	0.378	0.000	0.000
SANC_PY	Mean	0.156	0.174	0.138	0.981	0.011	0.176	0.174	0.179	0.984	0.011
	Median	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000
	StdDev	0.362	0.379	0.346	0.137	0.106	0.381	0.380	0.383	0.127	0.106
POST	Mean	0.516	0.000	1.000	0.462	0.526	0.445	0.000	1.000	0.453	0.444
	Median	1.000	0.000	1.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000
	StdDev	0.500	0.000	0.000	0.499	0.499	0.497	0.000	0.000	0.499	0.497
CPA_ACM	Mean	0.429	0.438	0.421	0.500	0.417	0.431	0.440	0.421	0.472	0.423
	Median	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000
	StdDev	0.495	0.496	0.494	0.501	0.493	0.495	0.497	0.494	0.500	0.494
GROWTH	Mean	0.096	0.117	0.077	0.119	0.092	0.102	0.114	0.086	0.113	0.099
	Median	0.052	0.055	0.047	0.058	0.051	0.054	0.055	0.054	0.061	0.053
	StdDev	0.314	0.341	0.286	0.321	0.313	0.304	0.330	0.267	0.317	0.301
|DACC|	Mean	0.064	0.068	0.061	0.077	0.062	0.063	0.067	0.059	0.073	0.061
	Median	0.038	0.041	0.035	0.051	0.036	0.038	0.039	0.035	0.045	0.036
	StdDev	0.084	0.089	0.078	0.096	0.081	0.081	0.085	0.075	0.092	0.078
MODOP	Mean	0.288	0.357	0.224	0.221	0.300	0.331	0.389	0.258	0.199	0.358
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	StdDev	0.453	0.479	0.417	0.416	0.458	0.471	0.488	0.438	0.400	0.480
CASH	Mean	0.232	0.239	0.226	0.294	0.221	0.218	0.214	0.224	0.266	0.209
	Median	0.150	0.154	0.149	0.201	0.143	0.132	0.126	0.137	0.175	0.119
	StdDev	0.235	0.241	0.230	0.250	0.231	0.232	0.233	0.232	0.250	0.228

(Table 3 continued)

Panel A-3: Regional Sample

VARIABLE		ALL (n=5,826)	PRE-SANC PERIOD (n=2,515)	POST-SANC PERIOD (n=3,311)	SANC AUDITOR (n=693)	NON-SANC AUDITOR (n=5,133)
SWITCH	Mean	0.035	0.034	0.036	0.059	0.032
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.184	0.181	0.186	0.236	0.175
SANC_CY	Mean	0.119	0.115	0.122	1.000	0.000
	Median	0.000	0.000	0.000	1.000	0.000
	StdDev	0.324	0.319	0.327	0.000	0.000
SANC_PY	Mean	0.119	0.114	0.122	0.955	0.006
	Median	0.000	0.000	0.000	1.000	0.000
	StdDev	0.324	0.318	0.328	0.207	0.076
POST	Mean	0.568	0.000	1.000	0.582	0.567
	Median	1.000	0.000	1.000	1.000	1.000
	StdDev	0.495	0.000	0.000	0.494	0.496
CPA_ACM	Mean	0.440	0.437	0.443	0.430	0.442
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.496	0.496	0.497	0.495	0.497
GROWTH	Mean	0.092	0.121	0.070	0.108	0.090
	Median	0.044	0.057	0.035	0.044	0.044
	StdDev	0.296	0.325	0.269	0.335	0.290
|DACC|	Mean	0.063	0.070	0.057	0.075	0.061
	Median	0.038	0.043	0.035	0.045	0.038
	StdDev	0.081	0.089	0.075	0.096	0.079
MODOP	Mean	0.347	0.389	0.314	0.231	0.362
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.476	0.488	0.464	0.422	0.481
CASH	Mean	0.182	0.190	0.176	0.226	0.176
	Median	0.110	0.114	0.108	0.143	0.105
	StdDev	0.199	0.207	0.193	0.228	0.194

Panel A-4: National Sample

VARIABLE		ALL (n=1,205)	PRE-SANC PERIOD (n=602)	POST-SANC PERIOD (n=603)	SANC AUDITOR (n=254)	NON-SANC AUDITOR (n=951)
SWITCH	Mean	0.038	0.038	0.038	0.031	0.040
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.192	0.192	0.192	0.175	0.196
SANC_CY	Mean	0.211	0.228	0.194	1.000	0.000
	Median	0.000	0.000	0.000	1.000	0.000
	StdDev	0.408	0.420	0.396	0.000	0.000
SANC_PY	Mean	0.221	0.241	0.201	0.984	0.017
	Median	0.000	0.000	0.000	1.000	0.000
	StdDev	0.415	0.428	0.401	0.125	0.129
POST	Mean	0.500	0.000	1.000	0.461	0.511
	Median	1.000	0.000	1.000	0.000	1.000
	StdDev	0.500	0.000	0.000	0.499	0.500

(Table 3. Panel A-4 continued)

VARIABLE		ALL (n=1,205)	PRE-SANC PERIOD (n=602)	POST-SANC PERIOD (n=603)	SANC AUDITOR (n=254)	NON-SANC AUDITOR (n=951)
CPA_ACM	Mean	0.449	0.447	0.451	0.496	0.436
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.498	0.498	0.498	0.501	0.496
GROWTH	Mean	0.098	0.118	0.079	0.118	0.093
	Median	0.053	0.055	0.051	0.056	0.052
	StdDev	0.339	0.370	0.304	0.342	0.338
|DACC|	Mean	0.068	0.073	0.063	0.079	0.065
	Median	0.041	0.043	0.039	0.051	0.039
	StdDev	0.087	0.095	0.079	0.099	0.084
MODOP	Mean	0.357	0.410	0.303	0.224	0.392
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.479	0.492	0.460	0.418	0.489
CASH	Mean	0.252	0.255	0.247	0.287	0.243
	Median	0.164	0.167	0.160	0.190	0.159
	StdDev	0.245	0.247	0.244	0.252	0.242

Table 3, Panel B reports the descriptive statistics for the audit fee samples. For the city (office) sample, Panel B-1, Δ*AF* shows a 3.1 percent growth in audit fees on clients. This growth is consistent for all other samples, with the exception of the national (firm) sample which shows a 5 percent growth in audit fees. The mean of all control variables measured in the audit fees change analysis (not shown in the table) are near zero with some exceptions. Δ*SIZE* displays a 6.1 percent growth in assets; Δ*QUICK* displays a 2.6 percent decline in the quick ratio; Δ*SEG* shows a decline of 6.3 percent, Δ*FOREIGN* shows an increase of 1.3 percent; and Δ*MODOP* shows a decrease of 6 percent. Approximately, 45 percent of the clients have a CPA on the audit committee and 59 percent have foreign operations. Clients in the sample are more complex with 28.5 percent having gone through a merger or acquisition, 85.2 percent have intangible assets, and 23.3 percent have level 3 fair valued assets and/or liabilities. The descriptive statistics for the city sample in Table 3, Panel B also show significant differences ($p < 0.05$) for the natural log of a firm's annual audit fees for sanctioned auditors from the pre- to the post-sanction period for sanctioned auditors, while there are no significant differences for non-sanctioned auditors for the

same time periods. There are also significant differences for FI and ΔAF for the pre- and post-sanction periods for sanctioned auditors, as well as for the post-sanction period between sanctioned and non-sanctioned auditors. Again, all other sample descriptive statistic results are consistent with the city sample.

(Table 3 continued)
Panel B: Audit Fee Sample
Panel B-1: City (office) sample with test of means

VARIABLE		ALL (n=1,242)	PRE-SANC PERIOD (n=621)	POST-SANC PERIOD (n=621)	SANC AUDITOR (n=262)	NON-SANC AUDITOR (n=980)	PRE-SANC PERIOD/ SANC AUDITOR (n=141)	POST-SANC PERIOD/ SANC AUDITOR (n=121)	Test Diff p-value
LNAF	Mean	14.015	13.959	14.071	13.838	14.062	13.717	13.978	0.0433
	Median	14.003	13.948	14.048	13.857	14.086	13.718	14.005	
	StdDev	1.038	1.046	1.027	1.039	1.033	0.994	1.075	
FI	Mean	0.541	0.493	0.589	0.630	0.517	0.489	0.793	<.0001
	Median	1.000	0.000	1.000	1.000	1.000	0.000	1.000	
	StdDev	0.499	0.500	0.492	0.484	0.500	0.502	0.407	
Δ*AF*	Mean	0.031	0.021	0.042	0.080	0.019	0.027	0.142	0.0002
	Median	0.017	-0.002	0.034	0.049	0.010	-0.006	0.087	
	StdDev	0.237	0.262	0.209	0.252	0.232	0.262	0.225	
SANC_CY	Mean	0.211	0.227	0.195	1.000	0.000	1.000	1.000	0.0000
	Median	0.000	0.000	0.000	1.000	0.000	1.000	1.000	
	StdDev	0.408	0.419	0.396	0.000	0.000	0.000	0.000	
POST	Mean	0.500	0.000	1.000	0.462	0.510	0.000	1.000	<.0001
	Median	0.500	0.000	1.000	0.000	1.000	0.000	1.000	
	StdDev	0.500	0.000	0.000	0.499	0.500	0.000	0.000	
CPA_ACM	Mean	0.447	0.443	0.451	0.481	0.438	0.496	0.463	0.5885
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	StdDev	0.497	0.497	0.498	0.501	0.496	0.502	0.501	
SIZE	Mean	6.436	6.362	6.509	6.106	6.524	5.991	6.239	0.2870
	Median	6.248	6.169	6.376	5.958	6.376	5.854	6.031	
	StdDev	1.880	1.855	1.904	1.870	1.874	1.867	1.873	
M_A	Mean	0.285	0.227	0.343	0.298	0.282	0.255	0.347	0.1085
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	StdDev	0.452	0.419	0.475	0.458	0.450	0.438	0.478	

(Table 3 continued)

VARIABLE		ALL (n=1,242)	PRE-SANC PERIOD (n=621)	POST-SANC PERIOD (n=621)	SANC AUDITOR (n=262)	NON-SANC AUDITOR (n=980)	PRE-SANC PERIOD/ SANC AUDITOR (n=141)	POST-SANC PERIOD/ SANC AUDITOR (n=121)	Test Diff p-value
FOREIGN	Mean	0.593	0.580	0.605	0.595	0.592	0.582	0.612	0.6230
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
	StdDev	0.492	0.494	0.489	0.492	0.492	0.495	0.489	
SEG	Mean	1.504	1.593	1.415	1.326	1.552	1.425	1.211	0.0194
	Median	1.099	1.099	1.099	1.099	1.099	1.099	1.099	
	StdDev	0.822	0.782	0.851	0.732	0.838	0.674	0.781	
LEVEL3	Mean	0.233	0.180	0.287	0.260	0.227	0.206	0.322	0.0339
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	StdDev	0.423	0.385	0.453	0.439	0.419	0.406	0.469	
INTANG	Mean	0.852	0.847	0.857	0.828	0.858	0.823	0.835	0.7976
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
	StdDev	0.355	0.360	0.351	0.378	0.349	0.383	0.373	
INVAR	Mean	0.220	0.221	0.218	0.226	0.218	0.231	0.219	0.5595
	Median	0.204	0.205	0.201	0.223	0.199	0.229	0.219	
	StdDev	0.151	0.151	0.150	0.166	0.146	0.170	0.162	
GC	Mean	0.016	0.006	0.026	0.019	0.015	0.021	0.017	0.7785
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	StdDev	0.126	0.080	0.159	0.137	0.123	0.145	0.128	
ICW	Mean	0.058	0.064	0.052	0.084	0.051	0.078	0.091	0.7103
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	StdDev	0.234	0.246	0.221	0.278	0.220	0.269	0.289	
ROA	Mean	-0.034	-0.028	-0.040	-0.063	-0.026	-0.050	-0.079	0.3771
	Median	0.035	0.037	0.033	0.033	0.036	0.035	0.024	
	StdDev	0.219	0.217	0.221	0.259	0.207	0.247	0.273	
LEVERAGE	Mean	0.175	0.170	0.179	0.122	0.189	0.120	0.124	0.8249
	Median	0.129	0.123	0.137	0.064	0.152	0.061	0.064	
	StdDev	0.187	0.185	0.188	0.149	0.193	0.141	0.158	

(Table 3 continued)

VARIABLE		ALL (n=1,242)	PRE-SANC PERIOD (n=621)	POST-SANC PERIOD (n=621)	SANC AUDITOR (n=262)	NON-SANC AUDITOR (n=980)	PRE-SANC PERIOD/ SANC AUDITOR (n=141)	POST-SANC PERIOD/ SANC AUDITOR (n=121)	Test Diff p-value
LIT	Mean	0.417	0.414	0.420	0.427	0.414	0.411	0.446	0.5709
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	StdDev	0.493	0.493	0.494	0.496	0.493	0.494	0.499	
LOSS	Mean	0.343	0.311	0.375	0.393	0.330	0.376	0.413	0.5397
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	StdDev	0.475	0.463	0.485	0.489	0.470	0.486	0.494	
LIQUID	Mean	3.204	3.155	3.252	3.627	3.090	3.403	3.887	0.1902
	Median	2.363	2.385	2.332	2.666	2.261	2.550	2.897	
	StdDev	2.770	2.665	2.872	2.936	2.714	2.687	3.194	
BUSY	Mean	0.696	0.692	0.700	0.737	0.686	0.730	0.744	0.8081
	Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
	StdDev	0.460	0.462	0.458	0.441	0.464	0.445	0.438	
TENURE	Mean	12.677	12.844	12.510	11.969	12.866	11.780	12.190	0.4547
	Median	14.000	14.000	14.000	12.000	14.000	12.000	13.000	
	StdDev	4.081	3.858	4.290	4.405	3.971	4.349	4.476	

Definitions: Pre-Sanc period includes two years before and the year of the sanction: Post-Sanc period includes the three years after the sanction. Sanc Auditor includes clients of audit firms affiliated with a sanctioned audit partner and non-sanc auditor includes clients of audit firms not involved in a sanction. Audit firms included in the sample are inspected annually by the PCAOB.

(Table 3 continued)

Panel B-2: MSA, State & Regional samples

		MSA				
VARIABLE		ALL (n=1,804)	PRE-SANC PERIOD (n=872)	POST-SANC PERIOD (n=932)	SANC AUDITOR (n=269)	NON-SANC AUDITOR (n=1,535)
LNAF	Mean	14.093	14.029	14.153	13.813	14.142
	Median	14.047	13.984	14.108	13.817	14.106
	StdDev	1.079	1.078	1.076	1.039	1.078
FI	Mean	0.569	0.529	0.607	0.632	0.558
	Median	1.000	1.000	1.000	1.000	1.000
	StdDev	0.495	0.499	0.489	0.483	0.497
Δ*AF*	Mean	0.037	0.026	0.047	0.079	0.030
	Median	0.027	0.011	0.036	0.050	0.022
	StdDev	0.217	0.233	0.200	0.241	0.212
		State				
VARIABLE		ALL (n=1,858)	PRE-SANC PERIOD (n=1.027)	POST-SANC PERIOD (n=831)	SANC AUDITOR (n=314)	NON-SANC AUDITOR (n=1,544)
LNAF	Mean	14.090	14.040	14.152	13.885	14.132
	Median	14.107	14.064	14.170	13.865	14.162
	StdDev	1.038	1.030	1.047	1.061	1.029
FI	Mean	0.568	0.531	0.614	0.624	0.556
	Median	1.000	1.000	1.000	1.000	1.000
	StdDev	0.496	0.499	0.487	0.485	0.497
Δ*AF*	Mean	0.039	0.032	0.047	0.072	0.032
	Median	0.024	0.011	0.036	0.049	0.020
	StdDev	0.226	0.240	0.207	0.233	0.224
		Regional				
VARIABLE		ALL (n=6,023)	PRE-SANC PERIOD (n=2,591)	POST-SANC PERIOD (n=3,432)	SANC AUDITOR (n=719)	NON-SANC AUDITOR (n=5,304)
LNAF	Mean	14.212	14.131	14.274	13.882	14.257
	Median	14.179	14.101	14.251	13.884	14.221
	StdDev	1.192	1.201	1.183	1.258	1.176
FI	Mean	0.557	0.565	0.551	0.591	0.553
	Median	1.000	1.000	1.000	1.000	1.000
	StdDev	0.497	0.496	0.497	0.492	0.497
Δ*AF*	Mean	0.037	0.056	0.023	0.050	0.036
	Median	0.020	0.025	0.015	0.030	0.018
	StdDev	0.233	0.269	0.200	0.241	0.231

(Table 3 continued)

Panel B-3: National (firm) sample

VARIABLE		ALL (n=29.265)	PRE-SANC PERIOD (n=10,752)	POST-SANC PERIOD (n=18,513)	SANC AUDITOR (n=3,819)	NON-SANC AUDITOR (n=25,446)
LNAF	Mean	14.083	13.974	14.146	13.942	14.104
	Median	14.055	13.947	14.113	13.927	14.075
	StdDev	1.176	1.194	1.160	1.190	1.172
FI	Mean	0.564	0.606	0.540	0.615	0.557
	Median	1.000	1.000	1.000	1.000	1.000
	StdDev	0.496	0.489	0.498	0.487	0.497
Δ*AF*	Mean	0.050	0.104	0.018	0.059	0.048
	Median	0.023	0.044	0.013	0.037	0.021
	StdDev	0.280	0.347	0.226	0.263	0.282
SANC_CY	Mean	0.130	0.114	0.140	1.000	0.000
	Median	0.000	0.000	0.000	1.000	0.000
	StdDev	0.337	0.317	0.347	0.000	0.000
POST	Mean	0.633	0.000	1.000	0.680	0.625
	Median	1.000	0.000	1.000	1.000	1.000
	StdDev	0.482	0.000	0.000	0.467	0.484
CPA_ACM	Mean	0.374	0.369	0.378	0.391	0.372
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.484	0.482	0.485	0.488	0.483
SIZE	Mean	6.923	6.699	7.053	6.613	6.969
	Median	6.935	6.668	7.106	6.594	6.983
	StdDev	2.096	2.058	2.108	2.207	2.075
M_A	Mean	0.207	0.121	0.256	0.292	0.194
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.405	0.327	0.437	0.455	0.395
FOREIGN	Mean	0.493	0.451	0.517	0.513	0.490
	Median	0.000	0.000	1.000	1.000	0.000
	StdDev	0.500	0.498	0.500	0.500	0.500
SEG	Mean	1.379	1.553	1.278	1.295	1.392
	Median	1.099	1.099	1.099	1.099	1.099
	StdDev	0.884	0.811	0.909	0.835	0.891
LEVEL3	Mean	0.196	0.081	0.263	0.250	0.188
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.397	0.273	0.440	0.433	0.391
INTANG	Mean	0.816	0.803	0.824	0.793	0.820
	Median	1.000	1.000	1.000	1.000	1.000
	StdDev	0.387	0.397	0.381	0.405	0.384
INVAR	Mean	0.220	0.225	0.218	0.227	0.219
	Median	0.188	0.191	0.186	0.197	0.187
	StdDev	0.168	0.171	0.166	0.179	0.166
GC	Mean	0.028	0.023	0.031	0.031	0.028
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.166	0.149	0.174	0.174	0.164
ICW	Mean	0.059	0.079	0.047	0.058	0.059
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.235	0.270	0.212	0.235	0.236
ROA	Mean	-0.008	0.001	-0.013	-0.034	-0.004
	Median	0.037	0.044	0.032	0.031	0.037
	StdDev	0.203	0.206	0.201	0.231	0.198

(Table 3: Panel B-3 continued)

VARIABLE		ALL (n=29.265)	PRE-SANC PERIOD (n=10,752)	POST-SANC PERIOD (n=18,513)	SANC AUDITOR (n=3,819)	NON-SANC AUDITOR (n=25,446)
LEVERAGE	Mean	0.236	0.217	0.247	0.228	0.237
	Median	0.199	0.177	0.212	0.178	0.203
	StdDev	0.230	0.222	0.233	0.238	0.229
LIT	Mean	0.323	0.328	0.320	0.350	0.319
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.468	0.470	0.467	0.477	0.466
LOSS	Mean	0.287	0.254	0.306	0.339	0.279
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.452	0.435	0.461	0.473	0.449
LIQUID	Mean	2.580	2.669	2.528	2.752	2.554
	Median	1.876	1.896	1.862	1.971	1.862
	StdDev	2.386	2.479	2.329	2.588	2.353
BUSY	Mean	0.728	0.721	0.731	0.736	0.727
	Median	1.000	1.000	1.000	1.000	1.000
	StdDev	0.445	0.448	0.443	0.441	0.446
TENURE	Mean	12.018	11.985	12.038	10.914	12.184
	Median	13.000	13.000	13.000	11.000	13.000
	StdDev	4.177	4.021	4.265	4.690	4.069

Table 3, Panels C and D provide the descriptive statistics for the audit quality samples. Referring to the city (office) sample, |*DACC*| has a mean value of 5.5 percent, which is consistent with other studies including Reichelt and Wang (2010) and Reynolds and Francis (2000). |*DACCd*| has a mean value of approximately 2 percent. Consistent with Boone et al. (2015), approximately 5 percent of the city (office) sample client-year observations are restated. All other variables are similar to previous literature (Ashbaugh et al. 2003; Becker et al. 1998; Boone et al. 2015; Frankel et al. 2002; Reynolds and Francis 2000). Most all client characteristics exhibit mean values similar to each other in each level of the analysis.

In the difference of the means test for the city sample, there is no significant difference between the pre- and post-sanction periods for the sanctioned and non-sanctioned auditors for discretionary accruals (|*DACC*| and |*DACCd*|). However, there is a significant difference in the means for *RESTATE* between the pre- and post-sanction periods for the non-sanctioned auditors, as well as a significant difference in the means for *RESTATE* in the post-sanction period between the sanctioned and non-sanctioned auditors.

(Table 3 continued)
Panel C: Discretionary Accruals Sample
Panel C-1: City (office) sample with test of means

VARIABLE		ALL (n=696)	PRE-SANC PERIOD (n=348)	POST-SANC PERIOD (n=348)	SANC AUDITOR (n=168)	NON-SANC AUDITOR (n=528)	PRE-SANC PERIOD/ SANC AUDITOR (n=95)	POST-SANC PERIOD/ SANC AUDITOR (n=81)	Test Diff p-value
|DACC|	Mean	0.055	0.057	0.053	0.056	0.055	0.058	0.051	0.4824
	Median	0.038	0.043	0.034	0.040	0.037	0.045	0.036	
	StdDev	0.061	0.061	0.061	0.059	0.061	0.065	0.053	
DACCd	Mean	0.018	0.017	0.018	0.020	0.017	0.024	0.027	0.4642
	Median	0.011	0.011	0.011	0.014	0.011	0.019	0.018	
	StdDev	0.020	0.020	0.021	0.020	0.020	0.016	0.023	
SANC_CY	Mean	0.241	0.259	0.224	1.000	0.000	1.000	1.000	0.0000
	Median	0.000	0.000	0.000	1.000	0.000	1.000	1.000	
	StdDev	0.428	0.439	0.418	0.000	0.000	0.000	0.000	
POST_VIOLATION	Mean	0.500	0.000	1.000	0.464	0.511	0.000	1.000	0.0000
	Median	0.500	0.000	1.000	0.000	1.000	0.000	1.000	
	StdDev	0.500	0.000	0.000	0.500	0.500	0.000	0.000	
CLIENT_INFLUENCE	Mean	0.054	0.054	0.053	0.025	0.063	0.033	0.030	0.6449
	Median	0.018	0.017	0.021	0.011	0.023	0.010	0.013	
	StdDev	0.139	0.145	0.134	0.033	0.158	0.064	0.038	
SHORT	Mean	0.032	0.009	0.055	0.071	0.019	0.032	0.111	0.0463
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	StdDev	0.175	0.093	0.228	0.258	0.136	0.176	0.316	
AUDIT_FEE	Mean	14.153	14.097	14.209	14.165	14.149	14.068	14.310	0.1078
	Median	14.173	14.150	14.197	14.121	14.190	13.951	14.171	
	StdDev	1.052	1.035	1.067	0.994	1.071	0.930	1.038	
NON_AUDITFEE	Mean	11.325	11.376	11.274	11.931	11.132	11.651	12.054	0.3084
	Median	12.038	11.965	12.117	12.209	11.970	11.968	12.255	
	StdDev	3.535	3.396	3.674	2.471	3.794	2.690	2.545	
EFFORT	Mean	57.796	56.113	59.479	62.635	56.257	55.907	69.504	0.4060
	Median	51.792	50.688	52.641	53.447	51.195	48.884	55.664	
	StdDev	33.035	25.940	38.823	49.251	25.705	26.079	64.613	

(Table 3: Panel C-1 continued)

VARIABLE		ALL (n=696)	PRE-SANC PERIOD (n=348)	POST-SANC PERIOD (n=348)	SANC AUDITOR (n=168)	NON-SANC AUDITOR (n=528)	PRE-SANC PERIOD/ SANC AUDITOR (n=95)	POST-SANC PERIOD/ SANC AUDITOR (n=81)	Test Diff p-value
GROWTH	Mean	0.082	0.108	0.057	0.093	0.079	0.125	0.049	0.0260
	Median	0.051	0.064	0.037	0.050	0.051	0.052	0.051	
	StdDev	0.255	0.264	0.242	0.245	0.258	0.264	0.183	
MB	Mean	0.809	0.802	0.815	0.823	0.804	0.740	0.940	0.6838
	Median	0.761	0.733	0.776	0.681	0.778	0.606	0.733	
	StdDev	0.743	0.723	0.762	0.823	0.716	0.786	0.833	
BANKRUPTCY	Mean	3.983	4.267	3.699	3.905	4.008	3.835	4.037	0.7016
	Median	3.149	3.169	3.125	3.457	3.045	3.352	3.859	
	StdDev	5.043	4.575	5.463	3.546	5.436	3.269	3.647	
CFO	Mean	0.070	0.071	0.069	0.055	0.075	0.060	0.055	0.8217
	Median	0.087	0.085	0.088	0.082	0.091	0.085	0.084	
	StdDev	0.131	0.135	0.127	0.149	0.125	0.157	0.134	
LAG_ACCRUALS	Mean	-0.073	-0.082	-0.065	-0.088	-0.069	-0.100	-0.068	0.0251
	Median	-0.057	-0.060	-0.055	-0.068	-0.054	-0.076	-0.057	
	StdDev	0.097	0.109	0.082	0.101	0.095	0.112	0.074	

Definitions: Pre-Sanc period includes two years before and the year of the sanction. Post-Sanc period includes the three years after the sanction. Sanc Auditor includes clients of audit firms affiliated with a sanctioned audit partner and non-sanc auditor includes clients of those audit firms not affiliated with a sanctioned audit partner. Audit firms included in the sample are inspected annually by the PCAOB.

