

# **Audit Quality: Detection of Material Misstatement**

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## ABSTRACT

### **Audit Quality: Detection of Material Misstatement**

**Megan Jones**

This dissertation is comprised of three studies that examine characteristics that have the potential to influence auditors' ability to detect material misstatement and therefore, audit quality.

The first study examines the Public Company Accounting Oversight Board (PCAOB) inspection process, and its relation to audit quality. This archival study concentrates on the group of companies that hire audit firms after Part II inspection reports containing quality control criticisms are made public. Results suggest that companies that switch to auditors with Part II reports have lower audit quality than companies that switch to auditors without Part II reports. Further, companies that switch to Part II report auditors do not appear to negotiate lower fees. This demonstrates an unintended consequence of Part II inspection reports. It is possible that some companies are using the reports to identify low-quality auditors that may be less likely to detect material misstatement.

The second study focuses on the influence of auditor substitution on professional skepticism. Staffing changes are necessary in practice due to auditor turnover and changes in client timing, which may result in a substitute auditor completing a task that is already started. The skepticism level may be lower for a substitute auditor compared to an auditor completing an entire task due to lack of information or lower feelings of meaningfulness and psychological ownership of the task. An experiment was conducted with professional accountants demonstrating that substitute auditors were less skeptical than auditors completing an entire task from start to finish. Evidence does not support that substitute auditors had lower feelings of meaningfulness and psychological ownership resulting in lower skepticism. However, results do suggest that substitute auditors are less skeptical in their judgment because red flags were not all transferred. This lower skeptical judgment then led to less skeptical action by the substitute auditors. The decline in skepticism may harm substitute auditors' ability to detect material misstatement.

Lastly, study three focuses on how fraud inquiries of management are conducted. The audit standards include inquiries of management that mention the word fraud and are closed type questions. However, the Center for Audit Quality (CAQ) recommends avoiding the word fraud when having conversations with management regarding fraud risks. Also, the CAQ recommends questions that are all open-ended type. This study aims to explore whether slight changes in the verbiage of management inquiries could increase the likelihood fraud reporting to inquiring auditors. Results from an experiment using Amazon Mechanical Turk participants indicates that avoiding the word fraud increases the likelihood of reporting when closed type questions are used and the auditor lacks rapport with the client. Practically, this suggests that auditors lacking rapport with the client and using the inquiries from the standards (closed type questions which mention the word fraud), may be able to increase the likelihood of reporting by simply avoiding the word fraud. If clients are willing to share fraud risks, auditors would be in a better position to adjust the audit plan, and hopefully, have a better chance of detecting material misstatement due to fraud.

## DEDICATON

To Chris, my loving husband, who has supported me every step of the way.

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## CHAPTER 1: INTRODUCTION

This dissertation investigates various aspects of the audit process and their relation to audit quality, specifically as it relates to the auditors' ability to detect material misstatements, including those resulting from fraud. While the definition of audit quality varies in the literature, I adopt the Gaynor et al. (2016, 5) definition and consider a higher quality audit as "one that provides a higher level of assurance that the auditor obtained sufficient appropriate evidence that the financial statements faithfully represent the firm's underlying economics." Recent summaries of the audit quality literature stress that researchers need to be cognizant of the multi-faceted nature of this construct and the many ways in which it can be measured (Francis 2011; Gaynor et al. 2016; Knechel et al. 2013). Gaynor et al. (2016) recommends the Bonner (2008) framework, which focuses on variations in judgment and decision-making due to characteristics of the environment, task, and person, to examine audit quality. While much of the existing literature focuses on personal traits that influence judgment and decision making (Gaynor et al. 2016), I focus on the other two categories, features of the audit environment and audit task that may influence judgment and decision making and ultimately, audit quality. Figure 1-1 maps the three research studies included in this dissertation to the Bonner (2008) framework.

[Insert Figure 1-1]

The first study, described in Chapter 2, concentrates on an environmental factor, the Public Company Accounting Oversight Board's (PCAOB) inspection process, and the relation to audit quality. Prior literature has demonstrated that Part II PCAOB inspection reports, which describe audit firms' quality control deficiencies, signal audit quality. Muriel (2013) and Nagy (2014) provide evidence that audit firms tend to lose clients subsequent to the release of a Part II inspection report. However, Nagy (2014) also demonstrates that these audit firms do attract new clients after receiving a Part II report. Study one extends this line of literature by exploring why

companies might be attracted to firms that have been identified to be providers of poor quality audits.

Two possible explanations are examined. First, clients may prefer a low-quality audit. Regulators and researchers have expressed concerns that companies engage in “opinion shopping,” which refers to switching to an audit firm that will issue an opinion consistent with managements’ preferences (Lennox 2000, Newton, Persellin, Wang, and Walkins 2016; PCAOB 2011). Companies with weak internal controls or poor financial reporting quality may hire Part II report auditors to obtain a less thorough audit to increase their chances of obtaining an unqualified opinion despite material misstatements. A second possibility is that clients may switch to a Part II report auditor to negotiate lower fees. Audit firms, especially smaller firms facing a more competitive market, tend to discount audit fees in the initial year of the engagement as they expect to recoup the discount in future years (Ghosh and Lustgarten 2006). In addition to the initial year discount, companies may be able to negotiate a further discount due to the possible reputational harm experienced from the firm receiving a Part II report.

An archival approach is used to compare companies that switch to an auditor with a recent Part II report to a matched sample of companies that switch to an auditor without a Part II report. Results suggest that companies that switch to Part II auditors have lower audit quality, as measured by discretionary accruals in the first financial statements following the switch, than companies that switch to auditors without Part II reports. The evidence does not support that companies switch to Part II auditors to negotiate lower fees. These findings highlight a potential unintended consequence of the Part II inspection reports - companies that desire low quality audits may use these reports to identify audit firms with quality control issues that are less likely to detect material misstatements.

The second and third studies use experimental design to examine features of audit tasks that may influence audit quality. Study two, described in Chapter 3, investigates the influence of auditor substitution, one auditor completing a task already started by another auditor, on audit quality. Auditor substitution is necessary in practice due to auditor turnover, changes in client timing, and other unforeseen circumstances. The PCAOB recently identified excessive auditor turnover, both firm and engagement team turnover, as a potential indicator of poor audit quality (PCAOB 2015). Both the current audit standards (PCAOB 2010a, AS 2101) and prior research (e.g. Hackenbrack and Knechel 1997; O’Keefe et al. 1994; Stein et al. 1994) discuss the importance of assembling an appropriate audit team during the planning phase. Study two will extend this line of literature by investigating the effect of staffing changes after the audit begins.

It is possible that not all information transfers seamlessly from the original auditor to the substitute auditor completing a task. As professional skepticism has been described as an attitude or a mindset (Hurt et al. 2013; Nelson 2009; PCAOB 2012), it is likely more difficult to transfer than tangible audit evidence. Regulators have criticized auditors for lacking a sufficient level of professional skepticism (PCAOB 2011). This study examines whether auditor substitution is one possible barrier to skepticism.

First, it is possible that substitute auditors are less skeptical because they are missing information. While most information is documented in the audit workpapers, some information learned about the client that is not directly related to the task may not be included. Second, substitute auditors may be less skeptical due to lower feelings of meaningfulness and ownership from only completing part of a task. The Hackman and Oldham (1976) Job Characteristics Model describes the concept of task identity, which specifies the portion of job that is performed from start to finish. Completing a job from start to finish (i.e. high task identity) has been shown to

increase performance via an increase in meaningfulness and ownership of the task (Humphrey et al. 2007; Pierce et al. 2009).

An experiment with public accountants is conducted to examine the influence of auditor substitution on skeptical judgment and action. Participants that completed only the last portion of the task are less skeptical of the controller's honesty and request less audit evidence than participants that completed the entire task. Additional analyses suggest that this decline in skepticism is due to substitute auditors missing information and not a result of feelings associated with lower task identity. Per mediation tests, substitute auditors missing the red flag relating to a disagreement with the controller are less skeptical of the controller's honesty and therefore, request less audit evidence. If substitute auditors do not respond to discrepancies with appropriate procedures because they are missing information, this could hinder their ability to detect material misstatements.

Lastly, the third study, included in Chapter 4, explores the characteristics of a specific audit task, fraud inquiries of management. Audit standards require that auditors inquire about fraud risks as part of the risk assessment procedures conducted during the planning phase of the audit to assist in developing planned testing procedures (PCAOB 2010b, AS 2110). Kaplan et al. (2011) provide experimental evidence that lends support to the fraud inquiry process. They demonstrate that individuals are more likely to report potential fraud to an inquiring auditor as compared to an auditor that does not ask about fraud risks. Study three extends this line of literature by examining if the nature and type of questions, along with the rapport between the auditor and client, influences the likelihood of reporting.

The Center for Audit Quality (CAQ) recommends avoiding the word fraud when discussing fraud risks with management (CAQ 2010). The whistleblowing literature also seems to

support this position. The likelihood of fraud reporting increases when there is a lower chance of retaliation or fewer personal costs involved in reporting (e.g., Seifert et al. 2010; Zhang et al. 2013). It is likely that employees will perceive a higher personal risk of reporting when the word fraud is mentioned, and therefore, may be less likely to share information relating to potential fraud when asked by the auditor. As the audit standards include the word fraud in the recommended auditor inquiries of management (PCAOB 2010b, AS 2110), this study investigates if the auditor would be able to obtain more information relating to fraud risks with a slight change in verbiage. Additionally, investigative interview guidance recommends that interviewers use open-ended questions as a means of encouraging participation and transferring control to the interviewee (Fisher and Geiselman 1992; Walsh and Bull 2012). As some of the inquiries in the audit standard are phrased as closed type questions, this study examines whether open-ended questions may increase the likelihood of fraud reporting.

Lastly, this study considers the relationship between the auditor and the client, and its influence on reporting. Bennett and Hatfield (2016) note that audit partners believe relationship-building is a necessity for obtaining sufficient audit evidence. Criminology research has demonstrated that when rapport is present during an interview it can reduce the interviewee anxiety (Kieckhafer et al. 2014) and increase the amount of correct information that is reported (Collins et al. 2002). It is possible that simple rapport-building techniques, such as using the interviewee's name and disclosing personal information, may increase the likelihood of fraud reporting.

Participants from Amazon's Mechanical Turk that have prior work experience are recruited to complete the experiment. Participants are asked to assume the role of the client and are provided a scenario that describes a possible fraud involving their direct supervisor. They then decide whether to report the fraud to the inquiring auditor. If they select to report, they forgo a small

bonus to proxy for the costs associated with reporting in practice. Results suggest when rapport is absent between the auditor and the client and a closed type question is used, clients are more likely to report when the word fraud is avoided as compared to mentioned by the auditor. This finding is consistent with the recommendation by the CAQ and has practical implications for auditors. As the current standards specify fraud inquiries that are closed questions which include the word fraud, the likelihood of client reporting may be diminished if the auditor lacks rapport with the client. Avoiding the word fraud or ensuring that the auditor performing the interview has established rapport with the auditor may increase the likelihood of reporting.

By examining these components of the fraud inquiry task, this study provides initial insight as to the best practices to increase the likelihood of client reporting during auditors' fraud inquiries of management. Prior research has noted that auditors have difficulty responding to fraud risks with the appropriate testing procedures (Trompeter et al. 2013); however, Hammersley et al. (2011) note that auditors are better at modifying procedures when more specific fraud risks are identified. If clients are more willing to discuss fraud risks during these inquiries, it would likely help auditors identify specific risks and modify their testing procedures to have a higher likelihood of detecting potential fraud.

This dissertation is organized as follows: chapters 2 through 4 present my three studies. Each chapter includes an introduction to the study, overview of the relevant literature and hypothesis development, methodology, results, and discussion of limitations and implications. Finally, chapter 5 offers a summary and suggestions for future research.

