

The Association Between Audit Committee Overboarding, Audit Committee Responses to Increased Workloads, and Financial Reporting Quality After SOX

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ABSTRACT

The Sarbanes-Oxley Act (SOX) added a multitude of financial oversight responsibilities to the audit committee of public companies. These responsibilities increased the amount of time each audit committee member needed to devote to each committee served, leading to concerns amongst regulators and the investing community that audit committees that were overboarded and serving on multiple other board seats would be unable to effectively monitor the companies they represented. I find that these concerns are undue. More overboarded audit committees have adequately adjusted to their increased workloads in the decade since SOX to such a degree that they have lower misstatement frequencies than less overboarded committees. By contracting in additional auditor effort or retaining higher quality auditors overboarded audit committees have found responses that aid in their monitoring. These responses lead to positive financial reporting outcomes when audit committees accept the limitations imposed by being overboarded. Overall, I find that more overboarded audit committees are able to remain effective monitors of the financial reporting process.

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I. INTRODUCTION

"The work of the audit committee is now very heavy [post-SOX] and many good candidates are saying, 'I already serve on one board.'"

Janet Dolan, former CEO of Tennant Co. (*Burns 2004*)

“Overboarded” boards of directors and audit committees have been subject to growing levels of interest from academics, proxy advisors, shareholder advocates, and the popular press (Field, Lowry, and Mkrtchyan 2013). Accordingly, Institutional Shareholder Services’ (ISS) *Director Overboarding Policy* defines a director as overboarded if “they sit on a number of boards which *could* result in excessive time commitments and an inability to fulfill their duties.”¹ With respect to the audit committee specifically, the focus on overboarding has become more pertinent following the passage of the Sarbanes-Oxley Act of 2002 (hereafter SOX or the Act). This is because SOX fundamentally altered the nature of the audit committee by requiring full independence from management, assigning responsibility for primary oversight of the financial reporting process, and designating the committee as the primary company representative to appoint, negotiate fees, and settle disputes with the external auditor (Beasley, Carcello, Hermanson, and Neal 2009; Representatives 2002). These responsibilities, time obligations (i.e., committee meetings, auditor meetings, financial statement reviews, etc.), and oversight roles have only expanded since the Act’s passage in 2002 (Linck, Netter, and Yang 2009; Stuart 2012). As a result, the potential adverse impact of audit committee overboarding may have worsened, compelling boards and companies to find ways to maintain effective monitoring while adapting to their new regulatory environment.

¹ The term overboarded (or overboarding) has been used interchangeably with multiple directorships, busy boards, and busyness to describe directors that serve on multiple other outside boards and/or boards that are comprised of such directors. The 2016 ISS policy on overboarding (US) can be obtained from: <https://www.issgovernance.com/file/policy/us-overboarding.pdf>.

In fact, many audit committee members are worried about their ability to effectively do their jobs in their transformed positions. Forty percent of the global audit committee members surveyed by KPMG believe that it is becoming “increasingly difficult” for audit committees to have the “time and expertise” to “carry out its core oversight responsibilities,” while another eight percent believe that it has already become too difficult to achieve effective oversight (KPMG 2015, 15). Given these concerns, overboarded audit committees that are proactive, and recognize that their increased workloads could be problematic, are positioned to take steps to moderate the negative effects and difficulties associated with holding multiple other outside board seats. Alternatively, less responsive audit committees are positioned to become unable to maintain their roles as effective monitors of the financial reporting process, a concern expressed by many in the KPMG survey.

Prior research finds that overboarded audit committees, proxied for by the percent of directors on the audit committee that serve on multiple other outside boards, are associated with lower financial reporting quality in the immediate post-SOX era, but have no association in the pre-SOX period (Sharma and Iselin 2012). While this was an important finding to understand the initial association relation between overboarded audit committees and financial reporting quality, the years immediately following SOX do not provide sufficient time for regulators and researchers to appropriately understand the overall effect of major legislation (Kao, Li, and Zhang 2014). Since this initial finding, various board changes, increases in incentive structures, and learning by committee members, highlight the need to: (a) explore how audit committees have adapted to and responded to changes in corporate governance in the decade since SOX’s implementation, (b) re-examine the overall association between overboarded audit committees and financial reporting quality in the extended post-SOX era, and (c) determine if responses to

changes in the audit committee environment were successful in addressing the previously found short-run association with low-quality financial reporting. Therefore, the purpose of this study is to fill this void in the literature and examine these relations over an extended period in the post-SOX environment.

Notwithstanding, findings that changes related to SOX require more time to serve on the audit committee, evidence suggests that many audit committee members still do not believe that being overboarded impairs their ability to execute their role on the audit committee. While forty-eight percent of audit committee members are at least partially worried about their ability to provide effective oversight, the majority (fifty-two percent) of global audit committee members feel their audit committee has the time and skills to achieve their goals (KPMG 2015, 15). An example of this majority belief is exhibited by Edward Kangas, the former Chief Executive Officer of Deloitte, who simultaneously serves on five separate company boards, including three audit committees. Despite his being considered overboarded, Mr. Kangas doesn't think the number of boards or audit committees are problematic, and reports that "if something unexpected comes up, I can get on a phone or I can get on an airplane" and avoid missing other board commitments (Lublin 2015). Similarly, Jonathan Miller, a former Fortune 1000 CEO, and current public company audit committee member, "insisted that much of the [board] work is clustered at the end of quarters... so you can plan for it" (Wallach and Pfeiffer 2015). These anecdotes underscore the importance of understanding whether audit committees need to take steps to manage their increased workloads and whether audit committee overboarding limits the audit committee's ability to perform its duties.

Using a sample of directors from BoardEx from 2004 to 2014, I first examine how audit committees respond to increased workloads and job demands in the extended period following

SOX. Specifically, I test whether audit committees take steps to respond to their increased workloads by reducing the percent of the audit committee that is classified as overboarded, whether they contract with the financial statement auditor to provide increased levels of auditor effort (essentially utilizing the auditor as a substitute for monitoring), or whether they switch to a higher quality auditor to obtain higher levels of financial statement assurance. I find that audit committees comprised of higher levels of overboarded members respond via all three methods - reducing the degree to which they are overboarded, contracting with external auditor through higher audit fees, and retaining a higher quality auditor. More overboarded audit committees appear to have recognized their workloads increased following SOX and have taken actions to help mitigate their higher workloads.

After exploring how overboarded audit committee members responded to their increased workloads following the passage of SOX, I re-examine the association between overboarded audit committees and financial reporting quality in a longer post-SOX period than previously examined. I find results that run counter to the concerns and expectations of proxy advisors (Lublin 2015; Wallach and Pfeiffer 2015), and many audit committee members (KPMG 2015), indicating that on average, higher levels of overboarding is associated with higher quality financial reporting. On average, for the post-SOX years 2004-2014, overboarded audit committees are less likely to experience financial statement misstatements than less overboarded committees. Audit committees with more overboarded directors have learned to manage their various responsibilities and have developed ways to maintain high financial reporting quality despite concerns that they have faced significant increases in their workloads in the post-SOX period.

Despite my finding of an average positive association between overboarded audit

committees and financial reporting quality, my initial results do not tell the complete story. Upon further examination, I find that this average positive association is most strongly present when committees take steps to mitigate the negative effects of higher workloads and responsibilities by contracting with the external auditor through higher fees or retaining a higher quality auditor. Overboarded audit committees appear to respond to SOX by transferring a portion of the monitoring responsibilities of the audit committee to the company's auditor, and this response aids in the maintaining of high financial reporting quality. My results show that overboarded audit committees more strongly associate with higher quality when they have the incentive and ability to maintain their reputation, engage a higher quality auditor, or engage their existing auditor for work above the auditor's regular effort level. Conversely, I find that the committee becoming less overboarded is not an effective strategy to achieve higher financial reporting quality.

This paper provides several contributions to the accounting and corporate governance literature. First, my study adds to the literature examining audit committees post-SOX by showing that overboarded audit committees have adjusted to their increased workloads in the decade since SOX was enacted; they've done this to such a degree that being overboarded is no longer harmful to financial reporting. In fact, being overboarded can lead to positive outcomes when audit committees recognize the limitations imposed by being overboarded, contract in additional auditor effort, or retain a higher quality auditor. Second, my study contributes to the understanding of how audit committees have changed since the passage of SOX. Overboarded committees responded to their increased workloads that came about as a result of SOX by becoming less overboarded, by switching to Big-4 auditors, and by paying the auditor more in audit fees. To my knowledge, I am the first to find a positive association between audit

committee overboarding and the paying of higher audit fees. Lastly, my findings add to the understanding of regulation on corporate governance. My results compliment the findings of Kao et al. (2014) by finding that inferences drawn in the years directly following a major piece of legislation, such as SOX, may not lead to a complete understanding of the legislation's effect. Specifically as it relates to corporate governance over financial reporting, it can take years for boards, committees, and auditors to reach a point where they fully understand how the legislation has affected them and understand best how to perform the duties required of the legislation.

The remainder of this paper is organized as follows: the next section provides additional background, theory, as well as my hypothesis development. Section III details the sample selection process and data sources. In Section IV the variable measurements and research design are discussed. I present the primary results in Section V, while Section VI reports sensitivity and additional analysis. Section VII concludes.

II. INSTITUTIONAL BACKGROUND, THEORY, AND HYPOTHESIS DEVELOPMENT

Institutional Background and Audit Committee Changes

The period immediately after the passage of SOX was a time of uncertainty, confusion, and upheaval for audit committees and parties involved in financial statement monitoring. Companies, boards, audit committees, and auditors were all adjusting to requirements that mandate full independence on the audit committee, the designation of the audit committee financial expert, and implementation of internal control considerations and testing (DeFond and Francis 2005; Representatives 2002). Accordingly, prior research and findings around that time, while important to understand the immediate effect of the legislation, may not lead to the same inferences as meaningful time has passed following the Act's implementation because of significant changes in the governance environment that have persisted after SOX. Kao et al. (2014, 166) highlight the importance of considering an extended post-SOX window by stating, "the effect of major events and government regulations cannot be adequately assessed based on what transpires in the short run." Utilizing extended samples post-SOX captures more than just immediate auditor responses to the heightened regulatory environment and negative publicity and allows researchers to better understand relations that were changed as a result of SOX (Kao et al. 2014). As it pertains to audit committees, studies undertaken directly after SOX implementation fail to consider the learning that occurs on these committees and do not give audit committees adequate time to address changes to the committee following regulatory reform.

Following SOX's passage, the market for audit committee directors experienced a simultaneous market shift that increased demand for audit committee members with financial

experience, while at the same time reduced the supply of directors that were considered qualified or eligible to serve on the audit committee (Defond, Hann, and Hu 2005; Linck et al. 2009). Companies needed more directors with financial proficiency, but were limited in options because SOX bars directors that lack independence, even if they are financially proficient, from serving on the audit committee. At the same time, this market shift for qualified audit committee members was coupled with a fifty percent increase in audit committee member compensation² (Linck et al. 2009; Stuart 2012). The increase in incentives and compensation gives audit committee members added motivation to maintain high levels of monitoring to justify their higher levels of compensation, even with increases in responsibilities (Bonner and Sprinkle 2002).

In addition to the environmental forces affecting the market for audit committee members, SOX required a steep learning curve directly after the Act's passage, because audit committees needed time to gain familiarity with the new mandates and reporting requirements and learn the processes necessary to complete their tasks in an acceptable period of time. Learning by task participants-- in this study audit committee members-- initially requires a large adjustment period with a significant time and cost investment in the early stages of a new task or job (Yelle 1979). Over time this investment leads to improved efficiencies and task performance. After SOX, audit committees had to quickly learn how to address internal control reporting, audit partner rotation, auditor negotiations, and a multitude of other tasks mandated by the Act. Although the initial learning curve and adjustments needed following SOX were likely lofty, as of 2009,³ audit committees are believed to have made it over the most difficult aspects

² CEO compensation over the same time period increased only twenty-six percent (Linck et al. 2009).

³ Using 2009 as a benchmark for the learning curve normalization is consistent with the assessment reached by the Center for Audit Quality (CAQ) in their 2010 response to the Securities and Exchange Commission request for comments on SOX compliance (Center for Audit Quality 2010). It was in 2009 that the CAQ and Committee of

of their learning process, leading to inferences being drawn immediately following SOX that may be different in the years somewhat removed from the passage of SOX (Sherman, Carey, and Brust 2009).

In support of learning by audit committee members, a majority of audit committee members currently do not consider overboarding to be detrimental, and continue to reject the belief that documented increases in audit committee workloads, as a result of SOX, make serving on multiple outside boards problematic (KPMG 2015; Lublin 2015). Directors believe that they have had time to familiarize themselves with their new committee environment, and that they now have the time and resources to handle new projects and commitments without jeopardizing existing commitments (Sherman et al. 2009). Furthermore, given their increase in incentives and compensation (Linck et al. 2009), and their desire to preserve reputational capital and future job prospects (Fama and Jensen 1983), overboarded audit committees may respond through higher degrees of monitoring, thus leading to higher financial reporting quality.

SOX has had a profound impact on the operations of the audit committee. Since the Act's passage, changes to the audit committee and learning by members present an opportunity to better understand how overboarding on the audit committee affects financial reporting outcomes.

Audit Committee Responses to Increased Workloads

The work of the audit committee increased dramatically after the passage of SOX (Beasley et al. 2009; Cohen, Krishnamoorthy, and Wright 2010; Linck et al. 2009), creating a situation where audit committees must consider how they will respond to their new roles and

Sponsoring Organizations (COSO) also issued guidance to aid companies in complying with SOX Section 404, quickening the rate at which audit committees could learn to address new requirements in SOX.

workloads, as well as maintain their reputations as directors (Fama and Jensen 1983).⁴

Maintaining the status quo does not seem appropriate considering the many new responsibilities mandated by SOX. In the interest of protecting their reputations, there are observable actions available to the audit committee that they can implement directly, such as reducing the degree of overboarding on the committee, contracting to increase the amount of work provided by the external auditor, and/or switching to a higher quality auditor.

Reducing the percent of members classified as overboarded on the committee can be undertaken through audit committee member turnover, whether voluntary or forced, by limiting the number of outside board seats audit committee members may hold, or by reorganizing committee assignments on the board. These actions capture options available to the various parties involved in the selection of the service of the audit committee. Turnover can occur because of directors retiring, being forced out by shareholders, or being ineligible due to SOX's audit committee independence requirement. Further, if companies and proxy advisors continue their push for outside board seat limitations, directors will have to choose which of their committees and boards to remain on, dropping those that are less desirable. However, the ability to respond via a reduction in the degree of overboarding also requires having qualified directors willing to put their reputation on the line to serve on the audit committee, while limiting their other board commitments. This became increasingly difficult after the passage of SOX (Beasley et al. 2009; Linck et al. 2009; Sherman et al. 2009).

Audit committees that are unable or unwilling to alter their portfolio of board seats have other available recourses, such as contracting with the auditor to provide a higher level of

⁴ Audit committees saw the number of committee meetings rise from a mean of 5.0 meetings in the year of SOX's passage to 8.7 meetings in 2012 (Stuart 2012, 7). They also saw an increase in the number of formal meetings with the auditor, from a mean of two to three meetings pre-SOX to more than six annual meetings post-SOX (Cohen et al. 2010).

assurance to compensate for the audit committee's increased workload, or retaining a higher quality auditor. Unlike becoming less overboarded, contracting with the auditor doesn't require any turnover among existing committee members, and it allows directors to maintain their full portfolio of outside board seats. Given that audit fees represent compensation for hours worked and client risk (Bell, Landsman, and Shackelford 2001; Simunic 1980), paying higher fees will compensate the auditor for the additional work necessitated by the audit committee's overboarding, holding risk constant. Similarly, moving from a smaller auditor to a Big-4 auditor should be associated with increased levels of assurance provided, relative to the previous auditor. In this scenario, the committee recognizes the need for more oversight and responds by paying for more assurance, either from the existing auditor, or from a higher quality auditor (Carcello, Hermanson, and Ye 2011a). While increasing auditor assurance would help compensate for the overboarding of the audit committee, audit committees may be loath to undertake this approach if they feel that it will come at too large a cost to shareholders, or if they do not want to be exposed to more extensive scrutiny by the external auditor.