(Table 3 continued)

Panel C-1: City (office) sample with test of means

VARIABLE		PRE-SANC PERIOD/ NON-SANC AUDITOR (n=298)	POST-SANC PERIOD/ NON-SANC AUDITOR (n=312)	Test Diff p-value	PRE-SANC PERIOD/ SANC AUDITOR (n=95)	PRE-SANC PERIOD/ NON-SANC AUDITOR (n=298)	Test Diff p-value	POST-SANC PERIOD/ SANC AUDITOR (n=81)	POST-SANC PERIOD/ NON-SANC AUDITOR (n=312)	Test Diff p-value
|DACC|	Mean	0.055	0.057	0.6263	0.058	0.055	0.7131	0.051	0.057	0.3962
	Median	0.039	0.035		0.045	0.039		0.036	0.035	
	StdDev	0.060	0.073		0.065	0.060		0.053	0.073	
DACCd	Mean	0.024	0.023	0.7684	0.024	0.024	0.7498	0.027	0.023	0.2222
	Median	0.017	0.017		0.019	0.017		0.018	0.017	
	StdDev	0.024	0.022		0.016	0.024		0.023	0.022	
SANC_CY	Mean	0.000	0.000	0.0000	1.000	0.000	0.0000	1.000	0.000	0.0000
	Median	0.000	0.000		1.000	0.000		1.000	0.000	
	StdDev	0.000	0.000		0.000	0.000		0.000	0.000	
POST	Mean	0.000	1.000	0.0000	0.000	0.000	0.0000	1.000	1.000	0.0000
	Median	0.000	1.000		0.000	0.000		1.000	1.000	
	StdDev	0.000	0.000		0.000	0.000		0.000	0.000	
CLIENT_INFLUENCE	Mean	0.063	0.061	0.8337	0.033	0.063	0.0079	0.030	0.061	0.0007
	Median	0.024	0.025		0.010	0.024		0.013	0.025	
	StdDev	0.155	0.141		0.064	0.155		0.038	0.141	
SHORT	Mean	0.000	0.042	0.0003	0.032	0.000	0.0832	0.111	0.042	0.0630
	Median	0.000	0.000		0.000	0.000		0.000	0.000	
	StdDev	0.000	0.200		0.176	0.000		0.316	0.200	
AUDIT_FEE	Mean	14.149	14.222	0.3881	14.068	14.149	0.4754	14.310	14.222	0.4993
	Median	14.187	14.298		13.951	14.187		14.171	14.298	
	StdDev	1.049	1.047		0.930	1.049		1.038	1.047	
NON_AUDITFEE	Mean	11.071	10.845	0.4778	11.651	11.071	0.1027	12.054	10.845	0.0011
	Median	11.944	11.932		11.968	11.944		12.255	11.932	
	StdDev	3.810	4.065		2.690	3.810		2.545	4.065	
EFFORT	Mean	56.086	56.110	0.9916	55.907	56.086	0.9552	69.504	56.110	0.0708
	Median	50.249	51.508		48.884	50.249		55.664	51.508	
	StdDev	29.557	25.479		26.079	29.557		64.613	25.479	

(Table 3: Panel C-1 continued)

VARIABLE		PRE-SANC PERIOD/ NON-SANC AUDITOR (n=298)	POST-SANC PERIOD/ NON-SANC AUDITOR (n=312)	Test Diff p-value	PRE-SANC PERIOD/ SANC AUDITOR (n=95)	PRE-SANC PERIOD/ NON-SANC AUDITOR (n=298)	Test Diff p-value	POST-SANC PERIOD/ SANC AUDITOR (n=81)	POST-SANC PERIOD/ NON-SANC AUDITOR (n=312)	Test Diff p-value
GROWTH	Mean	0.094	0.051	0.0277	0.125	0.094	0.3092	0.049	0.051	0.9311
	Median	0.066	0.033		0.052	0.066		0.051	0.033	
	StdDev	0.239	0.242		0.264	0.239		0.183	0.242	
MB	Mean	0.833	0.772	0.3031	0.740	0.833	0.3033	0.940	0.772	0.1034
	Median	0.766	0.759		0.606	0.766		0.733	0.759	
	StdDev	0.692	0.760		0.786	0.692		0.833	0.760	
BANKRUPTCY	Mean	4.245	3.419	0.0467	3.835	4.245	0.3415	4.037	3.419	0.2300
	Median	3.124	2.893		3.352	3.124		3.859	2.893	
	StdDev	4.656	5.564		3.269	4.656		3.647	5.564	
CFO	Mean	0.075	0.073	0.8463	0.060	0.075	0.4098	0.055	0.073	0.2530
	Median	0.093	0.091		0.085	0.093		0.084	0.091	
	StdDev	0.127	0.131		0.157	0.127		0.134	0.131	
LAG_ACCRUALS	Mean	-0.071	-0.064	0.3640	-0.100	-0.071	0.0274	-0.068	-0.064	0.7189
	Median	-0.053	-0.055		-0.076	-0.053		-0.057	-0.055	
	StdDev	0.100	0.083		0.112	0.100		0.074	0.083	

(Table 3 continued)

Panel C-2: State & MSA samples

VARIABLE		State					MSA				
		ALL (n=1,130)	PRE-SANC PERIOD (n=654)	POST-SANC PERIOD (n=476)	SANC AUDITOR (n=196)	NON-SANC AUDITOR (n=934)	ALL (n=1,045)	PRE-SANC PERIOD (n=506)	POST-SANC PERIOD (n=539)	SANC AUDITOR (n=169)	NON-SANC AUDITOR (n=876)
|DACC|	Mean	0.051	0.052	0.050	0.052	0.051	0.052	0.052	0.051	0.053	0.051
	Median	0.034	0.035	0.033	0.037	0.034	0.035	0.037	0.033	0.039	0.034
	StdDev	0.058	0.059	0.057	0.056	0.059	0.058	0.056	0.060	0.054	0.058
DACCd	Mean	0.016	0.016	0.017	0.019	0.016	0.016	0.017	0.016	0.020	0.016
	Median	0.011	0.010	0.011	0.013	0.010	0.010	0.010	0.010	0.014	0.010
	StdDev	0.018	0.018	0.019	0.019	0.018	0.019	0.019	0.019	0.019	0.018
SANC_CY	Mean	0.173	0.168	0.181	1.000	0.000	0.162	0.178	0.147	1.000	0.000
	Median	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000
	StdDev	0.379	0.374	0.385	0.000	0.000	0.368	0.383	0.354	0.000	0.000
POST_VIOLATION	Mean	0.421	0.000	1.000	0.439	0.418	0.516	0.000	1.000	0.467	0.525
	Median	0.000	0.000	1.000	0.000	0.000	1.000	0.000	1.000	0.000	1.000
	StdDev	0.494	0.000	0.000	0.498	0.493	0.500	0.000	0.000	0.500	0.500
CLIENT_INFLUENCE	Mean	0.035	0.032	0.038	0.027	0.036	0.037	0.036	0.038	0.022	0.040
	Median	0.017	0.016	0.020	0.012	0.019	0.018	0.016	0.020	0.011	0.020
	StdDev	0.056	0.054	0.058	0.041	0.058	0.058	0.061	0.056	0.027	0.062
SHORT	Mean	0.026	0.005	0.055	0.061	0.018	0.031	0.010	0.050	0.089	0.019
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	StdDev	0.158	0.068	0.227	0.240	0.134	0.172	0.099	0.218	0.285	0.138
AUDIT_FEE	Mean	14.269	14.212	14.346	14.167	14.290	14.261	14.184	14.334	14.152	14.282
	Median	14.279	14.216	14.351	14.113	14.321	14.221	14.161	14.334	14.119	14.275
	StdDev	1.023	1.004	1.046	0.958	1.036	1.124	1.102	1.141	1.005	1.145
NON_AUDITFEE	Mean	11.406	11.436	11.363	11.674	11.349	11.339	11.351	11.327	11.794	11.251
	Median	12.243	12.206	12.319	12.235	12.248	12.201	12.140	12.328	12.206	12.199
	StdDev	3.641	3.546	3.770	3.020	3.757	3.817	3.670	3.955	2.783	3.982
EFFORT	Mean	54.699	52.525	57.687	60.147	53.556	56.579	54.852	58.201	62.169	55.501
	Median	49.519	48.043	51.895	51.876	48.983	50.957	49.924	52.354	53.101	50.646
	StdDev	29.579	24.657	35.048	46.520	24.472	30.460	25.180	34.640	49.303	25.162

(Table 3: Panel C-2 continued)

VARIABLE		ALL (n=1,130)	PRE-SANC PERIOD (n=654)	POST-SANC PERIOD (n=476)	SANC AUDITOR (n=196)	NON-SANC AUDITOR (n=934)	ALL (n=1,045)	PRE-SANC PERIOD (n=506)	POST-SANC PERIOD (n=539)	SANC AUDITOR (n=169)	NON-SANC AUDITOR (n=876)
GROWTH	Mean	0.084	0.108	0.051	0.086	0.083	0.079	0.098	0.062	0.091	0.077
	Median	0.050	0.066	0.031	0.052	0.050	0.047	0.057	0.036	0.050	0.047
	StdDev	0.228	0.236	0.212	0.225	0.229	0.229	0.233	0.223	0.234	0.228
MB	Mean	0.835	0.831	0.840	0.821	0.838	0.792	0.755	0.827	0.815	0.788
	Median	0.779	0.784	0.777	0.709	0.792	0.733	0.703	0.776	0.680	0.759
	StdDev	0.751	0.720	0.792	0.781	0.745	0.758	0.741	0.772	0.836	0.742
BANKRUPTCY	Mean	3.910	3.951	3.853	4.056	3.879	3.912	4.016	3.814	3.968	3.901
	Median	3.126	3.154	3.091	3.468	3.057	3.088	3.137	3.019	3.473	2.998
	StdDev	4.358	4.119	4.671	3.421	4.532	4.543	4.352	4.718	3.395	4.735
CFO	Mean	0.077	0.078	0.076	0.061	0.081	0.075	0.076	0.075	0.054	0.079
	Median	0.092	0.094	0.089	0.085	0.094	0.089	0.091	0.088	0.082	0.091
	StdDev	0.112	0.114	0.110	0.138	0.106	0.116	0.121	0.112	0.143	0.110
LAG_ACCRUALS	Mean	-0.060	-0.064	-0.056	-0.080	-0.056	-0.064	-0.070	-0.059	-0.088	-0.060
	Median	-0.049	-0.052	-0.046	-0.062	-0.046	-0.052	-0.053	-0.050	-0.067	-0.049
	StdDev	0.083	0.088	0.076	0.092	0.081	0.086	0.096	0.075	0.097	0.083

(Table 3 continued)

Panel C-3: Regional sample

VARIABLE		ALL (n=3,627)	PRE-SANC PERIOD (n=1,612)	POST-SANC PERIOD (n=2,015)	SANC AUDITOR (n=408)	NON-SANC AUDITOR (n=3,219)
|DACC|	Mean	0.054	0.055	0.053	0.059	0.053
	Median	0.036	0.037	0.035	0.036	0.036
	StdDev	0.060	0.061	0.060	0.072	0.058
|DACCd|	Mean	0.017	0.017	0.017	0.020	0.017
	Median	0.011	0.011	0.011	0.012	0.010
	StdDev	0.020	0.021	0.020	0.022	0.020
SANC_CY	Mean	0.112	0.112	0.113	1.000	0.000
	Median	0.000	0.000	0.000	1.000	0.000
	StdDev	0.316	0.316	0.316	0.000	0.000
POST	Mean	0.556	0.000	1.000	0.556	0.555
	Median	1.000	0.000	1.000	1.000	1.000
	StdDev	0.497	0.000	0.000	0.497	0.497
CLIENT_INFLUENCE	Mean	0.012	0.011	0.013	0.012	0.012
	Median	0.004	0.003	0.004	0.004	0.003
	StdDev	0.034	0.033	0.035	0.023	0.035
SHORT	Mean	0.023	0.015	0.030	0.064	0.018
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.150	0.121	0.170	0.245	0.133
AUDIT_FEE	Mean	14.395	14.312	14.460	14.047	14.439
	Median	14.348	14.267	14.431	14.040	14.391
	StdDev	1.192	1.195	1.186	1.217	1.182
NON_AUDITFEE	Mean	11.672	11.668	11.675	11.205	11.731
	Median	12.454	12.422	12.487	12.073	12.505
	StdDev	3.594	3.486	3.678	3.895	3.550
EFFORT	Mean	58.684	58.941	58.478	55.052	59.144
	Median	51.599	50.508	52.402	49.578	51.971
	StdDev	41.301	49.062	33.846	37.396	41.753
GROWTH	Mean	0.084	0.110	0.063	0.103	0.081
	Median	0.043	0.060	0.031	0.046	0.043
	StdDev	0.244	0.255	0.233	0.273	0.240
MB	Mean	0.802	0.836	0.775	0.848	0.796
	Median	0.773	0.789	0.756	0.734	0.776
	StdDev	0.779	0.749	0.801	0.797	0.776
BANKRUPTCY	Mean	3.904	4.106	3.742	4.354	3.846
	Median	3.105	3.207	3.027	3.296	3.088
	StdDev	4.091	4.229	3.970	4.972	3.962
CFO	Mean	0.083	0.082	0.084	0.050	0.087
	Median	0.092	0.093	0.091	0.082	0.093
	StdDev	0.108	0.114	0.103	0.154	0.100
LAG_ACCRUALS	Mean	-0.054	-0.052	-0.055	-0.064	-0.053
	Median	-0.047	-0.046	-0.048	-0.054	-0.046
	StdDev	0.080	0.085	0.076	0.092	0.078

(Table 3 continued)

Panel C-4: National (firm) sample

VARIABLE		ALL (n=16,257)	PRE-SANC PERIOD (n=6,031)	POST-SANC PERIOD (n=10,226)	SANC AUDITOR (n=2,072)	NON-SANC AUDITOR (n=14,185)
|DACC|	Mean	0.071	0.073	0.069	0.073	0.070
	Median	0.050	0.052	0.048	0.051	0.050
	StdDev	0.070	0.071	0.069	0.073	0.069
|DACCd|	Mean	0.013	0.013	0.014	0.014	0.013
	Median	0.009	0.008	0.009	0.009	0.009
	StdDev	0.014	0.014	0.014	0.015	0.014
SANC_CY	Mean	0.151	0.134	0.164	1.000	0.000
	Median	0.000	0.000	0.000	1.000	0.000
	StdDev	0.358	0.340	0.370	0.000	0.000
POST	Mean	0.563	0.000	1.000	0.613	0.555
	Median	1.000	0.000	1.000	1.000	1.000
	StdDev	0.496	0.000	0.000	0.487	0.497
CLIENT_INFLUENCE	Mean	0.002	0.002	0.002	0.002	0.002
	Median	0.001	0.001	0.001	0.001	0.001
	StdDev	0.003	0.003	0.003	0.004	0.003
SHORT	Mean	0.022	0.018	0.026	0.041	0.019
	Median	0.000	0.000	0.000	0.000	0.000
	StdDev	0.148	0.133	0.159	0.199	0.137
AUDIT_FEE	Mean	14.240	14.173	14.292	14.162	14.254
	Median	14.166	14.104	14.217	14.087	14.179
	StdDev	1.101	1.107	1.093	1.083	1.104
NON_AUDITFEE	Mean	11.183	11.258	11.126	11.065	11.204
	Median	12.191	12.170	12.206	12.090	12.206
	StdDev	3.902	3.727	4.032	3.969	3.890
EFFORT	Mean	50.852	51.876	50.059	49.618	51.072
	Median	44.349	44.547	44.190	43.828	44.405
	StdDev	33.907	36.904	31.369	30.237	34.515
GROWTH	Mean	0.099	0.141	0.065	0.099	0.098
	Median	0.053	0.076	0.038	0.056	0.052
	StdDev	0.252	0.283	0.220	0.246	0.253
MB	Mean	4.905	4.895	4.913	4.840	4.917
	Median	4.795	4.781	4.808	4.740	4.805
	StdDev	1.721	1.694	1.741	1.686	1.727
BANKRUPTCY	Mean	3.941	4.349	3.626	3.914	3.946
	Median	3.175	3.401	3.000	3.324	3.150
	StdDev	3.770	4.000	3.549	3.645	3.791
CFO	Mean	0.101	0.105	0.099	0.094	0.103
	Median	0.099	0.101	0.096	0.095	0.099
	StdDev	0.090	0.094	0.086	0.089	0.090
LAG_ACCRUALS	Mean	-0.063	-0.057	-0.067	-0.061	-0.063
	Median	-0.054	-0.051	-0.056	-0.052	-0.054
	StdDev	0.080	0.080	0.079	0.081	0.079

Table 4, Panels A - D provide the Pearson and Spearman correlations for the variables in the models for all samples. Inspection of the correlations, suggests no multicollinearity problems in the multivariate analysis, with the exception of the following. In the MSA, state, regional, and national (firm) samples for the switch analysis, *SANC_CY*, *SANC_PY*, and the interaction variables are highly correlated. In the MSA, regional, and national (firm) samples for the audit quality analysis, *AUDIT_FEE* and *SIZE* are highly correlated. Finally, in the city (office) and state samples for the audit quality analysis, *AUDIT_FEE* (86.86), *SIZE* (70.88), and *EFFORT* (14.21) are highly correlated. This inference was confirmed by examining Variance Inflation Factors (VIFs), which did not exceed 5 for any of the explanatory variables in any of the regressions with the exception of the variables mentioned above.

Table 4: Pearson/Spearman Correlation Matrices

Panel A: Switch Tests

Panel A-1: City (office) sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	*SWITCH*	1.00	-0.02	**0.10**	0.00	0.02	**0.06**	0.01	**0.08**	0.02	**0.05**	-0.02	-0.01	-0.01
[2]	*SANC_CY*	-0.02	1.00	**0.95**	-0.04	**0.05**	**0.61**	**0.63**	**0.40**	**0.43**	0.03	**0.06**	**-0.14**	**0.07**
[3]	*SANC_PY*	**0.10**	**0.95**	1.00	**-0.05**	**0.06**	**0.63**	**0.61**	**0.43**	**0.41**	**0.05**	**0.06**	**-0.13**	**0.06**
[4]	*POST*	0.00	-0.04	**-0.05**	1.00	0.00	**0.33**	**0.33**	**0.23**	**0.22**	**-0.06**	**-0.06**	**-0.11**	-0.01
[5]	*CPA_ACM*	0.02	**0.05**	**0.06**	0.00	1.00	0.03	0.02	**0.25**	**0.24**	0.02	0.04	**-0.11**	**0.09**
[6]	*SANC_PY*POST*	**0.06**	**0.61**	**0.63**	**0.33**	0.03	1.00	**0.97**	**0.68**	**0.65**	0.01	-0.01	**-0.19**	**0.05**
[7]	*SANC_CY*POST*	0.01	**0.63**	**0.61**	**0.33**	0.02	**0.97**	1.00	**0.64**	**0.67**	0.01	-0.01	**-0.19**	**0.06**
[8]	*CPA_ACM*SANC_PY*POST*	**0.08**	**0.40**	**0.43**	**0.23**	**0.25**	**0.68**	**0.64**	1.00	**0.95**	0.02	-0.01	**-0.12**	**0.05**
[9]	*CPA_ACM*SANC_CY*POST*	0.02	**0.43**	**0.41**	**0.22**	**0.24**	**0.65**	**0.67**	**0.95**	1.00	0.02	-0.01	**-0.12**	**0.06**
[10]	*GROWTH*	**0.05**	0.03	**0.05**	**-0.06**	0.02	0.01	0.01	0.02	0.02	1.00	**0.26**	**-0.06**	**0.09**
[11]	*|DACC|*	-0.02	**0.06**	**0.06**	**-0.06**	0.04	-0.01	-0.01	-0.01	-0.01	**0.26**	1.00	0.00	**0.32**
[12]	*MODOP*	-0.01	**-0.14**	**-0.13**	**-0.11**	**-0.11**	**-0.19**	**-0.19**	**-0.12**	**-0.12**	**-0.06**	0.00	1.00	**-0.13**
[13]	*CASH*	-0.01	**0.07**	**0.06**	-0.01	**0.09**	**0.05**	**0.06**	**0.05**	**0.06**	**0.09**	**0.32**	**-0.13**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 1,205 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables, with the exception of *SANC_CY*, *SANC_PY* and the interaction variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

Panel A-2: MSA sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
[1]	*SWITCH*	1.00	0.01	**0.11**	0.02	0.01	**0.08**	0.02	**0.08**	0.03
[2]	*SANC_CY*	0.01	1.00	**0.95**	**-0.05**	**0.06**	**0.63**	**0.65**	**0.42**	**0.45**
[3]	*SANC_PY*	**0.11**	**0.95**	1.00	**-0.05**	**0.07**	**0.65**	**0.63**	**0.45**	**0.43**
[4]	*POST*	0.02	**-0.05**	**-0.05**	1.00	-0.02	**0.27**	**0.26**	**0.18**	**0.18**
[5]	*CPA_ACM*	0.01	**0.06**	**0.07**	-0.02	1.00	0.04	0.03	**0.22**	**0.21**
[6]	*SANC_PY*POST*	**0.08**	**0.63**	**0.65**	**0.27**	0.04	1.00	**0.97**	**0.69**	**0.66**
[7]	*SANC_CY*POST*	0.02	**0.65**	**0.63**	**0.26**	0.03	**0.97**	1.00	**0.65**	**0.69**
[8]	*CPA_ACM*SANC_PY*POST*	**0.08**	**0.42**	**0.45**	**0.18**	**0.22**	**0.69**	**0.65**	1.00	**0.96**
[9]	*CPA_ACM*SANC_CY*POST*	0.03	**0.45**	**0.43**	**0.18**	**0.21**	**0.66**	**0.69**	**0.96**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 1,762 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables, with the exception of *SANC_CY*, *SANC_PY* and the interaction variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

(Table 4 continued)

Panel A-3: State sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
[1]	*SWITCH*	1.00	-0.01	**0.09**	0.03	0.02	**0.07**	0.01	**0.06**	0.01
[2]	*SANC_CY*	-0.01	1.00	**0.96**	0.01	0.04	**0.62**	**0.64**	**0.41**	**0.43**
[3]	*SANC_PY*	**0.09**	**0.96**	1.00	0.01	0.04	**0.64**	**0.62**	**0.43**	**0.41**
[4]	*POST*	0.03	0.01	0.01	1.00	-0.02	**0.33**	**0.32**	**0.22**	**0.22**
[5]	*CPA_ACM*	0.02	0.04	0.04	-0.02	1.00	0.02	0.02	**0.23**	**0.22**
[6]	*SANC_PY*POST*	**0.07**	**0.62**	**0.64**	**0.33**	0.02	1.00	**0.97**	**0.67**	**0.65**
[7]	*SANC_CY*POST*	0.01	**0.64**	**0.62**	**0.32**	0.02	**0.97**	1.00	**0.64**	**0.67**
[8]	*CPA_ACM*SANC_PY*POST*	**0.06**	**0.41**	**0.43**	**0.22**	**0.23**	**0.67**	**0.64**	1.00	**0.96**
[9]	*CPA_ACM*SANC_CY*POST*	0.01	**0.43**	**0.41**	**0.22**	**0.22**	**0.65**	**0.67**	**0.96**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 1,808 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables, with the exception of SANC_CY, SANC_PY and the interaction variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

Panel A-4: Regional sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
[1]	*SWITCH*	1.00	**0.05**	**0.05**	0.01	-0.02	**0.04**	**0.03**	**0.03**	0.01
[2]	*SANC_CY*	**0.05**	1.00	**0.95**	0.01	-0.01	**0.71**	**0.74**	**0.45**	**0.47**
[3]	*SANC_PY*	**0.05**	**0.95**	1.00	0.01	0.00	**0.74**	**0.72**	**0.47**	**0.46**
[4]	*POST*	0.01	0.01	0.01	1.00	0.01	**0.24**	**0.24**	**0.15**	**0.15**
[5]	*CPA_ACM*	-0.02	-0.01	0.00	0.01	1.00	-0.01	-0.01	**0.20**	**0.19**
[6]	*SANC_PY*POST*	**0.04**	**0.71**	**0.74**	**0.24**	-0.01	1.00	**0.97**	**0.64**	**0.62**
[7]	*SANC_CY*POST*	**0.03**	**0.74**	**0.72**	**0.24**	-0.01	**0.97**	1.00	**0.61**	**0.63**
[8]	*CPA_ACM*SANC_PY*POST*	**0.03**	**0.45**	**0.47**	**0.15**	**0.20**	**0.64**	**0.61**	1.00	**0.98**
[9]	*CPA_ACM*SANC_CY*POST*	0.01	**0.47**	**0.46**	**0.15**	**0.19**	**0.62**	**0.63**	**0.98**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 5,826 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables, with the exception of SANC_CY, SANC_PY and interaction variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

(Table 4 continued)

Panel A-5: National (firm) sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	*SWITCH*	1.00	0.03	0.04	-0.01	-0.01	0.04	0.01	0.03	0.01	0.01	**0.05**	0.00	0.01
[2]	*SANC_CY*	0.03	1.00	**0.95**	0.04	0.01	**0.77**	**0.81**	**0.47**	**0.49**	0.00	0.02	**-0.13**	0.04
[3]	*SANC_PY*	0.04	**0.95**	1.00	0.04	0.01	**0.81**	**0.78**	**0.49**	**0.47**	0.00	0.01	**-0.13**	0.04
[4]	*POST*	-0.01	0.04	0.04	1.00	0.01	**0.24**	**0.24**	**0.14**	**0.14**	**-0.13**	**-0.05**	**-0.09**	**-0.05**
[5]	*CPA_ACM*	-0.01	0.01	0.01	0.01	1.00	0.01	0.01	**0.25**	**0.24**	-0.01	0.00	0.02	0.00
[6]	*SANC_PY*POST*	0.04	**0.77**	**0.81**	**0.24**	0.01	1.00	**0.96**	**0.60**	**0.58**	-0.02	-0.01	**-0.13**	0.01
[7]	*SANC_CY*POST*	0.01	**0.81**	**0.78**	**0.24**	0.01	**0.96**	1.00	**0.58**	**0.61**	-0.02	-0.01	**-0.13**	0.01
[8]	*CPA_ACM*SANC_PY*POST*	0.03	**0.47**	**0.49**	**0.14**	**0.25**	**0.60**	**0.58**	1.00	**0.96**	-0.01	-0.01	**-0.08**	0.01
[9]	*CPA_ACM*SANC_CY*POST*	0.01	**0.49**	**0.47**	**0.14**	**0.24**	**0.58**	**0.61**	**0.96**	1.00	-0.01	0.00	**-0.08**	0.01
[10]	*GROWTH*	0.01	0.00	0.00	**-0.13**	-0.01	-0.02	-0.02	-0.01	-0.01	1.00	**0.22**	-0.01	**0.11**
[11]	*|DACC|*	**0.05**	0.02	0.01	**-0.05**	0.00	-0.01	-0.01	-0.01	0.00	**0.22**	1.00	0.01	**0.28**
[12]	*MODOP*	0.00	**-0.13**	**-0.13**	**-0.09**	0.02	**-0.13**	**-0.13**	**-0.08**	**-0.08**	-0.01	0.01	1.00	**-0.05**
[13]	*CASH*	0.01	0.04	0.04	**-0.05**	0.00	0.01	0.01	0.01	0.01	**0.11**	**0.28**	**-0.05**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 27,979 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables, with the exception of SANC_CY and SANC_PY and the interaction variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

Panel B: Audit Fee Tests

Panel B-1: City (office) sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	*LNAF*	1.00	0.03	0.05	**-0.09**	0.05	-0.01	**-0.06**	-0.01	-0.04	-0.01	0.03	-0.01	0.01
[2]	*FI*	0.03	1.00	**0.66**	**0.09**	**0.10**	**0.17**	0.03	**0.06**	**0.11**	**0.22**	**-0.08**	**-0.12**	0.03
[3]	*ΔLNAF*	0.05	**0.66**	1.00	**0.11**	0.04	**0.15**	0.00	0.02	**0.09**	**0.28**	-0.02	**-0.14**	0.04
[4]	*SANC_CY*	**-0.09**	**0.09**	**0.11**	1.00	-0.04	**0.64**	0.04	-0.01	**0.42**	0.04	-0.02	-0.03	-0.01
[5]	*POST*	0.05	**0.10**	0.04	-0.04	1.00	**0.33**	0.01	**0.54**	**0.22**	**-0.07**	**-0.28**	-0.02	-0.06
[6]	*SANC_CY*POST*	-0.01	**0.17**	**0.15**	**0.64**	**0.33**	1.00	0.01	**0.19**	**0.66**	0.00	**-0.14**	-0.05	-0.05
[7]	*CPA_ACM*	**-0.06**	0.03	0.00	0.04	0.01	0.01	1.00	**0.60**	**0.24**	0.01	**-0.07**	0.01	0.01
[8]	*CPA_ACM*POST*	-0.01	**0.06**	0.02	-0.01	**0.54**	**0.19**	**0.60**	1.00	**0.40**	-0.02	**-0.21**	-0.03	-0.03
[9]	*CPA_ACM*SANC_CY*POST*	-0.04	**0.11**	**0.09**	**0.42**	**0.22**	**0.66**	**0.24**	**0.40**	1.00	0.00	**-0.10**	-0.03	-0.05
[10]	*ΔSIZE*	-0.01	**0.22**	**0.28**	0.04	**-0.07**	0.00	0.01	-0.02	0.00	1.00	0.02	**-0.09**	**0.10**
[11]	*ΔSEG*	0.03	**-0.08**	-0.02	-0.02	**-0.28**	**-0.14**	**-0.07**	**-0.21**	**-0.10**	0.02	1.00	0.00	0.00
[12]	*ΔCATA*	-0.01	**-0.12**	**-0.14**	-0.03	-0.02	-0.05	0.01	-0.03	-0.03	**-0.09**	0.00	1.00	-0.04
[13]	*ΔFOREIGN*	0.01	0.03	0.04	-0.01	-0.06	-0.05	0.01	-0.03	-0.05	**0.10**	0.00	-0.04	1.00
[14]	*ΔQUICK*	0.02	-0.01	-0.02	0.01	-0.01	-0.02	-0.01	-0.01	-0.01	**0.29**	0.01	**0.38**	-0.01
[15]	*ΔLEV*	0.04	**0.07**	**0.10**	-0.05	0.06	0.01	-0.02	0.03	-0.02	-0.03	-0.06	**-0.24**	-0.02
[16]	*ΔROA*	-0.05	**-0.07**	**-0.08**	0.01	**-0.08**	-0.05	0.02	-0.02	-0.02	**0.33**	0.03	0.05	0.00