## References

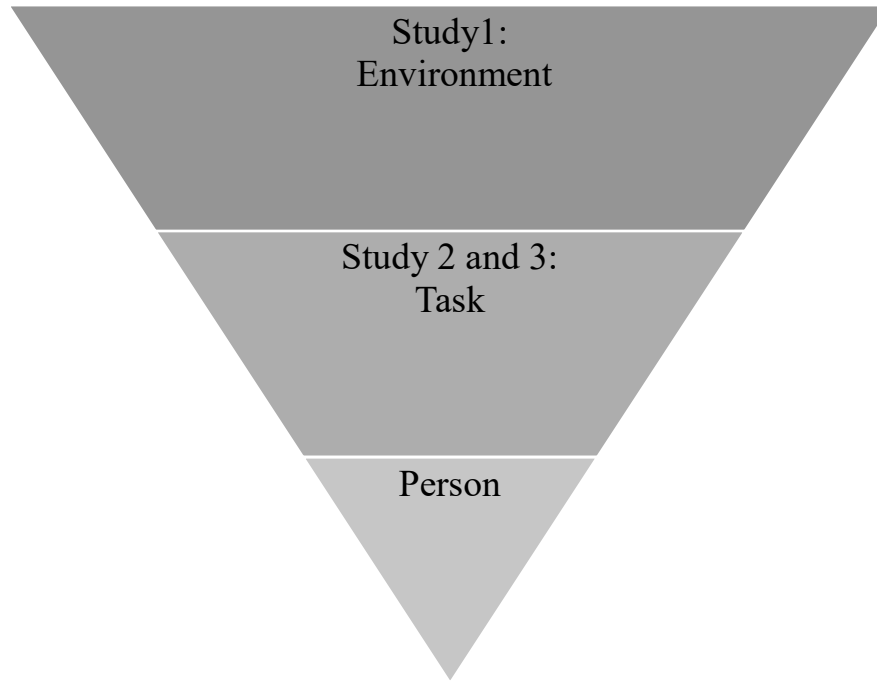
- Bennett, G.B. and R.C. Hatfield. 2016. Staff auditors' proclivity for computer mediated communication with clients and its effect on skeptical behavior. Working paper, University of Massachusetts Amherst.
- Bonner, S.E. 2008. Judgment and Decision Making in Accounting. Englewood Cliffs, NJ: Prentice Hall.
- Center for Audit Quality (CAQ). 2010. *Deterring and Detecting Financial Reporting Fraud: A Platform for Action*. Washington, DC: CAQ.
- Collins, R., R. Lincoln, and M.G. Frank. 2002. The effect of rapport in forensic interviewing. *Psychiatry, Psychology, and Law* 9 (1): 69-78.
- Fisher, R.P. and R.E. Geiselman. 1992. *Memory-enhancing Techniques for Investigative Interviewing: The Cognitive Interview*. Springfield, IL: Charles C. Thomas.
- Francis, J.R. 2011. A framework for understanding and researching audit quality. *Auditing: A Journal of Practice & Theory* 30 (2): 125-152.
- Gaynor, L.M., A.S. Kelton, M. Mercer, and T.L. Yohn. 2016. Understanding the relationship between financial reporting quality and audit quality. *Auditing: A Journal of Practice & Theory* 35 (4): 1-22.
- Ghosh, A. and S. Lustgarten. 2006. Pricing of initial audit engagements by large and small firms. *Contemporary Accounting Research* 23 (2): 333-368.
- Hackman, J. R. and Oldham, G. R. 1976. Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance* 16: 250-279.
- Hackenbrack, K. and W.R. Knechel. 1997. Resource allocations decisions in audit engagements. *Contemporary Accounting Research* 14 (3): 481-499.
- Hammersley, J.S., K.M. Johnstone, and K. Kadous. 2011. How do audit seniors respond to heightened fraud risk? *Auditing: A Journal of Practice and Theory* 30 (3): 81-101.
- Humphrey, S. E., J. D. Nahrgang, and F. P. Morgeson. 2007. Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension. *Journal of Applied Psychology* 92 (5): 1332-1356.
- Hurt, K., H. Brown-Liburd, C. E. Earley, and G. Krishnamoorthy. 2013. Research on auditor professional skepticism: literature synthesis and opportunities for future research. *Auditing: A Journal of Practice and Theory* 32 (Supplement): 45-97.
- Kaplan, S.E., K.R. Pope, and J.A. Samuels. 2011. An examination of the effect of inquiry and auditor type on reporting intentions for fraud. *Auditing: A Journal of Practice and Theory* 30 (4): 29-49.
- Kieckhafer, J.M., J.P. Vallano, and N. Schreiber Compo. 2014. Examining the positive effects of rapport building: When and why does rapport building benefit adult eyewitness memory? *Memory* 22 (8): 1010-1023.
- Knechel, W.R., G.V. Krishnan, M. Pevzner, L.B. Schefchik, and U.K. Velury. 2013. Audit Quality: Insights from the Academic Literature. *Auditing: A Journal of Practice & Theory* 32 (Supplement 1): 385-421.
- Lennox, C. 2000. Do companies successfully engage in opinion-shopping? Evidence from the UK. *Journal of Accounting and Economics* 29: 321-337.
- Muriel, L.E. 2013. *Investor and Client Responses to the First PCAOB Sanction and Part II Disclosure of a Big N Auditor*. Working Paper, Oklahoma State University.
- Nagy, A.L. 2014. PCAOB quality control inspection reports and auditor reputation. *Auditing: A Journal of Practice & Theory* 33 (3): 87-104.



- Nelson, M.W. 2009. A model and literature review of professional skepticism in auditing. *Auditing: A Journal of Practice and Theory* 28 (2): 1-34.
- Newton, N.J., J.S. Persellin, D. Wang, and M.S. Wilkins. 2016. Internal control opinion shopping and audit market competition. *The Accounting Review* 91 (2): 603-623.
- O’Keefe, T.B., D.A. Simunic, and M.T. Stein. 1994. The production of audit services: Evidence from a major public accounting firm. *Journal of Accounting Research* (Autumn): 241-61.
- Pierce, J.L., I. Jussila, and A. Cummings. 2009. Psychological ownership within the job design context: revision of the job characteristics model. *Journal of Organizational Behavior* 30 (4): 477-496.
- Public Company Accounting Oversight Board (PCAOB). 2010a. *AS 2101: Audit Planning*. Washington, D.C.: PCAOB. Available at: <https://pcaobus.org/Standards/Auditing/Pages/AS2101.aspx>
- Public Company Accounting Oversight Board (PCAOB). 2010b. *Identifying and Assessing Risks of Material Misstatement. AS 2110*. Washington, D.C.: PCAOB. Available at: <https://pcaobus.org/Standards/Auditing/Pages/AS2110.aspx>
- Public Company Accounting Oversight Board (PCAOB). 2011. *Concept release on auditor independence and auditor firm rotation*. Release No. 2011-006. Washington, DC: PCAOB. Available at: [http://pcaobus.org/rules/rulemaking/docket037/release\\_2011-006.pdf](http://pcaobus.org/rules/rulemaking/docket037/release_2011-006.pdf)
- Public Company Accounting Oversight Board (PCAOB). 2012. *Maintaining and applying professional skepticism in audits*. Staff Audit Practice Alert No. 10 (SAPA 10). Washington, D.C.: PCAOB. Available at: [http://pcaobus.org/News/Releases/Pages/12042012\\_SAPA10.aspx](http://pcaobus.org/News/Releases/Pages/12042012_SAPA10.aspx)
- Public Company Accounting Oversight Board (PCAOB). 2015. *Concept release on audit quality indicators*. Release No. 2015-005. Washington, D.C.: PCAOB. Available at: [http://pcaobus.org/Rules/Rulemaking/Docket%20041/Release\\_2015\\_005.pdf](http://pcaobus.org/Rules/Rulemaking/Docket%20041/Release_2015_005.pdf)
- Seifert, D.L., J.T. Sweeney, J. Joireman, and J.M. Thornton. 2010. The influence of organizational justice on accountant whistleblowing. *Accounting, Organizations and Society* 35: 707-717.
- Stein, M.T., D.A. Simunic, and T.B. O’Keefe. 1994. Industry differences in the production of audit services. *Auditing: A Journal of Practice and Theory* (Supplement): 128-42.
- Trompeter, G.M., T.D. Carpenter, N. Desai, K.L. Jones, and R.A. Riley. 2013. A synthesis of fraud-related research. *Auditing: A Journal of Practice and Theory* 32 (Supplement): 287-321.
- Walsh, D. and R. Bull. 2010. What is really effective in interviews with suspects? A study comparing interviewing skills again interview outcomes. *Legal and Criminological Psychology* 15: 305-321
- Zhang, J., K. Pany, and P.M.J. Reckers. 2013. Under which conditions are whistleblowing “best practices” best? *Auditing: A Journal of Practice and Theory* 32 (3): 171-181.



**Figure 1-1: Audit Quality Framework**  
(Adapted from Bonner, 2008 & Gaynor et al., 2016)



**CHAPTER 2: INVESTIGATING THE DEMAND FOR LOW AUDIT QUALITY: AN  
INVESTIGATION OF COMPANIES THAT HIRE TRIENNIAL AUDITORS AFTER  
RECEIVING A PART II REPORT**

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## I. INTRODUCTION

Investors and other market participants demand audit quality as a mechanism to decrease information risk. These external parties cannot observe the audit process, so they use other publicly available information to assess audit quality. Public Company Accounting Oversight Board (PCAOB) inspection reports are one such signal of audit quality. The PCAOB's Part II inspection reports describe systematic quality control criticisms that were not remediated by the firm (within twelve months) and serve as a signal of audit quality (Carlisle, Church, and Yu 2017; Muriel 2013; Nagy 2014). Audit firms which receive a public Part II inspection report experience a significant loss in clients following the issuance of the report through a decreased ability to attract new clients and retain existing clients (Nagy 2014), which suggests a demand for audit quality. However, while these auditors have an overall reduction in the number of clients, they still attract some new clients in the subsequent year. We investigate possible reasons why companies would engage auditors following the receipt of a Part II report, which signals poor audit quality. We propose two possible explanations for why companies would choose to hire an auditor following the issuance of a Part II report: 1) to obtain a lower quality audit; and 2) to obtain a reduction in audit fees.

Both regulators and researchers have expressed concerns of clients engaging in “opinion shopping” or switching to an audit firm with the goal of obtaining an opinion that is consistent with managements’ preferences (Lennox 2000; Newton, Persellin, Wang, and Wilkins 2016; PCAOB 2011). Companies with low financial reporting quality or weak internal controls may prefer a low-quality audit because it may increase the likelihood of a clean opinion despite material misstatements or internal control weaknesses. Companies seeking low-quality auditors may view Part II reports as indicative of poor quality. Although quality control deficiencies do not necessarily indicate prior lapses in audit quality, they suggest that the audit firms' internal processes might not be functioning properly to ensure consistent, high quality audits.

Another incentive to switch to an auditor who receives a Part II report may be to reduce audit fees. Companies are typically able to negotiate lower fees in the initial year of the audit (DeAngelo 1981). It may be that companies hiring auditors with a public Part II can obtain additional discounts due to the tarnished reputation of such auditors. We investigate whether companies that switch to auditors with Part II inspection reports indicating systematic quality control issues receive a lower audit quality or a reduction in audit fees.

To do so, we analyze a sample of clients that switch to triennially inspected auditors (i.e. those auditing fewer than 100 issuers a year) subsequent to the issuance of a public Part II inspection report. We examine switches to smaller, triennially inspected auditors because these firms are likely to suffer greater reputational harm resulting from negative PCAOB reports than large, annually inspected firms with an established brand name (Abbott, Gunny, and Zhang 2013). We compare companies that switch to triennial auditors who have received a public Part II report within the past two years to a matched sample of companies that switch to triennial auditors who have not received a public Part II report. This sample allows us to evaluate the differences between auditor switches in terms of audit quality (i.e., performance-adjusted discretionary accruals; Kothari, Leone, and Wasley 2005) and audit fees.

Results of our univariate analysis indicate that companies which hire auditors following the issuance of a Part II report are very small and have poor financial performance. This provides them with a stronger incentive to hire an audit firm which would allow them to present a more favorable financial position (e.g., “opinion shopping) or which would work for reduced audit fees. We find companies that switch to auditors with a Part II report are associated with higher levels of discretionary accruals, which indicates lower audit quality, in the first issued financial statements following the switch. We find no such difference prior to the switch. Univariate analyses indicate

that companies that switch to auditors with a Part II report pay lower audit fees when compared to companies that switch to auditors without a Part II report. However, once control variables are introduced, multivariate analyses indicate that companies switching to Part II auditors do not negotiate lower fees. We also conduct difference-in-difference tests that yield the same results for our measures of audit quality and fees. In summary, for the companies in our sample that are audited by triennial firms, our results are consistent with a revealed preference for lower audit quality rather than discounted audit fees.

These findings support previous literature suggesting PCAOB inspection reports are a useful signal of audit quality by indicating that companies which switch to auditors with a Part II report have lower audit quality than those that switch to auditors without a Part II report. While most companies avoid auditors with poor quality (Nagy 2014), we provide evidence that the PCAOB's reporting process may have an unintended consequence of highlighting poor audit quality for companies that desire a lower quality audit. For companies that switch to auditors with revealed quality control issues, it is possible that a Part II report may serve as an effective advertisement of poor audit quality. Our results are also consistent with previous research that documents increased financial reporting fraud for smaller companies that employ triennially inspected audit firms (Hermanson, Houston, and Rice 2007). If companies are shopping for low quality audits, they may be more likely to be engaged in fraud. This paper has implications for the PCAOB, which may wish to identify instances of poor audit quality, as well as consider the possible unintended consequences of their inspection reports. Further, our results have potential implications for investors of triennially inspected firms with Part II inspection reports.

The remainder of the paper is organized as follows: section II presents the relevant literature and hypothesis development, section III discusses the research method and data, section IV reports the results, and section V offers a conclusion.