The preceding discussion leads to the first null hypothesis.

H1: There will be no association between audit committee overboarding and committee responses to increased workloads.

Thus, this hypothesis examines whether there is a relation between audit committee overboarding and (1) a reduction in the percent of audit committee members that serve on three or more boards, (2) an increase in abnormal audit fees paid to the external auditor, and/or (3) a switch to a higher quality auditor.

Reputational Capital Theory and the Busyness Hypothesis

Independent of audit committee actions, there are competing theories as to the effect of overboarding on corporate governance and company objectives. The early theoretical work of Fama and Jensen (1983) establishes that outside directors use the number of boards they serve on to signal the quality of their work and allay reputational concerns. In one of the first empirical tests of the Fama and Jensen (1983) theory, Ferris, Jagannathan, and Pritchard (2003) find that the number of outside directorships held by board members is positively associated with company operating performance and negatively associated with instances of securities fraud.⁵ Ferris et al. (2003) also find that overboarded directors are more involved board members than less overboarded directors.⁶ Overboarding appears to push directors to signal their work ethic through more observable actions that preserve their reputation. They find that more overboarded directors are positively associated with effort and performance because overboarded directors are more concerned about their reputation and options for future board opportunities. This is consistent with previous literature that shows that companies with better corporate governance also have higher financial reporting quality.⁷

These reputational concerns have become even more important for audit committee members after high-profile audit committee failures were uncovered leading up to the passage of SOX (Sherman et al. 2009). When a reporting inaccuracy is found after filing the financial statements, or if audit committees rely on inaccurate management information, their reputations are damaged by their lack of oversight, giving them added incentive to maintain high-quality

⁵ Reputational capital theory is also supported when examining the association between director overboarding and company value (Field et al. 2013).

⁶ Ferris et al. (2003) find that more overboarded directors have higher meeting attendance and serve on more committees.

⁷ This literature includes, but is not limited to: Beasley et al. (2009); Bronson, Carcello, Hollingsworth, and Neal (2009); Carcello, Hermanson, Neal, and Riley (2002); Carcello, Neal, Palmrose, and Scholz (2011b); Cohen et al. (2010); Cohen, Hoitash, Krishnamoorthy, and Wright (2014); Dhaliwal, Naiker, and Navissi (2010).

monitoring as they acquire more outside board seats.

Even though directors are inherently motivated to preserve their reputations (Fama and Jensen 1983), multiple outside directorships can also lead to members becoming too time-constrained to perform their duties. The busyness hypothesis predicts that directors who hold multiple other outside directorships will become overboarded and too engrossed in their other board commitments to effectively monitor management (Ferris et al. 2003). In early tests of the busyness hypothesis, companies dominated by overboarded directors have lower financial growth prospects (Falato, Kadyrzhanova, and Lel 2014; Jiraporn, Kim, and Davidson 2008; Jiraporn, Singh, and Lee 2009), and are less likely to remove underperforming CEOs, indicating a failure to appropriately monitor the performance of the CEO and hold him accountable (Core, Holthausen, and Larcker 1999; Fich and Shivdasani 2006).⁸ These findings suggest that as boards are comprised of more directors classified as overboarded, they devote less time to each company's activities (Adams, Hermalin, and Weisbach 2010).

Although there are mixed results examining the benefits or limitations associated with director overboarding (Adams et al. 2010; Field et al. 2013), there has been a growing concern that directors, including audit committee members, are stretching themselves too thin and serving on too many other boards, negatively impacting their ability to provide sufficient oversight (Lublin 2015; Wallach and Pfeiffer 2015). It is possible that overboarded audit committees became problematic in the post-SOX environment because of the sweeping changes that directly changed the nature of the audit committees without significantly changing the responsibilities of the entire board. In the first test of this relation, Sharma and Iselin (2012) examine how multiple directorships by the audit committee as a collective group relates to financial reporting quality,

⁸ Fich and Shivdasani (2006) differ from previous studies by omitting inside and grey directors and focusing exclusively on outside directors.

finding that more overboarded audit committees are associated with higher misstatement likelihoods in the immediate post-SOX period.⁹ However, much has changed since their sample period when companies, directors, and auditors were all still adjusting to SOX's new governance and reporting requirements (Kao et al. 2014). Over a longer period, the actors (auditors, audit committees, and corporate accountants) should have had time to learn how to address their higher workloads and make adjustments to meet their objectives by moving along the learning curve towards greater efficiency (Yelle 1983). Therefore, the full effect of overboarding on reporting quality may have changed as committees have learned to better manage their commitments over the decade following SOX.

The preceding discussion leads to the second null hypothesis.

H2: In the expanded post-SOX era there is no association between audit committee overboarding and financial reporting quality.

Responses to Increased Workloads and Financial Reporting Quality

In H1, I considered responses to increased workloads. These responses are undertaken to reduce time constraints on committee members in the post-SOX era (reduction in the percent of audit committee members who are overboarded), or to substitute for effective financial reporting oversight (contracting for higher auditor effort or hiring a higher quality auditor). They are intended to serve as mechanisms to achieve sufficiently high levels of financial reporting quality despite the committee's work demands. If effective, reducing the degree the committee is overboarded will free-up the audit committee's schedule, as well as afford the committee more time to focus on effective financial reporting. However, it can be an ineffective method if the

⁹ Tanyi and Smith (2015) examine whether individual audit committee member overboarding (i.e., audit committee chair, financial expert, or other general members) leads to differing financial reporting outcomes. Their analysis differs from this study and from Sharma and Iselin (2012) as it is limited to the director level, and not the full committee.

increase in time required to monitor the financials since SOX's implementation exceeds the additional time gained by reducing other outside board commitments. In terms of auditor contracting, higher audit fees, or switching to a higher quality auditor should be accompanied by additional auditor effort and/or proficiency (Carcello et al. 2011a; Eshleman and Guo 2014), leading to higher quality financial reporting. On the other hand, if the additional effort or proficiency is not strong enough to offset the lack of monitoring by committee members, financial reporting quality will be negatively impacted.

The preceding discussion leads to the third null hypothesis.

H3: For higher levels of audit committee overboarding there will be no association between financial reporting quality and audit committees that become less overboarded, pay higher audit fees, or switch to a higher quality auditors.

Thus, this hypothesis examines whether there is a relation between misstatements and audit committees that are more overboarded and experience: (1) a reduction in the percent of audit committee members that serve on three or more boards, (2) an increase in abnormal audit fees paid to the external auditor, and/or (3) a switch to a higher quality auditor.

III. SAMPLE SELECTION AND DATA

To construct my sample, I obtain all companies in the BoardEx database with a fiscal year beginning on or after July 1, 2004 to allow the full implementation of the Sarbanes-Oxley Act, and end my sample with companies that have a fiscal year-end on or before December 31, 2014, to allow for the typical reporting lag in identifying financial statement misstatements. Prior studies had examined audit committee overboarding during the implementation of SOX and directly following its implementation (Sharma and Iselin 2012; Tanyi and Smith 2015). Following the recommendation of Carcello et al. (2011a) and Kao et al. (2014) I focus exclusively on the extended post-SOX era, recognizing that SOX changed governance research by regulating much of the governance characteristics addressed in the prior literature. I require each observation to have matching audit fee data from the Audit Analytics Opinions database to construct the auditor fee models related to H1 and H3. I obtain accounting misstatements from the Audit Analytics Non-Reliance database and segment data from the Compustat Historical Segments database. Consistent with prior literature, I drop all companies in regulated industries (Cohen et al. 2014; Eshleman and Guo 2014; Linck et al. 2009). Appendix A lists the variables, the variable definitions, and the data sources in the models. All other financial control variables are obtained from the Compustat North American annual database. Governance variables and board characteristics are obtained from BoardEx. Auditor switches are obtained for the Audit Analytics Auditor Changes database. Table 1¹⁰ details the sample construction for the misstatement and audit fee models. The construction results in a final sample of 35,577 company-year observations for misstatements and 28,926 company-year observations for the audit fee analysis.

¹⁰ All Tables are given in Appendix C. All figures are given in Appendix B.

IV. RESEARCH DESIGN

Following prior literature, I proxy for the effectiveness of financial reporting monitoring using annual misstatements, misstatements of a company's 10-K identified through subsequent restatement announcements (Cao, Myers, and Omer 2012; Carcello et al. 2011b; Cohen et al. 2014; Francis, Michas, and Yu 2013). This measure represents all years that were ultimately misstated. To measure a reduction in overboarding on the audit committee I consider whether a company's audit committee lowered the percentage of directors considered overboarded from the prior period. Lastly, I proxy for auditor contracting as a method to reduce negative side effects of increased workloads utilizing changes in abnormal audit fees and company switches to a higher quality auditor (Asthana and Boone 2012; Dehaan, Hodge, and Shevlin 2013; Eshleman and Guo 2014). In all models, I winsorize continuous control variables at the 1% and 99% levels.

Overboarded Audit Committee

To measure overboarded audit committees, I follow prior literature and create a variable (*BUSY%*) that measures the degree to which an audit committee is overboarded, proxied for by the percentage of audit committee members that serve on three or more public company boards, six or more if retired (Cashman, Gillan, and Jun 2012; Field et al. 2013; Jiraporn et al. 2008; Jiraporn et al. 2009; Sharma and Iselin 2012).¹¹ Higher (lower) values indicate a greater (lesser) proportion of audit committee members at a given company who are classified as overboarded. In the additional analysis in Section VI, I also measure the variable as a binary indicator equal to

¹¹ The majority of studies on multiple directorships or overboarding have utilized three total directorships (six if retired) as the definition of overboarded, as initially recommended by the Blue Ribbon Committee of the National Association of Corporate Directors (NACD) 1996): Cashman et al. (2012); Core et al. (1999); Fich and Shivdasani (2006); Field et al. (2013); Jiraporn et al. (2008); Jiraporn et al. (2009); Linck et al. (2009); Sharma and Iselin (2012)

one if fifty percent or greater of the audit committee is overboarded (Core et al. 1999; Field et al. 2013) .

Overboarded Responses: Less Overboarding, Auditor Contracting, and Auditor Changes

To test H1, I examine the methods audit committees and companies use to respond to increased workloads. I first consider whether more overboarded audit committees become less overboarded in response to the audit committee environment in the post-SOX era in Equation (1):

$$REDUCEBUSY_{it} = \beta_0 + \beta_1 BUSY\%_{it-1} + \beta_2 \Delta LNACSIZE_{it} + \varepsilon_{it} \quad (1)$$

To measure a reduction in the degree of overboarding, I create a variable, *REDUCEBUSY*, equal to one if the percentage of audit committee members that are overboarded is lower in year *t* than year *t-1*. In all other periods, *REDUCEBUSY* is equal to zero. This method recognizes audit committees that: have members that move from being overboarded to not, add committee seats without adding an additional overboarded member, and/or experience turnover of more overboarded directors. The only control variable included in this equation is the change in *LNACSIZE* from year *t-1* to year *t*, because the size of the audit committee is likely a factor in the committee's ability to enact changes in size, overboarding, and/or appointed directors. A positive coefficient on *BUSY%* indicates that more overboarded audit committees are more likely to reduce the percentage of directors with multiple other outside commitments. A negative coefficient would imply that more overboarded audit committees are less likely to respond to their work demands by reducing the degree that they are overboarded.

Second, I assess the relation between overboarding and auditor contracting through audit fees in Equation (2):

$$\begin{aligned}
LN_AUDITFEES_{it} = & \beta_0 + \beta_1 BUSY\%_{it} + \beta_2 SIZE_{it} + \beta_3 LEVERAGE_{it} \\
& + \beta_4 LITIGATION_{it} + \beta_5 LOSS_{it} + \beta_6 INVREC_{it} + \beta_7 RESTRUCTURE \\
& + \beta_8 FSALES_{it} + \beta_9 BUSSEG_{it} + \beta_{10} EXGROWTH_{it} + \beta_{11} LNBDSIZE_{it} \\
& + \beta_{12} PCTBDINDP + \beta_{13} LNACSIZE_{it} + \beta_{14} PCTRETIRED_{it} + \beta_{15} DUAL_{it} \\
& + \beta_{16} BIG4_{it} + \beta_{17} MIDTIER_{it} + \beta_{18} AUDSWITCH_{it} + \beta_{19} BUSYSEASON_{it} \\
& + \beta_{20} MEANACTENURE_{it} + YEAR + FIRM + \varepsilon_{it}
\end{aligned} \tag{2}$$

In Equation (2), *LN_AUDITFEES* is a continuous variable equal to the natural log of total audit fees paid to the auditor for the fiscal year audit (Beck and Mauldin 2014; Cohen et al. 2014; Frankel, Johnson, and Nelson 2002). The variable captures the effort and risk assessment of the auditor (Bell et al. 2001; Hay, Knechel, and Wong 2006). By including company fixed effects, this method captures audit fees paid not attributable to innate characteristics of the company or the overall ability of the audit committee. I also consider a model that double cluster's standard errors at the company and year level (Cohen et al. 2014).

Next, I create a variable, *POSCHG*,¹² which takes the value of 1 when unexplained audit fees are higher in year *t* than year *t-1*, and zero otherwise. The predictive, or normal, component of actual audit fees are obtained from an OLS regression estimated by fiscal year to control for the potential different pricing of risk over the sample period (Beck and Mauldin 2014; Eshleman and Guo 2014). The unexplained, or abnormal audit fees, is the residual from the above equation performed by year, omitting year and firm fixed-effects and my variable of interest, *BUSY%*. The model is designed to control for factors that determine the dollar value of audit fees charged to the company by the auditor. I believe my model is well specified because it explains

¹² I use increases in abnormal audit fees because initial tests (see Figure 1) show that more overboarded audit committees had higher levels of abnormal and actual fees over the majority of the sample period from 2004-2014. Overboarded audit committees were already paying higher fees than less overboarded committees. Therefore, using increases in abnormal fees allows me to identify those companies that took measurable steps to increase auditor effort.

approximately 84.8 percent of the variation in audit fees across the study years (2003-2014).¹³

All other variable definitions from Equation (2) are detailed in Appendix A.

In Equation (2), a positive coefficient on the variable of interest, *BUSY%*, indicates that more overboarded audit committees pay higher audit fees on average, representing higher auditor effort, while a negative coefficient would indicate that more overboarded audit committees are associated with lower audit fees and therefore lower auditor effort (Hay et al. 2006).

Lastly, I assess the relation between overboarding and switching to a higher quality auditor in Equation (3):

$$\begin{aligned} SWITCHTOBIG4_{it} = & \beta_0 + \beta_1 BUSY\%_{it} + \beta_2 SIZE_{it-1} + \beta_3 LEVERAGE_{it-1} + \beta_4 LOSS_{it-1} \quad (3) \\ & + \beta_5 ROA_{it-1} + \beta_6 MTB_{it-1} + \beta_7 SALES GROWTH_{it-1} + \beta_8 MA_{it-1} + \beta_9 BIG4_{it-1} \\ & + \beta_{10} GC_{it-1} + \beta_{11} ICW_{it-1} + \beta_{12} MISSTATE_{it-1} + YEAR + \varepsilon_{it} \end{aligned}$$

To measure a switch to a higher quality auditor, I create a variable, *SWITCHTOBIG4*, equal to one if the audit committee employed a Big-4 auditor in year *t* but not in year *t-1*. I only include those switches that were the result of decisions by the company and its audit committee and not the result of an audit firm merger or company merger or the result of the collapse of Arthur Andersen. Consistent with prior literature, control variables are measured at the date of the previous 10-K prior to the auditor switch event (Barua, Raghunandan, and Rama 2017; Hennes, Leone, and Miller 2014). Year fixed effects are included to control for potential time trends in auditor changes and misstatements during the sample period. All variable definitions from Equation (3) are detailed in Appendix A.