(Table 4: Panel B-1 continued)

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[17]	*ΔLOSS*	0.02	0.03	0.06	-0.04	**0.07**	0.01	-0.02	0.04	-0.02	**-0.13**	-0.01	-0.05	0.00
[18]	*ΔGC*	-0.02	-0.02	0.02	-0.04	0.03	-0.03	0.01	0.02	0.00	**-0.16**	-0.03	-0.01	0.00
[19]	*ΔMODOP*	-0.03	**0.08**	**0.11**	-0.03	-0.04	0.02	0.00	0.00	0.01	0.02	-0.03	-0.06	0.00
[20]	*BUSY*	-0.04	0.02	-0.01	0.05	0.01	0.03	**-0.08**	-0.04	-0.03	0.01	-0.01	-0.04	0.00
[21]	*FOREIGN*	**0.46**	-0.01	-0.03	0.00	0.03	0.01	**0.09**	**0.08**	0.01	-0.02	0.01	0.01	**0.13**
[22]	*GC*	**-0.17**	**-0.06**	-0.03	0.01	**0.08**	0.00	-0.02	0.04	0.00	**-0.15**	-0.03	0.02	-0.01
[23]	*ICW*	0.04	0.03	**0.09**	0.06	-0.03	0.05	0.04	0.00	0.00	-0.05	-0.02	-0.01	-0.02
[24]	*INVAR*	**0.17**	-0.04	-0.02	0.02	-0.01	0.00	**0.09**	0.04	0.00	**-0.07**	0.01	0.05	0.01
[25]	*LEVERAGE*	**0.31**	-0.02	-0.01	**-0.15**	0.03	**-0.09**	**-0.18**	**-0.09**	**-0.06**	0.00	0.01	-0.02	-0.04
[26]	*INTANG*	**0.36**	0.00	0.00	-0.03	0.01	-0.02	-0.03	0.02	**-0.07**	0.01	0.01	-0.03	0.02
[27]	*LEVEL3*	**0.13**	**0.07**	0.00	0.03	**0.13**	**0.07**	-0.04	0.03	0.02	0.01	-0.03	0.00	0.02
[28]	*LIQUID*	**-0.38**	0.01	0.01	**0.08**	0.02	**0.08**	**0.10**	**0.07**	**0.10**	**0.12**	-0.02	**0.10**	-0.04
[29]	*LIT*	**-0.22**	0.01	-0.04	0.01	0.01	0.02	**0.07**	0.06	0.00	-0.02	0.00	0.02	0.03
[30]	*LOSS*	**-0.28**	**-0.07**	-0.06	0.05	**0.07**	0.05	0.01	0.04	0.05	**-0.23**	**-0.07**	**0.07**	-0.02
[31]	*MA*	**0.31**	**0.13**	**0.11**	0.01	**0.13**	0.05	0.05	**0.10**	0.03	**0.12**	-0.04	**-0.17**	0.01
[32]	*ROA*	**0.36**	0.05	0.01	**-0.07**	-0.03	**-0.07**	**0.07**	0.03	-0.04	**0.18**	0.03	-0.05	0.02
[33]	*SEG*	**0.25**	-0.03	-0.02	**-0.11**	**-0.11**	**-0.12**	0.04	-0.04	**-0.07**	0.01	**0.29**	0.00	0.01
[34]	*SIZE*	**0.87**	0.05	0.03	**-0.09**	0.04	-0.03	**-0.14**	-0.06	-0.05	**0.09**	0.04	-0.02	0.01
[35]	*TENURE*	**0.30**	-0.05	-0.01	**-0.09**	-0.04	-0.04	-0.04	-0.04	0.00	**-0.07**	**0.13**	**0.07**	-0.01
[36]	*ABNRML* FEE_{t-1}	**0.36**	**-0.26**	**-0.35**	**-0.10**	0.01	-0.04	0.06	0.04	-0.04	-0.02	0.02	0.04	**0.08**
[37]	*ABNRML FEE*	**0.41**	0.02	**0.10**	-0.03	0.03	0.04	**0.06**	0.04	0.01	**-0.15**	-0.03	-0.04	**-0.06**

		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]
[1]	*LNAF*	0.02	0.04	-0.05	0.02	-0.02	-0.03	-0.04	**0.46**	**-0.17**	0.04	**0.17**	**0.31**	**0.36**
[2]	*FI*	-0.01	**0.07**	**-0.07**	0.03	-0.02	**0.08**	0.02	-0.01	**-0.06**	0.03	-0.04	-0.02	0.00
[3]	*ΔLNAF*	-0.02	**0.10**	**-0.08**	0.06	0.02	**0.11**	-0.01	-0.03	-0.03	**0.09**	-0.02	-0.01	0.00
[4]	*SANC CY*	0.01	-0.05	0.01	-0.04	-0.04	-0.03	0.05	0.00	0.01	0.06	0.02	**-0.15**	-0.03
[5]	*POST*	-0.01	0.06	**-0.08**	**0.07**	0.03	-0.04	0.01	0.03	**0.08**	-0.03	-0.01	0.03	0.01
[6]	*SANC CY*POST*	-0.02	0.01	-0.05	0.01	-0.03	0.02	0.03	0.01	0.00	0.05	0.00	**-0.09**	-0.02
[7]	*CPA ACM*	-0.01	-0.02	0.02	-0.02	0.01	0.00	**-0.08**	**0.09**	-0.02	0.04	**0.09**	**-0.18**	-0.03
[8]	*CPA ACM*POST*	-0.01	0.03	-0.02	0.04	0.02	0.00	-0.04	**0.08**	0.04	0.00	0.04	**-0.09**	0.02
[9]	*CPA ACM*SANC CY*POST*	-0.01	-0.02	-0.02	-0.02	0.00	0.01	-0.03	0.01	0.00	0.00	0.00	**-0.06**	**-0.07**
[10]	*ΔSIZE*	**0.29**	-0.03	**0.33**	**-0.13**	**-0.16**	0.02	0.01	-0.02	**-0.15**	-0.05	**-0.07**	0.00	0.01
[11]	*ΔSEG*	0.01	-0.06	0.03	-0.01	-0.03	-0.03	-0.01	0.01	-0.03	-0.02	0.01	0.01	0.01
[12]	*ΔCATA*	**0.38**	**-0.24**	0.05	-0.05	-0.01	-0.06	-0.04	0.01	0.02	-0.01	0.05	-0.02	-0.03
[13]	*ΔFOREIGN*	-0.01	-0.02	0.00	0.00	0.00	0.00	0.00	**0.13**	-0.01	-0.02	0.01	-0.04	0.02
[14]	*ΔQUICK*	1.00	**-0.20**	**0.26**	**-0.08**	**-0.11**	-0.04	-0.03	0.05	-0.04	0.00	0.02	-0.05	-0.01
[15]	*ΔLEV*	**-0.20**	1.00	**-0.25**	**0.14**	**0.16**	**0.09**	0.02	0.00	**0.11**	-0.03	-0.04	**0.28**	0.03
[16]	*ΔROA*	**0.26**	**-0.25**	1.00	**-0.45**	**-0.07**	-0.03	0.01	-0.02	-0.01	0.02	0.02	-0.04	-0.03
[17]	*ΔLOSS*	**-0.08**	**0.14**	**-0.45**	1.00	0.02	0.01	0.00	-0.01	0.02	0.00	-0.02	0.04	-0.04
[18]	*ΔGC*	**-0.11**	**0.16**	**-0.07**	0.02	1.00	**0.19**	-0.02	-0.04	**0.54**	-0.03	0.00	0.05	-0.05

(Table 4: Panel B-1 continued)

		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]
[19]	*ΔMODOP*	-0.04	**0.09**	-0.03	0.01	**0.19**	1.00	0.01	-0.04	**0.11**	0.03	-0.02	0.03	-0.01
[20]	*BUSY*	-0.03	0.02	0.01	0.00	-0.02	0.01	1.00	**-0.16**	0.01	0.02	**-0.21**	0.04	**-0.11**
[21]	*FOREIGN*	0.05	0.00	-0.02	-0.01	-0.04	-0.04	**-0.16**	1.00	**-0.14**	-0.02	**0.27**	**-0.07**	**0.40**
[22]	*GC*	-0.04	**0.11**	-0.01	0.02	**0.54**	**0.11**	0.01	**-0.14**	1.00	0.00	**-0.09**	0.03	**-0.11**
[23]	*ICW*	0.00	-0.03	0.02	0.00	-0.03	0.03	0.02	-0.02	0.00	1.00	**0.06**	-0.01	0.02
[24]	*INVAR*	0.02	-0.04	0.02	-0.02	0.00	-0.02	**-0.21**	**0.27**	**-0.09**	**0.06**	1.00	**-0.07**	**0.21**
[25]	*LEVERAGE*	-0.05	**0.28**	-0.04	0.04	0.05	0.03	0.04	**-0.07**	0.03	-0.01	**-0.07**	1.00	**0.07**
[26]	*INTANG*	-0.01	0.03	-0.03	-0.04	-0.05	-0.01	**-0.11**	**0.40**	**-0.11**	0.02	**0.21**	**0.07**	1.00
[27]	*LEVEL3*	-0.02	0.03	0.01	-0.03	-0.03	-0.05	0.03	**0.11**	0.02	-0.05	**-0.20**	-0.05	**0.09**
[28]	*LIQUID*	**0.21**	**-0.07**	**0.09**	0.00	-0.05	-0.01	**0.08**	**-0.15**	-0.02	-0.04	**-0.22**	**-0.30**	**-0.25**
[29]	*LIT*	-0.01	0.00	0.03	0.01	-0.02	-0.01	0.03	**-0.14**	**0.07**	0.01	**-0.23**	**-0.18**	**-0.13**
[30]	*LOSS*	**-0.09**	**0.08**	**-0.13**	**0.43**	0.03	-0.01	**0.09**	**-0.24**	**0.18**	**0.07**	**-0.20**	0.03	**-0.27**
[31]	*MA*	-0.03	**0.11**	-0.05	0.02	-0.01	-0.01	-0.04	**0.29**	**-0.07**	-0.04	-0.02	0.02	**0.25**
[32]	*ROA*	**0.07**	**-0.09**	**0.21**	**-0.16**	-0.05	0.00	**-0.12**	**0.35**	**-0.43**	-0.03	**0.32**	**-0.08**	**0.35**
[33]	*SEG*	0.03	0.02	0.00	-0.01	-0.02	-0.01	0.00	**0.14**	-0.05	0.01	**0.14**	0.05	**0.15**
[34]	*SIZE*	0.02	0.03	-0.03	0.01	-0.04	-0.03	-0.06	**0.28**	**-0.24**	**-0.08**	0.04	**0.35**	**0.29**
[35]	*TENURE*	0.01	0.01	-0.03	0.02	0.03	-0.01	-0.01	0.10	0.04	-0.06	0.04	0.20	-0.02
[36]	*ABNRML FEE*$_{t-1}$	**0.08**	-0.01	0.03	0.04	0.03	0.03	0.06	0.05	0.05	0.16	0.18	0.13	0.11
[37]	*ABNRML FEE*	0.00	0.03	-0.03	-0.02	0.01	-0.06	0.05	0.03	0.03	0.22	0.21	0.13	0.12

		[27]	[28]	[29]	[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]
[1]	*LNAF*	**0.13**	**-0.38**	**-0.22**	**-0.28**	**0.31**	**0.36**	**0.25**	**0.87**	**0.30**	**0.36**	**0.41**
[2]	*FI*	**0.07**	0.01	0.01	**-0.07**	**0.13**	0.05	-0.03	0.05	-0.05	**-0.26**	0.02
[3]	*ΔLNAF*	0.00	0.01	-0.04	-0.06	**0.11**	0.01	-0.02	0.03	-0.01	**-0.35**	**0.10**
[4]	*SANC CY*	0.03	**0.08**	0.01	0.05	0.01	**-0.07**	**-0.11**	**-0.09**	**-0.09**	**-0.10**	-0.03
[5]	*POST*	**0.13**	0.02	0.01	**0.07**	**0.13**	-0.03	**-0.11**	0.04	-0.04	0.01	0.03
[6]	*SANC CY*POST*	**0.07**	**0.08**	0.02	0.05	0.05	**-0.07**	**-0.12**	-0.03	-0.04	-0.04	0.04
[7]	*CPA ACM*	-0.04	**0.10**	**0.07**	0.01	0.05	**0.07**	0.04	**-0.14**	-0.04	0.06	**0.06**
[8]	*CPA ACM*POST*	0.03	**0.07**	0.06	0.04	**0.10**	0.03	-0.04	-0.06	-0.04	0.04	0.04
[9]	*CPA ACM*SANC CY*POST*	0.02	**0.10**	0.00	0.05	0.03	-0.04	**-0.07**	-0.05	0.00	-0.04	0.01
[10]	*ΔSIZE*	0.01	**0.12**	-0.02	**-0.23**	**0.12**	**0.18**	0.01	**0.09**	**-0.07**	-0.02	**-0.15**
[11]	*ΔSEG*	-0.03	-0.02	0.00	**-0.07**	-0.04	0.03	**0.29**	0.04	**0.13**	0.02	-0.03
[12]	*ΔCATA*	0.00	**0.10**	0.02	**0.07**	**-0.17**	-0.05	0.00	-0.02	**0.07**	0.04	-0.04
[13]	*ΔFOREIGN*	0.02	-0.04	0.03	-0.02	0.01	0.02	0.01	0.01	-0.01	**0.08**	**-0.06**
[14]	*ΔQUICK*	-0.02	**0.21**	-0.01	**-0.09**	-0.03	**0.07**	0.03	0.02	0.01	**0.08**	0.00
[15]	*ΔLEV*	0.03	**-0.07**	0.00	**0.08**	**0.11**	**-0.09**	0.02	0.03	0.01	-0.01	0.03
[16]	*ΔROA*	0.01	**0.09**	0.03	**-0.13**	-0.05	**0.21**	0.00	-0.03	-0.03	0.03	-0.03
[17]	*ΔLOSS*	-0.03	0.00	0.01	**0.43**	0.02	**-0.16**	-0.01	0.01	0.02	0.04	-0.02
[18]	*ΔGC*	-0.03	-0.05	-0.02	0.03	-0.01	-0.05	-0.02	-0.04	0.03	0.03	0.01
[19]	*ΔMODOP*	-0.05	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.03	-0.01	0.03	**-0.06**
[20]	*BUSY*	0.03	**0.08**	0.03	**0.09**	-0.04	**-0.12**	0.00	-0.06	-0.01	0.06	0.05

(Table 4: Panel B-1 continued)

		[27]	[28]	[29]	[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]
[21]	*FOREIGN*	**0.11**	**-0.15**	**-0.14**	**-0.24**	**0.29**	**0.35**	**0.14**	**0.28**	**0.10**	0.05	0.03
[22]	*GC*	0.02	-0.02	**0.07**	**0.18**	**-0.07**	**-0.43**	-0.05	**-0.24**	0.04	0.05	0.03
[23]	*ICW*	-0.05	-0.04	0.01	**0.07**	-0.04	-0.03	0.01	**-0.08**	-0.06	**0.16**	**0.22**
[24]	*INVAR*	**-0.20**	**-0.22**	**-0.23**	**-0.20**	-0.02	**0.32**	**0.14**	0.04	0.04	**0.18**	**0.21**
[25]	*LEVERAGE*	-0.05	**-0.30**	**-0.18**	0.03	0.02	**-0.08**	0.05	**0.35**	**0.20**	**0.13**	**0.13**
[26]	*INTANG*	**0.09**	**-0.25**	**-0.13**	**-0.27**	**0.25**	**0.35**	**0.15**	**0.29**	-0.02	**0.11**	**0.12**
[27]	*LEVEL3*	1.00	-0.03	**0.14**	-0.05	**0.33**	0.03	**0.08**	**0.15**	0.01	**-0.07**	**-0.06**
[28]	*LIQUID*	-0.03	1.00	**0.15**	**0.20**	**-0.12**	**-0.19**	**-0.17**	**-0.37**	**-0.06**	**-0.13**	**-0.17**
[29]	*LIT*	**0.14**	**0.15**	1.00	**0.31**	-0.02	**-0.29**	**-0.17**	**-0.24**	-0.04	**-0.07**	**-0.09**
[30]	*LOSS*	-0.05	**0.20**	**0.31**	1.00	**-0.15**	**-0.67**	**-0.19**	**-0.38**	**-0.13**	0.02	0.00
[31]	*MA*	**0.33**	**-0.12**	-0.02	**-0.15**	1.00	**0.16**	**0.09**	**0.26**	0.05	0.04	**0.08**
[32]	*ROA*	0.03	**-0.19**	**-0.29**	**-0.67**	**0.16**	1.00	**0.19**	**0.47**	0.04	**-0.07**	**-0.09**
[33]	*SEG*	**0.08**	**-0.17**	**-0.17**	**-0.19**	**0.09**	**0.19**	1.00	**0.24**	**0.13**	0.01	-0.01
[34]	*SIZE*	**0.15**	**-0.37**	**-0.24**	**-0.38**	**0.26**	**0.47**	**0.24**	1.00	**0.29**	0.02	0.02
[35]	*TENURE*	0.01	-0.06	-0.04	-0.13	0.05	0.04	0.13	0.29	1.00	0.08	0.10
[36]	*ABNRML_FEE*$_{t-1}$	-0.07	-0.13	-0.07	0.02	0.04	-0.07	0.01	0.02	0.08	1.00	0.81
[37]	*ABNRML_FEE*	-0.06	-0.17	-0.09	0.00	0.08	-0.09	-0.01	0.02	0.10	0.81	1.00

This table displays the Pearson coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5% level. The sample includes 1,242 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

Panel B-2: MSA sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
[1]	*LNAF*	1.00	0.04	**0.06**	**-0.11**	**0.06**	-0.04	**-0.06**	0.00	**-0.05**
[2]	*FI*	0.04	1.00	**0.67**	**0.05**	**0.08**	**0.12**	0.00	0.04	**0.08**
[3]	*ΔLNAF*	**0.06**	**0.67**	1.00	**0.08**	**0.05**	**0.13**	-0.01	0.02	**0.08**
[4]	*SANC_CY*	**-0.11**	**0.05**	**0.08**	1.00	-0.04	**0.65**	**0.05**	0.00	**0.44**
[5]	*POST*	**0.06**	**0.08**	**0.05**	-0.04	1.00	**0.26**	-0.01	**0.51**	**0.18**
[6]	*SANC_CY*POST*	-0.04	**0.12**	**0.13**	**0.65**	**0.26**	1.00	0.02	**0.17**	**0.67**
[7]	*CPA_ACM*	**-0.06**	0.00	-0.01	**0.05**	-0.01	0.02	1.00	**0.61**	**0.21**
[8]	*CPA_ACM*POST*	0.00	0.04	0.02	0.00	**0.51**	**0.17**	**0.61**	1.00	**0.35**
[9]	*CPA_ACM*SANC_CY*POST*	**-0.05**	**0.08**	**0.08**	**0.44**	**0.18**	**0.67**	**0.21**	**0.35**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5% level. The sample includes 1,804 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

(Table 4 continued)

Panel B-3: State sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
[1]	*LNAF*	1.00	0.02	0.05	**-0.09**	0.05	-0.02	**-0.09**	-0.02	-0.03
[2]	*FI*	0.02	1.00	**0.65**	0.05	**0.08**	**0.11**	0.01	0.04	**0.08**
[3]	*ΔLNAF*	0.05	**0.65**	1.00	**0.07**	0.03	**0.11**	-0.01	0.01	**0.08**
[4]	*SANC_CY*	**-0.09**	0.05	**0.07**	1.00	0.01	**0.64**	0.03	0.02	**0.42**
[5]	*POST*	0.05	**0.08**	0.03	0.01	1.00	**0.32**	-0.02	**0.54**	**0.21**
[6]	*SANC_CY*POST*	-0.02	**0.11**	**0.11**	**0.64**	**0.32**	1.00	0.01	**0.19**	**0.66**
[7]	*CPA_ACM*	**-0.09**	0.01	-0.01	0.03	-0.02	0.01	1.00	**0.55**	**0.22**
[8]	*CPA_ACM*POST*	-0.02	0.04	0.01	0.02	**0.54**	**0.19**	**0.55**	1.00	**0.39**
[9]	*CPA_ACM*SANC_CY*POST*	-0.03	**0.08**	**0.08**	**0.42**	**0.21**	**0.66**	**0.22**	**0.39**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5% level. The sample includes 1,858 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

Panel B-4: Regional sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
[1]	*LNAF*	1.00	0.01	0.02	**-0.10**	**0.06**	**-0.04**	0.02	**0.06**	-0.02
[2]	*FI*	0.01	1.00	**0.64**	0.03	-0.01	**0.04**	0.00	-0.01	**0.03**
[3]	*ΔLNAF*	0.02	**0.64**	1.00	0.02	**-0.07**	**0.03**	-0.02	**-0.04**	0.02
[4]	*SANC_CY*	**-0.10**	0.03	0.02	1.00	0.01	**0.74**	-0.01	-0.01	**0.46**
[5]	*POST*	**0.06**	-0.01	**-0.07**	0.01	1.00	**0.24**	0.00	**0.50**	**0.15**
[6]	*SANC_CY*POST*	**-0.04**	**0.04**	**0.03**	**0.74**	**0.24**	1.00	-0.02	**0.10**	**0.62**
[7]	*CPA_ACM*	0.02	0.00	-0.02	-0.01	0.00	-0.02	1.00	**0.65**	**0.19**
[8]	*CPA_ACM*POST*	**0.06**	-0.01	**-0.04**	-0.01	**0.50**	**0.10**	**0.65**	1.00	**0.29**
[9]	*CPA_ACM*SANC_CY*POST*	-0.02	**0.03**	0.02	**0.46**	**0.15**	**0.62**	**0.19**	**0.29**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5% level. The sample includes 6,023 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

(Table 4 continued)

Panel B-5: National (firm) sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	*LNAF*	1.00	**0.04**	**0.06**	**-0.05**	**0.07**	0.00	0.00	**0.02**	-0.01	0.01	**-0.06**	**-0.02**	**-0.01**
[2]	*FI*	**0.04**	1.00	**0.63**	**0.04**	**-0.06**	**0.04**	0.00	**-0.02**	**0.03**	**0.19**	0.00	**-0.07**	**0.01**
[3]	Δ*LNAF*	**0.06**	**0.63**	1.00	**0.01**	**-0.15**	0.00	**-0.02**	**-0.06**	0.01	**0.31**	**0.04**	**-0.09**	**0.03**
[4]	*SANC_CY*	**-0.05**	**0.04**	**0.01**	1.00	**0.04**	**0.81**	**0.01**	**0.02**	**0.49**	**0.01**	**-0.01**	-0.01	0.01
[5]	*POST*	**0.07**	**-0.06**	**-0.15**	**0.04**	1.00	**0.24**	0.01	**0.43**	**0.14**	**-0.16**	**-0.27**	0.00	**-0.04**
[6]	*SANC_CY*POST*	0.00	**0.04**	0.00	**0.81**	**0.24**	1.00	0.01	**0.11**	**0.60**	**-0.01**	**-0.07**	-0.01	0.00
[7]	*CPA_ACM*	0.00	0.00	**-0.02**	**0.01**	0.01	0.01	1.00	**0.72**	**0.24**	0.00	**0.04**	0.00	0.01
[8]	*CPA_ACM*POST*	**0.02**	**-0.02**	**-0.06**	**0.02**	**0.43**	**0.11**	**0.72**	1.00	**0.34**	**-0.06**	**-0.07**	0.00	**-0.01**
[9]	*CPA_ACM*SANC_CY*POST*	-0.01	**0.03**	0.01	**0.49**	**0.14**	**0.60**	**0.24**	**0.34**	1.00	-0.01	**-0.01**	0.00	0.00
[10]	Δ*SIZE*	0.01	**0.19**	**0.31**	**0.01**	**-0.16**	**-0.01**	0.00	**-0.06**	-0.01	1.00	**0.08**	**-0.09**	**0.04**
[11]	Δ*SEG*	**-0.06**	0.00	**0.04**	**-0.01**	**-0.27**	**-0.07**	**0.04**	**-0.07**	**-0.01**	**0.08**	1.00	-0.01	**0.02**
[12]	Δ*CATA*	**-0.02**	**-0.07**	**-0.09**	-0.01	0.00	-0.01	0.00	0.00	0.00	**-0.09**	-0.01	1.00	**-0.02**
[13]	Δ*FOREIGN*	**-0.01**	**0.01**	**0.03**	0.01	**-0.04**	0.00	0.01	**-0.01**	0.00	**0.04**	**0.02**	**-0.02**	1.00
[14]	Δ*QUICK*	**0.02**	**-0.03**	**-0.04**	0.00	**0.01**	-0.01	0.00	**0.01**	-0.01	**0.16**	-0.01	**0.40**	**-0.01**
[15]	Δ*LEV*	**0.01**	**0.05**	**0.05**	0.00	**0.04**	**0.01**	0.01	**0.02**	**0.01**	0.00	**-0.03**	**-0.13**	-0.01
[16]	Δ*ROA*	0.00	**-0.04**	**-0.04**	0.00	**-0.03**	-0.01	0.00	**-0.01**	0.00	**0.23**	0.01	**0.04**	0.00
[17]	Δ*LOSS*	**0.02**	**0.04**	**0.04**	0.00	**0.02**	0.01	0.00	**0.02**	0.01	**-0.09**	0.00	**-0.06**	-0.01
[18]	Δ*GC*	-0.01	0.01	0.00	-0.01	**0.02**	0.00	0.00	0.00	-0.01	**-0.11**	**-0.02**	**-0.03**	-0.01
[19]	Δ*MODOP*	**-0.01**	**0.06**	**0.06**	**-0.02**	**-0.14**	**-0.02**	0.00	**-0.07**	**-0.02**	**0.02**	**-0.03**	**-0.04**	0.01
[20]	*BUSY*	**0.03**	-0.01	**-0.03**	0.01	**0.01**	0.01	**-0.05**	**-0.04**	-0.01	**0.02**	**-0.03**	0.00	0.00
[21]	*FOREIGN*	**0.32**	0.01	**-0.02**	**0.02**	**0.06**	**0.03**	**0.07**	**0.08**	**0.03**	**-0.02**	**-0.03**	0.00	**0.17**
[22]	*GC*	**-0.17**	**-0.03**	**-0.02**	0.01	**0.03**	0.00	**-0.04**	**-0.03**	-0.01	**-0.14**	**-0.03**	0.00	-0.01
[23]	*ICW*	**-0.02**	**0.04**	**0.10**	0.00	**-0.07**	**-0.02**	**-0.02**	**-0.05**	0.00	**-0.02**	-0.01	0.00	**0.01**
[24]	*INVAR*	**-0.01**	0.00	**-0.01**	**0.02**	**-0.02**	0.01	**0.11**	**0.07**	**0.04**	**-0.07**	**0.01**	**0.04**	**0.01**
[25]	*LEVERAGE*	**0.17**	**-0.03**	**-0.01**	**-0.01**	**0.06**	0.00	**-0.05**	**-0.01**	-0.01	**-0.06**	**-0.06**	0.00	**-0.02**
[26]	*INTANG*	**0.33**	**0.01**	0.01	**-0.02**	**0.03**	-0.01	**0.05**	**0.04**	0.01	**0.04**	**-0.01**	**-0.02**	**0.01**
[27]	*LEVEL3*	**0.15**	0.00	**-0.03**	**0.05**	**0.22**	**0.07**	**-0.02**	**0.07**	**0.03**	-0.01	**-0.07**	**-0.01**	-0.01
[28]	*LIQUID*	**-0.33**	0.00	**0.02**	**0.03**	**-0.03**	**0.01**	**0.03**	**0.01**	**0.02**	**0.08**	**0.02**	**0.09**	**0.02**
[29]	*LIT*	**-0.16**	0.00	0.01	**0.02**	-0.01	0.01	0.00	-0.01	0.00	0.01	**0.02**	0.00	**0.02**
[30]	*LOSS*	**-0.25**	**-0.06**	**-0.03**	**0.04**	**0.06**	**0.03**	**-0.03**	0.00	**0.01**	**-0.22**	**-0.02**	**0.02**	0.00
[31]	*MA*	**0.19**	**0.09**	**0.08**	**0.08**	**0.16**	**0.09**	**0.03**	**0.10**	**0.07**	**0.13**	**-0.12**	**-0.12**	0.00
[32]	*ROA*	**0.30**	**0.04**	**0.02**	**-0.05**	**-0.03**	**-0.03**	**0.04**	**0.02**	-0.01	**0.21**	**0.01**	**-0.05**	0.01
[33]	*SEG*	**0.14**	0.00	0.00	**-0.04**	**-0.15**	**-0.05**	**0.07**	0.00	**-0.01**	**0.03**	**0.34**	**0.01**	0.00
[34]	*SIZE*	**0.84**	**0.03**	0.00	**-0.06**	**0.08**	-0.01	**-0.06**	**-0.01**	**-0.02**	**0.07**	**-0.05**	**-0.02**	**-0.02**
[35]	*TENURE*	**0.29**	**0.03**	-0.01	**-0.10**	0.01	**-0.05**	**0.06**	**0.05**	**-0.02**	0.00	**0.05**	0.01	0.00
[36]	$ABNRML\_FEE_{t-1}$	**0.41**	**-0.23**	**-0.31**	-0.01	0.00	-0.01	**0.05**	**0.02**	0.00	0.00	**-0.01**	**0.04**	**0.04**
[37]	*ABNRML_FEE*	**0.46**	**0.04**	**0.13**	0.00	-0.01	0.00	**0.05**	**0.03**	0.01	**-0.08**	**-0.02**	**-0.02**	**-0.05**