## II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### *PCAOB Inspections*

The PCAOB was created to oversee public company audits with the goal of improving audit quality (PCAOB 2006). Along with the registration of audit firms and standard-setting, the PCAOB is responsible for performing inspections and enforcing disciplinary actions (Abernathy, Barnes, and Stefaniak 2013). PCAOB inspections are performed to assess the audit firm's compliance with the Sarbanes-Oxley Act (SOX), Securities and Exchange Commission (SEC) provisions, and professional auditing standards (PCAOB 2004; Riley, Jenkins, Roush, and Thibodeau 2008). Per Section 104 of SOX, firms that provide audit services for greater than 100 issuers are inspected annually, whereas firms that provide audit services for fewer than 100 issuers are required to be inspected on a triennial basis (U.S. House of Representatives 2002). In addition to performing inspections of specific audit engagements selected using a risk-based approach, regulators also evaluate the audit firms' quality control system (PCAOB 2006). Part I of the inspection report describes audit deficiencies noted on specific engagements and is released to the public. Quality control criticisms are documented in Part II of the report and are not disclosed to the public unless the issues are not adequately addressed within a twelve-month remediation period (PCAOB 2006).

### *Part I of the Inspection Report*

The PCAOB's Audit Quality Indicator (AQI) project considers inspection report deficiencies to be one marker of audit quality (PCAOB 2015a). However, the stream of academic

literature that investigates whether Part I of the inspection reports are informative to clients and other market participants indicates mixed findings. Glover, Prawitt, and Taylor (2009) criticize the inspection reporting process for its lack of transparency and specific information explaining the severity of the deficiencies identified. Empirical evidence provided by Lennox and Pittman (2010) supports this position. Their findings suggest clients find the inspection reports from the American Institute of Certified Public Accountants (AICPA) peer review program to be informative, but not the PCAOB's inspection reports. In their sample, audit firms with weaknesses noted in the PCAOB's inspection reports are not associated with a reduction in the auditor's client base. The authors attribute this difference to the additional information included in the peer review reports, specifically the type of inspection report (i.e., unmodified, modified, or adverse) and the inclusion of systematic weaknesses that impact the quality controls of the firm.

More recent research suggests that certain features of the Part I inspection reports may signal audit quality. Eutsler (2018) provides evidence that account-specific findings for annually inspected firms are generalizable to the audit quality of the deficient account for the firm's clients exhibiting the highest selection risk. Gunny and Zhang (2013) provide evidence that triennially inspected auditors that receive a deficient Part I inspection report relating to a material GAAP departure are associated with lower audit quality. Similarly, Abbott et al. (2013) provide evidence that inspection reports of smaller, triennially inspected auditors are informative to clients. In their sample of triennially inspected firm reports from 2005-2007, clients are more likely to switch auditors after a GAAP-deficient Part I inspection report. The authors posit that clients of triennially inspected auditors may be more likely to switch auditors than those of annually inspected auditors after a negative inspection report due to lower switching costs resulting from a more competitive audit market and smaller client size. Daugherty, Dickins, and Tervo (2011) provide evidence

consistent with this notion. Their findings suggest clients of triennially inspected auditors are more likely to dismiss auditors with deficient inspection reports in favor of auditors without a negative PCAOB report. Overall, this evidence suggests that Part I findings, specifically those that relate to GAAP deficiencies, appear to signal audit quality for triennially inspected auditors.

### ***Part II of the Inspection Report: Quality Controls***

While much of the literature has concentrated on Part I PCAOB's findings, recent research has begun to focus on Part II deficiencies. The second part of the PCAOB's inspection report relates to overall quality control criticisms. The PCAOB adopted the AICPA's Statements on Quality Control (QC) Standards issued by the Accounting Standards Board (PCAOB 2003). Per QC Section 20.07, for an effective quality control system, accounting firms should implement five elements including: (1) independence, integrity, and objectivity, (2) personnel management, (3) acceptance and continuance of clients and engagements, (4) engagement performance, and (5) monitoring (PCAOB 2003). When reflecting on the impact of the inspections on current audit quality, Helen A. Munter, Director of Registration and Inspections, (PCAOB 2015b) said:

Righting the ship is not simply about the number of audit deficiencies that appear in the public portion of a firm's inspection report – the items we call Part 1 findings. Of course they matter. They are important. Our goal, however, in inspections, and what I view as a priority, is to address firm's systemic issues, and the potential deficiencies in a firm's system of quality controls.

Quality control systems vary among audit firms. QC Section 20.04 states that quality controls should be implemented considering the firm's size, number of offices, knowledge and experience of personnel, and complexity of the firm's practice (PCAOB 2003). Smaller firms may have difficulty implementing an acceptable quality control system as compared to larger firms. However, strategies such as building alliances and becoming niche providers are tactics employed by small firms to meet the necessary level of quality control (Bedard, Deis, Curtis, and Jenkins



2008). The PCAOB inspection team identifies quality control deficiencies from individually selected audit engagements (i.e. bottom-up generalization) and from a top-down review that focuses on organizational level issues (Aobdia 2017). However, due to the less formalized policies and procedures at smaller audit firms, quality control criticisms noted during inspections of smaller firms are generally derived from deficiencies noted during inspections of individual audits (PCAOB 2006).

Per SOX Section 104(g)(2), these quality control deficiencies remain confidential unless they are not addressed by the audit firms within a twelve-month remediation period. To keep the quality control criticism(s) confidential, a Rule 4009 submission is required by the audit firm to demonstrate a reasonable plan to address the criticism(s) and a good faith effort in making progress towards remediation (PCAOB 2006). Firms are not required to make a Rule 4009 submission, but if not, the criticism will become public, and if warranted the Board can take disciplinary action against the firm (PCAOB 2006).

Recognizing the importance of Part II inspection deficiencies, accounting research has recently examined client reaction to public Part II reports containing quality control criticisms that were not remediated. Muriel (2013) examines the impact of the 2007 Deloitte Part II report on the firms' market share. She documents that clients operating in a litigious industry and those that have longer tenures with Deloitte were more likely to switch auditors after the Part II report. Nagy (2014) extends this line of literature by investigating client reactions to Part II inspection reports of all audit firms, including triennially inspected firms. The sample includes 56 firms, all triennially inspected with the exception of Deloitte, that have received public Part II inspection reports as of November 2013. The most common criticisms in the quality control inspection reports relate to technical competency, due care, and professional skepticism. Results suggest that auditors

with public disclosures of quality control criticisms lose a significant portion of their market share compared to a matched sample of firms without Part II findings. These studies suggest that clients perceive Part II reports to be a signal of audit quality.

Nagy (2014) measures the change in audit clients following a Part II report by subtracting the clients gained from the clients lost. While firms with public quality control criticisms lost more clients than they gained, they are still able to attract new clients following the Part II report. It is assumed that clients prefer reputable auditors that can increase the credibility of their financial statements. This preference is consistent with the majority of companies switching auditors following a negative PCAOB inspection report. Nevertheless, it appears that at least some clients prefer auditors who receive public Part II reports. Our research objective is to examine the group of clients that switch to auditors following a Part II report in order to better understand why these companies would prefer an auditor with non-remediated quality control criticisms.

Recent literature has examined why companies may wish to retain an auditor following the issuance of a Part II report. Johnson (2015) provides evidence that companies choosing to retain a Part II report auditor negotiate lower audit fees while gaining higher audit quality. However, additional analyses indicate that these results are only applicable to annually inspected firms and not to the clients of the triennially inspected firms. Carlisle et al. (2017) provide evidence suggesting that companies with higher agency costs are less likely to retain a triennially inspected auditor with public quality control criticisms. Our study aims to add to this line of literature by performing a deeper examination into the demand for triennial auditors with public Part II reports. Prior literature focuses on the client decision of whether to retain an auditor that recently received a public Part II report. Our study, however, investigates the group of clients that are actively choosing to switch to auditors that recently received a Part II report. By examining the group of

companies that switch to auditors with revealed quality control issues, we can better understand why these companies are attracted to auditors with Part II reports. Per prior literature, we posit two possible explanations for why companies would choose to switch to auditors with quality control criticisms publicly reported by the PCAOB: 1) companies are identifying and switching to auditors with Part II reports in response to preferences for a lower quality audit and/or 2) companies are selecting Part II report auditors to obtain discounted audit fees.

### ***Low Audit Quality***

Companies may switch to auditors with revealed quality control criticisms because they prefer a low-quality audit. Prior literature provides evidence that auditors with quality control criticisms are associated with lower audit quality. Aobdia (2017) uses proprietary data from the PCAOB and provides evidence of a negative association between non-public quality control deficiencies and audit quality for large, annually inspected audit firms. Carlisle et al. (2017) find that smaller, triennially inspected audit firms with public Part II reports provide lower audit quality than audit firms that have remediated quality control deficiencies in a timely manner (i.e., those that avoided a public Part II report).

Companies with poor internal controls or low financial reporting quality may prefer a low-quality auditor that may not obtain sufficient appropriate evidence or may be more likely to support management's preferred accounting treatment. Regulators and researchers have expressed concerns over companies "opinion shopping," which refers to a company searching for an audit opinion that is consistent with management's preferences (Lennox 2000; Newton et al. 2016; PCAOB 2011). As mentioned above, audit firms have twelve months to address the quality control criticism(s) noted by the inspection team before the Part II findings are made public. In the inspections of triennial auditors from 2007-2010, approximately 90% of the audit firms with

quality control criticisms remediated the deficiencies and avoided public Part II report disclosures (PCAOB 2013). Therefore, public Part II reports could also be indicative of poor leadership or tone at the top at the audit firm (Carlisle 2017). Companies may be aware that the Part II report auditors lack the proper leadership to remediate quality controls in a timely manner, making the auditor more susceptible to concede to the companies' preferred accounting treatment or to issue a more favorable audit opinion than would otherwise be merited.

Additionally, triennially inspected audit firms receiving Part II inspection reports are likely focused on client retention due to an overall loss of clients. As noted above, audit firms lose a significant portion of their market share following a Part II inspection report (Nagy 2014). Prior research demonstrates that auditor competition and a strong emphasis on client retention can lead to lower quality audits. Newton, Wang, and Wilkins (2013) provide evidence that restatements are more likely to occur in metropolitan statistical areas with higher auditor competition. These findings suggest that auditors in areas with higher competition may be improving efficiency at the cost of effectiveness to retain clients. Companies switching to auditors with a Part II report may represent a large portion of the audit firm's client portfolio due to their overall loss of clients. This higher economic dependence is yet another reason that companies may feel that they have a higher likelihood of gaining auditor support with their preferred accounting treatment.

This discussion leads to the following hypothesis:

*H1: Companies that switch to triennially inspected auditors with Part II inspection reports have lower audit quality than companies that switch to triennially inspected auditors without Part II inspection reports.*

### ***Discounted Audit Fees***

Companies may switch to auditors with quality control criticisms to negotiate discounted audit fees in addition or instead of a preference for low audit quality. Auditors with Part II inspection reports may accept lower fees to build their client base. In fact, prior evidence shows

that all auditors, not just those with reputational damages, are likely to earn less on initial engagements. DeAngelo (1981) explains that low balling occurs on initial engagements because auditors are competitive and seek to gain clients with the expectation of earning subsequent audit fees on future engagements that will outweigh initial costs. Empirical evidence supports this supposition, demonstrating price reductions when clients switch firms for the initial engagement year and the next two fiscal years, with fees returning to normal levels around year four (Simon and Francis 1988). Turpen (1990), as well as Ettredge and Greenberg (1990), report similar findings of fee discounting even after adding necessary control variables such as auditor characteristics. These fee discounts increase as more auditors bid on an engagement (Ettredge and Greenberg 1990).

Building on these studies examining price reductions in initial engagement years, Ghosh and Lustgarten (2006) demonstrate that this fee cutting practice is prevalent among non-Big 4 firms but less common for Big 4 firms. The authors explain that these results are likely a function of the market and the fact that the smaller firms face greater competition. Huang et al. (2009) examine the impact of SOX on fee reductions in the initial year of the audit. As this legislation was designed to increase auditor conservatism, require audit committee oversight of audit hiring and fee decisions, and add audit testing surrounding internal controls over financial reporting, the authors posit that low balling will be less likely in a post-SOX environment. Findings support their predictions as it relates to Big 4 audit firms. Big 4 auditors were likely to cut fees in 2001 prior to SOX and charge a fee premium in 2006 following SOX requirements. However, consistent with Ghosh and Lustgarten (2006), there is no evidence that initial fee discounting diminishes in the post-SOX period for non-Big 4 auditors. A more recent study has examined fee discounting in an expanded post-SOX period (2007-2010). Desir, Casterella, and Kokina (2014) find evidence

suggesting that SOX curbed low balling, but that the impact was not long-lasting. In their sample, both Big 4 and non-Big 4 auditors, offer fee discounts for initial year engagements ranging from 16 to 34 percent.