In Equation (3), a positive coefficient on the variable of interest, *BUSY%*, indicates that more overboarded audit committees are more likely to switch to a higher quality auditor, while a

¹³ This explanatory power is consistent with prior literature that follow the same regression approach (Blankley, Hurtt, and MacGregor 2012; Eshleman and Guo 2014).

negative coefficient would indicate that more overboarded audit committees are associated with lower frequencies of switching to a higher quality auditor.

Overboarding and Financial Reporting Quality

To test H2, I define the misstatement period as any company-year 10-K that was originally filed between July 1, 2004, and December 31, 2014 and subsequently restated. Consistent with prior literature, *MISSTATE* is an indicator variable that takes the value of one if the company misstates its annual 10-K for the given period, announced through a subsequent restatement, and zero otherwise (Carcello et al. 2011b; Cohen et al. 2014; Francis et al. 2013; Sharma and Iselin 2012). I estimate Equation (3) for each observation in my sample:

$$\begin{aligned} MISSTATE_{it} = & \beta_0 + \beta_1 BUSY\%_{it} + \beta_2 SIZE_{it} + \beta_3 LEVERAGE_{it} + \beta_4 MB_{it} \\ & + \beta_5 INVREC_{it} + \beta_6 LNFIRMAGE_{it} + \beta_7 EXGROWTH_{it} + \beta_8 FSALES_{it} \\ & + \beta_9 BUSSEG_{it} + \beta_{10} LOSS_{it} + \beta_{11} MA_{it} + \beta_{12} RESTRUCTURE_{it} + \beta_{13} DUAL_{it} \\ & + \beta_{14} LNACSIZE_{it} + \beta_{15} MEANACTENURE_{it} + \beta_{16} PCTRETIRED_{it} \\ & + \beta_{17} LNBDSIZE_{it} + \beta_{18} PCTBDINDP_{it} + \beta_{19} BIG4_{it} + \beta_{20} MIDTIER_{it} \\ & + \beta_{21} AUDSWITCH_{it} + \beta_{22} ICW_{it} + \beta_{23} IMPORTANT_{it} + \beta_{24} BUSYSEASON_{it} + \varepsilon \end{aligned} \quad (4)$$

In the main test of Equation (4) I perform a logistic and limited probability regression of misstatements on overboarding utilizing the model above. A positive coefficient on the variable of interest, *BUSY%*, indicates a positive association between overboarding and misstatement frequency in the post-SOX era, supporting lower financial reporting quality and a lack of effective monitoring for audit committees with higher levels of overboarding. A negative coefficient on *BUSY%* indicates a negative association between overboarding and misstatement frequency, supporting higher financial reporting quality and more effective monitoring for more overboarded audit committees.

Consistent with the prior literature utilizing misstatements as a financial reporting outcome (Carcello et al. 2011b; Cohen et al. 2014; Sharma and Iselin 2012), I include a vector of control variables in the model that have been shown to be significant when considering

misstatement likelihood, in addition to industry fixed effects. I double cluster standard errors at the company and year level. I control for company complexity and growth through the natural log of total assets (*SIZE*), the degree of debt relative to assets (*LEVERAGE*), the market-to-book ratio (*MB*), the ratio of total inventory and receivables to total assets (*INVREC*), the age of the company (*LNFIRMAGE*), whether the company was in the top quintile of industry-adjusted sales growth (*EXGROWTH*), the presence of foreign sales (*FSALES*), the natural log of the number of business segments reported (*BUSSEG*), a binary variable that identifies if the company has reported at least one loss in the past two years (*LOSS*), a binary variable indicating if the company was involved in a merger or acquisition during the year (*MA*), and a binary variable indicating if the company had restructuring activities (*RESTRUCTURE*). I control for governance measures associated with financial reporting quality because stronger corporate governance is associated with higher financial reporting quality. I include: a binary variable capturing if the company has combined the CEO and Chairman roles (*DUAL*), the size of the audit committee (*LNACSIZE*), the average tenure on the board for all directors who serve the audit committee (*MEANACTENURE*), the percentage of retired directors on the audit committee (*PCTRETIRED*), the size of the full board (*LNBDSize*) and the percentage of the full board of directors who are outsiders (*PCTBDINDP*). Lastly I control for auditor quality through: a binary variable indicating if the company is audited by a Big-4 auditor (*BIG4*), a binary variable indicating whether the company is audited by a mid-tier auditor (i.e., Grant Thornton or BDO; *MIDTIER*), a binary variable indicating whether the company switched auditors from the previous year (*AUDSWITCH*), a binary variable indicating if the company reported a material weakness in their annual internal controls (*ICW*), the percentage of auditor revenue attributable

to the company (*IMPORTANT*), and whether the company is a busy-season client of the auditor (*BUSYSEASON*).

Overboarding and Audit Committee Responses on Financial Reporting Quality

To test H3, after constructing these variables in the preceding subsections, I then reperform the analysis from H2 utilizing the following model:

$$MISSTATE_{it} = \beta_0 + \beta_1 BUSY\%_{it} + \beta_2 BUSY\%_{it} * ACACTIONS_{it} + \beta_3 CONTROLS + \varepsilon_{it} \quad (5)$$

MISSTATE is consistent with the definition in Equation (4). *ACACTIONS* represents the three methods that audit committees can use to reduce the negative effect of higher workloads and responsibilities: reducing the overall degree of overboarding of the committee (*REDUCEBUSY*), increasing abnormal audit fees *POSCHG* (from Equation (1)), and/or switching to a higher quality auditor (*SWITCH2BIG4*). Joint positive significance on the interaction *BUSY%*ACACTIONS* and *BUSY%* ($b_1 + b_2 > 0$) indicates that overboarding is negatively related to financial reporting quality via higher misstatement rates when the audit committee takes actions to atone for higher workloads. Joint negative significance on the interaction *BUSY%*ACACTIONS* and *BUSY%* ($b_1 + b_2 > 0$) indicates that overboarding is positively related to financial reporting quality via lower misstatement frequencies when the audit committee takes actions to atone for higher workloads. Significance of the main effect of *BUSY%* measures the relation between overboarding and financial reporting quality when the audit committee does *not* take actions to respond to increased workloads. Controls from the main models remain included.

V. PRIMARY RESULTS

Time Trends of Descriptive Statistics and Model Descriptive Statistics

Table 2, Panel A, summarizes characteristics of audit committees in the extended post-SOX period. Because of the exploratory nature of these statistics, this is meant to be descriptive in nature.

Overall, average audit committee overboarding is relatively consistent across the sample, with an average of 16.8 percent at the company-level. Overboarding is highest in the years directly following SOX (2004-2008) until peaking again in 2014 (mean = 19.7 percent).¹⁴ With respect to audit committee actions, *REDUCEBUSY*, appears to be low in the initial years following SOX, before seeing a notable increase in the middle of the sample period (2008-2009), despite consistent overboarded percentages. Consistent with Linck et al. (2009), I observe noticeable trends in the composition of audit committees over my sample. Since 2004, committees have seen an increase in the number of Certified Public Accountants (CPA), from 13.0% in 2004 to 19.7% in 2014, an increase in the number of retired directors on the audit committee, from 15.3% in 2004 to 21.0% in 2014, a decrease in the average number of other committees they serve on the same board (1.743 to 1.652), and a decrease in the number of other audit committees they serve (1.923 to 1.885). Descriptively, it appears that audit committees are becoming financially skillful through a higher percentage of CPAs on the committee, while simultaneously reducing their workloads. The decrease in other audit committees, other committees at the company where they sit on the audit committee, and an increase in retired directors displays a trend towards building audit committees with directors that have more available time than they did in the years directly following SOX.

¹⁴ I observe a similar consistent pattern when overboarding is measured using the alternative definition (*BUSY%* redefined as an indicator variable indicating if fifty percent or more of the audit committee is overboarded).

The graphical figures that follow Table 1 are presented by whether the audit committee was overboarded¹⁵ in years 2004 or 2005 (the beginning of my sample and the implementation of SOX 404 testing for accelerated filers) and by being fifty percent or more overboarded in any given year (annual comparison of overboarded audit committees against non-overboarded committees). In Figure 1, companies that are overboarded have maintained higher overboarded percentages than those committees that are not. Figure 2 shows that both overboarded and non-overboarded committees have been adding retired members, although non-overboarded committees began with, and continue to have, more retired committee members. There are no discernable differences based on CPA qualifications between the two samples (Figure 3). However, there appears to be a divergent with respect to auditor contracting. In Figure 4, overboarded audit committees are more likely to retain a Big-4 auditor. The graph in Figure 6, shows that overboarded committees are also less likely to switch auditors than less overboarded committees. More overboarded committees appear to favor Big-4 auditors and limited auditor turnover relative to less overboarded committees. Finally, audit committees that were overboarded in 2004-2005 reduced the severity of their overboarding over time (Figure 5). These graphs and descriptive statistics show that audit committees have been converging to a more natural equilibrium with respect to their composition since SOX's implementation.

Panel B of Table 2 presents descriptive statistics for the variables in the audit fee model and the response models (Equations (1) – Equation (3)). As noted above, the average overboarded percent (*BUSY%*) is 16.8%. Similarly, approximately 12.2 percent of my sample has an audit committee with at least fifty percent of the committee classified as overboarded

¹⁵ For the presentation of the descriptive statistics, I define an overboarded audit committee consistent with the alternative definition, as those audit committees where fifty percent or more of the committee are classified as overboarded. For the analysis of those firms overboarded in 2004 or 2005, I require a complete panel (full eleven years) for exposition purposes. This is not required for the overboarding by year descriptive statistics.

(*BUSYBINARY*). 13.3 percent of my firm-year observations have audit committees that reduced the degree that they were overboarded (*REDUCEBUSY*). Approximately 5.0 percent of the observations undergo an auditor switch (*AUDSWITCH*) event during the sample period. Although, less than 1.0 percent of the sample switches from a mid-tier or small auditor to a Big-4 auditor (*SWITCH2BIG4*).

Panel C, presents descriptive statistics for the variables contained in the misstatement model. Consistent with prior literature, 9.7 percent of companies report a misstated year on average. In terms of control variables, observations on average have \$3.68 billion in total assets (exponential of *SIZE*) and *LEVERAGE* of 21.5 percent. In terms of governance variables, 45.7 percent of company-years have a dual-CEO/chairman role, 73.3 of the overall board is independent, the mean tenure of audit committee members was 6.6 years, and the average audit committee had 3.44 members.

Regression Analysis of Audit Committee Responses to Increased Workloads (H1)

I first test the relation between audit committee overboarding and audit committee responses to increased workloads in the post-SOX era in Table 3. Column 1 reports the results of the regression testing whether more overboarded audit committees are associated with subsequent reductions in overboarding percentages. I find that more overboarded audit committees are more likely to be associated with future decreases in overboarding percentages. The coefficient on *BUSY%* is positive and significant (p-value < 0.01). This result shows that there were decisions by boards, shareholders, and committee members themselves, causing changes to the composition of the audit committee in the decade since SOX's passage. The coefficient on the lone control variable, *ΔLNACSIZE*, is also positive and significant, finding that as audit committees grow, overboarding decreases. This would be most likely accomplished

through adding an audit committee member that was not overboarded when he arrived on the committee.

After finding that overboarded audit committees are associated with reductions in their degree of overboarding, I then test in Table 4 whether more overboarded audit committees are associated with higher audit fees. In Column 1 I find that more overboarded audit committees, *BUSY%*, are associated with higher audit fees ($p\text{-value} < 0.10$) when firm fixed effects are utilized and higher audit fees when clustered standard errors are utilized ($p\text{-value} < 0.01$).¹⁶ The results on the fixed effects analysis show that once time invariant factors such as committee ability are removed, more overboarded committees still contract for additional auditor effort if they believe their other outside commitments may be detrimental to their monitoring abilities.

Lastly, in Table 5, I examine whether more overboarded audit committees are associated with higher instances of switching to a Big-4 auditor. I find that more overboarded audit committees are more likely to switch to a Big-4 auditor from a small or mid-tier auditor ($p\text{-value} < 0.05$).¹⁷ Taken together with the results in Table 4, auditor contracting appears to be a valid method for audit committees to respond to increased workloads following SOX. They can either pay the existing auditor more or contract with a higher quality auditor. In subsequent analysis, I will determine if these responses, along with reducing the degree of overboarding, are associated with higher quality financial reporting.

¹⁶ I reperform this analysis, and the analysis of the interaction of fees and overboarding on misstatements in H3, dropping those firms that switched auditors during the year (*AUDSWITCH* = 1). My results remain qualitatively unchanged.

¹⁷ In untabulated analysis, I also consider whether more overboarded audit committees are more likely to switch to an annually inspected auditor or a national industry expert. I find that there is no association between overboarding and switches to these auditors.

Regression Analysis of Misstatements (H2)

After finding that audit committees respond to increased workloads through auditor contracting and lowering their overboarding frequency, I then re-examine the overall association between audit committee overboarding and financial reporting quality over the 2004 to 2014 sample period. I begin by examining the association between overboarding and misstatements, employing Equation (4) in Table 6.¹⁸ Column 1 presents results utilizing a logistic regression with standard errors clustered at the firm and year level. Column 2 follows Equation (4) and utilizes a limited probability model with clustered standard errors. I find negative and significant results on *BUSY%* (p-value < 0.01) in Column 1, as well as in Column 2 (p-value < 0.01). Although meetings, requirements, workloads, and responsibilities have increased (Bronson et al. 2009; Representatives 2002; Stuart 2012), overboarding appears to be associated with higher levels of financial reporting quality through lower misstatement frequencies in the extended post-SOX era. My results support the views of audit committee members that do not believe their overboarding is problematic in light of the regulatory requirements imposed by SOX (KPMG 2015; Lublin 2015). This result is initially counter to many expectations given the work of Sharma and Iselin (2012), and beliefs by many audit committee members (KPMG 2015). As part of H3, I will examine if the mechanism audit committees use to respond to increased workloads, auditor contracting and reducing overboarding, are what enables overboarded audit committees to be associated with higher financial reporting quality.¹⁹ Essentially, are the actions of the audit committee effective in achieving high-quality financial reporting?

¹⁸ To examine the degree of multicollinearity in my models, I employ variance inflation factors (VIFs) following an ordinary least squares regression of Equation (4). This test shows that all VIFs are less than or equal to 2.50. This is significantly less than the level of 10.0 that is indicative of multicollinearity (Johnston 1984).

¹⁹ My results remain unchanged if I included auditor effort as an additional control variable in my model through the natural log of audit fees (*LNAUDITFEES*).

Regression Analysis of Overboarding, Committee Actions and Financial Reporting Quality (H3)

In my tests of H1, I find that audit committee's respond to increased workloads by reducing the degree of overboarding, by paying higher audit fees, and by switching to a Big-4 auditor. I also find that on average, a higher level of overboarding on the audit committee is associated with higher financial reporting quality in the extended post-SOX period. This analysis does not consider the range of options audit committees have at their disposal to address the higher workloads that arose after SOX. Since these options could be the mechanisms through which financial reporting quality is maintained, I test the relation between more overboarded audit committees that become less overboarded (*REDUCEBUSY*), increase their abnormal fees (*POSCHG*), or switch to a higher quality auditor (*SWITCH2BIG4*) and financial reporting quality. Equation (5) examines these relations in Table 7.

In Table 7, I test if the interaction between *BUSY%* and audit committee actions (*REDUCEBUSY*, *POSCHG*, or *SWITCH2BIG4*) is a mechanism for overboarded audit committees that leads to the association with higher financial reporting quality. First, I find that there is no difference in misstatement frequencies for audit committees with higher levels of overboarding that respond by reducing the degree that they are overboarded ($b1 + b2 < 0$; $p\text{-value} > 0.10$). Those audit committees that do not reduce overboarding still have higher financial reporting quality ($b1$ $p\text{-value} < 0.01$). This action does not seem to aid audit committees with higher degrees overboarding by lower misstatement risk.