(Table 4: Panel B-5 continued)

		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]
[1]	*LNAF*	**0.02**	**0.01**	0.00	**0.02**	-0.01	**-0.01**	**0.03**	**0.32**	**-0.17**	**-0.02**	**-0.01**	**0.17**	**0.33**
[2]	*FI*	**-0.03**	**0.05**	**-0.04**	**0.04**	0.01	**0.06**	-0.01	0.01	**-0.03**	**0.04**	0.00	**-0.03**	**0.01**
[3]	Δ*LNAF*	**-0.04**	**0.05**	**-0.04**	**0.04**	0.00	**0.06**	**-0.03**	**-0.02**	**-0.02**	**0.10**	**-0.01**	**-0.01**	0.01
[4]	*SANC_CY*	0.00	0.00	0.00	0.00	-0.01	**-0.02**	0.01	**0.02**	0.01	0.00	**0.02**	**-0.01**	**-0.02**
[5]	*POST*	**0.01**	**0.04**	**-0.03**	**0.02**	**0.02**	**-0.14**	**0.01**	**0.06**	**0.03**	**-0.07**	**-0.02**	**0.06**	**0.03**
[6]	*SANC_CY*POST*	-0.01	**0.01**	-0.01	0.01	0.00	**-0.02**	0.01	**0.03**	0.00	**-0.02**	0.01	0.00	-0.01
[7]	*CPA_ACM*	0.00	0.01	0.00	0.00	0.00	0.00	**-0.05**	**0.07**	**-0.04**	**-0.02**	**0.11**	**-0.05**	**0.05**
[8]	*CPA_ACM*POST*	**0.01**	**0.02**	**-0.01**	**0.02**	0.00	**-0.07**	**-0.04**	**0.08**	**-0.03**	**-0.05**	**0.07**	**-0.01**	**0.04**
[9]	*CPA_ACM*SANC_CY*POST*	-0.01	**0.01**	0.00	0.01	-0.01	**-0.02**	-0.01	**0.03**	-0.01	0.00	**0.04**	-0.01	0.01
[10]	Δ*SIZE*	**0.16**	0.00	**0.23**	**-0.09**	**-0.11**	**0.02**	**0.02**	**-0.02**	**-0.14**	**-0.02**	**-0.07**	**-0.06**	**0.04**
[11]	Δ*SEG*	-0.01	**-0.03**	0.01	0.00	**-0.02**	**-0.03**	**-0.03**	**-0.03**	**-0.03**	-0.01	**0.01**	**-0.06**	**-0.01**
[12]	Δ*CATA*	**0.40**	**-0.13**	**0.04**	**-0.06**	**-0.03**	**-0.04**	0.00	0.00	0.00	0.00	**0.04**	0.00	**-0.02**
[13]	Δ*FOREIGN*	**-0.01**	-0.01	0.00	-0.01	-0.01	0.01	0.00	**0.17**	-0.01	**0.01**	**0.01**	**-0.02**	**0.01**
[14]	Δ*QUICK*	1.00	**-0.14**	**0.18**	**-0.06**	**-0.11**	**-0.03**	0.00	0.01	**-0.06**	**-0.01**	**0.01**	**-0.03**	0.00
[15]	Δ*LEV*	**-0.14**	1.00	**-0.22**	**0.15**	**0.10**	**0.04**	**0.01**	0.00	**0.09**	**0.02**	**-0.03**	**0.27**	0.00
[16]	Δ*ROA*	**0.18**	**-0.22**	1.00	**-0.43**	**-0.16**	**-0.04**	0.00	0.00	**-0.09**	**-0.03**	**0.02**	**-0.03**	0.01
[17]	Δ*LOSS*	**-0.06**	**0.15**	**-0.43**	1.00	**0.06**	**0.03**	0.00	0.00	**0.02**	**0.03**	**-0.01**	**0.02**	0.00
[18]	Δ*GC*	**-0.11**	**0.10**	**-0.16**	**0.06**	1.00	**0.16**	0.00	-0.01	**0.48**	**0.02**	0.00	**0.05**	**-0.02**
[19]	Δ*MODOP*	**-0.03**	**0.04**	**-0.04**	**0.03**	**0.16**	1.00	0.00	-0.01	**0.09**	**0.04**	0.00	0.00	-0.01
[20]	*BUSY*	0.00	**0.01**	0.00	0.00	0.00	0.00	1.00	**-0.08**	**0.03**	**-0.02**	**-0.21**	**0.13**	**-0.05**
[21]	*FOREIGN*	0.01	0.00	0.00	0.00	-0.01	-0.01	**-0.08**	1.00	**-0.09**	0.00	**0.24**	**-0.11**	**0.27**
[22]	*GC*	**-0.06**	**0.09**	**-0.09**	**0.02**	**0.48**	**0.09**	**0.03**	**-0.09**	1.00	**0.12**	**-0.06**	**0.13**	**-0.14**
[23]	*ICW*	**-0.01**	**0.02**	**-0.03**	**0.03**	**0.02**	**0.04**	**-0.02**	0.00	**0.12**	1.00	**0.03**	**0.02**	-0.01
[24]	*INVAR*	**0.01**	**-0.03**	**0.02**	**-0.01**	0.00	0.00	**-0.21**	**0.24**	**-0.06**	**0.03**	1.00	**-0.18**	**0.16**
[25]	*LEVERAGE*	**-0.03**	**0.27**	**-0.03**	**0.02**	**0.05**	0.00	**0.13**	**-0.11**	**0.13**	**0.02**	**-0.18**	1.00	**0.04**
[26]	*INTANG*	0.00	0.00	0.01	0.00	**-0.02**	-0.01	**-0.05**	**0.27**	**-0.14**	-0.01	**0.16**	**0.04**	1.00
[27]	*LEVEL3*	-0.01	**0.03**	0.00	0.01	0.00	**-0.05**	**0.04**	**0.01**	0.00	**-0.02**	**-0.13**	**0.05**	**0.02**
[28]	*LIQUID*	**0.23**	**-0.04**	**0.04**	0.00	**-0.05**	0.01	**-0.03**	0.00	**-0.04**	**-0.01**	**-0.05**	**-0.33**	**-0.16**
[29]	*LIT*	**-0.01**	0.01	0.00	0.00	0.00	0.01	**-0.15**	**0.07**	**0.04**	**0.02**	-0.01	**-0.20**	**-0.01**
[30]	*LOSS*	**-0.09**	**0.14**	**-0.19**	**0.46**	**0.06**	**0.01**	**0.06**	**-0.08**	**0.24**	**0.12**	**-0.09**	**0.08**	**-0.15**
[31]	*MA*	**-0.04**	**0.08**	**-0.02**	**0.03**	0.00	0.00	0.00	**0.19**	**-0.06**	-0.01	**0.01**	**0.04**	**0.21**
[32]	*ROA*	**0.11**	**-0.16**	**0.32**	**-0.15**	**-0.08**	**-0.01**	**-0.07**	**0.15**	**-0.42**	**-0.11**	**0.15**	**-0.09**	**0.23**
[33]	*SEG*	**0.02**	**-0.04**	**0.01**	-0.01	**-0.01**	**-0.02**	**-0.04**	**0.02**	**-0.06**	-0.01	**0.09**	**-0.02**	**0.14**
[34]	*SIZE*	**0.03**	0.00	0.01	**0.01**	**-0.02**	**-0.02**	**0.08**	**0.12**	**-0.22**	**-0.11**	**-0.17**	**0.24**	**0.23**
[35]	*TENURE*	0.01	**-0.01**	0.01	0.00	**-0.01**	-0.01	-0.01	**0.11**	**-0.13**	**-0.13**	-0.01	**-0.01**	**0.04**
[36]	$ABNRML\_FEE_{t-1}$	**0.04**	-0.01	**0.01**	**0.03**	**0.03**	**0.06**	**0.01**	**0.01**	**0.03**	**0.08**	**0.05**	**0.04**	**0.09**
[37]	*ABNRML_FEE*	0.00	-0.01	0.00	**-0.05**	**-0.03**	**-0.06**	-0.01	-0.01	**0.01**	**0.13**	**0.06**	**0.04**	**0.09**

(Table 4: Panel B-5 continued)

		[27]	[28]	[29]	[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]
[1]	*LNAF*	**0.15**	**-0.33**	**-0.16**	**-0.25**	**0.19**	**0.30**	**0.14**	**0.84**	**0.29**	**0.41**	**0.46**
[2]	*FI*	0.00	0.00	0.00	**-0.06**	**0.09**	**0.04**	0.00	**0.03**	**0.03**	**-0.23**	**0.04**
[3]	Δ*LNAF*	**-0.03**	**0.02**	0.01	**-0.03**	**0.08**	**0.02**	0.00	0.00	-0.01	**-0.31**	**0.13**
[4]	*SANC_CY*	**0.05**	**0.03**	**0.02**	**0.04**	**0.08**	**-0.05**	**-0.04**	**-0.06**	**-0.10**	-0.01	0.00
[5]	*POST*	**0.22**	**-0.03**	-0.01	**0.06**	**0.16**	**-0.03**	**-0.15**	**0.08**	0.01	0.00	-0.01
[6]	*SANC_CY*POST*	**0.07**	**0.01**	0.01	**0.03**	**0.09**	**-0.03**	**-0.05**	-0.01	**-0.05**	-0.01	0.00
[7]	*CPA_ACM*	**-0.02**	**0.03**	0.00	**-0.03**	**0.03**	**0.04**	**0.07**	**-0.06**	**0.06**	**0.05**	**0.05**
[8]	*CPA_ACM*POST*	**0.07**	**0.01**	-0.01	0.00	**0.10**	**0.02**	0.00	**-0.01**	**0.05**	**0.02**	**0.03**
[9]	*CPA_ACM*SANC_CY*POST*	**0.03**	**0.02**	0.00	**0.01**	**0.07**	-0.01	**-0.01**	**-0.02**	**-0.02**	0.00	0.01
[10]	Δ*SIZE*	-0.01	**0.08**	0.01	**-0.22**	**0.13**	**0.21**	**0.03**	**0.07**	0.00	0.00	**-0.08**
[11]	Δ*SEG*	**-0.07**	**0.02**	**0.02**	**-0.02**	**-0.12**	**0.01**	**0.34**	**-0.05**	**0.05**	**-0.01**	**-0.02**
[12]	Δ*CATA*	**-0.01**	**0.09**	0.00	**0.02**	**-0.12**	**-0.05**	**0.01**	**-0.02**	0.01	**0.04**	**-0.02**
[13]	Δ*FOREIGN*	-0.01	**0.02**	**0.02**	0.00	0.00	0.01	0.00	**-0.02**	0.00	**0.04**	**-0.05**
[14]	Δ*QUICK*	-0.01	**0.23**	**-0.01**	**-0.09**	**-0.04**	**0.11**	**0.02**	**0.03**	0.01	**0.04**	0.00
[15]	Δ*LEV*	**0.03**	**-0.04**	0.01	**0.14**	**0.08**	**-0.16**	**-0.04**	0.00	**-0.01**	-0.01	-0.01
[16]	Δ*ROA*	0.00	**0.04**	0.00	**-0.19**	**-0.02**	**0.32**	**0.01**	0.01	0.01	**0.01**	0.00
[17]	Δ*LOSS*	0.01	0.00	0.00	**0.46**	**0.03**	**-0.15**	-0.01	**0.01**	0.00	**0.03**	**-0.05**
[18]	Δ*GC*	0.00	**-0.05**	0.00	**0.06**	0.00	**-0.08**	**-0.01**	**-0.02**	**-0.01**	**0.03**	**-0.03**
[19]	Δ*MODOP*	**-0.05**	0.01	0.01	**0.01**	0.00	**-0.01**	**-0.02**	**-0.02**	-0.01	**0.06**	**-0.06**
[20]	*BUSY*	**0.04**	**-0.03**	**-0.15**	**0.06**	0.00	**-0.07**	**-0.04**	**0.08**	-0.01	**0.01**	-0.01
[21]	*FOREIGN*	**0.01**	0.00	**0.07**	**-0.08**	**0.19**	**0.15**	**0.02**	**0.12**	**0.11**	**0.01**	-0.01
[22]	*GC*	0.00	**-0.04**	**0.04**	**0.24**	**-0.06**	**-0.42**	**-0.06**	**-0.22**	**-0.13**	**0.03**	**0.01**
[23]	*ICW*	**-0.02**	**-0.01**	**0.02**	**0.12**	-0.01	**-0.11**	-0.01	**-0.11**	**-0.13**	**0.08**	**0.13**
[24]	*INVAR*	**-0.13**	**-0.05**	-0.01	**-0.09**	**0.01**	**0.15**	**0.09**	**-0.17**	-0.01	**0.05**	**0.06**
[25]	*LEVERAGE*	**0.05**	**-0.33**	**-0.20**	**0.08**	**0.04**	**-0.09**	**-0.02**	**0.24**	**-0.01**	**0.04**	**0.04**
[26]	*INTANG*	**0.02**	**-0.16**	**-0.01**	**-0.15**	**0.21**	**0.23**	**0.14**	**0.23**	**0.04**	**0.09**	**0.09**
[27]	*LEVEL3*	1.00	**-0.05**	0.00	0.01	**0.17**	**-0.03**	-0.01	**0.17**	**0.04**	**0.03**	**0.03**
[28]	*LIQUID*	**-0.05**	1.00	**0.18**	**0.14**	**-0.06**	**-0.13**	**-0.09**	**-0.36**	**-0.07**	**-0.11**	**-0.12**
[29]	*LIT*	0.00	**0.18**	1.00	**0.15**	0.01	**-0.18**	**-0.09**	**-0.25**	**-0.04**	**-0.04**	**-0.04**
[30]	*LOSS*	0.01	**0.14**	**0.15**	1.00	**-0.05**	**-0.63**	**-0.11**	**-0.37**	**-0.21**	**0.04**	**0.01**
[31]	*MA*	**0.17**	**-0.06**	0.01	**-0.05**	1.00	**0.08**	**-0.02**	**0.14**	**0.02**	**0.04**	**0.06**
[32]	*ROA*	**-0.03**	**-0.13**	**-0.18**	**-0.63**	**0.08**	1.00	**0.11**	**0.42**	**0.18**	**-0.07**	**-0.10**
[33]	*SEG*	-0.01	**-0.09**	**-0.09**	**-0.11**	**-0.02**	**0.11**	1.00	**0.11**	**0.10**	**0.01**	0.01
[34]	*SIZE*	**0.17**	**-0.36**	**-0.25**	**-0.37**	**0.14**	**0.42**	**0.11**	1.00	**0.32**	**0.04**	**0.03**
[35]	*TENURE*	**0.04**	**-0.07**	**-0.04**	**-0.21**	**0.02**	**0.18**	**0.10**	**0.32**	1.00	**0.03**	**0.03**
[36]	$ABNRML\_FEE_{t-1}$	**0.03**	**-0.11**	**-0.04**	**0.04**	**0.04**	**-0.07**	**0.01**	**0.04**	**0.03**	1.00	**0.84**
[37]	*ABNRML_FEE*	**0.03**	**-0.12**	**-0.04**	**0.01**	**0.06**	**-0.10**	0.01	**0.03**	**0.03**	**0.84**	1.00

(Table 4 continued)

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5% level. The sample includes 29,265 observations. Variables are defined in Appendix A. None of the variance inflation factors on any of the variables exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity.

Panel C: Discretionary Accruals Tests
Panel C-1: City (office) sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
[1]	*|DACC|*	1.00	**0.36**	-0.01	0.01	-0.02	**0.11**	**0.08**	**-0.23**	**-0.11**	0.06	**0.16**	0.04	**-0.14**	**-0.30**	**-0.10**
[2]	*|DACCd|*	**0.36**	1.00	0.04	0.00	0.04	**0.19**	**0.16**	**-0.43**	**-0.28**	**0.14**	-0.04	**0.16**	**-0.19**	**-0.40**	**-0.22**
[3]	*SANC_CY*	-0.01	0.04	1.00	-0.04	**0.63**	**-0.09**	**0.11**	0.00	**0.10**	**0.08**	0.03	0.02	0.01	-0.05	**-0.08**
[4]	*POST*	0.01	0.00	-0.04	1.00	**0.34**	-0.01	**0.14**	0.05	-0.02	0.04	**-0.11**	0.00	**-0.06**	-0.01	**0.07**
[5]	*SANC_CY*POST*	-0.02	0.04	**0.63**	**0.34**	1.00	**-0.06**	**0.15**	0.04	**0.08**	**0.12**	-0.04	0.06	0.01	-0.04	0.01
[6]	*CLIENT_INFLUENCE*	**0.11**	**0.19**	**-0.09**	-0.01	**-0.06**	1.00	0.04	**-0.10**	**-0.24**	-0.04	**0.09**	**-0.09**	**-0.11**	**-0.24**	**-0.10**
[7]	*SHORT*	**0.08**	**0.16**	**0.11**	**0.14**	**0.15**	0.04	1.00	**-0.20**	**-0.12**	**-0.08**	-0.02	**-0.12**	0.01	**-0.14**	**0.07**
[8]	*AUDIT_FEE*	**-0.23**	**-0.43**	0.00	0.05	0.04	**-0.10**	**-0.20**	1.00	**0.50**	**0.34**	0.01	-0.02	**-0.10**	**0.32**	**0.13**
[9]	*NON_AUDITFEE*	**-0.11**	**-0.28**	**0.10**	-0.02	**0.08**	**-0.24**	**-0.12**	**0.50**	1.00	**0.09**	0.02	-0.01	-0.04	**0.17**	**0.14**
[10]	*EFFORT*	0.06	**0.14**	**0.08**	0.04	**0.12**	-0.04	**-0.08**	**0.34**	**0.09**	1.00	**-0.14**	0.00	**-0.17**	-0.02	-0.03
[11]	*GROWTH*	**0.16**	-0.04	0.03	**-0.11**	-0.04	**0.09**	-0.02	0.01	0.02	**-0.14**	1.00	**0.20**	**0.19**	**0.11**	-0.02
[12]	*MB*	0.04	**0.16**	0.02	0.00	0.06	**-0.09**	**-0.12**	-0.02	-0.01	0.00	**0.20**	1.00	**0.27**	0.05	**-0.14**
[13]	*BANKRUPTCY*	**-0.14**	**-0.19**	0.01	**-0.06**	0.01	**-0.11**	0.01	**-0.10**	-0.04	**-0.17**	**0.19**	**0.27**	1.00	**0.46**	**0.06**
[14]	*CFO*	**-0.30**	**-0.40**	-0.05	-0.01	-0.04	**-0.24**	**-0.14**	**0.32**	**0.17**	-0.02	**0.11**	0.05	**0.46**	1.00	**0.15**
[15]	*LAG_ACCRUALS*	**-0.10**	**-0.22**	**-0.08**	**0.07**	0.01	**-0.10**	**0.07**	**0.13**	**0.14**	-0.03	-0.02	**-0.14**	**0.06**	**0.15**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 696 observations. Variables are defined in Appendix A. Variance inflation factors do not exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity, with the exception of AUDIT_FEE, EFFORT, and SIZE (SIZE not shown).

(Table 4 continued)

Panel C-2: MSA sample

		[1]	[2]	[3]	[4]	[5]
[1]	*|DACC|*	1.00	**0.39**	0.00	0.02	-0.01
[2]	*|DACCd|*	**0.39**	1.00	0.05	-0.01	0.05
[3]	*SANC_CY*	0.00	0.05	1.00	-0.04	**0.65**
[4]	*POST*	0.02	-0.01	-0.04	1.00	**0.27**
[5]	*SANC_CY*POST*	-0.01	0.05	**0.65**	**0.27**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 1,045 observations. Variables are defined in Appendix A. Variance inflation factors do not exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity, with the exception of AUDIT_FEE, EFFORT, and SIZE (none shown).

Panel C-3: State sample

		[1]	[2]	[3]	[4]	[5]
[1]	*|DACC|*	1.00	**0.37**	-0.01	0.00	-0.02
[2]	*|DACCd|*	**0.37**	1.00	**0.05**	0.01	0.04
[3]	*SANC_CY*	-0.01	**0.05**	1.00	0.00	**0.63**
[4]	*POST*	0.00	0.01	0.00	1.00	**0.32**
[5]	*SANC_CY*POST*	-0.02	0.04	**0.63**	**0.32**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 1,130 observations. Variables are defined in Appendix A. Variance inflation factors do not exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity, with the exception of AUDIT_FEE, EFFORT, and SIZE (none shown).

Panel C-4: Regional sample

		[1]	[2]	[3]	[4]	[5]
[1]	*|DACC|*	1.00	**0.35**	0.02	-0.02	-0.01
[2]	*|DACCd|*	**0.35**	1.00	**0.04**	-0.01	**0.03**
[3]	*SANC_CY*	0.02	**0.04**	1.00	0.01	**0.74**
[4]	*POST*	-0.02	-0.01	0.01	1.00	**0.23**
[5]	*SANC_CY*POST*	-0.01	**0.03**	**0.74**	**0.23**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 3,627 observations. Variables are defined in Appendix A. Variance inflation factors do not exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity, with the exception of AUDIT_FEE, EFFORT, and SIZE (none shown).

(Table 4 continued)

Panel C-5: National (firm) sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
[1]	*|DACC|*	1.00	**0.32**	0.01	**-0.03**	**-0.02**	**0.02**	**0.03**	**-0.18**	**-0.10**	**0.07**	**0.15**	**0.11**	**-0.02**	**-0.18**	**-0.09**
[2]	*|DACCd|*	**0.32**	1.00	**0.05**	-0.01	**0.02**	**0.03**	**0.07**	**-0.37**	**-0.24**	**0.10**	**0.02**	**0.08**	**-0.05**	**-0.37**	**-0.07**
[3]	*SANC_CY*	0.01	**0.05**	1.00	**0.05**	**0.82**	0.01	**0.05**	**-0.02**	-0.01	-0.01	0.01	**0.02**	0.00	**-0.06**	0.01
[4]	*POST*	**-0.03**	-0.01	**0.05**	1.00	**0.24**	**0.02**	**0.06**	**0.06**	-0.01	**-0.02**	**-0.15**	**-0.07**	**-0.10**	**-0.02**	**-0.05**
[5]	*SANC_CY*POST*	**-0.02**	**0.02**	**0.82**	**0.24**	1.00	0.00	**0.05**	**0.02**	0.00	-0.01	**-0.02**	**0.03**	-0.01	**-0.03**	0.00
[6]	*CLIENT_INFLUENCE*	**0.02**	**0.03**	0.01	**0.02**	0.00	1.00	**0.21**	**0.09**	0.01	**0.17**	0.00	**-0.05**	**-0.07**	**-0.06**	0.00
[7]	*SHORT*	**0.03**	**0.07**	**0.05**	**0.06**	**0.05**	**0.21**	1.00	**-0.13**	**-0.10**	**-0.02**	-0.01	**-0.04**	0.00	**-0.06**	0.00
[8]	*AUDIT_FEE*	**-0.18**	**-0.37**	**-0.02**	**0.06**	**0.02**	**0.09**	**-0.13**	1.00	**0.50**	**0.46**	**-0.02**	**0.05**	**-0.15**	**0.16**	**0.05**
[9]	*NON_AUDITFEE*	**-0.10**	**-0.24**	-0.01	-0.01	0.00	0.01	**-0.10**	**0.50**	1.00	**0.16**	**0.02**	**0.09**	**-0.06**	**0.12**	**0.05**
[10]	*EFFORT*	**0.07**	**0.10**	-0.01	**-0.02**	-0.01	**0.17**	**-0.02**	**0.46**	**0.16**	1.00	**-0.07**	**0.09**	**-0.10**	**-0.15**	0.00
[11]	*GROWTH*	**0.15**	**0.02**	0.01	**-0.15**	**-0.02**	0.00	-0.01	**-0.02**	**0.02**	**-0.07**	1.00	**0.16**	**0.16**	**0.13**	**0.01**
[12]	*MB*	**0.11**	**0.08**	**0.02**	**-0.07**	**0.03**	**-0.05**	**-0.04**	**0.05**	**0.09**	**0.09**	**0.16**	1.00	**0.27**	**0.11**	**-0.06**
[13]	*BANKRUPTCY*	**-0.02**	**-0.05**	0.00	**-0.10**	-0.01	**-0.07**	0.00	**-0.15**	**-0.06**	**-0.10**	**0.16**	**0.27**	1.00	**0.36**	**0.09**
[14]	*CFO*	**-0.18**	**-0.37**	**-0.06**	**-0.02**	**-0.03**	**-0.06**	**-0.06**	**0.16**	**0.12**	**-0.15**	**0.13**	**0.11**	**0.36**	1.00	**0.02**
[15]	*LAG_ACCRUALS*	**-0.09**	**-0.07**	0.01	**-0.05**	0.00	0.00	0.00	**0.05**	**0.05**	0.00	**0.01**	**-0.06**	**0.09**	**0.02**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 16,257 observations. Variables are defined in Appendix A. Variance inflation factors do not exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity, with the exception of AUDIT_FEE and SIZE (SIZE not shown).

Panel D: Pearson/Spearman Correlation Matrix for Restatement Test

Panel D-1: City (office) sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
[1]	*RESTATE*	1.00	**0.09**	**-0.10**	0.04	0.04	-0.03	0.00	-0.01	**0.18**	0.02	-0.02	-0.06	**-0.07**	0.00
[2]	*SANC_CY*	**0.09**	1.00	-0.05	**0.63**	**-0.11**	-0.03	0.04	**0.10**	0.05	0.04	0.05	0.03	-0.06	**-0.09**
[3]	*POST*	**-0.10**	-0.05	1.00	**0.31**	0.02	**0.07**	0.05	-0.01	0.01	**-0.07**	-0.01	-0.04	-0.02	**0.07**
[4]	*SANC_CY*POST*	0.04	**0.63**	**0.31**	1.00	**-0.07**	-0.04	**0.09**	**0.10**	**0.09**	-0.01	**0.09**	0.04	-0.06	0.01
[5]	*CLIENT_INFLUENCE*	0.04	**-0.11**	0.02	**-0.07**	1.00	**0.26**	-0.04	**-0.24**	-0.01	-0.01	**-0.14**	**-0.09**	**-0.12**	0.02
[6]	*SHORT*	-0.03	-0.03	**0.07**	-0.04	**0.26**	1.00	**-0.13**	**-0.16**	**-0.10**	0.00	**-0.12**	0.05	-0.05	0.07
[7]	*AUDIT_FEE*	0.00	0.04	0.05	**0.09**	-0.04	**-0.13**	1.00	**0.51**	**0.43**	0.01	-0.06	**-0.12**	**0.32**	**0.10**
[8]	*NON_AUDITFEE*	-0.01	**0.10**	-0.01	**0.10**	**-0.24**	**-0.16**	**0.51**	1.00	**0.13**	0.02	-0.02	-0.03	**0.16**	**0.09**
[9]	*EFFORT*	**0.18**	0.05	0.01	**0.09**	-0.01	**-0.10**	**0.43**	**0.13**	1.00	**-0.14**	-0.03	**-0.23**	-0.03	-0.04
[10]	*GROWTH*	0.02	0.04	**-0.07**	-0.01	-0.01	0.00	0.01	0.02	**-0.14**	1.00	**0.23**	**0.29**	0.05	-0.03
[11]	*MB*	-0.02	0.05	-0.01	**0.09**	**-0.14**	**-0.12**	-0.06	-0.02	-0.03	**0.23**	1.00	**0.29**	-0.04	**-0.15**

(Table 4: Panel D-1 continued)

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
[12]	*BANKRUPTCY*	-0.06	0.03	-0.04	0.04	**-0.09**	0.05	**-0.12**	-0.03	**-0.23**	**0.29**	**0.29**	1.00	**0.29**	0.04
[13]	*CFO*	**-0.07**	-0.06	-0.02	-0.06	**-0.12**	-0.05	**0.32**	**0.16**	-0.03	0.05	-0.04	**0.29**	1.00	0.06
[14]	*LAG_ACCRUALS*	0.00	**-0.09**	**0.07**	0.01	0.02	0.07	**0.10**	**0.09**	-0.04	-0.03	**-0.15**	0.04	0.06	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 870 observations. Variables are defined in Appendix A. Variance inflation factors do not exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity, with the exception of *AUDIT_FEE*, *EFFORT*, and *SIZE* (*SIZE* not shown).