Taken together, the prior research provides evidence that clients receive audit fee discounts in the initial engagement year, especially when switching to a non-Big 4 firm. We hypothesize that one reason companies switch to non-Big 4 firms that receive Part II inspection reports is to reduce audit fees. In addition to the fee discount that can be obtained in an initial engagement year, these companies may also expect a fee discount for the reduction in auditor reputation resulting from the Part II inspection report. In a recent meta-analysis, evidence from multiple studies demonstrates that higher audit quality, as measured by brand name (i.e. Big N) and whether the auditor is a specialist, is associated with higher audit fees as these firms can earn a fee premium for superior quality (Hay, Knechel, and Wong 2006). Therefore, it is reasonable to assume that firms with reputational damage, especially those without the Big N brand name, are not able to charge a fee premium and instead may need to reduce fees to attract clients. This discussion leads to the following hypothesis:

*H2: Companies that switch to triennially inspected auditors with Part II inspection reports pay lower audit fees than companies that switch to triennially inspected auditors without Part II inspection reports.*

### **III. RESEARCH METHOD**

#### ***Sample and Data Sources***

To generate our sample, we first identify triennial auditors that have received a Part II inspection report via the PCAOB website.<sup>1</sup> We focus our attention on companies that switch to smaller triennial auditors. Smaller audit firms don't have the same brand recognition and

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<sup>1</sup> Our data set includes total of 1,605 inspections for 843 different triennial firms. Of these inspections, 151 resulted in a public Part II PCAOB report for 125 different triennial firms, excluding repeat Part II reports.

reputation as large, annually inspected firms, and are therefore more likely to be negatively impacted by the PCAOB's reports than large firms (Abbott et al. 2013). Consequently, prior research demonstrates that inspection reports are a signal of audit quality for these smaller firms (Abbott et al. 2013; Nagy 2014).

Next, we isolate our sample to 247 companies that engaged a triennial auditor within two years of the issuance of a Part II inspection report using Audit Analytics.<sup>2</sup> We combine data from Audit Analytics with financial reporting data from Compustat. Because we are interested in smaller companies, not all data were included in the Compustat database. Therefore, it was necessary to hand collect missing information from the respective clients' 10-K filings obtained from the Securities and Exchange Commission (SEC) Electronic Data Gathering, Analysis and Retrieval (EDGAR) database. To do this, we compiled a list of companies in our sample that had at least one missing data item and had two assistants attempt to manually locate all the 10-K's from EDGAR and fill in the missing data. When they finished, they compared all items they added to the data set and worked out any differences between the two collections with the authors.

The clients that switched to a triennially inspected auditor within two years of receiving a public Part II inspection report are matched to a control group of clients that switched to auditors without a public Part II inspection report. We use propensity score matching, and match companies on size,<sup>3</sup> industry (two digit sic), and year. Companies with missing data and those without a successful match are eliminated from our sample. Because the earliest publicly available Part II inspection report dates back to 2005, our final sample includes companies that switched auditors

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<sup>2</sup> All companies in our sample switched from a triennial auditor to the Part II report triennial auditor except for nine companies that switched from an annual auditor to the Part II report triennial auditor. Excluding these nine companies does not impact our results.

<sup>3</sup> We used total assets to match on size, where matched companies had to be within +/- 90% of the total assets of the matched firm.

between 2006 and 2013: 108 companies that switched to Part II report auditors and 79 companies in the matched sample that switched to non-Part II report auditors.<sup>4</sup> The difference in sample size between the sample of interest and the match is due to a lack of firms meeting the matching criteria in Compustat (switching auditors, size, industry and year). Excluding the companies who switched to a Part II report auditor that could not be matched with another company does not change the statistical conclusions presented in the results. Of these 187 switches, the previous auditor resigned in 48 cases and was dismissed in the remaining 139 instances. Excluding the 48 cases in which the previous auditor resigned, as well as including this as a control variable in our models below, does not alter the inferences suggested by our results.

### *Model Specification*

#### *Audit Quality Model*

We regress discretionary accruals, our proxy for audit quality, on an indicator variable measuring whether companies switched to a Part II inspection report auditor (*SWITCHPARTII*) to test H1, which predicts that companies switch to these auditors to obtain lower audit quality. Discretionary accruals are estimated using the Kothari et al. (2005) performance adjusted model.<sup>5</sup> Below is our empirical model:

$$ABSACCRUALS_{i,t+1} = \beta_0 + \beta_1 LNAT_{i,t+1} + \beta_2 CFO_{i,t+1} + \beta_3 LOSS_{i,t+1} + \beta_4 DEBT_{i,t+1} + \beta_5 SWITCHPARTII + \varepsilon$$

where:

*ABSACCRUALS* = absolute value of performance adjusted discretionary accruals of company *i* one year subsequent to year of auditor switch (time *t*)

<sup>4</sup> While this study focuses on switches within two years of Part II report issuances, 100 of the 187 companies have another change in auditors. Companies switch from the Part II report auditor to another auditor after an average of 858 days, or roughly 2.5 years. Compared to other companies that have switched auditors in the database, this time period is slightly longer.

<sup>5</sup> Consistent with Francis and Yu (2009), accruals are winsorized at a value of 1. ROI is also winsorized at -1 and 1 due to outliers.



*LNAT* = natural log of total assets of company *i* one year subsequent to year of auditor switch (time *t*)

*CFO* = cash flow from operations scaled by total assets of company *i* one year subsequent to year of auditor switch (time *t*)

*LOSS* = 1 if company *i* reported a loss one year subsequent to year of auditor switch (time *t*)

*DEBT* = ratio of debt to total assets of company *i* one year subsequent to year of auditor switch (time *t*)

*SWITCHPARTII* = 1 if company *i* switched to an auditor receiving a Part II inspection report within two years, 0 otherwise

The control variables are based on DeFond and Zhang's (2014) review on audit quality. We use common control variables for size (*LNAT*), leverage (*DEBT*), loss (*LOSS*), and operating cash flow (*CFO*). However, we exclude other common control variables because they are not as applicable to this context, it would further restrict our sample size, or risk over specification of the model.

### ***Audit Fee Model***

We regress audit fees on the same indicator variable measuring whether companies switched to a Part II inspection report auditor to test H2, which predicts that companies are switching to these auditors to obtain discounted audit fees. In our initial model, all variables are measured the year subsequent to the switch in auditors. Consistent with prior literature pertaining to audit fees, we have included several control variables. Below is our empirical model adapted from Bills, Cunningham, and Myers (2016):

$$LNAUDFEE_{i,t+1} = \beta_0 + \beta_1 LNAT_{i,t+1} + \beta_2 GOINGCON_{i,t+1} + \beta_3 QUICK_{i,t+1} + \beta_4 DEBT_{i,t+1} + \beta_5 ROI_{i,t+1} + \beta_6 LOSS_{i,t+1} + \beta_7 FOREIGN_{i,t+1} + \beta_8 DECYE_i + \beta_9 SWITCHPARTII + \varepsilon$$

where:

*LNAUDFEE* = the natural log of audit fees for company *i* one year subsequent to year of auditor switch (time *t*)

*LNAT* = the natural log of total assets of company *i* one year subsequent to year of auditor switch (time *t*)

*GOINGCON* = 1 if company *i* received a going concern opinion one year subsequent to year of auditor switch (time *t*), 0 otherwise

*QUICK* = current assets less inventories divided by current liabilities for company *i* one year subsequent to year of auditor switch (time *t*)

*DEBT* = ratio of debt to total assets for company *i* one year subsequent to year of auditor switch (time *t*)

*ROI* = earnings before interest and taxes divided by total assets for company *i* one year subsequent to year of auditor switch (time *t*)

*LOSS* = 1 if company *i* reported a loss one year subsequent to year of auditor switch (time *t*), 0 otherwise

*FOREIGN* = 1 if company *i* has income from foreign operations one year subsequent to year of auditor switch (time *t*), 0 otherwise

*DECYE* = 1 if the company *i* has a December year-end, 0 otherwise

*SWITCHPARTII* = 1 if company *i* switched to an auditor receiving a Part II inspection report within two years, 0 otherwise

#### IV. RESULTS

Table 2-1 provides the univariate statistics for each of the variables, split between companies that switched to Part II report auditors and our control sample of companies that switched to non-Part II report auditors. Comparisons of the means between the two groups demonstrate that companies that switch to auditors with Part II reports have higher levels of discretionary accruals (*ABSACCRUALS*,  $p < 0.01$ ) and pay lower audit fees as measured by the natural log of audit fees (*LNAUDFEE*,  $p < 0.01$ ). We find a significant difference in our proxy for company size, the natural log of total assets (*LNAT*). Companies that switch to Part II report auditors tend to be smaller than those that switch to non-Part II report auditors. Also, the groups are significantly different in the likelihood of receiving a going concern opinion (*GOINGCON*) and having a December fiscal year-end (*DECYE*), both of which are included as controls in subsequent analyses. Companies that switch to Part II report auditors are more likely to receive a

going concern opinion, which is likely because, in our sample, they are smaller and more likely to have a loss than companies that do not switch to Part II report auditors. Overall, the univariate results identify the characteristics of companies that hire low quality auditors, as assessed by the receipt of a Part II report. They tend to be very small companies with poor financial performance—companies which would benefit from engaging auditors who would allow them to present a more favorable financial position or which would benefit from lower audit fees.

[Insert Table 2-1 here]

Table 2-2 reports the results from our discretionary accrual model to test H1, examining whether companies switch to auditors with Part II reports to obtain a lower quality audit. Our indicator variable, *SWITCHPARTII*, measuring whether companies switched to an auditor with a Part II report, is positively and significantly associated with absolute discretionary accruals ( $\beta=0.16$ ,  $p=0.006$ ). This provides evidence that companies that switch to Part II report auditors have higher levels of discretionary accruals in the financial statements immediately following the switch than companies that switch to auditors without a Part II report. The first hypothesis is supported. The results suggest that companies may switch to auditors with Part II reports because they permit higher levels of discretionary accruals. This may indicate a revealed preference for low audit quality. We note that one control variable in our model, *LNAT*, is significant, indicating that larger companies in our sample are associated with lower levels of discretionary accruals.

[Insert Table 2-2 here]

We examine the difference in discretionary accruals for the fiscal year ended *before* the switch, untabulated, to provide additional evidence that it is the new auditor that impacted audit quality and not the financial reporting characteristics of the company. We do not find a significant difference ( $p=.86$ ) in absolute discretionary accruals prior to the switch, supporting our findings

that audit quality is lower for companies that switch to auditors receiving a part II report. This provides support that the effect is most likely caused by the combination of clients' preferences for low quality and the switch to an auditor that has been identified by the PCAOB as providing lower quality audits.

Table 2-3 displays the results from the audit fee regression models used to test H2, examining whether companies that switch to auditors with Part II reports are able to negotiate lower fees compared to those that switch to triennials without a Part II report. Panel A provides regression results with the natural log of audit fees (*LNAUDFEE*) as the dependent variable. Our main test variable, *SWITCHPARTII*, has a negative coefficient but the association is not significant at conventional levels. One control variable, *LNAT*, is significant in this model. These findings suggest that larger companies (*LNAT*) are associated with higher audit fees. Table 2-3, Panel B represents a model with the change in audit fees from the prior auditor to the new auditor (*CHGAUDFEE*) as the dependent variable.<sup>6</sup> We find similar results with the audit fee change model in that our test variable, *SWITCHPARTII*, is not significant. While our univariate statistics suggest that companies that switch to auditors with Part II reports pay lower audit fees than companies that switch to auditors without Part II reports, our multivariate regressions demonstrate that once control variables are introduced, this association is no longer significant.

[Insert Table 2-3 here]

Lastly, we test the effect of switching to an auditor receiving a part II inspection report on audit quality and fees using a 'difference in difference' analysis with our matched sample. This test uses each company as its own control to rule out other factors which might affect audit quality or fees. Our findings are consistent with those documented above. Specifically, Panel A of Table

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<sup>6</sup> *FOREIGN* is removed from the model in Panel B as there are no foreign firms in the sample.

2-4 shows the difference in difference of 0.23 is significant ( $p=0.01$ ), suggesting that audit quality is significantly lower for companies that switch to a firm who recently received a Part II, relative to those companies who switched to a firm who did not recently received a Part II inspection report. In our sample, companies that switch to auditors with a Part II report have an increase in absolute discretionary accruals in the first financial statements filed after the switch, whereas companies switching to auditors with a Part II report have a decrease in accruals. Panel B provides the results of the difference in difference test for audit fees and does not find a significant difference. Overall, the difference in difference tests demonstrate the robustness of our findings.

[Insert Table 2-4 here]

## V. CONCLUSION

The PCAOB's Part II inspection reports describe systematic quality control criticisms and are a major focus of the inspection process (PCAOB 2015b). These findings are more pervasive audit firm issues than those findings related to specific engagements described in Part I reports. Part II findings only become public if firms fail to correct issues in a timely manner. Therefore, it is not surprising that clients find these reports to be informative and a signal of low audit quality. Nagy (2014) suggests that most companies desire high audit quality and avoid Part II audit firms; however, his results provide evidence that some companies switch to these Part II audit firms. We extend this line of literature by examining the group of companies that switch to auditors that have recently received a Part II PCAOB report. We hypothesize that companies switch to Part II report auditors in preference for a low-quality audit and/or discounted audit fees.