Next, in Column 2, I examine the relation between overboarding, audit fees, and financial reporting quality. I find that misstatement likelihood is lower for audit committees with higher levels of overboarding that respond by increasing their abnormal audit fees to the external

auditor ($b1 + b2 < 0$; $p\text{-value} < 0.01$). I find no association between overboarding and misstatement frequency for those audit committees with overboarding greater than zero that do not respond by contracting with the external auditor (*BUSY%* is negative but insignificant).²⁰ These results show that the payment of additional abnormal fees to the auditor is effective in achieving high-quality financial reporting for companies with more overboarded audit committees. When audit committees recognize they are overboarded and respond by contracting for more audit work, they can overcome the significant changes to their operating environment promulgated by SOX and reduce their misstatement risk.

Lastly, in Column 3, I examine if switching to a higher quality auditor is effective in achieving high quality financial reporting quality. I find that being overboarded and switching to a Big-4 auditor is effective in lower misstatement frequencies ($b1 + b2 < 0$; $p\text{-value} < 0.01$). The magnitude of the coefficient on the joint test exceeds that of being busy alone (*BUSY%*) or switching to a Big-4 (*SWITCH2BIG4*) without any overboarded directors on the committee. Independently, switching to a higher quality auditor or paying more abnormal audit fees are effective strategies in obtaining higher quality financial reporting.

The analysis between audit committee overboarding and auditor contracting shows that audit committees respond to their increased workload through negotiations with the external auditor that results in them paying fees above and beyond what would be expected of a company

²⁰ The coefficient on *POSCHG* is positive and significant ($p\text{-value} < .01$), indicating higher misstatement frequency for companies that increase abnormal audit fees and are not overboarded, despite the interaction between *BUSY%* and *POSCHG* being negative. Blankley et al. (2012) find that, on average, abnormal audit fees are negatively associated with restatements. Subsequently, Hribar, Kravet, and Wilson (2014) find that the highest levels of unexplained audit fees are associated with higher restatement frequency. To understand this relation, I split the change in abnormal audit fees into eighths by year. The positive relation between changes in abnormal audit fees and misstatements was only found in the highest octave, consistent with the findings of Hribar et al. (2014). On average, positive changes in abnormal audit fees is associated with higher financial quality. However, firms that experience the highest change have inherent poorer underlying accounting quality that represents the highest level of auditor risk and therefore higher misstatement risk (Hribar et al. 2014).

with a similar size and risk profile. They are also able and willing to move to a higher quality auditor, and this change is also effective in lower the rate of misstatements. Overboarded audit committees appear to use their role as the primary audit negotiators on the board of directors to directly negotiate fees and service contracts with the auditor to compensate for their higher workloads, therefore preserving their reputational capital and maintaining a high level of financial reporting.

VI. ADDITIONAL ANALYSIS AND SENSITIVITY TESTING

Before, During, and After the Financial Crisis

The financial crisis of 2008 and 2009 and the recession that followed shocked the accounting and financial world and led to conflicting fee pressures and corporate governance actions by companies in an attempt to respond to the economic downturn (Beck and Mauldin 2014). As a result, inferences drawn in the periods during the crisis may be different than those observed in the periods surrounding the crisis because of the different scenarios and environments audit committees and auditors were operating under in each period. During the pre-crisis period, audit committees and auditors alike were still learning to respond to the immediate and long-term effects of SOX (Kao et al. 2014; Sherman et al. 2009). During the crisis period, corporate boards were focusing best on how to withstand the falling stock market and consumer confidence, while auditors were being pressured to lower fees. And in the post-crisis period, audit committees were thought to be over their SOX learning curve, while auditors had the ability to normalize fees. To understand these relations, I split my sample into three time periods: pre-crisis (2004-2007), crisis period (2008-2009), and post-crisis (2010-2014).²¹ I then reperform the analysis between overboarding and misstatements (Column (1) to Column (3)) and the analysis between the interaction of overboarding and auditor contracting and misstatements (Column (4) – Column (6)).

I find results that support learning by audit committees in the post-crisis period and higher reliance on the external auditor in the immediate post-SOX, pre-crisis period. I find in the pre-crisis period there is no association between overboarded audit committees and misstatements without considering auditor contracting. However, when auditor contracting is

²¹ My results remain unchanged if I include only 2008 as the crisis period.

considered, I find a negative relation, supporting higher financial reporting quality in the period when audit committees were still learning to adapt to the changes necessitated by SOX's passage. In the pre-crisis period, the auditor was effective in serving as a substitute for oversight for the more overboarded audit committees. I find no results with overboarding and financial reporting quality regardless of auditor involvement in the crisis period. Overboarded audit committees were no better or worse than less overboarded committees.

In the post-crisis period, I find a positive relation between reporting quality and overboarding for those audit committees that did not increase their abnormal audit fees. In the post-crisis period, more overboarded audit committees are performing effective monitor without the auditor's effort. More overboarded audit committees no longer need to utilize auditor contracting through increased abnormal fees. This result is consistent with the opinions of Sherman et al. (2009) and Center for Audit Quality (2010), which both identified 2009 as the point at which they believe audit committees have become accustomed to the work demands and requirements of SOX. My findings indicate that this appears to be the case. In the years since the financial crisis, overboarded audit committees no longer need to utilize the external auditor to achieve high quality financial reporting.

In summary, the results of the three time periods suggest that for more overboarded audit committees, the auditor was initially an effective substitute for financial reporting oversight. Since the initial pre-crisis period, overboarded audit committees have better learned to handle their multiple outside commitments and no longer need to rely on external auditor effort.

Alternative Explanations of Results

I have attempted to minimize the risk that there are omitted variables that are correlated with both the likelihood of misstatement and audit committee overboarding by including a

variety of control variables known to be related to misstates and governance and by utilizing company fixed effects in my models. Despite these efforts, it is still possible that my measure of overboarding is simultaneously capturing audit committee ability and not just audit committee overboarding. To further rule-out alternative explanations for my results, I perform the misstatement analysis by analyzing differences in quarterly-only misstatements on a reduced sample of companies.²² If audit committee ability is driving my results, and not overboarding, coupled with auditor contracting, I would expect that more overboarded audit committees would also have higher quality quarterly reports, evidenced by lower instances of quarterly-only misstatements. However, if it is the relationship between the auditor and the audit committee that leads to the improvement in quality, as H3 suggests is possible, I would expect that the overboarded audit committee would lapse on quarterly reports because they are only reviewed by the external auditor and not audited. In these reports, the auditor performs less work and does not have to perform substantive testing, putting more of the quality controls in the hands of management and the audit committee.

In Table 9, I find results that support auditor contracting and not higher levels of ability on overboarded committees. I find that more overboarded audit committees (*BUSY%*) are more likely to misstate quarterly-only reports ($p\text{-value} < .10$). These results show that when the auditor is not deeply involved in performing audit work, the overboarded audit committees are associated with lower financial quality in interim reports.

²² I define a quarterly misstatement as the misstatement of quarterly financial reports that are not a year-end and do not cross a fiscal year-end (all misstated periods must be before the fiscal year-end date). I drop those observations where the company had a quarterly misstatement that did not cross a fiscal year-end date, representing only misstated reviewed financial statements, quarter-only misstatement, but also had a subsequent misstatement of the audited financial statement ($n=122$).

Alternative Measures of Financial Reporting Quality

Another frequent measure of financial reporting quality that was not used in my main analysis is discretionary accruals (Cohen et al. 2014; Francis and Yu 2009; Frankel et al. 2002; Lopez and Peters 2012; Tanyi and Smith 2015). As an additional analysis, I measure discretionary accruals using the modified Jones model (Dechow, Sloan, and Sweeney 1995) introduced by Kothari, Leone, and Wasley (2005) that controls for profitability through lagged return on assets. I find that on average, overboarded audit committees are associated with higher absolute value discretionary accruals (untabulated, $p\text{-value} < 0.05$), initially suggesting lower, not higher financial reporting quality. However, the results can be explained strictly through income decreasing discretionary accruals, as evidenced through higher absolute value of income decreasing discretionary accruals and a negative coefficient when the dependent variable is signed discretionary accruals. This result shows that more overboarded audit committees do not necessarily have higher or lower quality discretionary accruals. Instead, overboard committees are more conservative with discretionary accruals and avoid upward earnings management to such a degree that they abnormally inflate income decreasing accruals.

Endogeneity

The potential presence of endogeneity is a frequent worry among corporate governance researchers (Carcello et al. 2011a; Cashman et al. 2012). In my setting, there is potential that the very management characteristics that I am attempting to capture through financial reporting quality may also impact overboarding of the audit committee or vice versa. Amir, Carabias, Jona, and Livne (2016, 6) report that controlling for “unobserved heterogeneity at the higher granulate-level – the firm-level” leads to the most correct inferences in the presence of a correlated omitted variable that does not vary over time. They conclude that in accounting literature, it is often the

case that time and company level fixed effects are sometimes more appropriate than the more common year and industry effects. To address this issue, I simultaneously employ company fixed effects as a robustness test for the association between overboarding and reporting quality in the main tests of H2 and H3. This approach allows me to compare a model specified under potentially more robust specifications (company fixed effects) compared to the more commonly used year and industry fixed effect parameters (Amir et al. 2016). In untabulated results, I find results largely consistent with my main results. I re-examine H2 using company fixed effects. I find that *BUSY%* remains negative and significant when misstatement is the dependent variable. When I re-examine H3, the joint coefficient on *BUSY%* and *BUSY% $\times$ POSCHG* remains negative and significant with misstatements. Overall, company fixed effects support the findings in my main analysis. My results are not sensitive to econometric specifications through company fixed effects.

Sensitivity Analysis

In attempt to see if my variable of interest, *BUSY%*, is robust to other definitions of overboarding, I apply two alternative constructions of the variable. These alternative definitions construct overboarding as a binary variable equal to one if fifty percent or more of the audit committee is classified as overboarded (*BUSYBINARY*) (Fich and Shivdasani 2006; Field et al. 2013) or equal to one if the audit committees overboarded percentage at company in a year is above the mean overboarded percentage across all companies in that year (*BUSYMEAN*). In Table 9, by re-examining the tests of H2, *BUSYBINARY* and *BUSYMEAN* remain significant and negative. On average, the alternative definition is negatively associated with misstatements. My results are robust to the alternative measures of overboarding.

In untabulated analysis, I then examine whether there are other scenarios impacting overboarding that could be driving my results. I examine if the transition from a less overboarded committee (less than fifty percent of members serving on three or more boards, six if retired) to an overboarded committee, leads to changes in financial reporting quality. I find that the transition is unrelated to reporting quality. I also examine if the presence of an audit committee with all members classified as overboarded ($BUSY\% = 1.00$) affects reporting quality. I find that this designation has no statistical impact on misstatements.

VII. CONCLUSION

This paper presents evidence on the association between audit committee overboarding, audit committee responses to increased workloads, and financial reporting quality. I find that in the extended post-SOX environment, more overboarded audit committees respond to the increase in their responsibilities and workloads by taking direct actions that can lessen the previously found negative association between multiple outside directorships and financial statement oversight. Audit committees respond by becoming less overboard at the committee level and by using their position as the primary auditor negotiation representative to contract for additional auditor work through higher abnormal audit fees or retaining a higher quality auditor.

My results show that despite growing concerns that many boards of directors and many audit committees are becoming too time-constrained to effectively do their jobs, more overboarded audit committees are associated with higher financial reporting quality in the years since SOX's passage. In the initial post-SOX years preceding the financial crisis, this result appears to be at least partly driven by the work of the company's auditor. Initially, I find that the positive association between overboarding and financial reporting quality is present in those overboarded audit committees that increase their abnormal audit fees or switch to a Big-4 auditor. However, as audit committees have gotten past the initial shocks of SOX and moved along the learning curve, they have adapted to their higher workloads and increased responsibilities and no longer need to rely on the external auditor. The auditor was initially an effective ally in achieving higher quality financial reporting quality. More recently, audit committees are able to achieve higher quality financial reporting without the involvement of the external auditor.

My results are subject to several limitations. First, while it appears that the auditor and the more overboarded audit committees have a symbiotic relationship where the audit committee recognizes its workload has risen in the year since SOX, and that the auditor can be an effective partner in easing the workload, it could also be that the auditor recognizes that more overboarded audit committees may shirk their monitoring responsibilities. The auditor would then apply an additional degree of scrutiny and effort to these companies, raising the reporting quality. I have assumed in this paper that it is the former relationship, but I am unable to rule out the latter as an alternative explanation. Second, despite shareholders paying higher audit fees to substitute for audit committee monitoring, I do not test whether the higher fee is justified or if it is an externality to the company. It is possible that the other positive traits and experiences the overboarded audit committees bring to the board outweigh the additional monitoring costs incurred through the extended use of the external auditor. Lastly, while I believe that audit committee overboarding does affect the committee's ability to monitor, and that paying the auditor higher audit fees will lead to additional work by the auditor, and improve reporting quality, my study only finds an association - not causation.

The findings in this paper should be of interest to regulators considering limits to audit committee members' external seats, and proxy advisors considering altering the threshold through which directors are considered overboarded. My results suggest that the calls to limit board seats of audit committee members are potentially warranted because higher financial reporting quality is likely a result of contracting between the audit committee, who is tasked with negotiating fees and selecting the auditor, and the external auditor, and not necessarily the result of more effective monitoring by the overboarded audit committee. It is up to future researchers to determine if this cost is outweighed by the benefits provided by the overboarded committees.

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APPENDICES

APPENDIX A: VARIABLE DEFINITIONS

<u>Variable Name</u>	<u>Variable Definition (Source)</u>
<i>Variables of Interest</i>	
<i>BUSY%</i>	= The percentage of audit committee members who serve on three or more (six if retired) public company boards [BoardEx]
<i>POSCHG</i>	= A binary variable indicating if a company paid more in abnormal audit fees in the current year than it did in the prior year [Audit Analytics]
<i>Dependent Variables</i>	
<i>MISSTATE</i>	= A binary variable indicating if that year's financial statements were ultimately restated [Audit Analytics]
<i>REDUCEBUSY</i>	= A binary variable indicating if the audit committee's busyness decreased from the prior year [BoardEx]
<i>LN_AUDITFEE</i>	= The natural log of total audit fees paid to the external auditor [Audit Analytics]
<i>SWITCH2BIG4</i>	= A binary variable indicating if the company switched to a Big-4 auditor from a small or mid-tier auditor, not as the result of a company or audit firm merger [Audit Analytics]
<i>Control Variables: Audit Fees and Misstatement Models</i>	
<i>SIZE</i>	= The natural log of total assets [Compustat data AT]
<i>LEVERAGE</i>	= The ratio of total liabilities to total assets [Compustat (data DLCQ+DLTTQ/data ATQ)]
<i>MB</i>	= Market value of equity divided by book value of common equity [Compustat CEQ divided by (CSHO * PRCC_F)].
<i>LN_FIRMAGE</i>	= The natural log of the number of years the company has Compustat data [Compustat]
<i>EXGROWTH</i>	= A binary variable indicating if the annual industry adjusted sales growth is in the top quintile [Compustat]
<i>FSALES</i>	= A binary variable indicating if the country had foreign operations in the current year [Compustat]
<i>BUSSEG</i>	= The natural log of the number of reported business operating segments [Compustat]
<i>LOSS</i>	= A binary variable indicating if a company experienced a loss in either of the previous two years [Compustat data item: NI]
<i>RESTRUCTURE</i>	= A binary variable indicating if the company was involved in restructuring during the fiscal year [coded as 1 if any of the following Compustat data items are non-zero: RCA, RCD, RCEPS, RCP]
<i>DUAL</i>	= A binary variable indicating if the chairman of the board of directors is also the CEO [BoardEx]
<i>LNACSIZE</i>	= The natural log of the number of directors on the audit committee [BoardEx]
<i>MEANAC_TENURE</i>	= The average tenure (time on board) of the members of the audit committee [BoardEx]
<i>PCTRETIRED</i>	= The percentage of audit committee members who are retired [BoardEx]
<i>LNBDSize</i>	= The natural log of the number of directors on the board [BoardEx]
<i>PCTBDINDP</i>	= The percentage of the full board members who are independent of the company [BoardEx]