Panel D-2: MSA, State & Regional samples

		MSA				State				Regional			
		[1]	[2]	[3]	[4]	[1]	[2]	[3]	[4]	[1]	[2]	[3]	[4]
[1]	*RESTATE*	1.00	**0.08**	**-0.11**	0.03	1.00	**0.08**	**-0.10**	0.03	1.00	0.00	**-0.09**	-0.01
[2]	*SANC_CY*	**0.08**	1.00	-0.05	**0.63**	**0.08**	1.00	-0.05	**0.63**	0.00	1.00	0.01	**0.71**
[3]	*POST*	**-0.11**	-0.05	1.00	**0.30**	**-0.10**	-0.05	1.00	**0.29**	**-0.09**	0.01	1.00	**0.28**
[4]	*SANC_CY*POST*	0.03	**0.63**	**0.30**	1.00	0.03	**0.63**	**0.29**	1.00	-0.01	**0.71**	**0.28**	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 906 observations in the MSA sample, 986 observations in the state sample and 3,168 observations in the regional sample. Variables are defined in Appendix A. Variance inflation factors do not exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity, with the exception of the following: *AUDIT_FEE* and *SIZE* (neither shown) in the MSA sample and regional samples and *AUDIT_FEE*, *EFFORT*, *SIZE*, and *ROA* (none shown) in the state sample.

Panel D-3: National (firm) sample

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
[1]	*RESTATE*	1.00	0.00	**-0.08**	-0.01	0.01	**0.02**	-0.01	0.00	**0.13**	0.01	-0.01	**-0.04**	**-0.06**	**-0.01**
[2]	*SANC_CY*	0.00	1.00	**0.06**	**0.80**	**-0.03**	**0.03**	**-0.03**	**-0.02**	-0.01	0.00	0.01	-0.01	**-0.06**	**0.01**
[3]	*POST*	**-0.08**	**0.06**	1.00	**0.26**	-0.01	**0.02**	**0.05**	**-0.02**	**-0.04**	**-0.16**	**-0.11**	**-0.10**	**-0.03**	**-0.06**
[4]	*SANC_CY*POST*	-0.01	**0.80**	**0.26**	1.00	**-0.02**	**0.03**	0.01	0.00	-0.01	**-0.02**	**0.02**	**-0.01**	**-0.04**	0.01
[5]	*CLIENT_INFLUENCE*	0.01	**-0.03**	-0.01	**-0.02**	1.00	**0.17**	**-0.12**	**-0.08**	**-0.03**	0.00	**-0.02**	0.01	**-0.04**	0.00
[6]	*SHORT*	**0.02**	**0.03**	**0.02**	**0.03**	**0.17**	1.00	**-0.10**	**-0.09**	**-0.02**	0.00	**-0.04**	0.01	**-0.04**	0.00
[7]	*AUDIT_FEE*	-0.01	**-0.03**	**0.05**	0.01	**-0.12**	**-0.10**	1.00	**0.48**	**0.49**	**-0.03**	**0.04**	**-0.16**	**0.15**	**0.06**
[8]	*NON_AUDITFEE*	0.00	**-0.02**	**-0.02**	0.00	**-0.08**	**-0.09**	**0.48**	1.00	**0.16**	**0.02**	**0.08**	**-0.06**	**0.12**	**0.06**
[9]	*EFFORT*	**0.13**	-0.01	**-0.04**	-0.01	**-0.03**	**-0.02**	**0.49**	**0.16**	1.00	**-0.08**	**0.10**	**-0.09**	**-0.15**	0.00
[10]	*GROWTH*	0.01	0.00	**-0.16**	**-0.02**	0.00	0.00	**-0.03**	**0.02**	**-0.08**	1.00	**0.18**	**0.17**	**0.16**	0.00
[11]	*MB*	-0.01	0.01	**-0.11**	**0.02**	**-0.02**	**-0.04**	**0.04**	**0.08**	**0.10**	**0.18**	1.00	**0.30**	**0.13**	**-0.07**

(Table 4: Panel D-3 continued)

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
[12]	*BANKRUPTCY*	**-0.04**	-0.01	**-0.10**	**-0.01**	0.01	0.01	**-0.16**	**-0.06**	**-0.09**	**0.17**	**0.30**	1.00	**0.32**	**0.09**
[13]	*CFO*	**-0.06**	**-0.06**	**-0.03**	**-0.04**	**-0.04**	**-0.04**	**0.15**	**0.12**	**-0.15**	**0.16**	**0.13**	**0.32**	1.00	0.00
[14]	*LAG_ACCRUALS*	**-0.01**	**0.01**	**-0.06**	0.01	0.00	0.00	**0.06**	**0.06**	0.00	0.00	**-0.07**	**0.09**	0.00	1.00

This table displays the Pearson correlation coefficients below the diagonal and Spearman correlation coefficients above the diagonal. Bolded coefficients are significant at the 5 percent level. The sample includes 19,517 observations. Variables are defined in Appendix A. Variance inflation factors do not exceed 5, which is below the threshold of 10 recommended by Kennedy (1992) to test for multicollinearity, with the exception of *AUDIT_FEE* and *SIZE* (*SIZE* not shown).

5.2 Auditor Switches

Table 5, Panels A-1 through A-5 present logit regression results for the auditor switch(loss) and auditor switch(gain) analyses. The control variables in the city (office) sample are generally not significant, with the exception of *GROWTH*, |*DACC*|, *MODOP*, *TENURE*, and *CASH*. In the city (office), MSA and state samples, for the client gain analysis, the coefficient on *SANC_CY* is negative and significant ($p < 0.05$), indicating that in the pre-sanction period a switch to a sanctioned auditor was less likely than a switch to a non-sanctioned auditor. The variables of interest *SANC_PY*POST* (*SANC_CY*POST*) are not significant for any of the samples indicating that the sanctions against the audit partners didn't influence clients to switch away from nor did the sanctions deter clients from switching to the audit firms affiliated with the sanctioned partners after the date the sanction was made public. In fact, in all samples, coefficients on the interaction variables *SANC_PY*POST* and *SANC_CY*POST* are insignificant indicating that the PCAOB sanction is perceived to have no informational value. Based on the results of this analysis, I do not find support for H1. Furthermore, the results of Table 5 show that having a CPA_ACM does not make a difference in regards to client losses or gains as the coefficients on *CPA_ACM*SANC_CY*POST* (*CPA_ACM*SANC_PY*POST*) at all levels are not significant. Consequently, I do not find support for H3 in regards to auditor switches.

Table 5: Auditor Switch Analysis

Panel A: Switch Sample
Panel A-1: City (office) Sample

	Exp.		Loss			Gain			Loss			Gain		
Variable	Sign	Param.	Coef.	P-Value		Coef.	P-Value		Coef.	P-Value		Coef.	P-Value	
Intercept	?	β_0	1.498	0.284		1.523	0.095	*	1.508	0.269		2.594	0.049	**
SANC PY/SANC CY	?	δ_1	0.687	0.332		-0.764	0.002	***	0.719	0.316		-1.646	<.0001	***
POST	?	δ_2	-0.704	0.531		0.510	0.183		-0.650	0.555		-1.134	0.225	
*SANC PY*POST/SANC CY*POST*	?	δ_3	0.375	0.696		0.231	0.736		-0.480	0.429		0.051	0.967	
CPA ACM	?	δ_4	0.112	0.467		0.152	0.444		-0.096	0.690		-0.136	0.543	
*CPA ACM*SANC PY*POST*	?	δ_5							1.371	0.229				
*CPA ACM*SANC CY*POST*	?	δ_5										0.643	0.368	
GROWTH	+	β_1	0.688	0.005	***	0.603	0.043	**	0.726	0.002	***	0.562	0.051	*
|DACC|	+	β_2	-4.236	0.015	**	-4.934	0.046	**	-4.036	0.015	**	-4.471	0.036	**
INVAR	+	β_3	1.442	0.518		1.051	0.583		1.494	0.495		1.863	0.522	
GC	+	β_4	2.248	0.124		2.047	0.307		2.193	0.107		1.799	0.331	
MODOP	+	β_5	1.086	0.006	***	0.836	0.028	**	1.052	0.010	**	1.029	0.018	**
ICW	+	β_6	0.466	0.446		0.603	0.335		0.428	0.495		0.603	0.314	
TENURE	?	β_7	-0.366	<.0001	***	-0.385	<.0001	***	-0.363	<.0001	***	-0.372	<.0001	***
ROA	-	β_8	-0.851	0.448		-0.687	0.674		-0.920	0.417		-0.839	0.556	
LOSS	+	β_9	0.288	0.506		0.284	0.533		0.284	0.520		0.243	0.614	
LEVERAGE	+	β_{10}	-1.775	0.315		-0.901	0.598		-1.839	0.300		-1.331	0.453	
ΔLEV	+	β_{11}	-1.470	0.643		-1.441	0.647		-1.368	0.676		-2.253	0.513	
CASH	-	β_{12}	-2.124	0.009	***	-2.194	0.001	***	-2.048	0.010	**	-1.818	0.046	**
SIZE	-	β_{13}	-0.021	0.887		-0.222	0.103		-0.023	0.872		-0.180	0.227	
ΔSIZE	+	β_{14}	-1.393	0.114		-1.107	0.128		-1.471	0.102		-1.200	0.100	
M A	+	β_{15}	-0.063	0.893		-0.119	0.684		-0.084	0.849		-0.307	0.558	
ABNRML FEE	+	β_{16}	0.119	0.817		0.089	0.845		0.101	0.845		-0.033	0.947	
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
R^2				0.1244			0.1154			0.1255			0.1266	
N				1,205			1,205			1,205			1,205	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.
The switching model is estimated by maximum likelihood as a logit regression. The dependent variable is SWITCH, which is equal to 1 if the client switched auditors and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

(Table 5 continued)

The model for the loss sample is:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_PY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_PY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

The model for the gain sample is:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*SANC_PY*POST*(*CPA_ACM*SANC_CY*POST*) are added to both models. See Appendix B for variable definitions.

(Table 5 continued)

Panel A-2: MSA Sample

Variable	Exp. Sign	Param.	Loss Coef.	P-Value		Gain Coef.	P-Value		Loss Coef.	P-Value		Gain Coef.	P-Value	
Intercept	?	β_0	0.649	0.681		1.290	0.438		0.698	0.655		1.290	0.435	
SANC_PY/SANC_CY	?	δ_1	0.901	0.153		-0.757	0.003	***	0.932	0.146		-0.757	0.003	***
POST	?	δ_2	-0.465	0.575		-0.666	0.377		-0.423	0.604		-0.651	0.390	
*SANC_PY*POST/SANC_CY*POST*	?	δ_3	0.277	0.763		0.576	0.589		-0.261	0.756		0.284	0.837	
CPA_ACM	?	δ_4	0.024	0.896		0.008	0.966		-0.111	0.648		-0.036	0.869	
*CPA_ACM*SANC_PY*POST*	?	δ_5							0.933	0.330				
*CPA_ACM*SANC_CY*POST*	?	δ_5										0.489	0.380	
GROWTH	+	β_1	0.677	0.001	***	0.616	0.010	**	0.670	0.001	***	0.618	0.009	***
|DACC|	+	β_2	-3.267	0.002	***	-3.458	0.006	***	-3.065	0.003	***	-3.380	0.006	***
INVAR	+	β_3	1.076	0.469		0.580	0.760		1.136	0.439		0.627	0.734	
GC	+	β_4	1.385	0.152		1.136	0.248		1.379	0.141		1.137	0.247	
MODOP	+	β_5	0.760	0.073	*	0.743	0.058	*	0.734	0.099	*	0.735	0.062	*
ICW	+	β_6	0.297	0.545		0.518	0.277		0.288	0.564		0.511	0.283	
TENURE	?	β_7	-0.292	<.0001	***	-0.296	<.0001	***	-0.291	<.0001	***	-0.295	<.0001	***
ROA	-	β_8	0.293	0.755		0.339	0.749		0.316	0.728		0.343	0.743	
LOSS	+	β_9	0.582	0.046	**	0.559	0.042	**	0.585	0.050	*	0.554	0.045	**
LEVERAGE	+	β_{10}	-1.407	0.256		-1.120	0.341		-1.490	0.219		-1.146	0.327	
ΔLEV	+	β_{11}	-2.930	0.011	**	-3.231	0.010	**	-2.895	0.012	**	-3.196	0.011	**
CASH	-	β_{12}	-1.929	0.001	***	-1.790	0.002	***	-1.898	0.001	***	-1.763	0.002	***
SIZE	-	β_{13}	-0.075	0.658		-0.143	0.388		-0.075	0.660		-0.144	0.389	
ΔSIZE	+	β_{14}	-0.930	0.011	**	-0.828	0.008	***	-0.966	0.005	***	-0.847	0.005	***
M_A	+	β_{15}	-0.167	0.606		-0.286	0.395		-0.164	0.604		-0.282	0.398	
ABNRML_FEE	+	β_{16}	0.085	0.684		-0.033	0.892		0.078	0.690		-0.029	0.904	
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
R^2				0.0946			0.0914			0.0952			0.0915	
N				1,762			1,762			1,762			1,762	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

The switching model is estimated by maximum likelihood as a logit regression. The dependent variable is SWITCH, which is equal to 1 if the client switched auditors and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

The model for the loss sample is:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_PY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_PY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

(Table 5 continued)

The model for the gain sample is:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*SANC_PY*POST*(*CPA_ACM*SANC_CY*POST*) are added to both models. See Appendix **B** for variable definitions.

(Table 5 continued)

Panel A-3: State Sample

	Exp.		Loss			Gain			Loss			Gain		
Variable	Sign	Param.	Coef.	P-Value		Coef.	P-Value		Coef.	P-Value		Coef.	P-Value	
Intercept	?	β_0	1.791	0.207		2.607	0.064	*	1.775	0.211		2.574	0.071	*
SANC_PY/SANC_CY	?	δ_1	0.629	0.290		-1.092	0.008	***	0.627	0.293		-1.087	0.008	***
POST	?	δ_2	-0.063	0.934		-0.213	0.760		-0.064	0.932		-0.214	0.760	
*SANC_PY*POST/SANC_CY*POST*	?	δ_3	0.518	0.553		0.498	0.582		0.577	0.419		0.720	0.514	
CPA_ACM	?	δ_4	0.013	0.926		-0.019	0.898		0.030	0.896		0.025	0.865	
*CPA_ACM*SANC_PY*POST*	?	δ_5							-0.106	0.919				
*CPA_ACM*SANC_CY*POST*	?	δ_5										-0.401	0.441	
GROWTH	+	β_1	0.644	0.008	***	0.585	0.025	**	0.644	0.008	***	0.579	0.027	**
|DACC|	+	β_2	-0.888	0.459		-0.903	0.488		-0.909	0.488		-0.970	0.458	
INVAR	+	β_3	-0.167	0.928		-0.580	0.772		-0.172	0.927		-0.606	0.762	
GC	+	β_4	-12.362	<.0001	***	-13.011	<.0001	***	-12.391	<.0001	***	-13.040	<.0001	***
MODOP	+	β_5	0.592	0.109		0.585	0.081	*	0.595	0.116		0.591	0.078	*
ICW	+	β_6	0.263	0.678		0.309	0.598		0.263	0.676		0.312	0.591	
TENURE	?	β_7	-0.347	<.0001	***	-0.359	<.0001	***	-0.348	<.0001	***	-0.359	<.0001	***
ROA	-	β_8	0.470	0.713		0.396	0.788		0.471	0.713		0.404	0.784	
LOSS	+	β_9	0.556	0.109		0.493	0.148		0.555	0.108		0.499	0.138	
LEVERAGE	+	β_{10}	-0.623	0.668		-0.161	0.902		-0.612	0.667		-0.145	0.911	
ΔLEV	+	β_{11}	-1.639	0.420		-2.417	0.200		-1.635	0.418		-2.433	0.199	
CASH	-	β_{12}	-2.244	0.008	***	-1.965	0.014	**	-2.240	0.008	***	-1.975	0.013	**
SIZE	-	β_{13}	-0.115	0.367		-0.210	0.087	*	-0.114	0.364		-0.207	0.094	*
ΔSIZE	+	β_{14}	-0.948	0.128		-0.838	0.140		-0.950	0.123		-0.837	0.141	
M_A	+	β_{15}	0.123	0.792		0.012	0.979		0.123	0.793		0.009	0.986	
ABNRML_FEE	+	β_{16}	0.309	0.366		0.248	0.407		0.307	0.362		0.243	0.416	
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
R^2				0.0991			0.0980			0.0991			0.0981	
N				1,808			1,808			1,808			1,808	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

The switching model is estimated by maximum likelihood as a logit regression. The dependent variable is SWITCH, which is equal to 1 if the client switched auditors and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

The model for the loss sample is:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_PY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_PY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

(Table 5 continued)

$$\overline{SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} +}$$
$$\beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} +$$
$$\beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} +$$
$$YEAR\_FE + SIC2\_FE + \varepsilon_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*SANC_PY*POST*(*CPA_ACM*SANC_CY*POST*) are added to both models. See Appendix **B** for variable definitions.

(Table 5 continued)

Panel A-4: Regional Sample

Variable	Exp. Sign	Param.	Loss Coef.	Loss P-Value		Gain Coef.	Gain P-Value		Loss Coef.	Loss P-Value		Gain Coef.	Gain P-Value	
Intercept	?	β_0	0.705	0.178		0.677	0.313		0.762	0.114		0.648	0.348	
SANC_PY/SANC_CY	?	δ_1	-0.208	0.795		-0.068	0.810		-0.202	0.801		-0.072	0.797	
POST	?	δ_2	0.044	0.919		0.144	0.605		0.052	0.903		0.139	0.616	
*SANC_PY*POST/SANC_CY*POST*	?	δ_3	0.064	0.914		-0.323	0.584		-0.097	0.872		-0.202	0.693	
CPA_ACM	?	δ_4	0.032	0.697		0.024	0.791		-0.006	0.959		0.051	0.533	
*CPA_ACM*SANC_PY*POST*	?	δ_5							0.385	0.508				
*CPA_ACM*SANC_CY*POST*	?	δ_5										-0.329	0.357	
GROWTH	+	β_1	0.064	0.784		0.072	0.748		0.068	0.770		0.067	0.766	
|DACC|	+	β_2	0.259	0.698		0.250	0.719		0.272	0.684		0.253	0.715	
INVAR	+	β_3	-0.509	0.120		-0.539	0.119		-0.520	0.106		-0.534	0.126	
GC	+	β_4	0.083	0.769		0.116	0.691		0.078	0.780		0.111	0.704	
MODOP	+	β_5	0.507	<.0001	***	0.496	<.0001	***	0.503	<.0001	***	0.500	0.002	***
ICW	+	β_6	0.682	<.0001	***	0.679	<.0001	***	0.682	<.0001	***	0.674	<.0001	***
TENURE	?	β_7	-0.349	<.0001	***	-0.352	<.0001	***	-0.349	<.0001	***	-0.353	<.0001	***
ROA	-	β_8	0.265	0.530		0.288	0.480		0.271	0.524		0.283	0.489	
LOSS	+	β_9	0.115	0.598		0.114	0.592		0.115	0.602		0.116	0.582	
LEVERAGE	+	β_{10}	-0.055	0.840		-0.056	0.842		-0.053	0.847		-0.059	0.832	
ΔLEV	+	β_{11}	-1.474	0.089	*	-1.468	0.084	*	-1.465	0.089	*	-1.481	0.082	*
CASH	-	β_{12}	-0.283	0.586		-0.277	0.600		-0.304	0.551		-0.264	0.624	
SIZE	-	β_{13}	-0.012	0.829		-0.012	0.821		-0.012	0.827		-0.011	0.831	
ΔSIZE	+	β_{14}	-0.372	0.268		-0.380	0.261		-0.361	0.278		-0.386	0.262	
M_A	+	β_{15}	-0.027	0.865		-0.044	0.757		-0.030	0.841		-0.046	0.750	
ABNRML_FEE	+	β_{16}	0.151	0.329		0.151	0.380		0.149	0.329		0.152	0.382	
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
R^2				0.0831			0.0833			0.0832			0.0834	
N				5,826			5,826			5,826			5,826	

*, **, *** Denote significance at p < 0.1., p < 0.05, and p < 0.01, respectively.

The switching model is estimated by maximum likelihood as a logit regression. The dependent variable is SWITCH, which is equal to 1 if the client switched auditors and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

(Table 5 continued)

The model for the loss sample is:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_PY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_PY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

The model for the gain sample is:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*SANC_PY*POST*(*CPA_ACM*SANC_CY*POST*) are added to both models. See Appendix **B** for variable definitions.

(Table 5 continued)

Panel A-5: National (firm) Sample

	Exp.		Loss			Gain			Loss			Gain		
Variable	Sign	Param.	Coef.	P-Value		Coef.	P-Value		Coef.	P-Value		Coef.	P-Value	
Intercept	?	β_0	-0.288	0.681		-0.289	0.602		-0.287	0.681		-0.275	0.624	
SANC_PY/SANC_CY	?	δ_1	-0.419	0.593		-0.088	0.595		-0.419	0.594		-0.087	0.599	
POST	?	δ_2	-0.233	0.497		-0.044	0.862		-0.233	0.497		-0.043	0.863	
*SANC_PY*POST/SANC_CY*POST*	?	δ_3	0.780	0.108		-0.034	0.943		0.771	0.133		-0.132	0.746	
CPA_ACM	?	δ_4	0.002	0.978		0.008	0.888		-0.002	0.983		-0.017	0.789	
*CPA_ACM*SANC_PY*POST*	?	δ_5							0.023	0.919				
*CPA_ACM*SANC_CY*POST*	?	δ_5										0.232	0.272	
GROWTH	+	β_1	-0.087	0.264		-0.090	0.265		-0.087	0.266		-0.090	0.268	
|DACC|	+	β_2	0.448	0.307		0.474	0.282		0.448	0.308		0.468	0.287	
INVAR	+	β_3	-0.159	0.462		-0.172	0.419		-0.159	0.461		-0.171	0.421	
GC	+	β_4	-0.041	0.804		-0.032	0.867		-0.041	0.804		-0.031	0.873	
MODOP	+	β_5	0.259	0.007	***	0.254	0.012	**	0.259	0.007	***	0.254	0.012	**
ICW	+	β_6	0.671	<.0001	***	0.660	<.0001	***	0.671	<.0001	***	0.659	<.0001	***
TENURE	?	β_7	-0.342	<.0001	***	-0.344	<.0001	***	-0.341	<.0001	***	-0.344	<.0001	***
ROA	-	β_8	0.039	0.842		0.051	0.796		0.039	0.840		0.054	0.786	
LOSS	+	β_9	0.205	0.050	*	0.204	0.041	**	0.206	0.049	**	0.204	0.040	**
LEVERAGE	+	β_{10}	-0.442	0.002	***	-0.444	0.002	***	-0.442	0.002	***	-0.445	0.002	***
ΔLEV	+	β_{11}	-0.555	0.265		-0.560	0.262		-0.555	0.265		-0.564	0.259	
CASH	-	β_{12}	-0.370	0.083	*	-0.374	0.076	*	-0.370	0.083	*	-0.371	0.077	*
SIZE	-	β_{13}	0.003	0.926		0.002	0.951		0.003	0.926		0.002	0.954	
ΔSIZE	+	β_{14}	0.211	0.201		0.211	0.206		0.211	0.202		0.211	0.207	
M_A	+	β_{15}	-0.044	0.720		-0.042	0.743		-0.044	0.722		-0.042	0.738	
ABNRML_FEE	+	β_{16}	0.235	0.002	***	0.238	0.003	***	0.236	0.002	***	0.239	0.003	***
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
R^2				0.0749			0.0743			0.0749			0.0743	
N				27,979			27,979			27,979			27,979	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

The switching model is estimated by maximum likelihood as a logit regression. The dependent variable is SWITCH, which is equal to 1 if the client switched auditors and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

The model for the loss sample is:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_PY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_PY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + SIC2\_FE + YEAR\_FE + \mathcal{E}_{i,t}$$

(Table 5 continued)

The model for the gain sample is:

$$SWITCH_{i,t} = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 GROWTH_{i,t-1} + \beta_2 |DACC|_{i,t-1} + \beta_3 INVAR_{i,t-1} + \beta_4 GC_{i,t-1} + \beta_5 MODOP_{i,t-1} + \beta_6 ICW_{i,t-1} + \beta_7 TENURE_{i,t-1} + \beta_8 ROA_{i,t-1} + \beta_9 LOSS_{i,t-1} + \beta_{10} LEVERAGE_{i,t-1} + \beta_{11} \Delta LEV_{i,t-1} + \beta_{12} CASH_{i,t-1} + \beta_{13} SIZE_{i,t-1} + \beta_{14} \Delta SIZE_{i,t-1} + \beta_{15} M\_A_{i,t-1} + \beta_{16} ABNRML\_FEE_{i,t-1} + SIC2\_FE + YEAR\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*SANC_PY*POST*(*CPA_ACM*SANC_CY*POST*) are added to both models. See Appendix **B** for variable definitions.

5.3 Audit Fees

Regression results for all samples for the audit fee tests are presented in Table 6, Panels A – C. Column 1 provides results without the CPA_ACM interaction variables and Column 2 provides results with the CPA_ACM interaction variables. Additionally, as in Boone et al. (2015), Panel D provides a series of tests that analyze economic significance for the change in audit fees and fee increase models. Also shown, are the tests of economic significance for the same models with the CPA_ACM interaction variables included.

For all tests (ΔAF, *LNAF,* and *FI*), the control variables are generally significant with signs consistent with prior research and in accordance with economic intuition (Boone et al. 2015; Johnson 2015). $ABNRML\_FEE_{t-1}$, the control for fee pressure in the ΔAF analysis, loads with a negative and strongly significant coefficient for all samples. This suggests that companies with above (below) normal audit fees tend to receive fee reductions (increases) the following year. Referring to Column 1 in the ΔAF and *LNAF* tests, the coefficient on *SANC_CY* is negative and significant ($p < 0.01$) in the regional sample (ΔAF and *LNAF* tests) and negative and significant ($p < 0.10$) in the MSA sample (*LNAF* test only) indicating that sanctioned auditors in these samples, during the pre-sanction period experienced fee reductions relative to non-sanctioned auditors. However, this result is not consistent in any of the other samples nor in the *FI* test. With the addition of the *CPA_ACM* interaction variables, the coefficient on *POST* is positive and significant in the state sample (column 2) for the ΔAF and *LNAF* tests, indicating that fee growth rates increased among non-sanctioned audit firms during the post-sanction period. However, this result is not consistent with any of the other samples nor with the *FI* analysis. At the national (firm) level in the ΔAF and *FI* tests, the coefficients on *POST* are negative and significant, with and without the *CPA_ACM* interaction variables, indicating that at the national (firm) level fee growth rates declined among the non-sanctioned auditors in the post-

sanction period. Coefficients are also negative and statistically significant on the city (office) sample (*LNAF* test) and the regional sample (*FI* test). However, these results are not consistent across all samples and/or all tests.

The coefficient on *SANC_CY*POST* is positive and significant for the city (office), MSA, and regional sample for all tests indicating that sanctioned auditors fee growth rates, relative to non-sanctioned auditors, increased after the sanction was disclosed by the PCAOB. Furthermore, the coefficient on *SANC_CY*POST* is positive and statistically significant for the state and national (firm) samples in the *LNAF* and *FI* tests. Turning to Column 2 and the addition of the CPA_ACM interaction variables, there appears to be no association between the change in audit fees after a PCAOB disciplinary order has been made public and having a CPA serve on the audit committee as the *CPA_ACM*POST*SANC_CY* is not significant for any of the samples in any of the audit fee tests.