We find that the companies which hire auditors following the receipt of their Part II report tend to be very small with poor financial performance. Our results suggest that in the first financial period following the switch, these companies are associated with lower audit quality, as measured

by discretionary accruals compared to a matched sample of other small firms who switch to a triennial auditor without a Part II report. We fail to find evidence that companies that switch to Part II auditors are able to negotiate a reduction in audit fees once control variables are considered. Instead of switching to other audit firms without quality control criticisms, our analyses suggest that some companies are choosing to switch to auditors with these Part II issues in preference for a lower quality audit, not a reduction in audit fees. Thus, it appears that the PCAOB's Part II inspection reports may be used as a signal of audit quality as proposed by the PCAOB's Audit Quality Indicator (AQI) project (PCAOB 2015a). However, this signal may have the unintended consequence of attracting some companies to lower quality auditors.

The results should be interpreted in light of various limitations of this study. Our sample contains small companies that are audited by triennially inspected auditors. Consequently, we had to hand collect data from companies missing necessary information that was not available in databases. The small data set also restricts the number of control variables that we can include in our models to avoid oversaturation. Lastly, the extent to which our results can be generalized to companies that are not switching to triennially inspected auditors is unknown and should be examined by future research.

Despite these limitations, this study extends the literature relating to whether the PCAOB's inspection reports signal audit quality by focusing on a sample of companies that has not been previously examined; namely, those that switch to auditors with public quality control criticisms. The results should be of interest to regulators as the evidence demonstrates that not all companies respond to negative inspection reports in the same manner. While many companies prefer high quality audits, our analyses suggest that at least some are attracted to auditors with negative inspection reports in preference for a lower quality audit.

## References

- Abbott, L.J., K.A. Gunny, and T.C. Zhang. 2013. When the PCAOB talks, who listens? Evidence from stakeholder reaction to GAAP-deficient PCAOB inspection reports of small auditors. *Auditing: A Journal of Practice & Theory* 32 (2): 1-31.
- Abernathy, J.L. M. Barnes, and C. Stefaniak. 2013. A summary of 10 years of PCAOB research: What have we learned? *Journal of Accounting Literature* 32: 30-60.
- Aobdia, D. 2017. *Does the organization and culture of the largest audit firms influence their audit quality and efficiency?* Working paper, North Western University.
- Bedard, J.C., D.R. Deis, M.B. Curtis, and J.G. Jenkins. 2008. Risk monitoring and control in audit firms: A research synthesis. *Auditing: A Journal of Practice & Theory* 27(1):187-218.
- Bills, K.L., L.M. Cunningham, and L.A. Myers. 2016. Small audit firm membership in associations, network, and alliances: Implications for audit quality and audit fees. *The Accounting Review* 91 (3): 767-792.
- Carlisle, M., B.K. Church, and W. Yu. 2017. *Small audit firms' failure to remediate the PCAOB's Quality Control Criticisms: The supply and demand of small firms' audit services.* Working Paper, Case Western Reserve University, Georgia Institute of Technology, and Hunter College, CUNY.
- Daugherty, B., D. Dickins, and W.A. Tervo. 2011. Negative PCAOB inspections of triennially inspected auditors and involuntary and voluntary client losses. *International Journal of Auditing* 15: 231-246.
- DeAngelo, L.E. 1981. Auditor independence, 'low balling', and disclosure regulation. *Journal of Accounting and Economics* 3: 113-127.
- DeFond, M., and J. Zhang. 2014. A review of archival auditing research. *Journal of Accounting and Economics* 58 (2): 275-326.
- Desir, R., J.R. Casterella, and J. Kokina. 2014. A reexamination of audit fees for initial audit engagements in the post-sox period. *Auditing: A Journal of Practice & Theory* 33 (2): 59-78.
- Ettredge, M. and R. Greenberg. 1990. Determinants of fee cutting on initial audit engagements. *Journal of Accounting Research* 28 (1): 198-210.
- Eutsler, J. 2018. *The PCAOB Risk-Based Inspection Program: An Assessment of its Ability to Communicate and Promote Audit Quality.* Working Paper, University of North Texas.
- Ghosh, A. and S. Lustgarten. 2006. Pricing of initial audit engagements by large and small firms. *Contemporary Accounting Research* 23 (2): 333-368.
- Glover, S.M., D.F. Prawitt, and M.H. Taylor. 2009. Audit standard setting and inspection for U.S. public companies: A critical assessment and recommendations for fundamental change. *Accounting Horizons* 23 (2): 221-237.
- Gunny, K.A. and T.C. Zhang. 2013. PCAOB inspection reports and audit quality. *Journal of Accounting and Public Policy* 32: 136-160.
- Johnson, E.S. 2015. *Does the PCAOB have an Effect on Audit Fees and Audit Quality?* Working Paper, University of Colorado Denver.
- Hay, D.C., W.R. Knechel, and N. Wong. 2006. Audit fees: A meta-analysis of the effect of supply and demand attributes. *Contemporary Accounting Research* 23 (1): 141-191.
- Hermanson, D.R., R.W. Houston, and J.C. Rice. 2007. PCAOB inspections of smaller CPA firms: Initial evidence from inspection reports. *Accounting Horizons* 21 (2): 137-152.



- Huang, H., K. Raghunandan, and D. Rama. 2009. Audit fees for initial audit engagements before and after SOX. *Auditing: A Journal of Practice & Theory* 28 (1): 171-190.
- Kothari, S.P., A.J. Leone, and C.E. Wasley. 2005. Performance matched discretionary accrual measures. *Journal of Accounting and Economics* 39: 163-197.
- Lennox, C. 2000. Do companies successfully engage in opinion-shopping? Evidence from the UK. *Journal of Accounting and Economics* 29: 321-337.
- Lennox, C. and J. Pittman. 2010. Auditing the auditors: Evidence on the recent reforms to the external monitoring of audit firms. *Journal of Accounting and Economics* 49: 84-103.
- Muriel, L.E. 2013. *Investor and Client Responses to the First PCAOB Sanction and Part II Disclosure of a Big N Auditor*. Working Paper, Oklahoma State University.
- Nagy, A.L. 2014. PCAOB quality control inspection reports and auditor reputation. *Auditing: A Journal of Practice & Theory* 33 (3): 87-104.
- Newton, N.J., D. Wang, and M.S. Wilkins. 2013. Does a lack of choice lead to lower quality? Evidence from auditor competition and client restatements. *Auditing: A Journal of Practice & Theory* 32 (3): 31-67.
- Newton, N.J., J.S. Persellin, D. Wang, and M.S. Wilkins. 2016. Internal control opinion shopping and audit market competition. *The Accounting Review* 91 (2): 603-623.
- Public Company Accounting Oversight Board (PCAOB). 2003. *Interim Standards*. Available at: <https://pcaobus.org/Standards/QC/Pages/default.aspx>
- Public Company Accounting Oversight Board (PCAOB). 2004. *Statement Concerning Inspection Reports*. Available at: [https://pcaobus.org/Inspections/Documents/Statement\\_Concerning\\_Inspection\\_Reports.pdf](https://pcaobus.org/Inspections/Documents/Statement_Concerning_Inspection_Reports.pdf)
- Public Company Accounting Oversight Board (PCAOB). 2006. *The Process for Board Determinations Regarding Firms' Efforts to Address Quality Control Criticisms in Inspection Reports*. Available at: [https://pcaobus.org/Inspections/Documents/2006\\_03-21\\_Release\\_104-2006-077.pdf](https://pcaobus.org/Inspections/Documents/2006_03-21_Release_104-2006-077.pdf)
- Public Company Accounting Oversight Board (PCAOB). 2011. *Concept Release on Auditor Independence and Audit Firm Rotation*. Available at: [https://pcaobus.org/News/Releases/pages/08162011\\_openboardmeeting.aspx](https://pcaobus.org/News/Releases/pages/08162011_openboardmeeting.aspx)
- Public Company Accounting Oversight Board (PCAOB), 2013. *Report on 2007-2010 Inspections of Domestic Firms that Audit 100 or Fewer Public Companies*. Available at: [https://pcaobus.org/Inspections/Documents/02252013\\_Release\\_2013\\_001.pdf](https://pcaobus.org/Inspections/Documents/02252013_Release_2013_001.pdf)
- Public Company Accounting Oversight Board (PCAOB). 2015a. *Concept Release on Audit Quality Indicators*. Available at: [https://pcaobus.org/Rulemaking/Docket%20041/Release\\_2015\\_005.pdf](https://pcaobus.org/Rulemaking/Docket%20041/Release_2015_005.pdf)
- Public Company Accounting Oversight Board (PCAOB). 2015b. *The State of Audit Quality*. Available at: <https://pcaobus.org/News/Speech/Pages/Munter-AICPA-2015-inspections-update.aspx>
- Riley, R.R., G. Jenkins, P.Y. Roush, and J.C. Thibodeau. 2008. Audit quality in the post-SOX audit environment: What your auditing students must know about the PCAOB inspection process. *Current Issues in Auditing* 2 (2): A17-A25.
- Simon, D.T. and J.R. Francis. 1988. The effects of auditor change on audit fees: Tests of price cutting and price recovery. *The Accounting Review* 63 (2): 255-269.
- Turpen, R.A. 1990. Differential pricing on auditors' initial engagements: Further evidence. *Auditing: A Journal of Practice & Theory* 9 (2): 60-76.



U.S. House of Representatives. 2002. The Sarbanes-Oxley Act of 2002. Public Law No. 107-204, [H.R. 3763]. Washington, DC: Government Printing Office.

**TABLE 2-1:  
Descriptive Statistics**

	Non-Part II Auditor Switch			Part II Auditor Switch			Difference	
<b>Variable</b>	<b>n</b>	<b>mean</b>	<b>Std</b>	<b>n</b>	<b>mean</b>	<b>std</b>	<b>t Value</b>	<b>Pr &gt;  t </b>
<i>ABSACCRUALS</i>	79	0.39	0.39	109	0.66	0.39	-4.75	<0.01
<i>CFO</i>	79	-1.48	2.53	100	-12.16	147.00	0.65	0.52
<i>LOSS</i>	79	0.76	0.43	109	0.83	0.37	-1.28	0.20
<i>DEBT</i>	79	27.62	173.70	100	103.60	529.90	-1.10	0.27
<i>AT</i>	79	17.41	36.47	100	11.56	41.31	1.00	0.32
<i>LNAT</i>	79	0.87	2.46	100	-1.15	3.35	4.49	<0.01
<i>AUDFEE</i>	76	0.09	0.07	100	0.05	0.05	4.22	<0.01
<i>LNAUDFEE</i>	76	-2.90	1.10	100	-3.55	1.05	4.02	<0.01
<i>GOINGCON</i>	79	0.62	0.49	109	0.83	0.38	-3.24	0.00
<i>QUICK</i>	79	9.34	25.03	108	4.51	22.10	1.39	0.16
<i>ROI</i>	79	-0.43	0.50	109	-0.38	3.14	-0.15	0.88
<i>FOREIGN</i>	79	0.08	0.27	109	0.01	0.10	2.41	0.02
<i>DECYE</i>	79	0.73	0.44	109	0.22	0.42	8.12	<0.01
<i>CHGAUDFEES</i>	75	0.42	1.42	95	1.01	3.87	-1.26	0.21
<i>CHGAT</i>	79	3.67	21.11	109	162.50	1026.10	-1.37	0.17
<i>CHGQUICK</i>	77	5.53	21.89	103	94.21	806.80	-0.96	0.34
<i>CHGDEBT</i>	57	4.92	28.20	20	851.80	3815.00	-1.90	0.06
<i>CHGROI</i>	79	45.62	441.50	101	9.89	531.20	0.75	0.46

**Variable Definitions:**

<i>ABSACCRUALS</i>	absolute value of performance adjusted discretionary accruals of company <i>i</i> one year subsequent to year of auditor switch (time <i>t</i> )
<i>CFO</i>	cash flow from operations scaled by total assets of company <i>i</i> one year subsequent to year of auditor switch (time <i>t</i> )
<i>LOSS</i>	1 if company <i>i</i> reported a loss one year subsequent to year of auditor switch (time <i>t</i> ), 0 otherwise
<i>DEBT</i>	ratio of debt to total assets for company <i>i</i> one year subsequent to year of auditor switch (time <i>t</i> )
<i>AT</i>	The total assets of company <i>i</i> one year subsequent to year of auditor switch (time <i>t</i> )
<i>LNAT</i>	the natural log of total assets of company <i>i</i> one year subsequent to year of auditor switch (time <i>t</i> )
<i>AUDFEE</i>	the audit fees for company <i>i</i> one year subsequent to year of auditor switch (time <i>t</i> )
<i>LNAUDFEE</i>	the natural log of audit fees for company <i>i</i> one year subsequent to year of auditor switch (time <i>t</i> )
<i>GOINGCON</i>	1 if company <i>i</i> received a going concern opinion one year subsequent to year of auditor switch (time <i>t</i> ), 0 otherwise
<i>QUICK</i>	current assets less inventories divided by current liabilities for company <i>i</i> one year subsequent to year of auditor switch (time <i>t</i> )
<i>ROI</i>	earnings before interest and taxes divided by total assets for company <i>i</i> one year subsequent to year of auditor switch (time <i>t</i> )
<i>FOREIGN</i>	1 if company <i>i</i> has income from foreign operations one year subsequent to year of auditor switch (time <i>t</i> ), 0 otherwise
<i>DECYE</i>	1 if the company <i>i</i> has a December year-end, 0 otherwise
<i>CHGAUDFEES</i>	the percentage change in audit fees from previous auditor to new auditor
<i>CHGAT</i>	the percentage change in total assets from previous auditor to new auditor
<i>CHGQUICK</i>	variable QUICK for the new auditor divided by QUICK from previous auditor
<i>CHGDEBT</i>	variable DEBT for the new auditor divided by DEBT from previous auditor
<i>CHGROI</i>	variable ROI for the new auditor divided by ROI from previous auditor