<i>BIG4</i>	= A binary variable indicating if a company is audited by a Big4(5) auditor [Audit Analytics]
<i>MIDTIER</i>	= A binary variable indicating whether the company is audited by a mid-tier auditor (Grant Thornton or BDO) [Audit Analytics]
<i>SWITCH</i>	= A binary variable indicating if the company switched auditors for the current year [Audit Analytics]

Additional Control Variables: Misstatement Model

<i>ICW</i>	= A binary variable indicating if the company reported a material weakness in internal controls [Audit Analytics]
<i>IMPORTANT</i>	= The percentage the audit firm's total fees that are attributable to the company [Audit Analytics]
<i>MA</i>	= A binary variable indicating if a company was involved in an acquisition during the fiscal year [coded as 1 if any of the following Compustat data items are non-zero: AQAQ, AQDQ, AQEPSQ, AQPQ]

Additional Control Variables: Auditor Switching and Reduce Overboarding Models

<i>ROA</i>	= Net income divided by average net total assets [Compustat]
<i>SALESGROWTH</i>	= The percentage growth in sales from the previous year to the current year [Compustat]
<i>GC</i>	= A binary variable indicating if the company received a going concern report from the financial statement auditor [Audit Analytics]
<i>ΔLNACSIZE</i>	= The change in the size of the audit committee from the prior year [BoardEx]

APPENDIX B: FIGURES

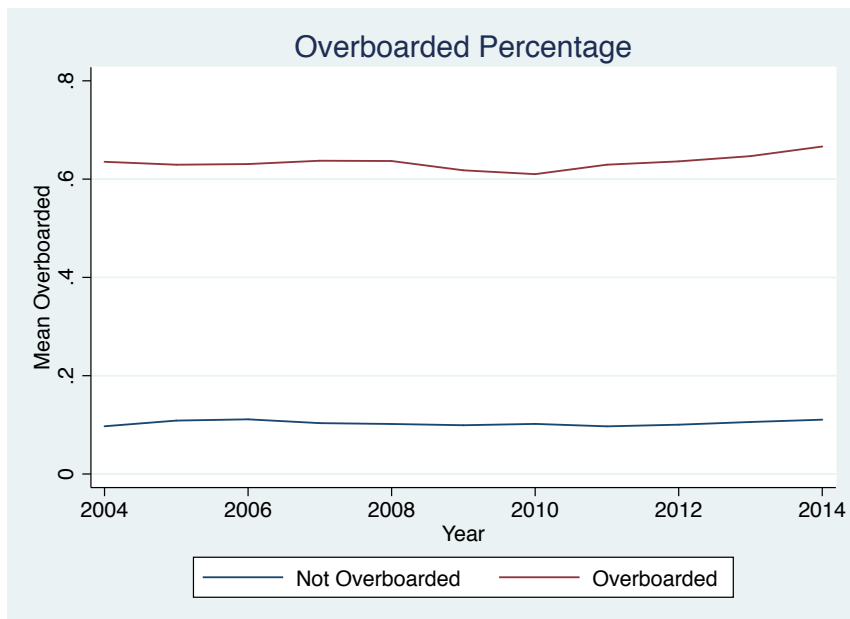
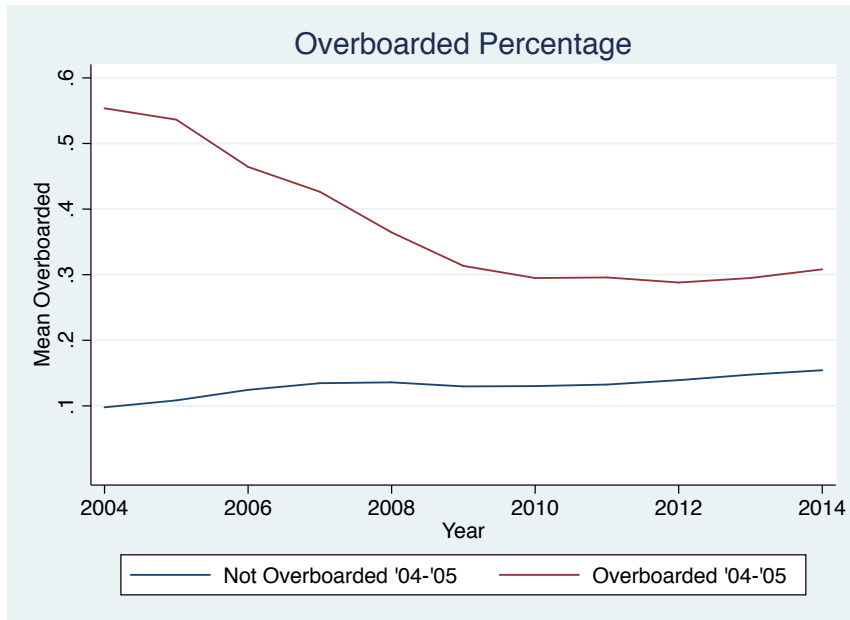


Figure 1: Percent Overboarded

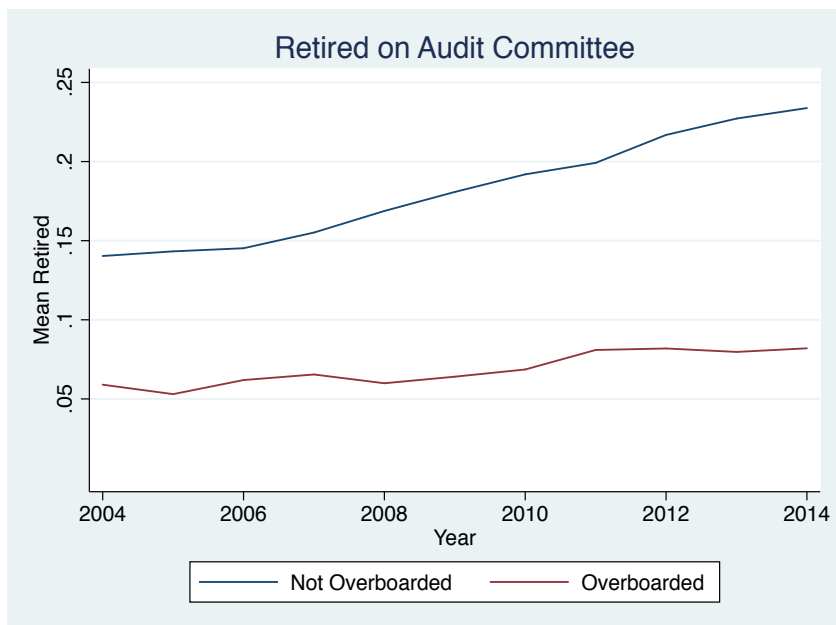
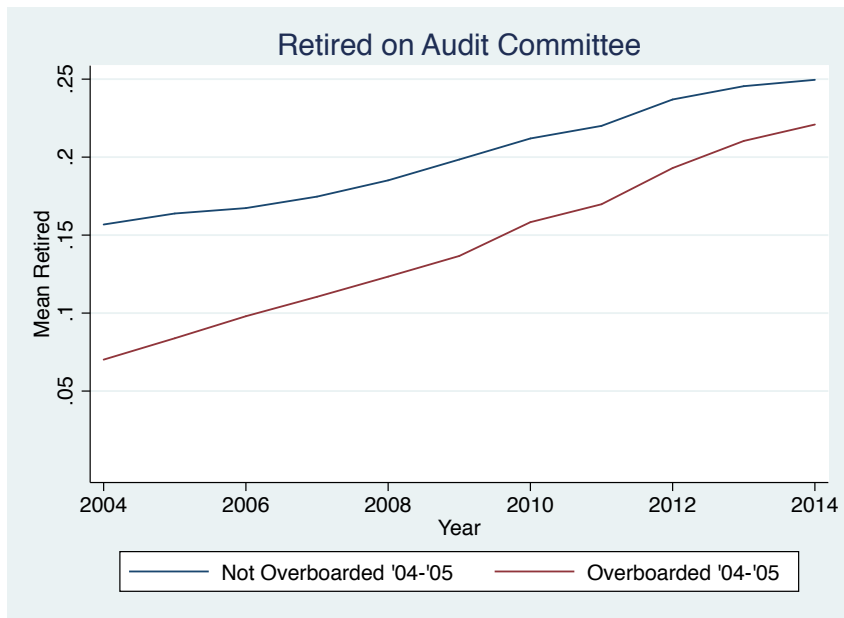


Figure 2: Percent Retired

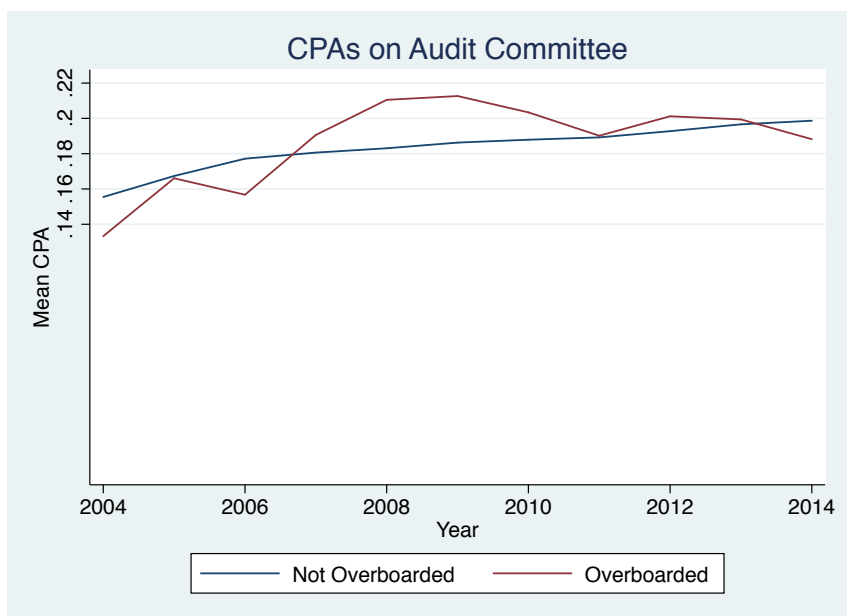
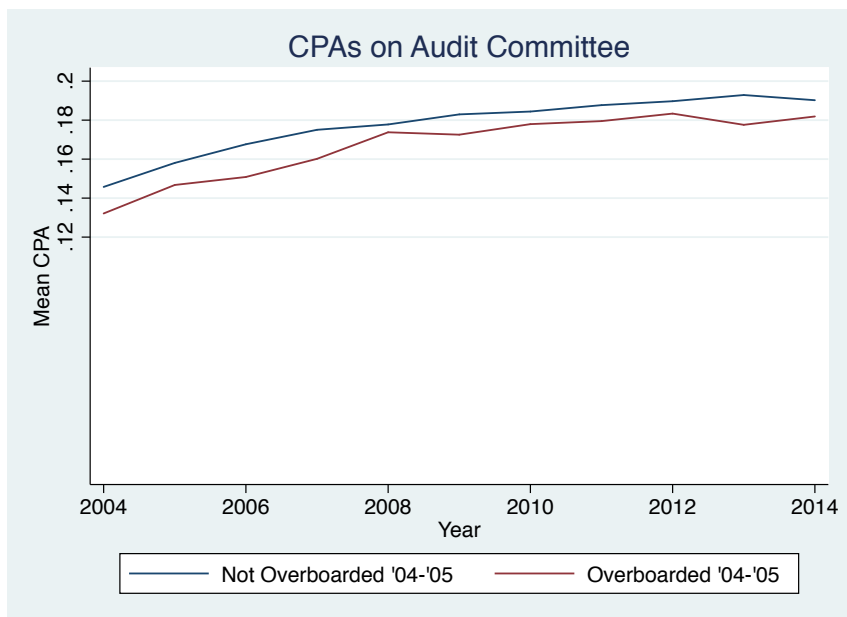


Figure 3: Percent CPAs

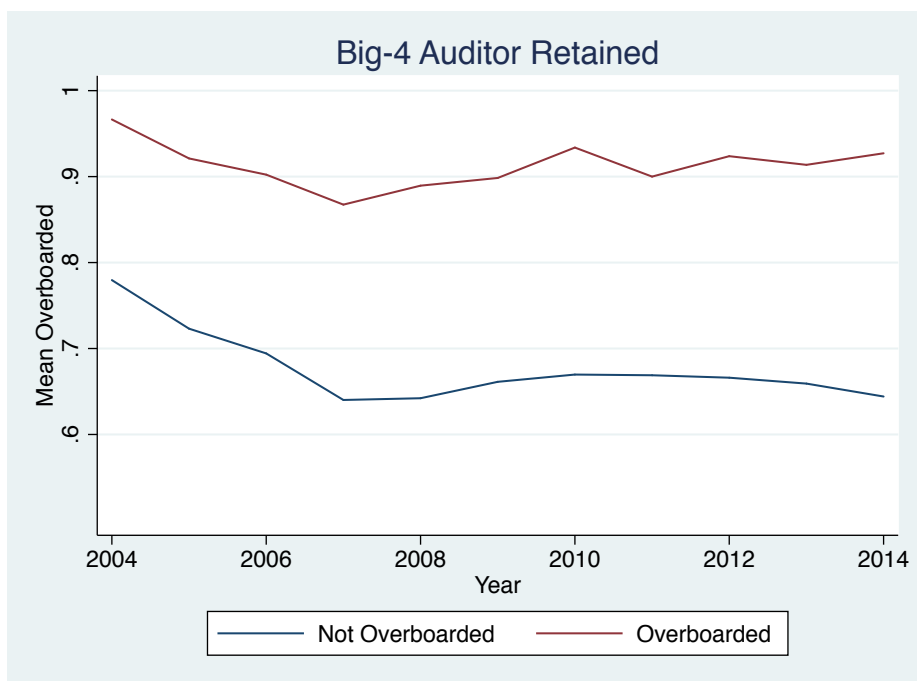
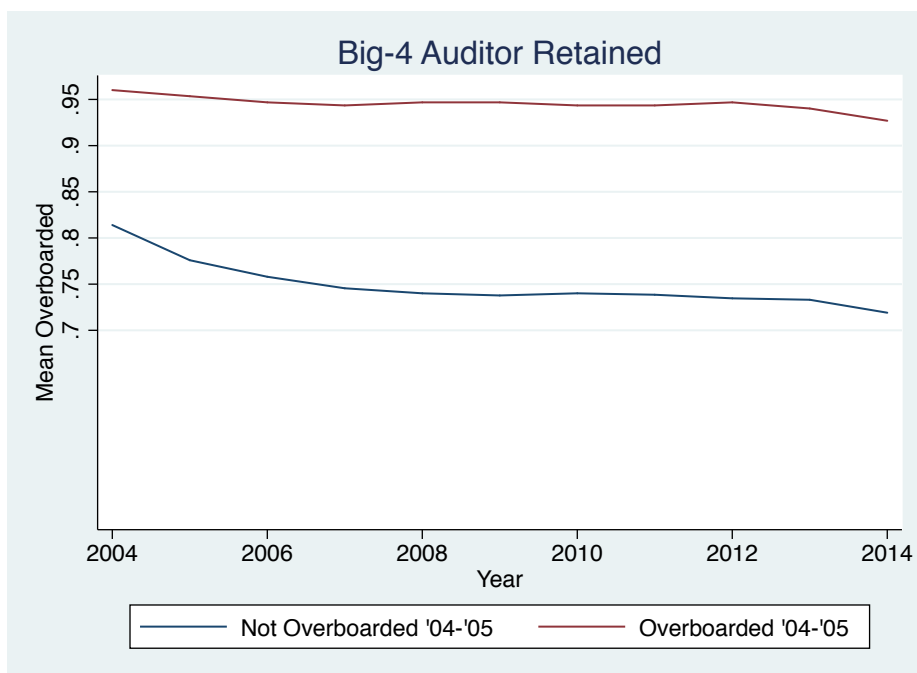