Table 6: Audit Fee Analysis

Panel A: Change in Audit Fee Analysis
Panel A-1: City (office) and MSA samples

			City (office) Sample						MSA Sample					
			1			2			1			2		
Variable	Exp. Sign	Param.	Coef	P-value		Coef.	P-value		Coef.	P-value		Coef.	P-value	
Intercept	?	β_0	0.179	<.0001	***	0.174	<.0001	***	0.169	<.0001	***	0.164	<.0001	***
SANC_CY	?	δ_1	0.003	0.926		0.002	0.935		-0.003	0.887		-0.004	0.864	
POST	?	δ_2	0.015	0.523		0.025	0.468		0.008	0.572		0.012	0.500	
*SANC_CY*POST*	?	δ_3	0.071	0.024	**	0.079	0.006	***	0.063	0.076	*	0.077	0.018	**
CPA_ACM	?	δ_4	0.014	0.012	**	0.026	0.169		0.011	0.378		0.017	0.227	
*CPA_ACM*POST*	?	δ_5				-0.021	0.434					-0.008	0.605	
*CPA_ACM*POST*SANC_CY*	?	δ_6				-0.019	0.327					-0.028	0.170	
Δ*SIZE*	+	β_1	0.286	<.0001	***	0.286	<.0001	***	0.268	<.0001	***	0.268	<.0001	***
Δ*FOREIGN*	+	β_2	0.073	0.064	*	0.072	0.061	*	0.063	0.043	**	0.063	0.043	**
Δ*GC*	+	β_3	0.092	0.140		0.093	0.143		0.053	0.113		0.054	0.111	
Δ*MODOP*	+	β_4	0.032	0.039	**	0.032	0.040	**	0.034	0.002	***	0.033	0.002	***
Δ*LOSS*	+	β_5	0.022	0.013	**	0.022	0.017	**	0.025	0.010	**	0.025	0.012	**
Δ*ROA*	-	β_6	-0.199	0.012	**	-0.199	0.013	**	-0.197	0.005	***	-0.197	0.005	***
Δ*LEV*	+	β_7	0.105	0.302		0.104	0.313		0.080	0.211		0.079	0.222	
Δ*SEG*	+	β_8	0.023	0.314		0.022	0.315		0.029	0.128		0.029	0.124	
Δ*QUICK*	-	β_9	0.001	0.906		0.001	0.900		0.000	0.993		0.000	0.986	
Δ*CATA*	+	β_{10}	-0.191	0.022	**	-0.194	0.022	**	-0.240	0.002	***	-0.241	0.002	***
$ABNRML\_FEE_{t-1}$	-	β_{11}	-0.191	<.0001	***	-0.191	<.0001	***	-0.152	<.0001	***	-0.152	<.0001	***
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
Adj. R^2				0.2727			0.2724			0.2518			0.2517	
N				1,242			1,242			1,804			1,804	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.
The change in audit fee is estimated as an ordinary least squares regression. The dependent variable is Δ*AF*. Δ represents a change in a variable relative to its value in the previous year. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.
The model for the change in audit fee analysis is:

$$\Delta AF = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 \Delta SIZE_{i,t} + \beta_2 \Delta FOREIGN_{i,t} + \beta_3 \Delta GC_{i,t} + \beta_4 \Delta MODOP_{i,t} + \beta_5 \Delta LOSS_{i,t} + \beta_6 \Delta ROA_{i,t} + \beta_7 \Delta LEV_{i,t} + \beta_8 \Delta SEG_{i,t} + \beta_9 \Delta QUICK_{i,t} + \beta_{10} \Delta CATA_{i,t} + \beta_{11} \Delta ABNRML\_FEEi_{,t-1} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*SANC_PY*POST*(*CPA_ACM*SANC_CY*POST*) are added to the model. See Appendix B for variable descriptions.

(Table 6 continued)

Panel A-2: State and regional samples

			State Sample						Regional Sample					
			1			2			1			2		
Variable	Exp. Sign	Param.	Coef	P-value		Coef.	P-value		Coef.	P-value		Coef.	P-value	
Intercept	*?*	β_0	0.178	<.0001	***	0.173	0.000	***	0.212	<.0001	***	0.213	<.0001	***
SANC_CY	*?*	δ_1	0.004	0.802		0.004	0.795		-0.022	<.0001	***	-0.022	<.0001	***
POST	*?*	δ_2	0.022	0.162		0.038	0.056	*	-0.010	0.157		-0.013	0.071	*
*SANC_CY*POST*	*?*	δ_3	0.046	0.150		0.039	0.281		0.044	<.0001	***	0.043	0.005	***
CPA_ACM	*?*	δ_4	0.013	0.109		0.028	0.032	**	0.002	0.711		-0.002	0.821	
*CPA_ACM*POST*	*?*	δ_5				-0.036	0.004	***				0.006	0.365	
*CPA_ACM*POST*SANC_CY*	*?*	δ_6				0.015	0.416					0.003	0.806	
Δ*SIZE*	+	β_1	0.291	<.0001	***	0.290	0.000	***	0.295	<.0001	***	0.295	<.0001	***
Δ*FOREIGN*	+	β_2	0.064	0.132		0.063	0.139		0.056	<.0001	***	0.056	<.0001	***
Δ*GC*	+	β_3	0.035	0.307		0.034	0.332		-0.001	0.987		0.000	0.990	
Δ*MODOP*	+	β_4	0.019	0.053	*	0.019	0.054	*	0.035	<.0001	***	0.035	<.0001	***
Δ*LOSS*	+	β_5	0.025	0.013	**	0.025	0.013	**	0.024	0.003	***	0.024	0.003	***
Δ*ROA*	-	β_6	-0.157	0.025	**	-0.156	0.025	**	-0.117	0.001	***	-0.117	0.001	***
Δ*LEV*	+	β_7	0.195	0.061	*	0.200	0.057	*	0.086	0.064	*	0.085	0.065	*
Δ*SEG*	+	β_8	0.022	0.129		0.021	0.153		0.009	0.319		0.009	0.312	
Δ*QUICK*	-	β_9	-0.008	0.081	*	-0.007	0.090	*	-0.007	0.026	**	-0.007	0.026	**
Δ*CATA*	+	β_{10}	-0.233	<.0001	***	-0.242	0.000	***	-0.180	0.003	***	-0.180	0.003	***
$ABNRML\_FEE_{t-1}$	-	β_{11}	-0.165	<.0001	***	-0.165	0.000	***	-0.158	<.0001	***	-0.158	<.0001	***
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
Adj. R^2				0.2654			0.2892			0.2457			0.2413	
N				1,858			1,858			6,023			6,023	

*, **, *** Denote significance at p < 0.1., p < 0.05, and p < 0.01, respectively.

The change in audit fee is estimated as an ordinary least squares regression. The dependent variable is Δ*AF*. Δ represents a change in a variable relative to its value in the previous year. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

The model for the change in audit fee analysis is:

$$\Delta AF = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 \Delta SIZE_{i,t} + \beta_2 \Delta FOREIGN_{i,t} + \beta_3 \Delta GC_{i,t} + \beta_4 \Delta MODOP_{i,t} + \beta_5 \Delta LOSS_{i,t} + \beta_6 \Delta ROA_{i,t} + \beta_7 \Delta LEV_{i,t} + \beta_8 \Delta SEG_{i,t} + \beta_9 \Delta QUICK_{i,t} + \beta_{10} \Delta CATA_{i,t} + \beta_{11} \Delta ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \varepsilon_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*SANC_PY*POST*(*CPA_ACM*SANC_CY*POST*) are added to the model. See Appendix B for variable descriptions.

(Table 6 continued)

Panel A-3: National (firm) sample

			National (firm) Sample					
			1			2		
Variable	Exp. Sign	Param.	Coef	P-value		Coef.	P-value	
Intercept	*?*	β_0	0.184	<.0001	***	0.188	<.0001	***
SANC_CY	*?*	δ_1	0.007	0.282		0.008	0.249	
POST	*?*	δ_2	-0.034	0.059	*	-0.041	0.008	***
*SANC_CY*POST*	*?*	δ_3	0.004	0.609		-0.001	0.832	
CPA_ACM	*?*	δ_4	0.003	0.424		-0.010	0.241	
*CPA_ACM*POST*	*?*	δ_5				0.020	0.018	
*CPA_ACM*POST*SANC_CY*	*?*	δ_6				0.012	0.307	
Δ*SIZE*	+	β_1	0.345	<.0001	***	0.344	<.0001	***
Δ*FOREIGN*	+	β_2	0.045	<.0001	***	0.045	<.0001	***
Δ*GC*	+	β_3	0.032	0.013	**	0.033	0.012	**
Δ*MODOP*	+	β_4	0.017	0.001	***	0.017	0.001	***
Δ*LOSS*	+	β_5	0.029	<.0001	***	0.029	<.0001	***
Δ*ROA*	-	β_6	-0.149	<.0001	***	-0.149	<.0001	***
Δ*LEV*	+	β_7	0.048	0.002	***	0.048	0.002	***
Δ*SEG*	+	β_8	0.009	0.083	*	0.009	0.075	*
Δ*QUICK*	-	β_9	-0.007	<.0001	***	-0.007	<.0001	***
Δ*CATA*	+	β_{10}	-0.090	0.002	***	-0.090	0.002	***
$ABNRML\_FEE_{t-1}$	-	β_{11}	-0.165	<.0001	***	-0.165	<.0001	***
YEAR FIXED EFFECT				Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes	
Adj. R^2				0.2435			0.2435	
N				29,265			29,265	

*, **, *** Denote significance at p < 0.1., p < 0.05, and p < 0.01, respectively.

The change in audit fee is estimated as an ordinary least squares regression. The dependent variable is Δ*AF*. Δ represents a change in a variable relative to its value in the previous year. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

The model for the change in audit fee analysis is:

$$\Delta AF = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 \Delta SIZE_{i,t} + \beta_2 \Delta FOREIGN_{i,t} + \beta_3 \Delta GC_{i,t} + \beta_4 \Delta MODOP_{i,t} + \beta_5 \Delta LOSS_{i,t} + \beta_6 \Delta ROA_{i,t} + \beta_7 \Delta LEV_{i,t} + \beta_8 \Delta SEG_{i,t} + \beta_9 \Delta QUICK_{i,t} + \beta_{10} \Delta CATA_{i,t} + \beta_{11} \Delta ABNRML\_FEE_{i,t-1} + YEAR\_FE + SIC2\_FE + \varepsilon_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*SANC_PY*POST*(*CPA_ACM*SANC_CY*POST*) are added to the model. See Appendix B for variable descriptions.

(Table 6 continued)

Panel B: LNAF Analysis

Panel B-1: City (office) and MSA samples

			City (office)						MSA					
			1			2			1			2		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef.	P-value		Coef.	P-value		Coef.	P-value	
Intercept	*?*	β_0	9.963	<.0001	***	9.960	<.0001	***	10.017	<.0001	***	10.009	<.0001	***
SANC_CY	*?*	δ_1	-0.144	0.106		-0.144	0.105		-0.156	0.076	*	-0.157	0.076	*
POST	*?*	δ_2	-0.071	0.020	**	-0.071	0.021	**	-0.063	0.101		-0.054	0.173	
*SANC_CY*POST*	*?*	δ_3	0.141	0.039	**	0.156	0.017	**	0.137	0.029	**	0.165	0.009	***
CPA_ACM	*?*	δ_4	0.072	0.005	***	0.075	0.004	***	0.094	0.015	**	0.109	0.005	***
*CPA_ACM*POST*	*?*	δ_5				-0.028	0.476					-0.020	0.485	
*CPA_ACM*POST*SANC_CY*	*?*	δ_6				-0.016	0.788					-0.057	0.329	
SIZE	+	β_1	0.505	<.0001	***	0.505	<.0001	***	0.523	<.0001	***	0.523	<.0001	***
M_A	+	β_2	0.045	0.115		0.045	0.112		0.015	0.547		0.016	0.533	
FOREIGN	+	β_3	0.318	<.0001	***	0.318	<.0001	***	0.281	<.0001	***	0.281	<.0001	***
SEG	+	β_4	-0.008	0.649		-0.008	0.652		-0.005	0.831		-0.006	0.828	
LEVEL3	+	β_5	-0.055	0.125		-0.055	0.123		0.002	0.958		0.001	0.971	
INTANG	+	β_6	0.149	0.223		0.147	0.232		0.127	0.184		0.126	0.197	
INVAR	+	β_7	0.905	<.0001	***	0.905	<.0001	***	0.740	0.002	***	0.738	0.003	***
GC	+	β_8	0.099	0.504		0.099	0.504		0.105	0.339		0.106	0.330	
ICW	-	β_9	0.415	<.0001	***	0.414	<.0001	***	0.399	<.0001	***	0.397	<.0001	***
ROA	+	β_{10}	-0.765	<.0001	***	-0.765	<.0001	***	-0.749	<.0001	***	-0.748	<.0001	***
LEVERAGE	+	β_{11}	0.121	0.545		0.122	0.540		-0.014	0.895		-0.013	0.905	
LIT	+	β_{12}	-0.152	0.014	**	-0.152	0.013	**	-0.210	0.051	*	-0.211	0.050	**
LOSS	-	β_{13}	0.040	0.143		0.040	0.141		0.080	0.002	***	0.081	0.002	***
LIQUID	+	β_{14}	-0.010	0.437		-0.010	0.437		-0.021	0.076	*	-0.021	0.077	*
BUSY	+	β_{15}	0.092	0.111		0.091	0.109		0.100	0.069	*	0.099	0.065	*
TENURE	?	β_{16}	0.014	0.073	*	0.014	0.072	*	0.009	0.114		0.009	0.110	
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
Adj. R^2				0.8744			0.8743			0.8699			0.8699	
N				1,242			1,242			1,804			1,804	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

The log of audit fees (*LNAF*) is estimated as an ordinary least squares regression. The dependent variable is the log of audit fees (LNAF). Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

(Table 6 continued)

The model for the log of audit fees analysis is:

$$LNAF = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 SIZE_{i,t} + \beta_2 M\_A_{i,t} + \beta_3 FOREIGN_{i,t} + \beta_4 SEG_{i,t} + \beta_5 LEVEL3_{i,t} + \beta_6 INTANG_{i,t} + \beta_7 INVAR_{i,t} + \beta_8 GC_{i,t} + \beta_9 ICW_{i,t} + \beta_{10} ROA_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} LIT_{i,t} + \beta_{13} LOSS_{i,t} + \beta_{14} LIQUID_{i,t} + \beta_{15} BUSY_{i,t} + \beta_{16} TENURE_{i,t} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*POST* and *CPA_ACM*POST*SANC_CY* are added to the model.

See Appendix B for variable descriptions.

(Table 6 continued)

Panel B-2: State and regional samples

			State						Regional					
			1			2			1			2		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef.	P-value		Coef.	P-value		Coef.	P-value	
Intercept	?	β_0	10.032	<.0001	***	10.023	<.0001	***	10.038	<.0001	***	10.038	<.0001	***
SANC_CY	?	δ_1	-0.080	0.303		-0.080	0.302		-0.087	<.0001	***	-0.087	<.0001	***
POST	?	δ_2	0.043	0.150		0.069	0.063	*	-0.009	0.760		-0.010	0.804	
*SANC_CY*POST*	?	δ_3	0.065	0.093	*	0.057	0.276		0.095	<.0001	***	0.100	<.0001	***
CPA_ACM	?	δ_4	0.078	0.005	***	0.102	0.001	***	0.058	0.018	**	0.058	0.020	**
*CPA_ACM*POST*	?	δ_5				-0.056	0.103					0.001	0.969	
*CPA_ACM*POST*SANC_CY*	?	δ_6				0.020	0.819					-0.011	0.790	
SIZE	+	β_1	0.517	<.0001	***	0.517	<.0001	***	0.539	<.0001	***	0.539	<.0001	***
M_A	+	β_2	0.042	0.155		0.044	0.141		0.008	0.685		0.008	0.683	
FOREIGN	+	β_3	0.267	0.001	***	0.267	0.001	***	0.278	<.0001	***	0.278	<.0001	***
SEG	+	β_4	0.017	0.598		0.017	0.600		0.032	0.028	**	0.032	0.027	**
LEVEL3	+	β_5	0.000	0.998		-0.001	0.978		0.027	0.190		0.027	0.187	
INTANG	+	β_6	0.109	0.127		0.112	0.130		0.160	0.006	***	0.160	0.006	***
INVAR	+	β_7	0.902	<.0001	***	0.898	<.0001	***	0.642	<.0001	***	0.642	<.0001	***
GC	+	β_8	-0.056	0.493		-0.055	0.499		0.007	0.915		0.007	0.915	
ICW	-	β_9	0.397	<.0001	***	0.396	<.0001	***	0.264	<.0001	***	0.264	<.0001	***
ROA	+	β_{10}	-0.727	<.0001	***	-0.728	<.0001	***	-0.625	<.0001	***	-0.625	<.0001	***
LEVERAGE	+	β_{11}	0.002	0.984		0.002	0.983		0.012	0.866		0.012	0.865	
LIT	+	β_{12}	-0.025	0.783		-0.026	0.776		-0.087	0.150		-0.087	0.149	
LOSS	-	β_{13}	0.062	0.054	*	0.063	0.056	*	0.084	0.002	***	0.084	0.002	***
LIQUID	+	β_{14}	-0.017	0.193		-0.017	0.193		-0.015	0.060	*	-0.015	0.063	*
BUSY	+	β_{15}	0.087	0.069	*	0.087	0.061	*	0.096	0.001	***	0.096	0.001	***
TENURE	?	β_{16}	0.011	0.205		0.011	0.196		0.003	0.432		0.003	0.433	
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
Adj. R^2				0.8531			0.8530			0.8667			0.8667	
N				1,858			1,858			6,023			6,023	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

The log of audit fees (*LNAF*) is estimated as an ordinary least squares regression. The dependent variable is the log of audit fees (LNAF). Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

(Table 6 continued)

The model for the log of audit fees analysis is:

$$LNAF = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 SIZE_{i,t} + \beta_2 M\_A_{i,t} + \beta_3 FOREIGN_{i,t} + \beta_4 SEG_{i,t} + \beta_5 LEVEL3_{i,t} + \beta_6 INTANG_{i,t} + \beta_7 INVAR_{i,t} + \beta_8 GC_{i,t} + \beta_9 ICW_{i,t} + \beta_{10} ROA_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} LIT_{i,t} + \beta_{13} LOSS_{i,t} + \beta_{14} LIQUID_{i,t} + \beta_{15} BUSY_{i,t} + \beta_{16} TENURE_{i,t} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*POST* and *CPA_ACM*POST*SANC_CY* are added to the model.

See Appendix B for variable descriptions.

(Table 6 continued)

Panel B-3: National (firm) sample

			National (firm)					
			1			2		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef.	P-value	
Intercept	*?*	β_0	9.779	<.0001	***	9.774	<.0001	***
SANC_CY	*?*	δ_1	0.025	0.361		0.025	0.369	
POST	*?*	δ_2	0.014	0.813		0.021	0.737	
*SANC_CY*POST*	*?*	δ_3	-0.015	0.172		-0.008	0.452	
CPA_ACM	*?*	δ_4	0.070	<.0001	***	0.084	<.0001	***
*CPA_ACM*POST*	*?*	δ_5				-0.019	0.045	
*CPA_ACM*POST*SANC_CY*	*?*	δ_6				-0.016	0.303	
SIZE	+	β_1	0.520	<.0001	***	0.520	<.0001	***
M_A	+	β_2	0.052	<.0001	***	0.053	<.0001	***
FOREIGN	+	β_3	0.285	<.0001	***	0.285	<.0001	***
SEG	+	β_4	0.034	<.0001	***	0.034	<.0001	***
LEVEL3	+	β_5	0.047	<.0001	***	0.047	<.0001	***
INTANG	+	β_6	0.145	<.0001	***	0.145	<.0001	***
INVAR	+	β_7	0.606	<.0001	***	0.606	<.0001	***
GC	+	β_8	0.080	0.173		0.080	0.176	
ICW	-	β_9	0.280	<.0001	***	0.280	<.0001	***
ROA	+	β_{10}	-0.543	<.0001	***	-0.544	<.0001	***
LEVERAGE	+	β_{11}	-0.070	0.220		-0.069	0.222	
LIT	+	β_{12}	-0.021	0.371		-0.022	0.366	
LOSS	-	β_{13}	0.096	<.0001	***	0.096	<.0001	***
LIQUID	+	β_{14}	-0.018	<.0001	***	-0.018	<.0001	***
BUSY	+	β_{15}	-0.005	0.846		-0.005	0.842	
TENURE	?	β_{16}	0.007	0.007	***	0.007	0.007	***
YEAR FIXED EFFECT				Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes	
Adj. R^2				0.8107			0.8107	
N				29,265			29,265	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

The log of audit fees (*LNAF*) is estimated as an ordinary least squares regression. The dependent variable is the log of audit fees (LNAF). Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

(Table 6 continued)

The model for the log of audit fees analysis is:

$$LNAF = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 SIZE_{i,t} + \beta_2 M\_A_{i,t} + \beta_3 FOREIGN_{i,t} + \beta_4 SEG_{i,t} + \beta_5 LEVEL3_{i,t} + \beta_6 INTANG_{i,t} + \beta_7 INVAR_{i,t} + \beta_8 GC_{i,t} + \beta_9 ICW_{i,t} + \beta_{10} ROA_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} LIT_{i,t} + \beta_{13} LOSS_{i,t} + \beta_{14} LIQUID_{i,t} + \beta_{15} BUSY_{i,t} + \beta_{16} TENURE_{i,t} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*POST* and *CPA_ACM*POST*SANC_CY* are added to the model.

See Appendix B for variable descriptions.

(Table 6 continued)

Panel C: Fee Increase Analysis
Panel C-1: City (office) and MSA samples

			City (office)						MSA					
			1			2			1			2		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef.	P-value		Coef.	P-value		Coef.	P-value	
Intercept	?	β_0	0.070	0.904		0.026	0.964		0.171	0.712		0.164	0.727	
SANC_CY	?	δ_1	0.045	0.888		0.044	0.887		0.012	0.974		0.011	0.977	
POST	?	δ_2	0.215	0.301		0.346	0.172		0.049	0.743		0.082	0.585	
*SANC_CY*POST*	?	δ_3	0.837	0.001	***	0.788	0.014	**	0.792	0.003	***	0.756	0.014	**
CPA_ACM	?	δ_4	0.093	0.323		0.224	0.069	*	-0.022	0.776		0.010	0.875	
*CPA_ACM*POST*	?	δ_5				-0.284	0.149					-0.074	0.633	
*CPA_ACM*POST*SANC_CY*	?	δ_6				0.096	0.798					0.082	0.825	
SIZE	+	β_1	0.081	0.217		0.081	0.214		0.029	0.551		0.029	0.550	
M_A	+	β_2	0.628	<.0001	***	0.631	0.000	***	0.612	<.0001	***	0.613	<.0001	***
FOREIGN	+	β_3	-0.285	0.006	***	-0.279	0.006	***	-0.195	0.010	***	-0.193	0.013	**
SEG	+	β_4	-0.104	0.126		-0.107	0.120		-0.105	0.103		-0.105	0.106	
LEVEL3	+	β_5	0.126	0.018	**	0.123	0.034	**	0.098	0.280		0.099	0.282	
INTANG	+	β_6	-0.292	0.006	***	-0.272	0.023	**	-0.220	0.082	*	-0.214	0.097	*
INVAR	+	β_7	-0.295	0.634		-0.307	0.626		-0.298	0.506		-0.303	0.497	
GC	+	β_8	-0.823	0.136		-0.810	0.149		-0.382	0.119		-0.382	0.123	
ICW	-	β_9	0.455	0.086	*	0.455	0.090	*	0.153	0.634		0.153	0.635	
ROA	+	β_{10}	0.260	0.698		0.264	0.695		0.453	0.282		0.452	0.286	
LEVERAGE	+	β_{11}	-0.382	0.382		-0.396	0.384		-0.120	0.620		-0.123	0.620	
LIT	+	β_{12}	0.197	0.502		0.202	0.471		0.520	<.0001	***	0.519	<.0001	***
LOSS	-	β_{13}	-0.275	0.032	**	-0.269	0.047	**	-0.382	0.002	***	-0.381	0.003	***
LIQUID	+	β_{14}	-0.003	0.920		-0.003	0.923		0.006	0.821		0.006	0.817	
BUSY	+	β_{15}	0.082	0.631		0.087	0.618		0.061	0.722		0.062	0.720	
TENURE	+	β_{16}	-0.032	0.177		-0.032	0.177		-0.011	0.562		-0.011	0.565	
ABNRML_FEE	?	β_{17}	0.161	0.558		0.159	0.570		0.134	0.231		0.134	0.237	
YEAR FIXED EFFECT				Yes		0.159	0.57			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
R^2				0.1312			0.1312			0.111			0.111	
N				1,242			1,242			1,804			1,804	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.
Fee increase is estimated by maximum likelihood as a logit regression. The dependent variable is fee increase (*FI*) which is 1 if there was a fee increase from one year to the next and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.
(Table 6 continued)

The model for the fee increase analysis is:

$$FI = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 SIZE_{i,t} + \beta_2 M\_A_{i,t} + \beta_3 FOREIGN_{i,t} + \beta_4 SEG_{i,t} + \beta_5 LEVEL3_{i,t} + \beta_6 INTANG_{i,t} + \beta_7 INVAR_{i,t} + \beta_8 GC_{i,t} + \beta_9 ICW_{i,t} + \beta_{10} ROA_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} LIT_{i,t} + \beta_{13} LOSS_{i,t} + \beta_{14} LIQUID_{i,t} + \beta_{15} BUSY_{i,t} + \beta_{16} TENURE_{i,t} + \beta_{17} ABNRML\_FEE_{i,t} YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*POST* and *CPA_ACM*POST*SANC_CY* are added to the model.

See Appendix B for variable descriptions.