**TABLE 2-2:  
Audit Quality Model: Regression Results**

Model:

$$ABSACCRUALS = \beta_0 + \beta_1 LNAT + \beta_2 CFO + \beta_3 LOSS + \beta_4 DEBT + \beta_5 SWITCHPARTII + \varepsilon$$

Variable	Prediction	Estimated Coefficients	t-statistics
Intercept		0.43	5.71***
<i>LNAT</i>		-0.05	-4.87***
<i>CFO</i>		0.00	1.21
<i>LOSS</i>		0.01	0.18
<i>DEBT</i>		-0.00	-1.09
<i>SWITCHPARTII</i>	+	0.16	2.81***
Number of Observations		179	
R <sup>2</sup>		23.9%	

\*\*, \*\*\* Indicate significance at  $p < 0.10$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively

Variable Definitions:

*ABSACCRUALS* = absolute value of performance adjusted discretionary accruals of company *i* one year subsequent to year of auditor switch (time *t*)

*LNAT* = the natural log of total assets of company *i* one year subsequent to year of auditor switch (time *t*)

*CFO* = cash flow from operations scaled by total assets of company *i* one year subsequent to year of auditor switch (time *t*)

*LOSS* = 1 if company *i* reported a loss one year subsequent to year of auditor switch (time *t*)

*DEBT* = ratio of debt to total assets of company *i* one year subsequent to year of auditor switch (time *t*)

*SWITCHPARTII* = 1 if company *i* switched to an auditor receiving a Part II inspection report within two years, 0 otherwise

**TABLE 2-3:  
Audit Fee Model: Regression Results**

**Panel A: Results with *LNAUDFEE* as the Dependent Variable**

$$\text{Model: } LNAUDFEE = \beta_0 + \beta_1 LNAT + \beta_2 GOINGCON + \beta_3 QUICK + \beta_4 DEBT + \beta_5 ROI + \beta_6 LOSS + \beta_7 FOREIGN + \beta_8 DECYE + \beta_9 SWITCHPARTII + \varepsilon$$

Variable	Prediction	Estimated Coefficients	t-statistics
Intercept		-3.35	-3.35***
<i>LNAT</i>		0.29	0.29***
<i>GOINGCON</i>		0.01	0.01
<i>QUICK</i>		0.00	0.00
<i>DEBT</i>		0.00	0.00
<i>ROI</i>		-0.19	-0.19
<i>LOSS</i>		-0.19	-0.19
<i>FOREIGN</i>		0.51	0.51
<i>DECYE</i>		0.32	0.32
<i>SWITCHPARTII</i>	+	-0.14	-0.14
Number of Observations		102	
R <sup>2</sup>		44.0%	

\*, \*\*, \*\*\* Indicate significance at  $p < 0.10$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively

Variable Definitions:

*LNAUDFEE* = the natural log of audit fees for company i one year subsequent to year of auditor switch (time t)

*LNAT* = the natural log of total assets of company i one year subsequent to year of auditor switch (time t)

*GOINGCON* = 1 if company i received a going concern opinion one year subsequent to year of auditor switch (time t), 0 otherwise

*QUICK* = current assets less inventories divided by current liabilities for company i one year subsequent to year of auditor switch (time t)

*DEBT* = ratio of debt to total assets for company i one year subsequent to year of auditor switch (time t)

*ROI* = earnings before interest and taxes divided by total assets for company i one year subsequent to year of auditor switch (time t)

*LOSS* = 1 if company i reported a loss one year subsequent to year of auditor switch (time t), 0 otherwise

*FOREIGN* = 1 if company i has income from foreign operations one year subsequent to year of auditor switch (time t), 0 otherwise

*DECYE* = 1 if the company i has a December year-end, 0 otherwise

*SWITCHPARTII* = 1 if company i switched to an auditor receiving a Part II inspection report within two years, 0 otherwise

**TABLE 2-3 (continued)**

**Panel B: Results with *CHGAUDFEES* as the Dependent Variable**

$$\text{Model: } CHGAUDFEES = \beta_0 + \beta_1 CHGAT + \beta_2 GOINGCON + \beta_3 CHGQUICK + \beta_4 CHGDEBT + \beta_5 CHGROI + \beta_6 LOSS + \beta_7 DECYE + \beta_8 SWITCHPARTII + \varepsilon$$

Variable	Prediction	Estimated Coefficients	t-statistics
Intercept		1.57	6.42***
<i>CHGAT</i>		0.01	0.58
<i>GOINGCON</i>		0.08	0.34
<i>CHGQUICK</i>		-0.00	-0.07
<i>CHGDEBT</i>		-0.01	-0.61
<i>CHGROI</i>		-0.00	0.01
<i>LOSS</i>		-0.40	-1.56
<i>DECYE</i>		-0.17	-0.82
<i>SWITCHPARTII</i>	+	0.20	0.33
Number of Observations		65	
R <sup>2</sup>		10.7%	

\*, \*\*, \*\*\* Indicate significance at  $p < 0.10$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively

Variable Definitions:

*CHGAUDFEES* = the percentage change in audit fees from previous auditor to new auditor

*CHGAT* = the percentage change in total assets from previous auditor to new auditor

*GOINGCON* = 1 if firm received a going concern opinion one year subsequent to year of auditor switch (time  $t$ ), 0 otherwise

*CHGQUICK* = variable *QUICK* for the new auditor divided by *QUICK* from previous auditor.

*CHGDEBT* = variable *DEBT* for the new auditor divided by *DEBT* from previous auditor.

*CHGROI* = variable *ROI* for the new auditor divided by *ROI* from previous auditor.

*LOSS* = 1 if company  $i$  reported a loss one year subsequent to year of auditor switch (time  $t$ ), 0 otherwise

*DECYE* = 1 if the company has a December year-end, 0 otherwise

*SWITCHPARTII* = 1 if company  $i$  switched to an auditor receiving a Part II inspection report within two years, 0 otherwise

**TABLE 2-4:  
Difference in Difference Tests**

**Panel A: Change in Discretionary Accruals (n=328)**

	<b>Pre</b>	<b>Post</b>	<b>Difference</b>	<b>Difference in Difference</b>
Non-Part II Auditor Switch mean (std) [n]	0.59 (0.42) [73]	0.39 (0.39) [73]	-0.20	
Part II Auditor Switch mean (std) [n]	0.60 (0.44) [91]	0.63 (0.39) [91]	0.03	0.23 (p=0.01)

*Difference in Difference Results*

	<b>Estimated Coefficient</b>	<b>t-statistic</b>
INTERCEPT	0.63	14.67***
<i>POST</i>	-0.03	-0.49
<i>SWITCHPARTII</i>	-0.23	-3.62
<i>POST*SWITCHPARTII</i>	0.22	2.58**

**Panel B: Change in Natural Log of Audit Fees (n=310)**

	<b>Pre</b>	<b>Post</b>	<b>Difference</b>	<b>Difference in Difference</b>
Non-Part II Auditor Switch mean (std) [n]	-2.97 (1.23) [66]	-2.89 (1.10) [66]	0.08	
Part II Auditor Switch mean (std) [n]	-3.74 (1.59) [89]	-3.53 (1.05) [89]	0.21	0.13 (p=0.31)

*Difference in Difference Results*

	<b>Estimated Coefficient</b>	<b>t-statistic</b>
INTERCEPT	-3.51	-26.20***
<i>POST</i>	-0.22	-1.97*
<i>SWITCHPARTII</i>	0.59	2.89**
<i>POST*SWITCHPARTII</i>	0.14	0.83

\*, \*\*, \*\*\* Indicate significance at  $p < 0.10$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively

Note: Variable Post signifies the difference between the year before and after the switch. *SWITCHPARTII* is 1 if the company switched to an auditor receiving a Part II inspection report within two years, 0 otherwise.

## CHAPTER 3: AUDITOR SUBSTITUTION AND THE TRANSFER OF SKEPTICISM

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## I. INTRODUCTION

Due to auditor turnover, changes in client timing, and other unforeseen circumstances, accounting firms are sometimes required to substitute auditors during audit engagements. Auditor turnover in public accounting occurs frequently (Hall and Smith 2009) and client readiness is a common issue for auditors (Bobek, Daugherty, and Radtke 2012). These scenarios create scheduling changes that may require accounting firms to add resources to meet client needs and established deadlines. Regulators have noted that excessive turnover on audit engagements may harm audit quality (PCAOB 2015). As such, this study explores whether substitute auditors complete the end of a task with the same diligence as auditors completing the entire task from start to finish.

To complete the task, essential information must be transferred to substitute auditors. While the key details of the task are documented in the workpapers and may be easy to transfer, not all evidence is easily transferable. Professional skepticism has been described as an attitude or mindset (e.g., Hurtt et al. 2013; Nelson 2009; PCAOB 2012). It may be difficult to articulate and even more difficult to transfer to substitute auditors. Due to recent audit failures resulting from the lack of appropriate skepticism (PCAOB 2011), accounting literature has focused on the factors that may influence skeptical judgment and action (e.g., Bowlin et al. 2015; Brazel et al. 2016; Carpenter and Reimers 2013; Hurtt et al. 2013; Messier et al. 2010; Nelson 2009; Quadackers et al. 2014; Trompeter et al. 2013). However, the literature has yet to consider whether substitute auditors are less skeptical than auditors completing a task from start to finish.

There are two reasons why substitute auditors may not be as skeptical. First, substitute auditors may be less skeptical than an auditor completing a task from start to finish because the previous auditor did not transfer all the necessary information. Second, substitute auditors may not



feel as vested in the task. *Task Identity*, a dimension from the Job Characteristics Model, pertains to the degree in which a job is completed from start to finish (Hackman and Oldham 1976). If a substitute auditor finishes a task that was already started by someone else, he/she will have *lower task identity*; whereas, an auditor that completes a task from start to finish will have *higher task identity*. Prior research indicates that higher task identity can lead to an increase in performance due to greater feelings of psychological ownership (Downey 2017; Pierce et al. 2009) and meaningfulness (Hackman and Oldham, 1976). Therefore, it is possible that a substitute auditor with lower task identity may not exercise appropriate skepticism due to lower feelings of meaningfulness and ownership.

We investigate whether auditors finishing a portion of a task are less skeptical in their judgment and actions as compared to auditors completing an entire task from start to finish. We also explore whether substitute auditors are less skeptical because they lack information or higher task identity. Lastly, we examine if an increase in accountability may resolve this potential issue. Per practitioners, performance evaluations are completed for auditors that work a certain number of hours on an engagement; this threshold ranged from 40-80 hours, depending on the firm. If the substitute auditor does not meet the hour requirement to receive an evaluation, it is possible that the auditor will feel even less obligated to exercise a sufficient level of professional skepticism. Prior studies illustrate that when accountable to a supervisor who encourages an attitude of skepticism, auditors tend to increase skeptical behavior (Carpenter and Reimers 2013; Turner 2001). Performance evaluations may increase the feeling of ownership and attenuate the influence of lower task identity on skepticism.

We use an experimental design to investigate the influence of auditor substitution on skeptical judgment and action. Sixty-two practicing accountants were recruited as participants to

role-play as auditors. They completed an accounts receivable confirmation test adapted from Bennett and Hatfield (2013). Several red flags were added to the case to induce skepticism. Results suggest that substitute auditors were less skeptical of the controller's honesty than those who completed the entire task. Additionally, substitute auditors requested less audit evidence relative to auditors that completed the task from start to finish. Analysis of the notes that were received by substitute auditors reveals that only 32% made mention of the controller disagreeing with the audit approach. Mediation tests indicate that substitute auditors not receiving information about the controller disagreement were less skeptical of the controller's honesty. This lower level of skeptical judgment then led to fewer evidence requests when completing the task. Findings did not support that substitute auditors felt a lower sense of psychological ownership and meaningfulness resulting in lower skepticism. Taken together, our results suggest that skepticism is lower among substitute auditors due to a lack of information as opposed to feelings associated with lower task identity.