Figure 4: Retention of Big-4 Auditor

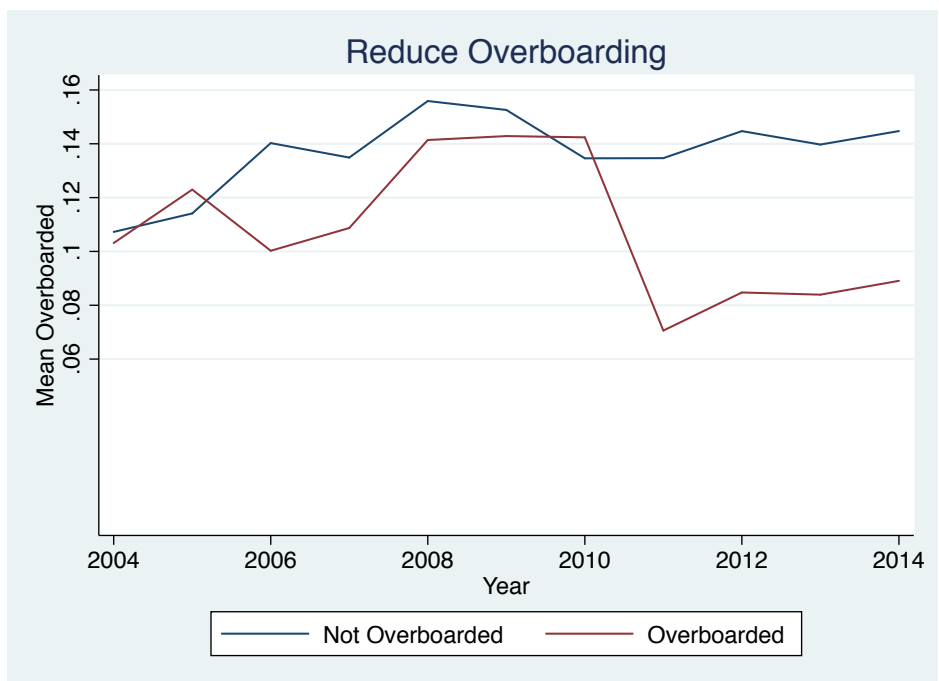
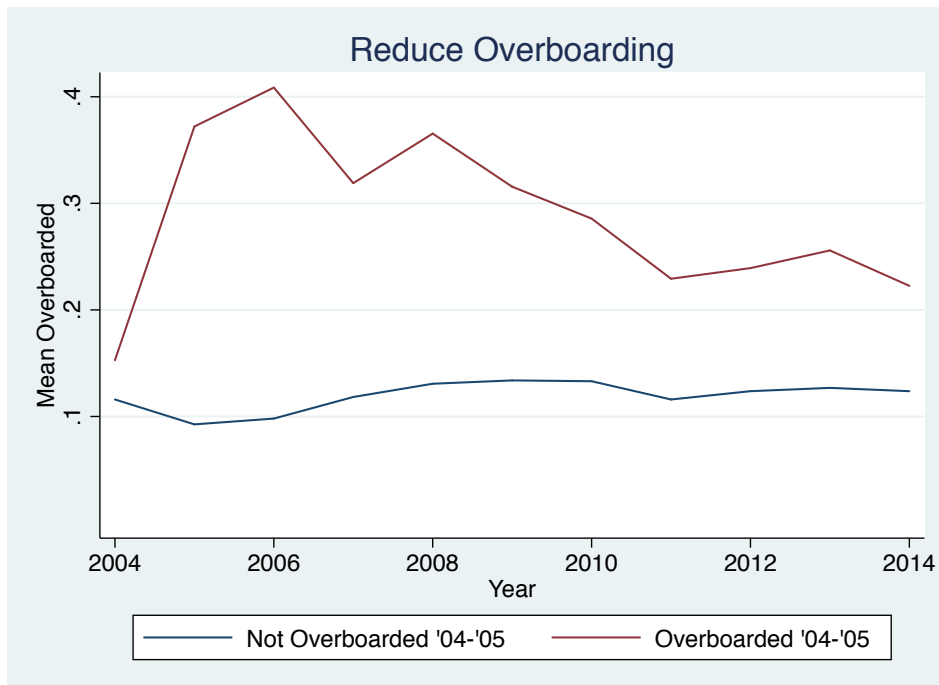


Figure 5: Reduction in Overboarding Percent

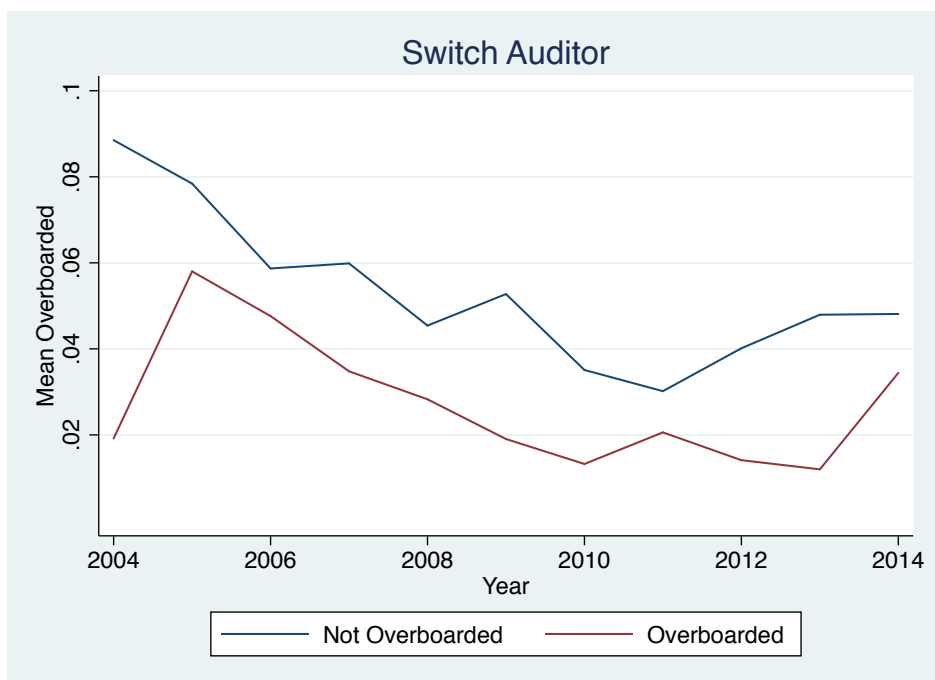
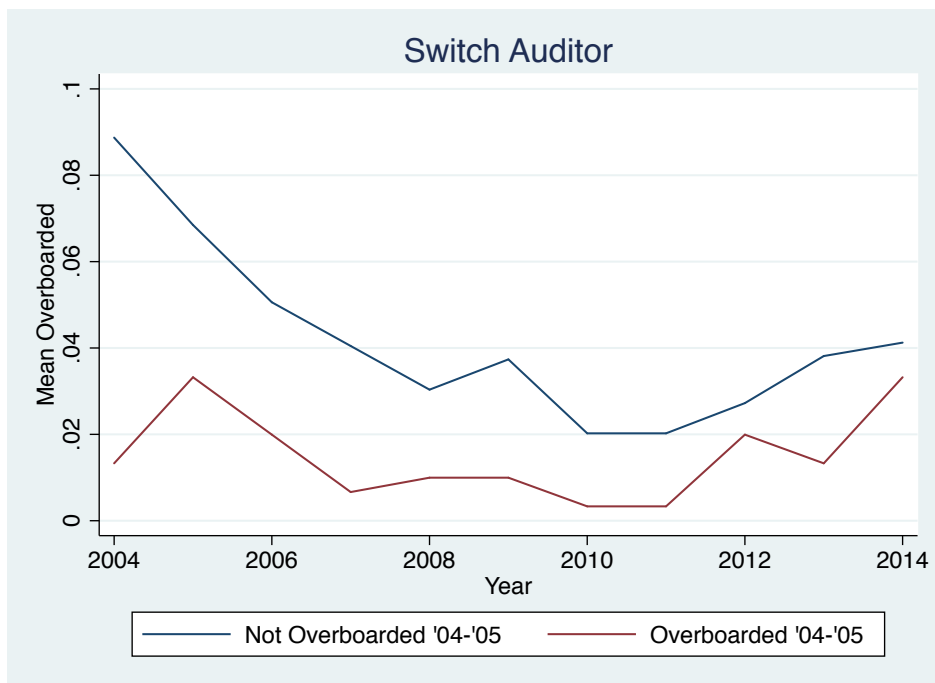


Figure 6: Auditor Switch Percent

APPENDIX C: TABLES

TABLE 1
Sample Selection

Panel A: Audit Committee Overboarding and Misstatements	
Beginning Observations from BoardEx	66,424
Less: companies without sufficient information in Compustat or Audit Analytics	(15,220)
Less: companies in regulated industries	(14,170)
Less: companies with missing required control variables	(1,457)
Misstatement Sample	35,577
Less: observations without sufficient data to calculate the change in abnormal fees	(2,815)
Misstatement Subsample (test of H3)	32,762
Panel B: Audit Committee Overboarding and Audit Fees	
Beginning Observations from BoardEx	66,424
Less: companies without sufficient information in Compustat or Audit Analytics	(15,220)
Less: companies in regulated industries	(14,170)
Less: companies with missing required controls	(1,011)
Audit Fees Sample	36,023

TABLE 2
Descriptive Statistics

Panel A: Audit Committee Characteristics by Year

<i>Year</i>	BUSY%	Busyness > 50%	Reduce Busy	Percent Retired	Percent CPA	Percent Lawyer	Percent CPA or Lawyer	Average Number of Audit Comm.	Average Number of Other Comm.	Audit Comm. Size	BIG4	Switch Auditors	Switch to Big-4
2004	0.165	0.126	0.107	0.130	0.153	0.098	0.240	1.743	1.923	3.402	0.803	0.080	0.003
2005	0.174	0.126	0.115	0.132	0.167	0.098	0.254	1.777	1.930	3.426	0.748	0.076	0.003
2006	0.172	0.117	0.136	0.135	0.175	0.098	0.262	1.761	1.934	3.442	0.719	0.057	0.004
2007	0.174	0.131	0.131	0.143	0.182	0.096	0.268	1.724	1.916	3.390	0.670	0.057	0.008
2008	0.164	0.116	0.154	0.156	0.186	0.098	0.275	1.671	1.924	3.424	0.671	0.043	0.005
2009	0.151	0.100	0.152	0.169	0.189	0.096	0.277	1.672	1.916	3.447	0.685	0.049	0.008
2010	0.152	0.098	0.135	0.180	0.189	0.097	0.277	1.704	1.909	3.462	0.696	0.033	0.005
2011	0.156	0.111	0.128	0.186	0.189	0.098	0.278	1.709	1.913	3.471	0.695	0.029	0.005
2012	0.162	0.115	0.138	0.201	0.194	0.096	0.281	1.690	1.898	3.472	0.696	0.037	0.005
2013	0.179	0.135	0.132	0.207	0.197	0.094	0.283	1.706	1.897	3.482	0.694	0.043	0.005
2014	0.197	0.156	0.136	0.210	0.197	0.093	0.282	1.652	1.885	3.475	0.688	0.046	0.003

Note: Descriptive statistics above are reported utilizing the misstatement sample from Table 6

TABLE 2 (CONTINUED)

Panel B: Audit Committee Overboarding and Audit Fees

	<u>n</u>	<u>Mean</u>	<u>25th Percentile</u>	<u>Median</u>	<u>75th Percentile</u>	<u>Std. Dev.</u>
<i>LN_AUDITFEES</i>	36,023	13.574	12.695	13.630	14.441	1.307
		1878683.00	326000.00	831000.00	1868400.00	3855633.00
<i>Total Audit Fees</i>	36,023	0	0	0	0	0
<i>REDUCEBUSY</i>	36,023	0.133	0.000	0.000	0.000	0.339
<i>SWITCH2BIG4</i>	36,023	0.005	0.000	0.000	0.000	0.070
<i>BUSY%</i>	36,023	0.168	0.000	0.000	0.333	0.227
<i>BUSYBINARY</i>	36,023	0.122	0.000	0.000	0.000	0.328
<i>POSCHG</i>	33,017	0.500	0.000	0.000	1.000	0.500
<i>SIZE</i>	36,023	5.907	4.365	5.908	7.437	2.171
<i>Total Assets</i>	36,023	3714.599	77.672	367.128	1696.121	19729.100
<i>LITIGATION</i>	36,023	0.302	0.000	0.000	1.000	0.459
<i>LEVERAGE</i>	36,023	0.218	0.003	0.151	0.324	0.266
<i>INVREC</i>	36,023	0.241	0.083	0.206	0.353	0.190
<i>LOSS</i>	36,023	0.468	0.000	0.000	1.000	0.499
<i>RESTRUCTURE</i>	36,023	0.016	0.000	0.000	0.000	0.126
<i>FSALES</i>	36,023	0.519	0.000	1.000	1.000	0.500
<i>BUSSEG</i>	36,023	2.330	1.732	1.732	3.000	0.962
<i>EXGROWTH</i>	36,023	0.172	0.000	0.000	0.000	0.378
<i>LNBDSize</i>	36,023	2.152	1.946	2.197	2.303	0.256
<i>PCTBDINDP</i>	36,023	0.729	0.625	0.750	0.857	0.152
<i>LNACSize</i>	36,023	1.475	1.386	1.386	1.609	0.173
<i>Audit Committee Size</i>	36,023	3.442	3.000	3.000	4.000	0.862
<i>DUAL</i>	36,023	0.457	0.000	0.000	1.000	0.498
<i>BIG4</i>	36,023	0.707	0.000	1.000	1.000	0.455
<i>MIDTIER</i>	36,023	0.082	0.000	0.000	0.000	0.274
<i>BUSYSEASON</i>	36,023	0.686	0.000	1.000	1.000	0.464
<i>AUDSWITCH</i>	36,023	0.050	0.000	0.000	0.000	0.219
<i>PCTRETIRED</i>	36,023	0.166	0.000	0.000	0.333	0.226
<i>MEANACTENUR E</i>	36,023	6.628	3.525	5.967	8.900	4.203

TABLE 2 (CONTINUED)

Panel C: Audit Committee Overboarding and Misstatements

	<u>n</u>	<u>Mean</u>	<u>25th</u> <u>Percentile</u>	<u>Median</u>	<u>75th</u> <u>Percentile</u>	<u>Std. Dev.</u>
<i>BUSY%</i>	35,577	0.168	0.000	0.000	0.333	0.226
<i>BUSYBINARY</i>	35,577	0.121	0.000	0.000	0.000	0.327
<i>MISSTATE</i>	35,577	0.097	0.000	0.000	0.000	0.296
<i>SIZE</i>	35,577	5.900	4.364	5.898	7.421	2.166
<i>Total Assets</i>	35,577	3682.831	77.552	363.178	1670.300	19606.070
<i>LEVERAGE</i>	35,577	0.215	0.003	0.149	0.321	0.261
<i>MB</i>	35,577	3.021	1.214	2.093	3.700	5.715
<i>INVREC</i>	35,577	0.241	0.084	0.207	0.353	0.190
<i>LN FIRMAGE</i>	35,577	2.792	2.398	2.833	3.332	0.633
<i>EXGROWTH</i>	35,577	0.173	0.000	0.000	0.000	0.378
<i>FSALES</i>	35,577	0.520	0.000	1.000	1.000	0.500
<i>BUSSEG</i>	35,577	2.334	1.732	1.732	3.000	0.972
<i>LOSS</i>	35,577	0.467	0.000	0.000	1.000	0.499
<i>MA</i>	35,577	0.219	0.000	0.000	0.000	0.414
<i>RESTRUCTURE</i>	35,577	0.016	0.000	0.000	0.000	0.127
<i>DUAL</i>	35,577	0.457	0.000	0.000	1.000	0.498
<i>LNACSIZE</i>	35,577	1.476	1.386	1.386	1.609	0.172
<i>Audit Committee Size</i>	35,577	3.444	3.000	3.000	4.000	0.854
<i>MEANACTENURE</i>	35,577	6.652	3.550	6.000	8.925	4.205
<i>PCTRETIRED</i>	35,577	0.167	0.000	0.000	0.333	0.226
<i>LNBD SIZE</i>	35,577	2.152	1.946	2.197	2.303	0.255
<i>PCTBDINDP</i>	35,577	0.733	0.636	0.750	0.857	0.145
<i>BIG4</i>	35,577	0.706	0.000	1.000	1.000	0.456
<i>MIDTIER</i>	35,577	0.082	0.000	0.000	0.000	0.275
<i>AUDSWITCH</i>	35,577	0.051	0.000	0.000	0.000	0.219
<i>ICW</i>	35,577	0.047	0.000	0.000	0.000	0.211
<i>IMPORTANT</i>	35,577	0.025	0.000	0.001	0.003	0.093
<i>BUSYSEASON</i>	35,577	0.687	0.000	1.000	1.000	0.464
<i>FIRMAGE</i>	35,577	18.522	10.000	16.000	27.000	10.911

TABLE 3
Logit Regressions of Reductions in Overboarding on Audit Committee Overboarding

Variables	(1) Logit with Clustered S.E.	(2) Logit with Fixed Effects
<i>BUSY%</i>	5.748*** (73.87)	5.767*** (73.91)
<i>ΔLNACSIZE</i>	0.547*** (13.27)	0.555*** (13.38)
Constant	-3.325*** (-126.63)	-3.539*** (-48.76)
Observations	33,530	33,530
Pseudo R-Squared	0.2658	0.2675
Cluster	Firm & Year	None
Year FE	No	Yes

The columns above present the results of a logistic regression of reductions in overboarding on audit committee overboarding. Coefficients are reported on the first line and robust z-statistics are reported in parenthesis. Stars, *, **, and ***, indicate significance at 10 percent, 5 percent, and 1 percent levels, respectively. Column 1 reports the result of the logistic regression of reductions in the degree of overboarding on overboarding utilizing clustered standard errors at the company and year level. Column 2 reports results utilizing year fixed effects. A positive coefficient on the variable of interest, *BUSY%*, indicates a higher likelihood of more overboarded audit committees becoming less busy for companies with higher levels of audit committee overboarding. A negative coefficient on *BUSY%* indicates a lower likelihood of a reduction in overboarding. Per Equation (1), *BUSY%* is measured in period t-1 and *REDUCEBUSY* is measured in period t. All variable definitions and sources can be found in Appendix A.