(Table 6 continued)

Panel C-2: State and regional samples

			State						Regional					
			1			2			1			2		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef.	P-value		Coef.	P-value		Coef.	P-value	
Intercept	?	β_0	0.139	0.843		0.098	0.888		0.397	0.540		0.408	0.525	
SANC_CY	?	δ_1	0.050	0.872		0.051	0.868		0.032	0.795		0.031	0.799	
POST	?	δ_2	0.093	0.492		0.261	0.126		-0.103	0.024	**	-0.129	0.019	**
*SANC_CY*POST*	?	δ_3	0.557	0.037	**	0.439	0.118		0.217	0.035	**	0.225	0.031	**
CPA_ACM	?	δ_4	0.102	0.160		0.239	0.011	**	-0.005	0.927		-0.034	0.538	
*CPA_ACM*POST*	?	δ_5				-0.365	<.0001	***				0.055	0.483	
*CPA_ACM*POST*SANC_CY*	?	δ_6				0.280	0.085	*				-0.017	0.884	
SIZE	+	β_1	-0.011	0.812		-0.011	0.801		-0.034	0.182		-0.034	0.183	
M_A	+	β_2	0.606	<.0001	***	0.620	0.000	***	0.499	<.0001	***	0.498	<.0001	***
FOREIGN	+	β_3	-0.106	0.500		-0.105	0.503		-0.100	0.306		-0.101	0.303	
SEG	+	β_4	-0.057	0.299		-0.058	0.314		-0.036	0.297		-0.036	0.295	
LEVEL3	+	β_5	0.141	0.175		0.137	0.197		0.076	0.049	**	0.075	0.049	**
INTANG	+	β_6	-0.170	0.286		-0.148	0.357		-0.055	0.562		-0.055	0.561	
INVAR	+	β_7	-0.390	0.383		-0.413	0.363		-0.349	0.014	**	-0.349	0.014	**
GC	+	β_8	-0.147	0.630		-0.144	0.643		-0.120	0.332		-0.117	0.339	
ICW	-	β_9	0.353	0.193		0.352	0.205		0.413	<.0001	***	0.414	<.0001	***
ROA	+	β_{10}	0.159	0.788		0.144	0.809		0.522	0.001	***	0.522	0.001	***
LEVERAGE	+	β_{11}	-0.151	0.477		-0.157	0.459		-0.297	0.003	***	-0.297	0.003	***
LIT	+	β_{12}	0.427	<.0001	***	0.421	0.000	***	0.322	0.002	***	0.322	0.002	***
LOSS	-	β_{13}	-0.422	0.001	***	-0.419	0.002	***	-0.167	0.039	**	-0.168	0.038	**
LIQUID	+	β_{14}	-0.004	0.849		-0.004	0.831		-0.001	0.944		-0.001	0.954	
BUSY	+	β_{15}	-0.075	0.684		-0.072	0.696		-0.006	0.930		-0.006	0.927	
TENURE	+	β_{16}	-0.014	0.430		-0.014	0.457		0.013	0.220		0.013	0.224	
ABNRML_FEE	?	β_{17}	0.052	0.726		0.045	0.759		0.026	0.742		0.026	0.742	
YEAR FIXED EFFECT				Yes			Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes			Yes	
R^2				0.101			0.101			0.067			0.067	
N				1,858			1,858			6,023			6,023	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

Fee increase is estimated by maximum likelihood as a logit regression. The dependent variable is fee increase (*FI*) which is 1 if there was a fee increase from one year to the next and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

The model for the fee increase analysis is:

(Table 6 continued)

$$FI = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 SIZE_{i,t} + \beta_2 M\_A_{i,t} + \beta_3 FOREIGN_{i,t} + \beta_4 SEG_{i,t} + \beta_5 LEVEL3_{i,t} + \beta_6 INTANG_{i,t} + \beta_7 INVAR_{i,t} + \beta_8 GC_{i,t} + \beta_9 ICW_{i,t} + \beta_{10} ROA_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} LIT_{i,t} + \beta_{13} LOSS_{i,t} + \beta_{14} LIQUID_{i,t} + \beta_{15} BUSY_{i,t} + \beta_{16} TENURE_{i,t} + \beta_{17} ABNRML\_FEE_{i,t} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*POST* and *CPA_ACM*POST*SANC_CY* are added to the model.
See Appendix B for variable descriptions.
(Table 6 continued)

Panel C-3: National (firm) sample

			National (firm)					
			1			2		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef.	P-value	
Intercept	*?*	β_0	0.549	0.008	***	0.592	0.004	***
SANC_CY	*?*	δ_1	-0.008	0.874		-0.004	0.931	
POST	*?*	δ_2	-0.319	0.001	***	-0.384	<.0001	***
*SANC_CY*POST*	*?*	δ_3	0.194	0.046	**	0.167	0.060	*
CPA_ACM	*?*	δ_4	-0.049	<.0001	***	-0.173	<.0001	***
*CPA_ACM*POST*	*?*	δ_5				0.192	0.032	
*CPA_ACM*POST*SANC_CY*	*?*	δ_6				0.056	0.433	
SIZE	+	β_1	0.007	0.434		0.007	0.437	
M_A	+	β_2	0.445	<.0001	***	0.442	<.0001	***
FOREIGN	+	β_3	-0.055	0.160		-0.057	0.151	
SEG	+	β_4	-0.021	0.139		-0.022	0.145	
LEVEL3	+	β_5	-0.006	0.830		-0.004	0.896	
INTANG	+	β_6	-0.074	0.048	**	-0.072	0.057	*
INVAR	+	β_7	-0.159	0.260		-0.159	0.256	
GC	+	β_8	-0.090	0.248		-0.086	0.272	
ICW	-	β_9	0.316	<.0001	***	0.319	<.0001	***
ROA	+	β_{10}	0.227	<.0001	***	0.231	<.0001	***
LEVERAGE	+	β_{11}	-0.278	<.0001	***	-0.280	<.0001	***
LIT	+	β_{12}	0.129	0.008	***	0.131	<.0001	***
LOSS	-	β_{13}	-0.167	<.0001	***	-0.166	<.0001	***
LIQUID	+	β_{14}	0.002	0.508		0.002	0.503	
BUSY	+	β_{15}	-0.041	0.327		-0.040	0.342	
TENURE	+	β_{16}	0.010	0.081	*	0.010	0.082	*
ABNRML_FEE	?	β_{17}	0.137	<.0001	***	0.138	<.0001	***
YEAR FIXED EFFECT				Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes	
R^2				0.05			0.05	
N				29,265			29,265	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

Fee increase is estimated by maximum likelihood as a logit regression. The dependent variable is fee increase (*FI*) which is 1 if there was a fee increase from one year to the next and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects.

(Table 6 continued)

The model for the fee increase analysis is:

$$FI = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \delta_4 CPA\_ACM_{i,t} + \beta_1 SIZE_{i,t} + \beta_2 M\_A_{i,t} + \beta_3 FOREIGN_{i,t} + \beta_4 SEG_{i,t} + \beta_5 LEVEL3_{i,t} + \beta_6 INTANG_{i,t} + \beta_7 INVAR_{i,t} + \beta_8 GC_{i,t} + \beta_9 ICW_{i,t} + \beta_{10} ROA_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} LIT_{i,t} + \beta_{13} LOSS_{i,t} + \beta_{14} LIQUID_{i,t} + \beta_{15} BUSY_{i,t} + \beta_{16} TENURE_{i,t} + \beta_{17} ABNRML\_FEE_{i,t} + YEAR\_FE + SIC2\_FE + \varepsilon_{i,t}$$

To test Hypothesis 4, the interactive variables *CPA_ACM*POST* and *CPA_ACM*POST*SANC_CY* are added to the FI model.

See Appendix B for variable descriptions.

(Table 6 continued)

Based on my analysis of the effect of the public disclosure on audit fees, I do not find support for H2 as audit fees increased rather than decreased after the PCAOB disciplinary order was made public. In regards to H3, it appears there is no association between changes in audit fees and having a CPA on the audit committee.

Table 6, Panel D provides results of tests for the city (office) sample that analyze economic significance for both hypotheses 2 and 3. Examination of the change in audit fees analysis shows that during the pre-sanction period, non-sanctioned auditors increased audit fees by 17.9 percent (0.179, $p < 0.01$) and sanctioned auditors increased fees by 18.2 percent (0.182, $p < 0.01$). However, the 0.3 percent difference in audit fee changes is statistically insignificant ($p > 0.10$). In the post-sanction period, non-sanctioned auditors increased audit fees by 19.5 percent (0.195, $p < 0.01$), sanctioned auditors increased fees by 26.8 percent (0.268, $p < 0.01$) and the difference of 7.3 percent is statistically significant (0.073, $p < 0.01$). In the third row, I show the change across time. Annual audit fee changes for non-sanctioned auditors did not significantly increase in the post-sanction period (1.5 percent; $p > 0.10$). However, annual audit fees for sanctioned auditors increased by 8.6 percent ($p < 0.01$). The difference in these two differences of 7.1 percent is statistically significant (0.071, $p < 0.05$). The results suggest that the increase in audit fees in the post-sanction period was significantly greater for sanctioned auditors relative to non-sanctioned auditors. The 7.1 percent incremental increase in audit fees is likely due to the PCAOB sanctions against the audit partners accused of committing ethical violations. It is feasible to conclude that the sanctioned audit firms increased audit fees after the PCAOB sanction was made public in order to provide additional training for auditors to improve audit quality, to compensate for the risk of sanction penalties, or to cover increases in liability insurance premiums.

The fee increase analysis shows that in the pre-sanction period, sanctioned auditors increased audit fees for 7 percent of clients and sanctioned auditors increased audit fees for 11.5 percent of clients. The difference is not statistically significant ($p > 0.10$). In the post-sanction period, non-sanctioned auditors increased audit fees for 28.5 percent of the clients and sanctioned auditors increased audit fees for 100 percent of clients. The difference is statistically significant ($p < 0.01$). Comparing the two periods, non-sanctioned auditors increased audit fees for 21.5 percent of clients, although this increase is statistically insignificant ($p > 0.10$). Sanctioned auditors increased audit fees for 100 percent of clients, which is statistically significant ($p < 0.01$). The difference in differences is statistically significant ($p < 0.01$).

Panel D of Table 6, examines the change in audit fees control for a CPA on the audit committee. During the pre-sanction period, non-sanctioned auditors with a CPA_ACM increased audit fees by 20 percent (0.200, $p < 0.01$) and sanctioned auditors with a CPA_ACM increased audit fees by 20.2 percent (0.202, $p < 0.01$). However, the 0.2 percent difference in audit fee changes is not significant (0.002, $p > 0.10$). In the post-sanction period, non-sanctioned auditors with a CPA_ACM increased audit fees by 22.5 percent (0.225, $p < 0.01$), sanctioned auditors with a CPA_ACM increased audit fees by 26.7 percent (.0267, $p < 0.01$) and the difference of 4.2 percent is statistically significant (0.042, $p < 0.10$). Comparing the two periods, annual audit fee changes for non-sanctioned auditors increased by 2.5 percent, but this increase is not statistically significant ($p > 0.10$). Annual audit fee changes for sanctioned auditors increased by 6.5 percent ($p < 0.05$). However, the difference in differences of 4 percent is not statistically significant ($p > 0.10$) and indicates that having a CPA_ACM is not associated with the changes in audit fees.

Examination of results for audit fee increases, *FI*, that also test whether having a CPA_ACM influences audit fee increases shows that during the pre-sanction period, non-sanctioned auditors

with a CPA_ACM increased audit fees for 25 percent of clients (0.250, $p > 0.10$) and sanctioned auditors with a CPA_ACM increased audit fees for 29.4 percent of clients (0.294, $p > 0.10$). These increases are not statistically significant and neither is the 4.4 percent difference ($p > 0.10$). In the post-sanction period, non-sanctioned auditors increased audit fees for 59.5 percent of clients (0.595, $p > 0.10$) and sanctioned auditors increased audit fees for 100 percent of clients (1.240, $p > 0.10$). Again, these increases are not statistically significant ($p > 0.10$), while the difference of 64.4 percent in clients with fee increases in the post sanction period is statistically significant (0.644, $p < 0.01$). Comparing the two periods, audit fee increases of clients for non-sanctioned auditors (sanctioned auditors) increased by 34.6 percent (94.6 percent) and the increases are statistically significant ($p < 0.10$) and ($p < 0.01$), respectfully. The difference in differences of 60 percent is also statistically significant ($p < 0.10$) at the city (office) level in the *FI* test. However, in the multivariate analysis, there is no significant difference in having a CPA_ACM. Therefore, it is difficult to conclude from the difference in differences analysis that the presence of a CPA_ACM member makes a difference in fee increases in the post-sanction period.

(Table 6 continued)

Panel D: Difference-in-Differences Analysis - City (office) Sample Only

		Change in Audit Fees Analysis					
Period	Description	Non-Sanctioned		Sanctioned		Diff.	
Pre-Sanction	Change in logged audit fee	0.179	***	0.182	***	0.003	
	Measured by	β_0		$\beta_0 + \delta_1$		δ_1	
Post-Sanction	Change in logged audit fee	0.195	***	0.268	***	0.073	***
	Measured by	$\beta_0 + \delta_2$		$\beta_0 + \delta_1 + \delta_2 + \delta_3$		$\delta_1 + \delta_3$	
Change	Change in logged audit fee	0.015		0.086	***	0.071	**
	Measured by	δ_2		$\delta_2 + \delta_3$		δ_3	
		Fee Increase Analysis					
Period	Description	Non-Sanctioned		Sanctioned		Diff.	
Pre-Sanction	Fee Increase	0.070		0.115		0.045	
	Measured by	β_0		$\beta_0 + \delta_1$		δ_1	
Post-Sanction	Fee Increase	0.285		1.167		0.883	***
	Measured by	$\beta_0 + \delta_2$		$\beta_0 + \delta_1 + \delta_2 + \delta_3$		$\delta_1 + \delta_3$	
Change	Fee Increase	0.215		1.053	***	0.837	***
	Measured by	δ_2		$\delta_2 + \delta_3$		δ_3	

All coefficients in Panel D refer to regression results presented in column 1 of Table 6, Panels A and C.

(Table 6 continued)

		Change in Audit Fees Analysis (including CPA Member)					
Period	Description	Non-Sanctioned		Sanctioned		Diff.	
Pre-Sanction	Change in logged audit fee	0.200	***	0.202	***	0.002	
	Measured by	$\beta_0 + \delta_4$		$\beta_0 + \delta_1 + \delta_4$		δ_1	
Post-Sanction	Change in logged audit fee	0.225	***	0.267	***	0.042	*
	Measured by	$\beta_0 + \delta_2 + \delta_4$		$\beta_0 + \delta_1 + \delta_2 + \delta_3 + \delta_4 + \delta_5 + \delta_6$		$\delta_1 + \delta_3 + \delta_5 + \delta_6$	
Change	Change in logged audit fee	0.025		0.065	**	0.040	
	Measured by	δ_2		$\delta_2 + \delta_3 + \delta_5 + \delta_6$		$\delta_3 + \delta_5 + \delta_6$	
		Fee Increase Analysis (including CPA Member)					
Period	Description	Non-Sanctioned		Sanctioned		Diff.	
Pre-Sanction	Fee Increase	0.250		0.294		0.044	
	Measured by	$\beta_0 + \delta_4$		$\beta_0 + \delta_1 + \delta_4$		δ_1	
Post-Sanction	Fee Increase	0.595		1.240		0.644	***
	Measured by	$\beta_0 + \delta_2 + \delta_4$		$\beta_0 + \delta_1 + \delta_2 + \delta_3 + \delta_4 + \delta_5 + \delta_6$		$\delta_1 + \delta_3 + \delta_5 + \delta_6$	
Change	Fee Increase	0.346	*	0.946	***	0.600	*
	Measured by	δ_2		$\delta_2 + \delta_3 + \delta_5 + \delta_6$		$\delta_3 + \delta_5 + \delta_6$	

All coefficients in Panel D refer to regression results presented in column 2 of Table 6, Panels A and C.

In further analysis of economic significance using the log of audit fees test (*LNAF*), I employ the calculation as described in Craswell et al. (1995) to determine the magnitude of the change in audit fees between sanctioned and non-sanctioned auditors in the pre-and post-sanction periods. For the city (office) sample, I find a 15 percent increase in audit fees for sanctioned auditors as compared to non-sanctioned auditors in the post-sanction period. When the CPA_ACM interactions are added there is a 17 percent increase in audit fees. At the MSA level, there is a 15 percent and an 18 percent increase, respectively; for the state sample, a 7 percent and 6 percent increase; for the regional sample, a 10 percent and an 11 percent increase; and, for the national (firm) sample, a 7 percent and 9 percent increase. For all samples, with the exception of the state sample, there appears to be a larger increase in audit fees if there is a CPA_ACM. However, multivariate tests indicate that having a CPA_ACM does not make a significant difference in audit fees.

5.4 Audit Quality

Regression results for all samples for the audit quality models are presented in Table 7, Panels A – C. For the discretionary accruals analysis, *SANC_CY*POST* is the variable of interest and is not statistically significant ($p > 0.10$) in either test. The results reported in Panels A and B for Table 7 provide no evidence to suggest that audit firms affiliated with sanctioned audit partners provided audit quality significantly different from that of other annually inspected audit firms in the post-PCAOB sanction period. Based on discretionary accruals tests, H4 is not supported.

The restatement analysis is presented in Table 7, Panel C. The coefficient on the variable of interest, *SANC_CY*POST*, is not significant for any of the samples, with the exception of the regional and national (firm) samples. In regards to the regional and national (firm) levels, there are higher restatements for sanctioned auditors vs. non-sanctioned auditors in the post-sanction

period as compared to the pre-sanction period. However, without consistent results at the other sample levels, it is difficult to conclude an association between higher restatements and sanctioned auditors. The coefficient on *SANC_CY* is positive and significant for the city (office), MSA, and state samples suggesting that restatements are higher for sanctioned auditors than for non-sanctioned auditors, in the pre-sanction period. There is no change during the post-sanction period, indicating that sanctioned firms had poorer audit quality than non-sanctioned firms and the sanction did not help to improve audit quality. The results of the restatement analysis are not consistent with the discretionary accruals analysis. Therefore, there does not appear to be support for a change in audit quality after the PCAOB sanction was made public and thus there is no support for H4. Additional analysis is provided in Panel D and supports the results of the regression analyses in that there appears to be no significant change in audit quality between the pre- and post-sanction periods.

Table 7: Audit Quality Analysis

Panel A: |*DACC*| Analysis
Panel A-1: City (office), MSA and State samples

			City (office)			MSA			State		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef	P-value		Coef.	P-value	
Intercept	?	β_0	0.085	0.441		0.049	0.559		0.103	0.316	
SANC_CY	?	δ_1	-0.008	0.292		-0.008	0.278		-0.005	0.299	
POST	?	δ_2	-0.002	0.806		-0.001	0.805		0.001	0.780	
*SANC_CY*POST*	?	δ_3	0.009	0.382		0.002	0.873		0.000	0.964	
CLIENT_INFLUENCE	?	β_1	-0.004	0.851		0.019	0.679		0.009	0.849	
SHORT	+	β_2	0.025	0.027	**	0.014	0.171		0.017	0.103	
AUDIT_FEE	+	β_3	0.000	0.963		0.004	0.599		-0.001	0.924	
NONAUDIT_FEE	+	β_4	0.002	0.025	**	0.001	0.237		0.001	0.057	*
EFFORT	-	β_5	0.000	0.179		0.000	0.071	*	0.000	0.024	**
SIZE	-	β_6	-0.006	0.268		-0.007	0.114		-0.006	0.237	
SEG	?	β_7	0.003	0.332		0.001	0.792		0.001	0.375	
LOSS	-	β_8	0.012	0.137		0.009	0.270		0.014	0.153	
GROWTH	+	β_9	0.081	0.004	***	0.067	0.008	***	0.072	0.001	***
MB	+	β_{10}	-0.006	0.250		-0.003	0.437		0.002	0.630	
LEVERAGE	+	β_{11}	-0.034	0.147		-0.025	0.199		-0.028	0.146	
FOREIGN	-	β_{12}	0.001	0.931		-0.012	0.062	*	-0.006	0.436	
M_A	-	β_{13}	-0.002	0.749		-0.002	0.556		0.000	0.964	
INVAR	-	β_{14}	-0.058	0.007	***	-0.041	0.135		-0.040	0.041	**
ROA	-	β_{15}	-0.005	0.936		-0.049	0.449		0.017	0.702	
BANKRUPTCY	-	β_{16}	-0.001	0.589		-0.001	0.653		-0.001	0.517	
GC	-	β_{17}	0.154	0.010	***	0.080	0.006	***	0.087	<.000	***
ICW	-	β_{18}	0.003	0.826		0.005	0.181		0.006	0.002	***
CFO	-	β_{19}	-0.015	0.799		0.007	0.921		-0.052	0.249	
LAG_ACCRUALS	-	β_{20}	-0.002	0.943		-0.006	0.723		0.014	0.381	
LIT	+	β_{21}	0.011	0.371		0.001	0.886		0.010	0.359	
YEAR FIXED EFFECT				Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes	
Adj. R^2				0.2225			0.2104			0.2200	
N				696			1,045			1,130	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively. The model is estimated as an ordinary least squares regression. The dependent variable is the absolute value of discretionary accruals |*DACC*| as in Kothari et al. 2005. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects. See Appendix B for variable descriptions. The model for the abnormal accruals analysis is:

$$|DACC| = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \beta_1 CLIENT\_INFLUENCEi_{,t} + \beta_2 SHORT_{i,t} + \beta_3 AUDIT\_FEE_{i,t} + \beta_4 NONAUDIT\_FEE_{i,t} + \beta_5 EFFORT_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 SEG_{i,t} + \beta_8 LOSS_{i,t} + \beta_9 GROWTH_{i,t} + \beta_{10} MB_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} FOREIGN_{i,t} + \beta_{13} M\_A_{i,t} + \beta_{14} INVAR_{i,t} + \beta_{15} ROA_{i,t} + \beta_{16} BANKRUPTCY_{i,t} + \beta_{17} GC_{i,t} + \beta_{18} ICW_{i,t} + \beta_{19} CFO_{i,t} + \beta_{20} LAG\_ACCRUALS + \beta_{21} LIT_{i,t} + YEAR\_FE + SIC2\_FE + \varepsilon_{i,t}$$

(Table 7 continued)

Panel A-2: Regional and National (firm) samples

			Regional			National (firm)		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef.	P-value	
Intercept	*?*	β_0	0.041	0.105		0.075	<.0001	***
SANC_CY	*?*	δ_1	-0.001	0.923		0.002	0.444	
POST	*?*	δ_2	0.001	0.705		0.000	0.937	
*SANC_CY*POST*	*?*	δ_3	-0.001	0.812		-0.004	0.130	
CLIENT_INFLUENCE	*?*	β_1	0.099	0.070	*	0.074	0.669	
SHORT	+	β_2	0.004	0.511		-0.002	0.582	
AUDIT_FEE	+	β_3	0.004	0.218		0.000	0.903	
NONAUDIT_FEE	+	β_4	0.000	0.357		0.000	0.762	
EFFORT	-	β_5	0.000	0.979		0.000	0.784	
SIZE	-	β_6	-0.007	<.0001	***	-0.003	<.0001	***
SEG	*?*	β_7	0.000	0.657		-0.001	<.0001	***
LOSS	-	β_8	0.011	0.056	*	0.007	<.0001	***
GROWTH	+	β_9	0.053	<.0001	***	0.041	<.0001	***
MB	+	β_{10}	0.008	0.020	**	0.008	<.0001	***
LEVERAGE	+	β_{11}	-0.034	<.0001	***	-0.024	<.0001	***
FOREIGN	-	β_{12}	-0.010	0.003	***	-0.006	<.0001	***
M_A	-	β_{13}	-0.004	0.072	*	-0.005	<.0001	***
INVAR	-	β_{14}	0.008	0.476		0.021	<.0001	***
ROA	-	β_{15}	0.014	0.584		-0.089	<.0001	***
BANKRUPTCY	-	β_{16}	0.000	0.499		-0.001	0.003	***
GC	-	β_{17}	0.058	0.009	***	0.038	<.0001	***
ICW	-	β_{18}	0.003	0.320		0.007	0.003	***
CFO	-	β_{19}	-0.090	0.062	*	0.026	0.246	
LAG_ACCRUALS	-	β_{20}	-0.007	0.702		-0.017	0.012	**
LIT	+	β_{21}	0.001	0.844		0.004	0.064	*
YEAR FIXED EFFECT				Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes	
Adj. R^2				0.1937			0.1798	
N				3,627			16,257	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively. The model is estimated as an ordinary least squares regression. The dependent variable is the absolute value of discretionary accruals |*DACC*| as in Kothari et al. 2005. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects. See Appendix B for variable descriptions.

(Table 7 continued)

The model for the abnormal accruals analysis is:

$$|DACC| = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \beta_1 CLIENT\_INFLUENCE_{i,t} + \beta_2 SHORT_{i,t} + \beta_3 AUDIT\_FEE_{i,t} + \beta_4 NONAUDIT\_FEE_{i,t} + \beta_5 EFFORT_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 SEG_{i,t} + \beta_8 LOSS_{i,t} + \beta_9 GROWTH_{i,t} + \beta_{10} MB_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} FOREIGN_{i,t} + \beta_{13} M\_A_{i,t} + \beta_{14} INVAR_{i,t} + \beta_{15} ROA_{i,t} + \beta_{16} BANKRUPTCY_{i,t} + \beta_{17} GC_{i,t} + \beta_{18} ICW_{i,t} + \beta_{19} CFO_{i,t} + \beta_{20} LAG\_ACCRUALS + \beta_{21} LIT_{i,t} + YEAR\_FE + SIC2\_FE + \varepsilon_{i,t}$$

(Table 7 continued)

Panel B: |*DACCd*| Analysis

Panel B-1: City (office), MSA, and State samples

			City (office)			MSA			State		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef	P-value		Coef.	P-value	
Intercept	?	β_0	0.114	0.005	***	0.040	0.192		0.081	0.046	**
SANC CY	?	δ_1	0.002	0.479		0.002	0.145		0.003	0.296	
POST	?	δ_2	-0.002	0.454		-0.001	0.540		0.001	0.524	
*SANC CY*POST*	?	δ_3	-0.003	0.345		-0.003	0.190		-0.003	0.151	
CLIENT INFLUENCE	?	β_1	-0.003	0.670		0.012	0.274		0.022	0.118	
SHORT	+	β_2	0.004	0.415		0.004	0.524		0.005	0.398	
AUDIT FEE	+	β_3	-0.009	0.023	**	-0.001	0.828		-0.005	0.250	
NONAUDIT FEE	+	β_4	0.001	0.003	***	0.000	0.014	**	0.000	0.270	
EFFORT	-	β_5	0.000	<.0001	***	0.000	0.017	**	0.000	0.001	***
SIZE	-	β_6	0.002	0.394		-0.002	0.381		0.000	0.914	
SEG	?	β_7	-0.002	0.160		-0.002	0.011	**	-0.002	0.004	***
LOSS	-	β_8	0.004	0.050	*	0.007	0.018	**	0.006	0.002	***
GROWTH	+	β_9	0.005	0.131		0.003	0.224		0.004	0.050	**
MB	+	β_{10}	0.002	0.358		0.003	0.031	**	0.003	0.046	**
LEVERAGE	+	β_{11}	-0.034	<.0001	***	-0.030	0.000	***	-0.029	<.0001	***
FOREIGN	-	β_{12}	-0.003	0.423		-0.007	0.000	***	-0.006	0.011	**
M A	-	β_{13}	-0.002	0.167		-0.002	0.096	*	-0.001	0.265	
INVAR	-	β_{14}	0.008	0.560		0.009	0.413		0.005	0.646	
ROA	-	β_{15}	0.004	0.841		0.003	0.826		0.010	0.358	
BANKRUPTCY	-	β_{16}	-0.001	0.036	**	-0.001	0.018	**	-0.001	0.003	***
GC	-	β_{17}	0.042	0.055	*	0.016	0.004	***	0.015	0.007	***
ICW	-	β_{18}	-0.002	0.461		-0.002	0.314		-0.003	0.246	
CFO	-	β_{19}	-0.002	0.918		0.004	0.736		-0.001	0.903	
LAG ACCRUALS	-	β_{20}	-0.008	0.409		-0.007	0.137		-0.005	0.421	
LIT	+	β_{21}	-0.001	0.738		-0.001	0.528		0.002	0.546	
YEAR FIXED				Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes	
Adj. R^2				0.3231			0.3147			0.2906	
N				696			1,045			1,130	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.The model is estimated as an ordinary least squares regression. The dependent variable is the absolute value of discretionary accruals as in Dechow and Dichev 2002. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects. See Appendix B for variable descriptions.