These findings contribute to the stream of accounting literature that has considered initial engagement resource allocation decisions (e.g., Hackenbrack and Knechel 1997; O'Keefe et al. 1994; Stein et al. 1994) by investigating the influence of scheduling changes once the audit begins. Additionally, this study contributes to the literature pertaining to task identity (e.g., Downey 2017; Hackman and Oldham 1976; Humphrey et al. 2007; Pierce et al. 2009) by demonstrating that while lower task identity has been shown to harm performance, it does not appear to influence skepticism. The findings should be of interest to auditors and regulators as they highlight one potential barrier of professional skepticism. Audit evidence that influences skepticism but is not directly related to the task may be more difficult to transfer. If substitute auditors do not receive this information, they may be less skeptical in their judgment, and as a result, request less audit

evidence. These results have practical implications for audit firms. Policies surrounding the transfer of information to substitute auditors should be implemented or reviewed. If substitute auditors effectively receive all information, it may help to keep established skepticism intact when tasks are transferred.

The remainder of the paper is organized as follows: section II presents the relevant literature and hypothesis development, section III discusses the research method, section IV reports the results, and section V offers a conclusion.

## **II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

### ***Audit Planning, Engagement Team Staffing, and Potential Changes***

Audit Standard (AS) 2101 provides guidance for developing an overall audit strategy and an audit plan to execute the established strategy (PCAOB 2010). Although the standard indicates that the audit partner is ultimately responsible for planning the engagement, many of the planning activities, such as assessing compliance with independence regulations, gaining an understanding of the client's business, and evaluating risk, are typically performed by the audit senior and audit manager (Hackenbrack and Knechel 1997; Houston 1999). A critical output of these planning procedures is the time budget for the engagement. Houston (1999) describes the process of creating a time budget, which includes dividing the audit into the various audit sections (e.g., cash, accounts receivable, debt, accounts payable, etc.) and estimating an approximate time budget per section after consideration of the overall audit strategy and risk of material misstatement in each area.

The time budget can then be used as a tool to determine the appropriate staffing. Hackenbrack and Knechel (1997) demonstrate that client size, industry, and risk are associated with resource allocation decisions (e.g., more manager than in-charge time is spent on planning tasks when the client is a public entity). Additional studies have examined the impact of other

factors, including auditor tenure and reliance on internal controls, on the labor mix allocated to audit engagements (O’Keefe et al. 1994; Stein et al. 1994). While past research has explored the nature of initial resource allocation decisions, it has not yet examined the staffing changes that are made during an audit.

As information relating to audit staffing is limited in the prior literature, interviews with two audit managers, two human resource employees responsible for scheduling audit engagements, and an audit partner who had oversight responsibilities relating to scheduling were insightful in gaining a better understanding of how this process occurs in practice.<sup>7</sup> These five individuals provided perspectives from four separate audit firms, ranging from regional firms to Big 4 firms. Discussions corroborated prior research in that the scheduling process stems from the time budget by audit area. Typically, the audit manager reviews and/or prepares the budget by audit area and determines which staff have the necessary skills and experience to work on the audit engagement. When selecting auditors to participate on the engagement, the manager generally considers the auditing, industry, and client expertise that the individual can provide the team. The audit manager then contacts the appropriate employee in human resources to process the necessary scheduling requests. This individual will “block off” the appropriate time for the auditors requested in the scheduling system. Scheduling begins well in advance, often several months to a year prior to the audit. Most of the firms have a resource in each local office, or at a minimum in each region, that is administratively responsible for maintaining and updating auditor schedules.

While all agree that it is best for the auditors and their clients if audit teams stay intact throughout the course of the audit, scheduling changes are sometimes unavoidable. One of the

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<sup>7</sup> Semi-structured interviews were conducted based on a set of questions that differed slightly depending on job title (audit or human resources) and his/her role in auditor substitution. Interviews were all conducted via phone and lasted between 20 – 60 minutes.

audit managers explained, “. . . we do our best to carefully plan the audit, but you can’t plan for the unknown.” This is not surprising given that AS 2101 expects auditors to update their strategy and audit plan as necessary throughout the course of the audit engagement if risks of material misstatement are detected after the planning phase (PCAOB 2010). Per the interview discussions, common reasons for scheduling changes include: 1) circumstances that cause the audit team to fall behind scheduled milestones, 2) auditor turnover, and 3) client timing changes.

Both audit managers discussed the need to review the time budget on a regular basis throughout the audit. The managers compare the total budget with the time charged to-date to determine if the remaining budget is sufficient, and if there will be any issues meeting the agreed upon deadline. Dates for milestones, such as the completion of internal control testing and interim procedures, are also established to keep the team on track to meet the final deadline. If the audit manager notices that the team is falling behind schedule, additional resources may be added to help the team catch-up. Auditors may be behind schedule because the client had an unexpected large transaction, such as an acquisition, that requires additional audit work. Another reason relates to the audit being more complex than anticipated. Lastly, if more discrepancies are found than predicted, additional time will be needed to understand and appropriately deal with the issues.

Auditor turnover in public accounting is a continuing issue (Hall and Smith 2009). Of course, it is always best if the auditor leaving the firm provides a two-week notice and can complete as much of their current work as possible. However, depending on the timing, open items may remain, and the future work scheduled for that auditor will need reassigned. The PCAOB includes audit turnover as a potential audit quality indicator, and suggests that excessive turnover, including auditors leaving the firm or being transferred to a different audit engagement within the firm, could impair audit quality (PCAOB 2015).

Lastly, it may be possible that the client is not prepared for an audit when it is originally scheduled. If a significant business event occurs or the client loses a key accounting resource, they may end up completing the financial statement close process later than anticipated. If the financial records are not ready, this in turn delays the audit. This explanation provided during the interviews is consistent with an experimental questionnaire investigating audit challenges; the most common audit challenge self-reported by 46% of the participating professional auditors related to client readiness issues (Bobek et al. 2012). Delaying an audit can create scheduling conflicts (e.g., an auditor may be assigned to work on two clients at the same time), especially in busy season when staff have very full schedules with multiple clients back-to-back. The individual responsible for scheduling in human resources must work closely with the various audit managers in the office to resolve these conflicts. One resource analyst expressed that creativity is sometimes required to rearrange the schedule. Another interviewee suggested that it is most important to keep the managers and seniors with the client and industry knowledge consistent; whereas, staff auditors are easier to rotate as necessary.

If the scheduling issues discussed above occur, the audit manager must decide whether it is best to shift unfinished work to another auditor already on the team or add a new auditor to the engagement. Per the practitioners, it is preferred that an auditor starts and finishes their assigned tasks before leaving the firm or to work on a different engagement within the firm. If an auditor is leaving the firm, it varies as to whether they will leave open items within a task or complete it entirely. If an auditor is leaving to work on a different engagement within the firm and has not completed an assigned task, the manager has a little more control. However, it also varies as to whether: 1) the auditor will juggle the uncompleted task and the new client assignment; 2) the uncompleted task will be shifted to another team member; or 3) a new resource will be added to

complete the task. The audit manager must weigh the circumstances and decide how it is best to proceed. While staff and senior auditors do often juggle tasks on multiple clients, one of the managers said that it is not uncommon for an existing team member to finish a few open items on a task, so that the auditor can have a “clean break” and move on to their next engagement. As situations arise that force auditors to deal with scheduling changes and the sharing of audit tasks, it is important to understand how these circumstances impact auditor judgment and decision making.

### ***Professional Skepticism***

While information documented in the audit workpapers is likely easy to transfer to substitute auditors, other less tangible information may be more difficult to communicate. Professional skepticism has been referred to as a mindset (Hurt et al. 2013; Nelson 2009; PCAOB 2012) and may be more difficult to transfer. As such, this study will focus on the influence of auditor substitution on skeptical judgment and action.

The term professional skepticism is mentioned throughout auditing standards and used frequently by researchers, but there is not an agreed upon definition in the accounting literature. Currently, there are two predominant perspectives, neutrality and presumptive doubt, on how to consider and define skepticism (Nelson 2009). The neutrality point of view contends that auditors take an objective and unbiased approach in reviewing management’s representations. Whereas, the presumptive doubt position assumes that auditors believe that management is dishonest on some level until evidence is provided to change this opinion (Nelson 2009; Quadackers et al. 2014).

In the Nelson model, professional skepticism is divided into two categories, skeptical judgment and skeptical action. Skeptical judgment pertains to an auditor’s ability to identify a potential discrepancy that requires additional follow-up procedures; whereas, skeptical action is

the behavior that follows skeptical judgment (Nelson 2009). This study not only reviews the impact of auditor substitution on skeptical judgment (the auditor's assessment of the likelihood of material misstatement, fraud, and that the controller is honest), but it also examines the impact on skeptical action (the auditor's choice whether to obtain information to corroborate management's explanation).

A lack of consistent and appropriately applied professional skepticism has been a recurring theme in the Public Company Accounting Oversight Board (PCAOB) review activities (PCAOB 2012). Professional skepticism is not only an issue for auditors in the U.S., but international auditing standard-setters are also emphasizing the importance of professional skepticism (IAASB 2012). Further, in a review of recent SEC Accounting and Auditing Enforcement Releases (AAERs) and PCAOB Disciplinary Proceedings (DPs) relating to the Engagement Quality Reviewers (EQRs), Messier et al. (2010) noted that 22 of 28 cases cited a lack of sufficient skepticism. As a result of recent audit inspections and research in the area, there is consensus that it would be beneficial to find ways to raise the level of professional skepticism exercised by auditors. One way to begin to address the problem is to better understand some of the potential barriers to skepticism (Brazel et al. 2016). The current study seeks to identify another factor, auditor substitution on audit engagements, which may hinder professional skepticism. We predict that a substitute auditor will be less skeptical in their judgment and actions compared to auditors that complete an entire task.

This discussion leads to the following overall hypotheses:

- H1a: Individuals who complete a task already started by another auditor will be less skeptical in their judgment than those who complete a task from start to finish.
- H1b: Individuals who complete a task already started by another auditor will be less likely to request additional audit evidence than those who completing a task from start to finish.



We expect substitute auditors to be less skeptical for two possible reasons: 1) the substitute auditor may be lacking information, and 2) the substitute auditor may feel less ownership and meaningfulness in the task.

### ***Transfer of Information***

In practice, the electronic workpaper(s) that need completed are sent to the substitute auditor. The original auditor can leave comments within the workpaper(s) or have a conversation, if possible, with the substitute auditor to communicate any information not already documented. While the information directly related to the task is likely documented in the workpaper, it is not clear whether the original auditor will also pass on other red flags noted that do not directly relate to completing the task. Prior literature has stressed the importance of knowledge-sharing among auditors because of the nature of team-based audits (Vera-Muñoz, Ho, and Chow 2006). Much of the recent literature relating to knowledge-sharing in the audit context has focused on fraud brainstorming as it is required by the audit standards (AU Section 316) for each engagement. Knowledge pertaining to potential fraud risks is shared among the audit team in a group setting during the planning phase of the audit (Brazel et al. 2010; Carpenter 2007). However, the literature has yet to examine whether red flags are shared when transferring tasks from one auditor to another. We expect that skepticism may be lower for substitute auditors due to the loss of pertinent during the transfer.

This discussion leads to the following hypotheses:

- H2a: Individuals who complete a task already started by another auditor will be less skeptical in their judgment than those who complete a task from start to finish as a result of missing information.
- H2b: Individuals who complete a task already started by another auditor will be less likely to request additional audit evidence than those who completing a task from start to finish as a result of missing information.

### ***Task Identity***

In addition to missing information, substitute auditors may be less skeptical because they do not feel as vested in the task. The Job Characteristics Model (JCM), developed by Hackman and Oldham (1976) using work design theory, specifies core dimensions that impact psychological states, which ultimately increase positive personal and work outcomes. One key dimension in the JCM relevant to the current study is task identity, which relates to the “degree to which the job requires completion of a whole and identifiable piece of work; that is doing a job from beginning to end with a visible outcome” (Hackman and Oldham 1976, 257). In a meta-analytic work design study, the analyses demonstrated that task identity is positively related to positive work outcomes, including job satisfaction, growth satisfaction, internal work motivation, job involvement, and organizational commitment (Humphrey et al. 2007). In addition to these other positive outcomes, we examine if auditors with higher task identity will also exercise more professional skepticism as compared to auditors with lower task identity.

Recent research in accounting has considered the concept of task identity, but in a different context than audit task sharing as a result of scheduling changes. Downey (2017) explores the influence of outsourcing core audit work to offshore or domestic audit centers on audit quality. The experimental results indicate that the local auditors responsible for completing a final portion of an outsourced assignment had lower task identity, which resulted in lower audit performance. The current study aims to extend this line of research by examining the impact of task identity on the level of auditor skepticism.

The JCM includes psychological states that connect the core job dimensions to the positive work outcomes. The original model specifies that task identity leads to positive work outcomes via experienced meaningfulness in the task (Hackman and Oldham, 1976). However, a modification of the JCM has been proposed to incorporate psychological ownership theory. “The

core of psychological ownerships is the feeling of possessiveness and of being psychologically tied to an object” (Pierce et al. 2001, 299). The purpose of this addition by Pierce and colleagues is to provide a stronger, more parsimonious connection between the five job characteristics (task identity, along with skill variety, task significance, autonomy, and feedback) and the positive work outcomes identified by the Hackman and Oldham model. In a recent accounting study, Bauer, Estep, and Griffith (2017) demonstrate that when a fair value specialist has higher psychological ownership, he or she is more likely to identify issues and communicate these concerns more urgently to the core audit team. The current study will extend the literature relating to psychological ownership by examining the construct as a possible mediator between task identity and skeptical judgment and action.