TABLE 4
OLS Regressions of Audit Fees on Audit Committee Overboarding

Variables	(1) Company Fixed Effects	(2) Clustered Standard Errors
<i>BUSY%</i>	0.021* (1.77)	0.155*** (11.63)
<i>SIZE</i>	0.326*** (54.76)	0.452*** (185.58)
<i>LEVERAGE</i>	0.133*** (9.04)	0.149*** (12.60)
<i>INVREC</i>	0.391*** (12.34)	0.429*** (21.25)
<i>LOSS</i>	0.070*** (13.17)	0.190*** (28.97)
<i>RESTRUCTURE</i>	0.041*** (2.92)	0.100*** (4.66)
<i>FSALES</i>	0.054*** (4.73)	0.251*** (36.58)
<i>BUSSEG</i>	0.032*** (6.87)	0.083*** (24.23)
<i>EXGROWTH</i>	0.027*** (5.72)	0.051*** (6.70)
<i>LNBDSIZE</i>	0.128*** (6.57)	0.209*** (12.75)
<i>PCTBDINDP</i>	0.114*** (4.17)	0.367*** (17.50)
<i>LNACSIZE</i>	-0.028 (-1.49)	-0.047** (-2.41)
<i>DUAL</i>	-0.002 (-0.27)	0.003 (0.45)
<i>BIG4</i>	0.426*** (27.38)	0.474*** (51.77)
<i>MIDTIER</i>	0.199*** (12.80)	0.311*** (26.07)
<i>BUSYSEASON</i>	0.105*** (3.03)	0.048*** (7.43)
<i>AUDSWITCH</i>	0.015 (1.47)	0.042*** (2.83)

TABLE 4 (CONTINUED)

Variables	(1) Company Fixed Effects	(2) Clustered Standard Errors
<i>PCTRETIRED</i>	-0.014 (-1.08)	0.054*** (3.95)
<i>MEANACTENURE</i>	-0.003*** (-3.08)	-0.013*** (-17.94)
<i>LITIGATION</i>	- -	0.043*** (4.32)
Constant	10.491*** (171.66)	9.232*** (115.56)
Observations	36,023	36,023
R-squared	0.960	0.844
Firm FE	Yes	No
Year FE	Yes	No
Industry FE	No	Yes
Cluster	None	Firm & Year

The columns above present the results of an OLS regression of audit fees on audit committee overboarding. Coefficients are reported on the first line and robust t-statistics are reported in parenthesis. Stars, *, **, and ***, indicate significance at 10 percent, 5 percent, and 1 percent levels, respectively. Column 1 reports the result of the OLS regression utilizing company and year fixed effects. Column 2 reports results utilizing industry fixed effects and standard errors clustered by company and year. Significance on the variable BUSY% indicates that more overboarded audit committees respond to their increased workloads by paying higher audit fees. All variable definitions and sources can be found in Appendix A.

TABLE 5
Logit Regressions of Switching to a Big-4 Auditor on Audit Committee
Overboarding

Variables	(1) Switch to Big-4	(2) Switch to Big-4
<i>BUSY%</i>	0.979** (2.01)	1.001** (2.06)
<i>MISSTATE</i>	1.183*** (5.81)	1.190*** (5.74)
<i>SIZE</i>	0.263*** (5.32)	0.259*** (5.26)
<i>AUDTENURE</i>	0.054** (2.35)	0.054** (2.22)
<i>LEVERAGE</i>	-0.525 (-1.20)	-0.532 (-1.21)
<i>ROA</i>	0.403 (1.10)	0.415 (1.13)
<i>MB</i>	-0.000 (-0.95)	-0.000 (-0.98)
<i>SALGROWTH</i>	0.001 (0.26)	0.001 (0.26)
<i>LOSS</i>	0.444** (2.45)	0.424** (2.31)
<i>GC</i>	-0.932 (-1.25)	-0.942 (-1.27)
<i>ICW</i>	0.931*** (3.48)	0.949*** (3.55)
<i>BIG4</i>	-5.841*** (-9.26)	-5.824*** (-9.23)
<i>MA</i>	0.484** (2.46)	0.508** (2.55)
Constant	-6.328*** (-18.63)	-6.476*** (-14.04)
Observations	36,895	36,895
Pseudo R-Squared	0.225	0.227
Cluster	Firm & Year	None
Year FE	Yes	Yes

TABLE 5 (CONTINUED)

The columns above present the results of a logistic regression of switching to a Big-4 auditor on audit committee overboarding. Coefficients are reported on the first line and robust z-statistics are reported in parenthesis. Stars, *, **, and ***, indicate significance at 10 percent, 5 percent, and 1 percent levels, respectively. Column 1 reports the result of the logistic regression utilizing clustered standard errors at the company and year level. Column 2 reports results utilizing year fixed effects. A positive coefficient on the variable of interest, *BUSY%*, indicates a higher likelihood of switching to a Big-4 auditor from a small or mid-tier auditor. A negative coefficient on *BUSY%* indicates a lower likelihood of switching. All control variables are measured as of the fiscal year before the switch. All variable definitions and sources can be found in Appendix A.

TABLE 6
Logit and OLS Regressions of Misstatements on Audit Committee Overboarding

Variables	(1) Logit Busy%	(2) OLS Busy%
<i>BUSY%</i>	-0.273*** (-3.02)	-0.023*** (-2.98)
<i>SIZE</i>	0.034** (2.16)	0.003** (2.38)
<i>LEVERAGE</i>	0.171** (2.34)	0.014** (2.21)
<i>MB</i>	-0.002 (-0.46)	-0.000 (-0.52)
<i>INVREC</i>	-0.245* (-1.84)	-0.021* (-1.93)
<i>LN FIRMAGE</i>	-0.063* (-1.66)	-0.005 (-1.61)
<i>EXGROWTH</i>	-0.022 (-0.43)	-0.002 (-0.46)
<i>FSALES</i>	0.097** (2.18)	0.008** (2.09)
<i>BUSSEG</i>	0.240*** (11.08)	0.021*** (10.98)
<i>LOSS</i>	0.147*** (3.36)	0.014*** (3.61)
<i>MA</i>	0.063 (1.41)	0.005 (1.23)
<i>RESTRUCTURE</i>	-0.033 (-0.24)	-0.002 (-0.18)
<i>DUAL</i>	0.068* (1.82)	0.005* (1.65)
<i>LNACSIZE</i>	-0.005 (-0.04)	-0.002 (-0.15)
<i>MEANACTENURE</i>	-0.012** (-2.22)	-0.001** (-2.30)
<i>PCTRETIRED</i>	-0.377*** (-3.99)	-0.029*** (-3.95)
<i>LN BDSIZE</i>	-0.340*** (-3.27)	-0.028*** (-3.24)

TABLE 6 (CONTINUED)

Variables	(1) Logit Busy%	(2) OLS Busy%
<i>PCTBDINDP</i>	-0.485*** (-3.43)	-0.042*** (-3.42)
<i>BIG4</i>	0.475*** (6.83)	0.034*** (6.93)
<i>MIDTIER</i>	0.398*** (4.62)	0.027*** (4.11)
<i>AUDSWITCH</i>	-0.094 (-1.06)	-0.009 (-1.21)
<i>ICW</i>	1.185*** (18.84)	0.159*** (14.52)
<i>IMPORTANT</i>	1.330*** (6.52)	0.106*** (5.36)
<i>BUSYSEASON</i>	-0.102** (-2.41)	-0.009** (-2.47)
Constant	-1.827*** (-4.39)	0.143*** (3.21)
Observations	35,565	35,577
R-squared	-	0.031
Pseudo R-Squared	0.043	-
Cluster	Firm & Year	Firm & Year
Industry FE	Yes	Yes

The columns above present the results of a logistic (OLS) regression of misstatements on audit committee overboarding. Coefficients are reported on the first line and robust z-statistics (t-statistics) are reported in parenthesis. Stars, *, **, and ***, indicate significance at 10 percent, 5 percent, and 1 percent levels, respectively. Column 1 reports the result of the logistic regression of misstatements on overboarding. Column 2 reports results utilizing a limited probability model. A positive coefficient on the variable of interest, *BUSY%*, indicates a higher misstatement likelihood for companies with higher levels of audit committee overboarding indicating lower financial reporting quality. A negative coefficient on *BUSY%* indicates a lower misstatement likelihood for companies with lower levels of audit committee overboarding indicating higher financial reporting quality. All variable definitions and sources can be found in Appendix A.

TABLE 7
OLS Regressions of Misstatements on Audit Committee Overboarding and Audit Committee Actions

Variables	(1) Reduce Busy	(2) Audit Fees	(3) Switch to Big-4
<i>BUSY%</i>	-0.025*** (-3.18)	-0.012 (-1.15)	-0.022*** (-2.88)
<i>BUSY%$\times$REDUCEBUSY</i>	0.022 (0.89)		
Joint Test (b1 + b2)	-0.00375 (-0.161)		
<i>BUSY%$\times$POSCHG</i>		-0.019 (-1.38)	
Joint Test (b1 + b2)		-0.0317*** (-2.975)	
<i>BUSY%$\times$SWITCH2BIG4</i>			-0.173** (-1.99)
Joint Test (b1 + b2)			-0.195** (-2.252)
<i>REDUCEBUSY</i>	-0.008 (-1.32)		
<i>POSCHG</i>		0.009** (2.14)	
<i>SWITCH2BIG4</i>			0.021 (0.73)
<i>SIZE</i>	0.003** (2.45)	0.003** (2.21)	0.003** (2.37)
<i>LEVERAGE</i>	0.014** (2.21)	0.010 (1.61)	0.014** (2.20)
<i>MB</i>	-0.000 (-0.54)	-0.000 (-0.94)	-0.000 (-0.53)
<i>INVREC</i>	-0.021* (-1.95)	-0.023** (-2.07)	-0.021* (-1.93)
<i>LN FIRMAGE</i>	-0.005 (-1.60)	-0.003 (-0.91)	-0.005 (-1.62)
<i>EXGROWTH</i>	-0.002 (-0.45)	-0.002 (-0.36)	-0.002 (-0.46)
<i>FSALES</i>	0.008**	0.008**	0.008**

TABLE 7 (CONTINUED)

Variables	(1) Reduce Busy	(2) Audit Fees	(3) Switch to Big-4
	(2.09)	(2.14)	(2.09)
<i>BUSSEG</i>	0.021***	0.021***	0.021***
	(10.97)	(10.66)	(10.99)
<i>LOSS</i>	0.014***	0.015***	0.014***
	(3.64)	(3.61)	(3.60)
<i>MA</i>	0.005	0.006	0.005
	(1.23)	(1.43)	(1.24)
<i>RESTRUCTURE</i>	-0.002	-0.002	-0.002
	(-0.17)	(-0.16)	(-0.19)
<i>DUAL</i>	0.005	0.007**	0.005*
	(1.62)	(2.02)	(1.65)
<i>LNACSIZE</i>	-0.001	-0.003	-0.002
	(-0.12)	(-0.26)	(-0.15)
<i>MEANACTENURE</i>	-0.001**	-0.001*	-0.001**
	(-2.36)	(-1.94)	(-2.29)
<i>PCTRETIRED</i>	-0.029***	-0.025***	-0.029***
	(-3.93)	(-3.23)	(-3.94)
<i>LNBDSize</i>	-0.028***	-0.030***	-0.028***
	(-3.23)	(-3.28)	(-3.24)
<i>PCTBDINDP</i>	-0.042***	-0.041***	-0.043***
	(-3.35)	(-3.08)	(-3.42)
<i>BIG4</i>	0.034***	0.042***	0.034***
	(6.96)	(8.32)	(6.88)
<i>MIDTIER</i>	0.027***	0.032***	0.027***
	(4.12)	(4.78)	(4.11)
<i>AUDSWITCH</i>	-0.009	-0.005	-0.009
	(-1.21)	(-0.65)	(-1.19)
<i>ICW</i>	0.159***	0.163***	0.159***
	(14.52)	(14.41)	(14.54)
<i>IMPORTANT</i>	0.106***	0.121***	0.107***
	(5.35)	(5.63)	(5.37)
<i>BUSYSEASON</i>	-0.009**	-0.008**	-0.009**
	(-2.47)	(-2.02)	(-2.47)
Constant	0.142***	0.142***	0.143***
	(3.19)	(2.95)	(3.21)

TABLE 7 (CONTINUED)

Variables	(1) Reduce Busy	(2) Audit Fees	(3) Switch to Big-4
Observations	35,577	32,762	35,577
R-squared	0.031	0.033	0.031
Cluster	Firm & Year	Firm & Year	Firm & Year
Industry FE	Yes	Yes	Yes

The columns above present the results of an OLS regression of misstatements on audit committee busyness and increases in abnormal audit fees, auditor switches, and audit committee actions to reduce the degree they are overboarded. Coefficients are reported on the first line and robust t-statistics are reported in parenthesis. Stars, *, **, and ***, indicate significance at 10 percent, 5 percent, and 1 percent levels, respectively. Column 1 reports the results of the OLS regression examining the interaction of overboarding and increases in abnormal audit fees. Column 2 reports the results of the OLS regression examining the interaction of overboarding and steps to reduce the degree of overboarding. Column 3 reports the results of the OLS regression examining the interaction of overboarding and switches to a Big-4 auditor. Joint significance on the variable B1 and B2 indicates that busy audit committees that respond to their increased workloads by taking actions are associated with higher misstatement likelihood when the coefficient is positive and indicate a negative association between misstatement likelihood and overboarded audit committee responses when negative. All variable definitions and sources can be found in Appendix A.