(Table 7 continued)

The model for the abnormal accruals analysis is:

$$|DACCd| = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \beta_1 CLIENT\_INFLUENCEi_{,t} + \beta_2 SHORT_{i,t} + \beta_3 AUDIT\_FEE_{i,t} + \beta_4 NONAUDIT\_FEE_{i,t} + \beta_5 EFFORT_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 SEG_{i,t} + \beta_8 LOSS_{i,t} + \beta_9 GROWTH_{i,t} + \beta_{10} MB_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} FOREIGN_{i,t} + \beta_{13} M\_A_{i,t} + \beta_{14} INVAR_{i,t} + \beta_{15} ROA_{i,t} + \beta_{16} BANKRUPTCY_{i,t} + \beta_{17} GC_{i,t} + \beta_{18} ICW_{i,t} + \beta_{19} CFO_{i,t} + \beta_{20} LAG\_ACCRUALS + \beta_{21} LIT_{i,t} + YEAR\_FE + SIC2\_FE + \varepsilon_{i,t}$$

(Table 7 continued)

Panel B-2: Regional and National (firm) samples

			Regional			National (firm)		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef.	P-value	
Intercept	?	β_0	0.003	0.746		0.024	<.0001	***
SANC_CY	?	δ_1	0.000	0.997		0.001	0.304	
POST	?	δ_2	0.000	0.670		0.000	0.395	
*SANC_CY*POST*	?	δ_3	0.000	0.808		0.000	0.801	
CLIENT_INFLUENCE	?	β_1	0.021	0.321		-0.009	0.892	
SHORT	+	β_2	-0.001	0.765		0.000	0.951	
AUDIT_FEE	+	β_3	0.002	0.121		0.000	0.443	
NONAUDIT_FEE	+	β_4	0.000	0.605		0.000	0.386	
EFFORT	-	β_5	0.000	0.830		0.000	0.500	
SIZE	-	β_6	-0.004	<.0001	***	-0.002	<.0001	***
SEG	?	β_7	-0.001	0.031	**	0.000	0.005	***
LOSS	-	β_8	0.005	0.001	***	0.005	<.0001	***
GROWTH	+	β_9	0.000	0.896		0.003	<.0001	***
MB	+	β_{10}	0.002	0.095	*	0.002	<.0001	***
LEVERAGE	+	β_{11}	-0.013	0.001	***	-0.010	<.0001	***
FOREIGN	-	β_{12}	-0.003	0.080	*	-0.003	<.0001	***
M_A	-	β_{13}	-0.001	0.209		-0.001	0.012	**
INVAR	-	β_{14}	0.016	0.110		0.014	<.0001	***
ROA	-	β_{15}	0.004	0.676		-0.006	0.064	*
BANKRUPTCY	-	β_{16}	-0.001	0.001	***	0.000	<.0001	***
GC	-	β_{17}	0.006	0.462		0.003	0.044	**
ICW	-	β_{18}	0.000	0.915		0.002	0.001	***
CFO	-	β_{19}	-0.011	0.074	*	-0.011	<.0001	***
LAG_ACCRUALS	-	β_{20}	0.003	0.415		-0.002	0.283	
LIT	+	β_{21}	0.007	0.001	***	0.004	<.0001	***
YEAR FIXED EFFECT				Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes	
Adj. R^2				0.2363			0.2173	
N				3,627			16,257	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

The model is estimated as an ordinary least squares regression. The dependent variable is the absolute value of discretionary accruals as in Dechow and Dichev 2002. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects. See Appendix B for variable descriptions. The model for the abnormal accruals analysis is:

$$|DACCd| = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \beta_1 CLIENT\_INFLUENCE_{i,t} + \beta_2 SHORT_{i,t} + \beta_3 AUDIT\_FEE_{i,t} + \beta_4 NONAUDIT\_FEE_{i,t} + \beta_5 EFFORT_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 SEG_{i,t} + \beta_8 LOSS_{i,t} + \beta_9 GROWTH_{i,t} + \beta_{10} MB_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} FOREIGN_{i,t} + \beta_{13} M\_A_{i,t} + \beta_{14} INVAR_{i,t} + \beta_{15} ROA_{i,t} + \beta_{16} BANKRUPTCY_{i,t} + \beta_{17} GC_{i,t} + \beta_{18} ICW_{i,t} + \beta_{19} CFO_{i,t} + \beta_{20} LAG\_ACCRUALS + \beta_{21} LIT + YEAR\_FE + SIC2\_FE + \varepsilon_{i,t}$$

(Table 7 continued)

Panel C: Restatement Analysis

Panel C-1: City (office), MSA, and State samples

			City (office)			MSA			State		
Variable	Exp.	Param.	Coef.	P-		Coef	P-		Coef.	P-	
Intercept	?	β_0	-23.893	0.199		-28.492	0.148		-17.081	0.406	
SANC_CY	?	δ_1	2.028	<.0001	***	1.752	0.003	***	1.747	0.001	***
POST	?	δ_2	-1.501	0.230		-1.801	0.282		-1.062	0.259	
*SANC_CY*POST*	?	δ_3	-1.174	0.369		-0.228	0.847		-0.543	0.356	
CLIENT_INFLUENCE	?	β_1	5.269	0.075	*	0.629	0.808		2.512	0.252	
SHORT	+	β_2	-14.845	<.0001	***	-13.781	<.0001	***	-12.839	<.0001	***
AUDIT_FEE	+	β_3	0.608	0.727		1.254	0.503		0.260	0.892	
NONAUDIT_FEE	+	β_4	0.163	0.276		0.084	0.437		0.032	0.668	
EFFORT	-	β_5	0.005	0.841		-0.006	0.811		0.022	0.464	
SIZE	-	β_6	-0.787	0.375		-1.101	0.235		-0.653	0.524	
SEG	?	β_7	-0.853	0.001	***	-0.921	<.0001	***	-0.610	0.008	***
LOSS	-	β_8	1.572	0.007	***	1.423	<.0001	***	0.703	0.058	*
GROWTH	+	β_9	0.799	0.213		0.639	0.377		0.120	0.892	
MB	+	β_{10}	-1.008	0.032	**	-1.240	0.005	***	-1.331	<.0001	***
LEVERAGE	+	β_{11}	6.644	0.012	**	6.695	0.008	***	4.440	0.251	
FOREIGN	-	β_{12}	-1.307	0.202		-0.914	0.377		-0.401	0.562	
M_A	-	β_{13}	1.009	0.321		1.016	0.322		0.743	0.310	
INVAR	-	β_{14}	8.918	<.0001	***	8.433	<.0001	***	2.931	0.331	
ROA	-	β_{15}	5.519	0.122		6.268	0.059	*	2.892	0.339	
BANKRUPTCY	-	β_{16}	-0.051	0.304		-0.024	0.626		0.027	0.514	
GC	+	β_{17}	-15.170	<.0001	***	-11.080	<.0001	***	-12.790	<.0001	***
ICW	+	β_{18}	4.968	<.0001	***	4.321	<.0001	***	3.565	<.0001	***
CFO	-	β_{19}	0.929	0.768		-2.076	0.722		-1.030	0.764	
LAG_ACCRUALS	-	β_{20}	-0.368	0.895		1.646	0.602		-1.021	0.731	
LIT	+	β_{21}	2.738	<.0001	***	2.701	0.002	***	1.339	0.403	
YEAR FIXED EFFECT				Yes			Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes			Yes	
R^2				0.2166			0.2145			0.1905	
N				870			906			986	
Number of Big R restatements in sample				46			49			53	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

The model is estimated by maximum likelihood as a logit regression. The dependent variable is *RESTATE*, which equals 1 if the client subsequently restates the current-year financial statements due to an accounting rule application error (excluding clerical errors), and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects. See Appendix B for variable descriptions.

The model for the abnormal accruals analysis is:

$$RESTATE = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t}*POST_{i,t} + \beta_1 CLIENT\_INFLUENCE_{i,t} + \beta_2 SHORT_{i,t} + \beta_3 AUDIT\_FEE_{i,t} + \beta_4 NONAUDIT\_FEE_{i,t} + \beta_5 EFFORT_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 SEG_{i,t} + \beta_8 LOSS_{i,t} + \beta_9 GROWTH_{i,t} + \beta_{10} MB_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} FOREIGN_{i,t} + \beta_{13} M\_A_{i,t} + \beta_{14} INVAR_{i,t} + \beta_{15} ROA_{i,t} + \beta_{16} BANKRUPTCY_{i,t} + \beta_{17} GC_{i,t} + \beta_{18} ICW_{i,t} + \beta_{19} CFO_{i,t} + \beta_{20} LAG\_ACCRUALS + \beta_{21} LIT_{i,t} + YEAR\_FE + SIC2\_FE + \mathcal{E}_{i,t}$$

(Table 7 continued)

Panel C-2: Regional and National (firm) sample

			Regional			National (firm)		
Variable	Exp. Sign	Param.	Coef.	P-value		Coef.	P-value	
Intercept	*?*	β_0	-0.839	0.905		-3.477	0.264	
SANC CY	*?*	δ_1	-0.050	0.800		-0.009	0.977	
POST	*?*	δ_2	-0.226	0.299		0.124	0.751	
*SANC CY*POST*	*?*	δ_3	0.678	0.002	***	0.553	<.0001	***
CLIENT INFLUENCE	*?*	β_1	0.580	0.861		-28.784	0.193	
SHORT	+	β_2	-1.060	0.449		0.164	0.395	
AUDIT FEE	+	β_3	-0.337	0.614		0.086	0.799	
NONAUDIT FEE	+	β_4	0.076	0.295		0.043	<.0001	***
EFFORT	-	β_5	0.006	0.516		0.008	0.213	
SIZE	-	β_6	0.225	0.488		-0.207	0.232	
SEG	*?*	β_7	-0.591	<.0001	***	-0.043	0.240	
LOSS	-	β_8	0.253	0.431		0.132	0.350	
GROWTH	+	β_9	0.179	0.658		0.203	0.289	
MB	+	β_{10}	-0.210	0.123		-0.178	0.005	***
LEVERAGE	+	β_{11}	0.617	0.440		1.447	<.0001	***
FOREIGN	-	β_{12}	-0.046	0.872		-0.350	<.0001	***
M A	-	β_{13}	-0.287	0.527		0.109	0.168	
INVAR	-	β_{14}	1.731	0.003	***	0.160	0.696	
ROA	-	β_{15}	0.284	0.854		-0.642	0.325	
BANKRUPTCY	-	β_{16}	-0.046	0.025	**	-0.016	0.101	
GC	+	β_{17}	-1.206	<.0001	***	-0.389	0.179	
ICW	+	β_{18}	3.264	<.0001	***	2.630	<.0001	***
CFO	-	β_{19}	-1.857	0.149		0.559	0.230	
LAG ACCRUALS	-	β_{20}	-1.403	0.285		-0.213	0.592	
LIT	+	β_{21}	1.074	0.013	**	0.638	<.0001	***
YEAR FIXED EFFECT				Yes			Yes	
INDUSTRY FIXED EFFECT				Yes			Yes	
R^2				0.1255			0.0797	
N				3,168			19,517	
Number of Big R restatements in sample				153			853	

*, **, *** Denote significance at $p < 0.1$., $p < 0.05$, and $p < 0.01$, respectively.

The model is estimated by maximum likelihood as a logit regression. The dependent variable is *RESTATE*, which equals 1 if the client subsequently restates the current-year financial statements due to an accounting rule application error (excluding clerical errors), and 0 otherwise. Standard errors control for clustering by auditor. The model includes industry (SIC2) fixed effects and year fixed effects. See Appendix B for variable descriptions.

(Table 7 continued)

The model for the abnormal accruals analysis is:

$$RESTATE = \beta_0 + \delta_1 SANC\_CY_{i,t} + \delta_2 POST_{i,t} + \delta_3 SANC\_CY_{i,t} * POST_{i,t} + \beta_1 CLIENT\_INFLUENCEi_{,t} + \beta_2 SHORT_{i,t} + \beta_3 AUDIT\_FEE_{i,t} + \beta_4 NONAUDIT\_FEE_{i,t} + \beta_5 EFFORT_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 SEG_{i,t} + \beta_8 LOSS_{i,t} + \beta_9 GROWTH_{i,t} + \beta_{10} MB_{i,t} + \beta_{11} LEVERAGE_{i,t} + \beta_{12} FOREIGN_{i,t} + \beta_{13} M\_A_{i,t} + \beta_{14} INVAR_{i,t} + \beta_{15} ROA_{i,t} + \beta_{16} BANKRUPTCY_{i,t} + \beta_{17} GC_{i,t} + \beta_{18} ICW_{i,t} + \beta_{19} CFO_{i,t} + \beta_{20} LAG\_ACCRUALS + \beta_{21} LIT + YEAR\_FE + SIC2\_FE + \varepsilon_{i,t}$$

(Table 7 continued)

Panel D: Difference-in-Differences Analysis
City Sample

		|DACC| Analysis					
Period	Description	Non-Sanctioned		Sanctioned		Diff.	
Pre-Sanction	Discretionary Accruals $\|DACC\|$	0.085		0.076		-0.008	
	Measured by	β_0		$\beta_0 + \delta_1$		δ_1	
Post-Sanction	Discretionary Accruals $\|DACC\|$	0.083		0.084		0.001	*
	Measured by	$\beta_0 + \delta_2$		$\beta_0 + \delta_1 + \delta_2 + \delta_3$		$\delta_1 + \delta_3$	
Change	Discretionary Accruals $\|DACC\|$	-0.002		0.008		0.009	
	Measured by	δ_2		$\delta_2 + \delta_3$		δ_3	
		|DACCd| Analysis					
Period	Description	Non-Sanctioned		Sanctioned		Diff.	
Pre-Sanction	Discretionary Accruals $\|DACCd\|$	0.114	***	0.116		0.002	
	Measured by	β_0		$\beta_0 + \delta_1$		δ_1	
Post-Sanction	Discretionary Accruals $\|DACCd\|$	0.112		0.111		-0.001	
	Measured by	$\beta_0 + \delta_2$		$\beta_0 + \delta_1 + \delta_2 + \delta_3$		$\delta_1 + \delta_3$	
Change	Discretionary Accruals $\|DACCd\|$	-0.002		-0.005		-0.003	
	Measured by	δ_2		$\delta_2 + \delta_3$		δ_3	
		Restatement Analysis					
Period	Description	Non-Sanctioned		Sanctioned		Diff.	
Pre-Sanction	Restatements	-23.893		-21.866	***	2.028	***
	Measured by	β_0		$\beta_0 + \delta_1$		δ_1	
Post-Sanction	Restatements	-25.394		-24.540		0.854	
	Measured by	$\beta_0 + \delta_2$		$\beta_0 + \delta_1 + \delta_2 + \delta_3$		$\delta_1 + \delta_3$	
Change	Restatements	-1.501		-2.675		-1.174	
	Measured by	δ_2		$\delta_2 + \delta_3$		δ_3	

6. CONCLUSION

In my dissertation, I examine whether ethical violations committed by audit partners and the resulting public release of the PCAOB disciplinary order imposed real costs on the affiliated audit firms. I test my hypothesis using auditor switches, audit fees, and audit quality. I also examine whether having a CPA member on the audit committee makes a difference in the outcome related to auditor switches and audit fees. I find that at the city (office), MSA, and state levels there is some indication that in the pre-sanction period, clients were less likely to switch to a sanctioned auditor as compared to switches among other annually inspected audit firms. However, in all samples, it appears that the PCAOB sanction had no informational value to decision makers in that there is no association between the public release of the PCAOB disciplinary order and client losses or client gains in the post-sanction period. Furthermore, there appears to be no association between client losses and gains and having a CPA_ACM.

In regards to audit fees, my analysis suggests an increase in audit fees in the post-sanction period. This result is indicative of the audit firm's increased efforts to address the issues related to the auditor sanctions, may be a response to increased sanction risk or an increase in professional liability insurance premiums. Furthermore, I find that having a CPA-ACM does not have a significant effect on this outcome.

I was unable to consistently detect a difference in audit quality between sanctioned auditors and non-sanctioned auditors in either the pre-sanction or post-sanction periods. In the discretionary accruals and restatements analysis, I find no change in audit quality after the disclosure of the PCAOB sanction, with the exception of regional and national (firm) samples in the restatements test. However, because the results are not consistent across samples and tests, it

is difficult to conclude that the increase in restatements in the post-sanction period is associated with the public disclosure of the PCAOB disciplinary order.

Overall, my results indicate that there does not appear to be an associated cost to audit firms related to the public disclosure of PCAOB sanctions against an unethical audit partner. Based on my results, it appears that clients do not consider an ethical violation against an audit partner as grounds to dismiss their auditor nor demand lower audit fees. My results may be affected by the fact that clients, at least at the city (office), MSA and state levels react to the ethical violation before it is made public. This was seen in the case of BDO in which all clients of the Philadelphia office switched auditors before the sanction was made public. My results may also be associated with the fact that sanctions analyzed are against partners that are no longer with the affiliated audit firm at the time the sanction is made public and this may be enough assurance to clients that this type of violation will not occur again.

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APPENDIX. PRIOR RESEARCH RELATING TO THE PCAOB INSPECTION AND ENFORCEMENT PROCESS

Name of Article	Author	Date	Where	What's it About	Research on…..
When the PCAOB talks, who listens? Evidence from stakeholder reaction to GAAP-deficient PCAOB inspection reports of small auditors	Abbot et al.	2013	Auditing: A Journal of Practice and Theory	Results suggest that clients of GAAP-deficient, triennially inspected auditors were more likely to dismiss these auditors in favor of triennially inspected auditors that were not GAAP deficient. Found greater agency conflicts, the presence of an independent and expert audit committee, and outside block-holdings magnified the effect.	Inspections
A summary of 10 years of PCAOB research: What have we learned?	Abernathy, John L., Michael Barnes and Chad Stefaniak	2013	Journal of Accounting Literature	Reviews existing literature on the PCAOB's four functions-registration, standard-setting, inspections and enforcement. Analyze research concerning PCAOB enforcement actions to determine how markets have responded to sanctions against auditors and audit firms.	Inspections and Sanctions
The Effects of PCAOB Inspections on Auditor-Client Relationships	Acito et al.	2013	Working paper	Find that measure of relative exposure to deficient auditing is positively related to auditor changes, but is not related to changes in audit fees.	Inspections
Perceptions of factors affecting audit quality in the post-SOX UK regulatory environment.	Beattie, V., Fearnley, S. and Tony Hines	2013	Accounting and Business Research	Provides evidence on the preparers' and auditors' perceptions of the factors affecting audit quality in the post-SOX environment.	Inspections

Name of Article	Author	Date	Where	What's it About	Research on…..
PCAOB inspections of international audit firms: Initial evidence	Bishop et al.	2013	International Journal of Auditing	Found just over half of inspection reports identified audit deficiencies, and two-thirds cited quality control defects. Deficiency firms were smaller, but had more issuer clients than no-deficiency firms, reflecting possible over extension into the issuer market. Found no significant rate of audit deficiencies or quality control defects based on whether the PCAOB acted alone or cooperated with a local regulator in conducting the inspection, or based on the home country's legal tradition.	Inspections
A note on the effect of PCAOB inspections on the audit quality of triennial CPA firms	Blankley, A., Hong, Keejae P., Kerr, D. and Casper Wiggins	2014	Research in Accounting Regulation	This note reports the results of a study conducted regarding PCAOB inspections of triennial CPA firms. The purpose was to see if there was any evidence that inspections contributed to improved audit quality. It was found that small firms did not correct staffing deficiencies, which were related to previous audit deficiencies determined by the PCAOB. However, deficient firms did increase their audit fees significantly more following their first inspections than non-deficient firms. This result is consistent with applying greater audit effort after the inspection. Interestingly, this response does not persist through second inspections.	Inspections

Name of Article	Author	Date	Where	What's it About	Research on…..
A content analysis of CPA firms' correspondence following PCAOB inspections: 2004-2010	Blankley, A., Kerr, D. and Casper Wiggins	2012	Research in Accounting Regulation	Evaluate the letters provided by triennial audit firms (100 or fewer issuer clients) to the PCAOB in response to their inspections. The response letters provide insight into what the firms themselves think about the value of the inspection and the results of the inspections.	Inspections
Did the 2007 PCAOB Disciplinary Order against Deloitte Impose Actual Costs on the Firm or Improve Its Audit Quality?	Boone et al.	2015	The Accounting Review	Censure associated with a decrease in Deloitte's ability to retain clients and attract new clients, and a decrease in Deloitte's audit fee growth rates. However, no evidence to suggests that Deloitte's audit quality was different from that of the other Big 4 firms.	Enforcements
PCAOB Inspections of Smaller CPA firms: The Perspective of Inspected Firms	Brian Daugherty and Wayne Tervo	2010	Accounting Horizons	Solicit perceptions of the PCAOB inspection process from the leadership of triennial firms receiving their initial inspection.	Inspections
Enforcement Actions and Auditor Changes	Brocard, M., Franke, Benedikt and Dennis Voeller	2015	University of Mannheim	Examines relation between erroneous financial statements uncovered by enforcement actions and auditor changes.	Inspections

Name of Article	Author	Date	Where	What's it About	Research on…..
Does the PCAOB's Quality Control Remediation Process Promote Audit Report and Financial Statement Reliability?	Buslepp and Victoravich	2014	Working Paper	Provide evidence that the release of Part II report discloses new relevant information about a firm's disregard for maintaining an effective quality control system. Find that QCC firms have lower audit quality in terms of restatements after the PCAOB release of inspection findings that those firms that address their criticisms. Suggests that the release of Part II indicates a disregard or an inability to address the identified weaknesses, which results in continued audit quality issues. Find that a release of Part II foreshadows a change in auditors, either due to dismissal or resignation. Find a majority of restatements for clients of QCC firms are discovered by a successor auditor of higher quality after the client has changed auditors. Conclude that for triennial firms, Part II signals audit quality and the two-part reporting process leads to improved financial statement reliability.	Inspections
KPMG's PCAOB Inspection Report is Out and It's Not Good	Caleb Newquist	2015	going concern: http://goingconcern.com/post/kpmgs-pcaob-inspection-report-out-and-its-not-good	28 deficient audits of 52 - deficiency rate of 54 percent - up from a year ago, when deficiency rate was 46 percent	Inspections

Name of Article	Author	Date	Where	What's it About	Research on…..
Accounting industry and SEC hobble America's audit watchdog	Charles Levron	2015	http://www.reuters.com/investigates/special-report/usa-accounting-PCAOB/	James Schnurr, chief accountant at the SEC said "the PCAOB was moving too slowly to address auditing failures that in recent years had shaken public confidence in those firms." Schnurr had direct authority over the PCAOB - a regulator that had derailed his C-suite ambitions at Deloitte & Touche. A string of damning PCAOB critiques of Deloitte's audits led to Schnurr's demotion.	Inspections
PCAOB inspections and large accounting firms	Church and Shefchik	2012	Accounting Horizons	Found a significant, downward trend in the number of deficiencies from 2004 to 2009.	Inspections
Negative PCAOB inspections of triennially inspected auditors and involuntary and voluntary client losses	Daugherty et al.	2011	International Journal of Auditing	Found deficiency reports were associated with triennially inspected auditors being involuntarily dismissed by their clients, and companies that dismissed triennially inspected auditors were more likely to hire triennially inspected auditors without deficiency reports. Also, deficiency reports were associated with triennially inspected auditors voluntarily resigning from their publicly traded clients, and ceasing to be registered with the PCAOB.	Inspections
Client stock market reaction to PCAOB sanctions against a Big 4 auditor	Dee et al.	2011	Contemporary Accounting Research	All Big 4 clients experienced negative returns during the event window, but the returns for Deloitte clients were significantly more negative.	Enforcements

Name of Article	Author	Date	Where	What's it About	Research on…..
Should PCAOB Disciplinary Proceedings Be Made Public? Evidence from Sanctions against a Big 4 Auditor	Dee et al.	2012	Current Issues in Auditing	Conclude that investors find information about PCAOB sanctions against audit firms to be relevant in assessing audit quality and use that information in setting stock prices for audit firms' clients.	Enforcements
How should the auditors be audited? Comparing the PCAOB inspections with the AICPA peer reviews	DeFond	2010	Journal of Accounting and Economics	DeFond analyzes the investigations of the PCAOB inspections by Lennox and Pittman (2009).	Inspections
One in Three Audits Fail, PCAOB Chief Auditor Says	Chasan, Emily	2014	The Wall Street Journal	More than one in three audits so deficient, auditors shouldn't have signed off - Martin Baumann, chief auditor of the PCAOB. Boards inspections are find problems - at both large and small audit firms - stemming from ineffective supervision, ineffective quality reviews and monitoring, a lack of professional skepticism, and inappropriate tone at the top of the audit firm	Inspections
PCAOB Enforcements: A review of the first three years	Gilbertson and Herron	2009	Current Issues in Auditing	Firms disciplined by PCAOB had longer reviews and more identified deficiencies, tended to be smaller and less financially sound audit firms with fewer partners.	Enforcements
Are PCAOB-identified audit deficiencies associated with a change in reporting decisions of triennially inspected audit firms?	Gramling et al.	2011	Auditing: A Journal of Practice and Theory	Analysis generally indicated that firms with PCAOB deficiencies were more likely to issue going concern opinions for financially distressed clients subsequent to their PCAOB inspection than prior to their inspection.	Inspections

Name of Article	Author	Date	Where	What's it About	Research on…..
PCAOB inspection reports and audit quality	Gunny and Zhang	2012	Journal of Accounting and Public Policy	Found PCAOB inspections were associated with lower audit quality when reports were seriously deficient. Found clients of triennially inspected auditors that receive a deficient or seriously deficient report were associated with significantly higher abnormal accruals and clients of auditors that received a seriously deficient report were associated with a greater propensity to restate.	Inspections
PCAOB inspections of smaller CPA firms: Initial evidence from inspection reports.	Hermanson et al.	2007	Accounting Horizons	Found 60 percent of inspected firms had audit deficiencies. Firms with audit deficiencies were smaller, had larger number of issuer clients, and were growing more rapidly than firms without deficiencies, suggesting an over extension into the issuer client market by some firms.	Inspections
Audit partner perceptions of post-audit review mechanisms: An examination of internal quality reviews and PCAOB inspections	Houston and Stefaniak	2013	Accounting Horizons	Analyzed differences between large firm partner perceptions of PCAOB inspection and Internal Quality Review processes. Found that partners believed both impacted professional reputation, but partners perceived that PCAOB inspections increased their firms' litigation risk more so than did IQRs.	Inspections
Audit fees, PCAOB sanctions, sanction risk, sanction risk premiums, and public policy: Theoretical framework and a call for research	Huber	2013	Journal of Accounting, Ethics & Public Policy	Risk of sanctions by PCAOB may be passed on to audit clients in the form of higher audit fees. Calls for research on the subject.	Enforcements

Name of Article	Author	Date	Where	What's it About	Research on…..
PCAOB considers changing focus of inspections	Ken Tysiac	2016	Journal of Accountancy	Select audits for inspection on a broader basis rather than areas of high risk. Random selection. Increasing focus of inspection on firm's quality control system while potentially decreasing the number of audits inspected. Progress at smaller firms is more challenging to gauge because a different group of firms is inspected each year over a three year-cycle, and new firms join the group while others cease performing work that would require PCAOB inspection.	Inspections
Does PCAOB inspection exposure affect auditor reporting decisions?	Lamoreaux	2013	Working Paper: University of Arizona	Found audit firms in jurisdictions that are subject to PCAOB inspection process tended to issue more going concern opinions and report more material weaknesses in internal controls.	Inspections
An account analysis of PCAOB inspection reports for triennially inspected audit firms	Landis et al.	2011	Journal of Business & Economics Research	Majority of deficiencies be area were identified as inadequate procedures associated with certain accounts. Nearly 90 percent of the examined deficiencies by failure type were due to inadequate tests or documentation on the part of the auditor.	Inspections
Auditing the auditors: Evidence on the recent reforms to the external monitoring of audit firms.	Lennox and Pittman	2010	Journal of Accounting Economics	PCAOB inspections have not been perceived as influencing audit quality or client retention. However, new standards have caused some audit firms to exit the market. Taken as a whole, it is inconclusive if the PCAOB has had an effect on audit quality.	Inspections

Name of Article	Author	Date	Where	What's it About	Research on…..
An analysis of SEC and PCAOB enforcement actions against engagement quality reviewers	Messier et al.	2010	Auditing: A Journal of Practice and Theory	Less than 30 percent of the sanctions in sample were levied against Big 4/Big 5 audit firms. Most identified deficiencies related to lack of due professional care on the part of the reviewer - lack of professional skepticism. Other deficiencies included incomplete or inaccurate financial information or a lack of conformity with GAAP.	Enforcements
Investor reactions to PCAOB inspections reports	Offermans and Peek	2011	Working Paper: Erasmus University	Found statistically and economically significant market response to the issuances inspection reports. Found that at least part of the market response to the publication of PCAOB inspection reports can be attributed to revisions in investors' beliefs about accounting information quality.	Inspections

Name of Article	Author	Date	Where	What's it About	Research on…..
The impact of PCAOB regulatory actions and engagement risk on auditors' internal audit reliance decisions	Petherbridge and Messier, Jr.	2016	Journal of Accounting and Public Policy	Find that when the focus of the PCAOB inspection process is balanced, auditors' reliance on the IAF is not impacted by engagement risk. However, when the PCAOB inspection process is focused on effectiveness, the auditors rely more on the IAF when engagement risk is low than when it is high. Thus, if the goal of Auditing Standard No. 5 (AS5) is to have external auditors be more sensitive to the risk of the tests to be performed, then the PCAOB's efficiency focus for inspections did not have the intended effect.	Inspections
A case study on the first PCAOB inspection report issued to a Big-4 firm that included public disclosure of the firm's quality control criticism - Deloitte & Touche LLP	Roybark	2013	Journal of Accounting, Ethics & Public Policy	Deloitte experienced a greater number of auditor changes and dismissals in the 13-month period surrounding the disclosure.	Inspections
Economic Consequences of PCAOB Inspections: Impact on Information Asymmetry over Time	Vanstraelen, Ann, Patrick Vorst and Lei Zou	No date	Working paper	Examines whether and how the publication of PCAOB inspection reports of triennially inspected audit firms changes the dynamics of client-company information asymmetry among investors.	Inspections

Name of Article	Author	Date	Where	What's it About	Research on…..
Enforcement and Earnings Quality in the European Union: Does the Establishment of powerful Enforcement Mechanisms make a Difference?	Varraber, Michael	2015	Department of Accounting and Auditing, University of Graz Universitaetsstrasse 15/F1, 8010 Graz, Austria	Examines the relationship between the strength of the national accounting enforcement in European countries and earnings quality or the degree of earnings management in financial statements.	Enforcements

VITA

Stephanie Merrell was born and raised in New Orleans, Louisiana. She graduated from Nicholls State University with a Bachelor of Science in Accounting in 1992 and worked in industry for the next twenty plus years. During this time, she pursued and completed her master's degree in Business Administration in 2001 at Nicholls State University. She also received her CPA license during this time. In 2013, she began her journey to earn a doctorate in Accounting. Her research interests include financial reporting quality, auditing, disclosure, and regulation. Her teaching interests include financial accounting, intermediate accounting, managerial accounting, accounting information systems, and auditing.