TABLE 8
OLS Regressions of Misstatements on Audit Committee Overboarding by Crisis Period

Variables	(1) Pre-Crisis	(2) Crisis	(3) Post-Crisis	(4) Pre-Crisis	(5) Crisis	(6) Post-Crisis
<i>BUSY%</i>	-0.018 (-1.37)	-0.015 (-0.79)	-0.030*** (-2.77)	0.003 (0.18)	-0.006 (-0.21)	-0.031** (-2.06)
<i>BUSY%$\times$POSCHG</i>				-0.042* (-1.73)	-0.005 (-0.16)	-0.005 (-0.27)
Joint Test (b1 + b2)				-0.0391** (-2.099)	-0.0109 (-0.471)	-0.0362** (-2.298)]
<i>POSCHG</i>				0.012* (1.70)	0.007 (0.80)	0.007 (1.18)
<i>SIZE</i>	0.004 (1.62)	0.004 (1.28)	0.003 (1.63)	0.004 (1.46)	0.003 (0.92)	0.003 (1.59)
<i>LEVERAGE</i>	0.030** (2.24)	0.007 (0.55)	0.017** (2.12)	0.019 (1.32)	0.007 (0.56)	0.019** (2.31)
<i>MB</i>	0.000 (0.13)	0.000 (0.65)	-0.001* (-1.65)	-0.000 (-0.20)	0.000 (0.15)	-0.001* (-1.67)
<i>INVREC</i>	-0.024 (-1.27)	-0.004 (-0.19)	-0.032** (-2.08)	-0.029 (-1.43)	-0.005 (-0.22)	-0.034** (-2.15)
<i>LN FIRMAGE</i>	-0.002 (-0.41)	-0.017** (-2.28)	0.001 (0.24)	-0.003 (-0.53)	-0.010 (-1.27)	0.004 (0.79)
<i>EXGROWTH</i>	-0.004 (-0.55)	-0.011 (-1.15)	0.002 (0.33)	-0.005 (-0.65)	-0.009 (-0.91)	0.004 (0.54)
<i>FSALES</i>	0.009 (1.39)	0.008 (1.05)	0.007 (1.37)	0.008 (1.18)	0.012 (1.48)	0.007 (1.26)
<i>BUSSEG</i>	0.016*** (4.38)	0.014*** (3.02)	0.026*** (9.69)	0.015*** (4.12)	0.014*** (3.04)	0.026*** (9.56)
<i>LOSS</i>	0.011 (1.62)	0.030*** (3.66)	0.015*** (2.60)	0.012 (1.58)	0.031*** (3.64)	0.016*** (2.63)
<i>MA</i>	-0.005 (-0.65)	-0.005 (-0.47)	0.013** (2.35)	-0.003 (-0.40)	-0.007 (-0.70)	0.013** (2.23)
<i>RESTRUCTURE</i>	-0.005 (-0.24)	0.026 (0.60)	-0.017 (-0.90)	-0.004 (-0.19)	0.035 (0.79)	-0.020 (-1.01)
<i>DUAL</i>	0.007 (1.25)	0.017** (2.31)	-0.002 (-0.51)	0.010* (1.78)	0.014* (1.93)	-0.001 (-0.15)
<i>LNACSIZE</i>	0.008 (0.41)	0.006 (0.22)	-0.013 (-0.80)	0.014 (0.67)	-0.001 (-0.04)	-0.018 (-1.07)

TABLE 8 (CONTINUED)

Variables	(1) Pre-Crisis	(2) Crisis	(3) Post-Crisis	(4) Pre-Crisis	(5) Crisis	(6) Post-Crisis
<i>MEANACTENURE</i>	-0.001 (-1.13)	-0.000 (-0.40)	-0.001* (-1.93)	-0.000 (-0.44)	-0.000 (-0.24)	-0.001* (-1.91)
<i>PCTRETIRED</i>	-0.031** (-2.20)	0.002 (0.14)	-0.031*** (-3.11)	-0.031** (-2.01)	0.007 (0.42)	-0.028*** (-2.69)
<i>LNBDSize</i>	-0.046*** (-3.05)	-0.006 (-0.31)	-0.029** (-2.34)	-0.053*** (-3.29)	-0.001 (-0.05)	-0.031** (-2.41)
<i>PCTBDINDP</i>	-0.071*** (-3.25)	-0.017 (-0.63)	-0.013 (-0.72)	-0.078*** (-3.25)	-0.018 (-0.63)	-0.011 (-0.56)
<i>BIG4</i>	0.020** (2.03)	0.004 (0.29)	0.045*** (6.98)	0.030*** (2.87)	0.013 (1.07)	0.051*** (7.78)
<i>MIDTIER</i>	0.005 (0.46)	-0.006 (-0.41)	0.049*** (4.46)	0.010 (0.84)	0.001 (0.06)	0.055*** (4.83)
<i>AUDSWITCH</i>	-0.022** (-1.97)	0.006 (0.31)	-0.013 (-1.12)	-0.014 (-1.12)	0.000 (0.02)	-0.011 (-0.91)
<i>ICW</i>	0.149*** (10.54)	0.161*** (4.97)	0.166*** (8.03)	0.152*** (10.39)	0.173*** (5.19)	0.166*** (7.79)
<i>IMPORTANT</i>	0.145*** (3.59)	0.053 (1.27)	0.080*** (3.17)	0.175*** (3.71)	0.062 (1.50)	0.095*** (3.44)
<i>BUSYSEASON</i>	-0.025*** (-3.90)	0.009 (1.11)	-0.001 (-0.20)	-0.024*** (-3.44)	0.011 (1.38)	-0.001 (-0.19)
Constant	0.217*** (2.85)	0.054 (0.50)	0.106* (1.67)	0.224*** (2.69)	0.024 (0.22)	0.115* (1.65)
Observations	13,641	6,480	15,456	12,273	6,219	14,270
R-squared	0.037	0.035	0.044	0.039	0.037	0.045
Cluster	Firm & Year	Firm & Year	Firm & Year	Firm & Year	Firm & Year	Firm & Year
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes

TABLE 8 (CONTINUED)

The columns above present the results of an OLS regression of misstatements on audit committee busyness and higher abnormal audit fees before, during, and after the financial crisis. Coefficients are reported on the first line and robust t-statistics are reported in parenthesis. Stars, *, **, and ***, indicate significance at 10 percent, 5 percent, and 1 percent levels, respectively. Column 1 through Column report the results of the OLS regression examining the impact of overboarding on misstatements before, during, and after the financial crisis. Column 4 through Column 6 reports the results of the OLS regression examining the interaction of overboarding and paying higher abnormal audit fees over the three time periods. In Column 1 through Column 3, significance on BUSY% indicates the effect of busyness during each of the three periods. In Column 4 through Column 6, joint significance on the variable B1 and B2 indicates that busy audit committees that respond to their increased workloads by paying higher abnormal audit fees are associated with higher misstatement likelihood when the coefficient is positive and indicate a negative association between misstatement likelihood and overboarded audit committees when negative. All variable definitions and sources can be found in Appendix A.

TABLE 9
Regressions of Quarterly Misstatements on Audit Committee
Overboarding

Variables	(1) OLS BUSY%	(2) Logit BUSY%
<i>BUSY%</i>	0.006* (1.77)	0.364* (1.87)
<i>SIZE</i>	-0.001 (-1.51)	-0.078** (-2.11)
<i>LEVERAGE</i>	-0.002 (-0.54)	-0.093 (-0.67)
<i>MB</i>	-0.000 (-0.97)	-0.008 (-1.09)
<i>INVREC</i>	-0.009* (-1.76)	-0.401 (-1.43)
<i>LN FIRMAGE</i>	-0.005*** (-3.11)	-0.273*** (-3.17)
<i>EXGROWTH</i>	0.001 (0.44)	0.056 (0.49)
<i>FSALES</i>	-0.001 (-0.31)	-0.051 (-0.50)
<i>BUSSEG</i>	-0.000 (-0.47)	-0.041 (-0.75)
<i>LOSS</i>	0.005*** (3.02)	0.311*** (3.09)
<i>MA</i>	0.006*** (3.13)	0.341*** (3.41)
<i>RESTRUCTURE</i>	0.002 (0.27)	0.103 (0.34)
<i>DUAL</i>	0.002 (1.62)	0.131 (1.55)
<i>LNACSIZE</i>	0.001 (0.31)	0.048 (0.17)
<i>MEANACTENURE</i>	-0.000* (-1.74)	-0.021 (-1.56)
<i>PCTRETIRED</i>	0.008** (2.43)	0.501*** (2.59)
<i>LNBD SIZE</i>	-0.003	-0.187

TABLE 9 (CONTINUED)

Variables	(1) OLS BUSY%	(2) Logit BUSY%
	(-0.70)	(-0.81)
<i>PCTBDINDP</i>	-0.009	-0.476
	(-1.43)	(-1.46)
<i>BIG4</i>	-0.001	-0.010
	(-0.52)	(-0.08)
<i>MIDTIER</i>	-0.000	0.037
	(-0.01)	(0.22)
<i>AUDSWITCH</i>	0.016***	0.568***
	(3.44)	(4.16)
<i>ICW</i>	0.059***	1.657***
	(8.89)	(14.95)
<i>IMPORTANT</i>	0.007	0.274
	(0.69)	(0.65)
<i>BUSYSEASON</i>	0.001	0.026
	(0.35)	(0.27)
Constant	0.026***	-3.024***
	(2.69)	(-4.74)
Observations	35,455	34,533
R-squared	0.016	-
Pseudo R-squared	-	0.062
Cluster	Firm & Year	Firm & Year
Industry FE	Yes	Yes

The columns above present the results of a logistic (OLS) regression of quarterly misstatements on audit committee overboarding. Coefficients are reported on the first line and robust z-statistics (t-statistics) are reported in parenthesis. Stars, *, **, and ***, indicate significance at 10 percent, 5 percent, and 1 percent levels, respectively. Column 1 reports the result of the logistic regression of quarterly misstatements on overboarding. Column 2 reports results utilizing a limited probability model. A positive coefficient on the variable of interest, BUSY%, indicates a higher quarterly misstatement likelihood for companies with higher levels of audit committee overboarding, indicating lower financial reporting quality. A negative coefficient on BUSY% indicates a lower quarterly misstatement likelihood for companies with lower levels of audit committee overboarding, indicating higher financial reporting quality. All variable definitions and sources can be found in Appendix A.

TABLE 10
Logit and OLS Regressions of Misstatements on Audit Committee Overboarding
Alternative Definitions

Variables	(1) Logit Busy 50%	(2) OLS Busy 50%	(3) Logit Busy Mean	(4) OLS Busy Mean
<i>BUSYBINARY</i>	-0.142** (-2.43)	-0.012** (-2.44)		
<i>BUSYMEAN</i>			-0.083** (-1.99)	-0.007* (-1.91)
<i>SIZE</i>	0.030* (1.93)	0.003** (2.16)	0.030* (1.92)	0.003** (2.15)
<i>LEVERAGE</i>	0.172** (2.36)	0.014** (2.22)	0.171** (2.35)	0.014** (2.20)
<i>MB</i>	-0.002 (-0.49)	-0.000 (-0.55)	-0.002 (-0.50)	-0.000 (-0.55)
<i>INVREC</i>	-0.242* (-1.82)	-0.020* (-1.89)	-0.241* (-1.81)	-0.020* (-1.89)
<i>LN FIRMAGE</i>	-0.062 (-1.64)	-0.005 (-1.58)	-0.063 (-1.64)	-0.005 (-1.60)
<i>EXGROWTH</i>	-0.023 (-0.45)	-0.002 (-0.46)	-0.023 (-0.46)	-0.002 (-0.48)
<i>FSALES</i>	0.097** (2.19)	0.008** (2.11)	0.097** (2.19)	0.008** (2.11)
<i>BUSSEG</i>	0.241*** (11.10)	0.021*** (11.01)	0.240*** (11.09)	0.021*** (10.99)
<i>LOSS</i>	0.144*** (3.31)	0.014*** (3.56)	0.145*** (3.32)	0.014*** (3.56)
<i>MA</i>	0.063 (1.42)	0.005 (1.24)	0.065 (1.45)	0.005 (1.27)
<i>RESTRUCTURE</i>	-0.036 (-0.26)	-0.003 (-0.20)	-0.033 (-0.25)	-0.002 (-0.19)
<i>DUAL</i>	0.071* (1.90)	0.006* (1.72)	0.068* (1.82)	0.005* (1.65)
<i>LNACSIZE</i>	-0.005 (-0.04)	-0.002 (-0.16)	0.022 (0.16)	0.000 (0.03)
<i>MEANACTENURE</i>	-0.012** (-2.14)	-0.001** (-2.23)	-0.012** (-2.17)	-0.001** (-2.25)

TABLE 10 (CONTINUED)

Variables	(1) Logit Busy 50%	(2) OLS Busy 50%	(3) Logit Busy Mean	(4) OLS Busy Mean
<i>PCTRETIRED</i>	-0.360*** (-3.82)	-0.027*** (-3.79)	-0.358*** (-3.80)	-0.027*** (-3.76)
<i>LNBDSize</i>	-0.348*** (-3.36)	-0.029*** (-3.30)	-0.345*** (-3.32)	-0.029*** (-3.30)
<i>PCTBDINDP</i>	-0.498*** (-3.53)	-0.044*** (-3.51)	-0.493*** (-3.48)	-0.043*** (-3.46)
<i>BIG4</i>	0.470*** (6.74)	0.033*** (6.83)	0.475*** (6.82)	0.034*** (6.91)
<i>MIDTIER</i>	0.396*** (4.60)	0.027*** (4.09)	0.400*** (4.65)	0.027*** (4.15)
<i>AUDSWITCH</i>	-0.093 (-1.04)	-0.009 (-1.20)	-0.093 (-1.05)	-0.009 (-1.20)
<i>ICW</i>	1.186*** (18.83)	0.159*** (14.53)	1.188*** (18.89)	0.159*** (14.55)
<i>IMPORTANT</i>	1.330*** (6.53)	0.107*** (5.37)	1.328*** (6.51)	0.106*** (5.36)
<i>BUSYSEASON</i>	-0.103** (-2.43)	-0.009** (-2.48)	-0.103** (-2.42)	-0.009** (-2.49)
Constant	-1.805*** (-4.34)	0.145*** (3.24)	-1.835*** (-4.41)	0.143*** (3.20)
Observations	35,565	35,577	35,565	35,577
R-squared	-	0.031	-	0.031
Pseudo R-squared	0.057	-	0.057	-
Cluster	Firm & Year	Firm & Year	Firm & Year	Firm & Year
Industry FE	Yes	Yes	Yes	Yes

The columns above present the results of a logistic (OLS) regression of misstatements on audit committee overboarding. Coefficients are reported on the first line and robust z-statistics (t-statistics) are reported in parenthesis. Stars, *, **, and ***, indicate significance at 10 percent, 5 percent, and 1 percent levels, respectively. Column 1 reports the result of the logistic regression of misstatements on overboarding. Column 2 reports results utilizing a limited probability model. A positive coefficient on the variable of interest, *BUSYBINARY* (*BUSYMEAN*), indicates a higher misstatement likelihood for companies with higher levels of audit committee overboarding indicating lower financial reporting quality. A negative coefficient on *BUSYBINARY* (*BUSYMEAN*) indicates a lower misstatement likelihood for companies with lower levels of audit committee overboarding indicating higher financial reporting quality. All variable definitions and sources can be found in Appendix A.

VITA

John “Jack” Castonguay was born in Newport News, Virginia, to the parents of Johnny and Beverly Castonguay. John grew up with his younger sister, Rachel, and three cousins: Kelsey, April, and Hannah; who are practically sisters to him. He attended St. Andrews elementary school, Tabb Middle School, and Tabb High School in Yorktown, Virginia. After completing his primary school, John attended James Madison University. While at James Madison John earned his Bachelor of Business Administration in accounting and graduated cum laude. The next year, while still at James Madison, John completed his Master of Science in accounting. Upon graduation, John became a Certified Public Accountant and worked for PricewaterhouseCoopers, LLP for two years in Richmond, Virginia. John was accepted into the University of Tennessee, Knoxville doctoral program in accounting and graduated in August 2017. Prior to graduation John accepted a tenure track assistant professor position at Hofstra University in Hempstead, New York. At Hofstra John will continue his love of teaching while watching his beloved Yankees during the summer months.