This discussion leads to the following hypotheses:

- H3a: Individuals who complete a task already started by another auditor will be less skeptical in their judgment than those who complete a task from start to finish as a result of task identity.
- H3b: Individuals who complete a task already started by another auditor will be less likely to request additional audit evidence than those who completing a task from start to finish as a result of task identity.

### ***Accountability***

In addition to the psychological ownership and meaningfulness that an auditor may feel as a result of completing a task from start to finish, it is also probable that auditors consider the impact of the particular task on their performance evaluations. During the interviews, professional auditors reported that they are expected to receive performance evaluations for client engagements in which they have worked a minimum number of hours. In the small sample of interviews, this threshold ranged from 40 and 80 hours depending on the firm. Therefore, if a new auditor is assigned to an engagement to complete a task that takes fewer hours than the established threshold for an evaluation, the incentive to exercise skepticism may decrease. Additionally, an auditor from

the existing engagement team may be asked to complete another auditor's work and still expects to receive an evaluation. The decrease in accountability is still likely as s/he will anticipate that the evaluation will be focused primarily on their main assigned tasks and less on the tasks that they are finalizing on behalf of someone else. Thus, an auditor will likely feel more accountable as a result of the evaluation process when completing a task from start to finish.

Extant accounting literature demonstrates that an increase in accountability can lead to an increase in effort and conservatism in judgment (see DeZoort, Harrison, and Taylor 2006 for a review of the literature). Additionally, prior research demonstrates that there are varying levels of accountability pressure, and feedback in the form of an evaluation on performance represents a situation in which there is a high level of accountability pressure (DeZoort et al. 2006; Lerner and Tetlock 1999). Prior accounting studies illustrate that auditors increase skeptical behavior when accountable to a supervisor who encourages an attitude of skepticism (Carpenter and Reimers, 2013; Hurtt 2013; Turner 2001). Therefore, if the audit supervisor is supportive of skepticism, increased accountability to that supervisor will likely lead to an increase in skeptical judgment and actions by auditors. As our scenario does not include discussion relating to the cost of being more skeptical (i.e., meeting a time budget) or a supervisor with emphasis on efficiency, it is likely that participants will increase their skepticism in response to an increase in accountability.

This discussion leads to the following hypotheses:

- H4a: When accountability is increased as a result of a performance evaluation, the negative impact of lower task identity on skeptical judgment is attenuated.
- H4b: When accountability is increased as a result of a performance evaluation, the negative impact of lower task identity on skeptical action is attenuated.

### III. RESEARCH METHOD

#### *Task*

A one by three (entire task, portion of task with accountability, and portion of task without accountability) between-subjects experimental design was used to test the above hypotheses. Participants received instructions and case material via online materials. After consenting to participate in the study, they read information about a hypothetical audit in which they were asked to participate as a staff auditor on an engagement team. Participants were either asked to complete accounts receivable (AR) confirmation testing from start to finish (entire task) or finish AR testing that another auditor has already started (portion of task). The AR audit task was adapted from a prior case used by Bennett and Hatfield (2013) and was selected as the audit task for several reasons. First, regulators have specifically noted that reviewing confirmations for inconsistencies is an area that requires professional skepticism (PCAOB 2012). Second, revenue recognition and improper cut-off has been identified as a high-risk area (Hogan et al. 2008). Lastly, this is a task that would be assigned to an audit staff with minimal prior experience, and according to initial interviews, these auditors are more likely to be rotated between engagements and are most likely to share tasks.

During the AR testing, several red flags were included during the task to promote auditor skepticism. First, the AR aging schedule contains several material invoices aged past 90 days, which is a relevant fraud risk factor that has been utilized in prior experiments (Carpenter 2007). The AR detail also includes several large transactions right before the end of the accounting period. Second, the invoice in question has a unique invoice number (#999999) that is out of sequence with the other invoices. Third, participants experience a delay in obtaining the requested accounts receivable information as a result of the company having to hire a new accounts receivable manager. Participants will learn that the company has had significant turnover in the past few

months. Lastly, when the request is made for the controller to sign the accounts receivable confirmations, the controller asks why the auditors are sending confirmations instead of just testing the balance analytically. These risk factors (significant and unusual transactions just before period end, high turnover rates, and aggressive management behavior regarding the scope of the audit) are all examples contained within auditing standard AU Section 316 (AICPA 2002).

### ***Independent Variables***

There are two main independent variables of interest, the amount of the task completed and accountability. The amount of the task completed (the entire task or a portion of the task) was first manipulated, and then accountability (whether a performance evaluation is expected) was manipulated between the participants only completing a portion of the task. All participants in the entire task condition expected to receive a performance evaluation as it would be uncommon in practice to complete a task from start to finish, such as accounts receivable testing, and not meet the hour requirement for an evaluation. These manipulations resulted in three experimental conditions.

[Insert Figure 3-1]

The amount of the task completed (*TASK*) was randomly assigned between-subjects. The first group of participants were assigned to complete the AR confirmation testing from start to finish. They were asked to provide electronic notes for a substitute auditor approximately halfway through the task in case they did not have time to complete the testing. After completing the electronic notes, these participants were then told that their schedules were adjusted, and they had time to complete the entire task. The second group of participants only completed the last portion of the task. They were passed the electronic workpapers already started and notes from the participants in the first group.

Accountability (*ACCOUNT*), whether the participant expects to receive a performance evaluation, was manipulated between subjects assigned to complete the last portion of the task. Based on initial interviews, auditors receive performance evaluations after working a specified number of hours on an engagement. The manipulation was developed based on this knowledge and read as follows:

*It is typical to work on more than one audit throughout the year. Auditors receive performance evaluations for audit engagements in which he/she works over a specified number of hours.*

*Per the audit supervisor's estimation of the work you need to perform, you WILL (NOT) receive a performance evaluation related to your work performed on the NTI audit.*

### ***Dependent Variables***

#### ***Skeptical Judgment***

Skeptical judgment was first assessed at the midpoint of the task (*SKJUDGMENT\_MID*). For the participants only completing the last portion of the task, skeptical judgment was assessed after reviewing the work completed by the previous auditor and prior to completing their portion of the task. For participants completing the entire task, skeptical judgment was assessed at the same point in the task that the substitute auditor begins the assignment. Skeptical judgment was measured by asking participants to assess the likelihood of three events: 1) that the accounts receivable balance is materially misstated, 2) that fraudulent revenue transactions have been recorded, and 3) that the client is honest. Responses were measured on seven-point Likert scales, ranging from 1=extremely unlikely to 7=extremely likely. For all participants, skeptical judgment was measured again using the same three questions at the conclusion of the task (*SKJUDGMENT\_END*) to determine the influence of the evidence obtained to complete the task on auditor skepticism.

### ***Skeptical Action***

Similar to the Bennett and Hatfield (2013) study, skeptical action (*SKACTION*) was measured based on the audit actions taken during the last stage of the task. Participants were asked to investigate a discrepancy between the client and customer balance on an accounts receivable confirmation. Those assigned to complete the entire task, performed all accounts receivable testing and investigated the discrepancy as the last step. Participants only completing the last portion of the task reviewed the accounts receivable testing started by the previous auditor and completed the testing by investigating the confirmation discrepancy.

To obtain all necessary evidence to properly explain the discrepancy, participants first had the opportunity to ask the controller to explain discrepancy between their balance and the customer's balance. The controller then informs participants that the discrepancy pertains to an order that was in-transit as of the end of the year (i.e. the goods were shipped from the client prior to year-end and not received by the customer until after year-end), and as the shipping terms are FOB shipping point, it was proper to recognize revenue. Next, the participants have the opportunity to request copies of the invoice and shipping document to verify the goods were in fact in-transit. Lastly, to corroborate the controller's verbal statement relating to the shipping terms, the participant can also request evidence (customer purchase order or contract) to verify the shipping terms are in fact FOB shipping point. When additional requests were made, participants were required to type an email to the controller requesting the evidence. This required participants to invest time to obtain more information similar to requesting documentation in practice. Participants were scored according to the number of additional inquires and document requests made to the client. Scores range from 0 (no additional probing) to 4 (all possible additional requests were made).



## *Possible Mediating Variables*

### ***Information Transferred***

The information transferred from the original auditor to the substitute auditor may influence skepticism. As such, we analyzed the number of red flags (*REDFLAGS*) included in the notes that are passed to substitute auditors to determine if the content of the notes influenced skeptical judgment and skeptical action. There were six red flags included in the scenario.

### ***Task Identity***

Prior research demonstrates that psychological ownership (Pierce et al. 2009; Downey 2017) and meaningfulness (Hackman and Oldham 1976) may mediate the relationship between task identity and performance. As such, psychological ownership and meaningfulness were measured and assessed as potential mediators in the association between task identity and skepticism.

### **Psychological Ownership**

Psychological ownership was measured via the average of three questions adapted from prior management and accounting studies (Bauer et al. 2017; Downey 2017; Van Dyne and Pierce 2004). Participants were asked to assess the extent to which they agree with the following three statements relating to the sense of ownership they felt for the AR confirmation testing: 1) This is my AR testing; 2) I feel a very high degree of personal ownership for the AR testing; and 3) I sense that this is my work. Responses were measured on seven-point Likert scales, ranging from 1=strongly disagree to 7=strongly agree.

### **Meaningfulness**

Experienced meaningfulness of the task was measured using a two-question scale adapted from prior management studies (Hackman and Oldham 1974). Participants were asked to assess

the extent to which they agree with the following: 1) a statement that the AR confirmation testing was useless or trivial; and 2) a statement that the AR confirmation testing was very meaningful. Responses were measured on seven-point Likert scales, ranging from 1=strongly disagree to 7=strongly agree.

[Insert Table 3-1]

## IV. RESULTS

### *Participants*

Accounting professionals were recruited prior to the start of a CPE training session for a regional accounting firm. Approximately one third of the participants were assigned to complete the entire task and began the experiment the week prior to the training. We then used their actual electronic notes to pass to the remaining two-thirds of the participants to finish the task. Half of this group was assigned to complete the last portion of the task with accountability condition, while the remainder were assigned to complete the last portion of the task without accountability. This initial collection resulted in 48 completed responses. To supplement this collection, we also recruited participants using personal connections on LinkedIn. Following the same procedures and survey time-line, this collection resulted in another 14 participants, making our total sample 62 participants. To ensure that collection procedures did not influence the results, we included a binary control variable in our analyses below to capture whether the participant was recruited for the initial collection or follow-up collection.

As reported in Table 3-2, 20 of the participants (43%) currently work in the assurance practice group at their firm. Participants had on average 15 years of work experience and were relatively familiar with accounts receivable testing. The average familiarity of participants with AR testing was reported to be 5.0 on a scale of 1 (not familiar) to 9 (very familiar). Lastly, in a debriefing question, participants were asked if there were times when they were unable to complete

a task from start to finish and if so, how often. On average, participants noted that they are unable to complete 1-9% of their tasks from start to finish. This is consistent with preliminary interviews in that the goal is for auditors to complete tasks all the way through. However, there are times when scheduling conflicts and turnover prevent this from being possible and a substitute auditor is required to complete a task.

[Insert Table 3-2]

### ***Transfer of Notes***

It was our intention to pass notes from each participant completing the entire task to one participant completing only a portion of the task that was accountable and one participant completing only a portion of the task that was not accountable. However, this matching procedure was not completely possible due to participant turnover. Some of the participants assigned to complete the entire task did not finish the experiment. They completed the first part of the accounts receivable testing and typed notes for a substitute auditor but did not attend the CPE session/respond to our second email request to complete the last portion of the testing. As there was no way of knowing who would complete the entire experiment, notes from some participants that did not complete the testing were passed to substitute auditors.

While this was not ideal, we believed that some mismatching was worth the sacrifice to recruit professionals. To test whether this may influence our results, we compared the red flags contained in the notes passed from the group that was assigned to complete the entire task (although not all did) to the red flags in the notes received by the group that was assigned to complete only the last portion of the task. As reported in Table 3-7, the average number of the red flags included in the notes sent was 2.06, and the average number of red flags included in the notes received was 2.10. Per comparison t-tests, there is not a significant difference in total number of

red flags between the groups. Additionally, we compared the groups to determine if there were significant differences for each individual red flag. Only one of the red flags, turnover in accounts receivable, was significantly different between groups. None of the participants that completed the entire task sent notes related to turnover in the accounts receivable department, while 3 (10%) participants that completed only the last portion of the task received notes related to turnover. This difference is significant, but this suggests that the notes received contained more information than the notes sent. This difference would bias us against supporting our hypotheses. Additionally, a binary control variable was also considered in the models below to capture whether the participant was part of a matched pair.

### ***Manipulation Checks***

At the end of the experiment, there were two manipulation check questions to ensure that the task identity and accountability manipulations were effective. First, participants were asked, “You had to complete step 4 of the audit program. The other steps were performed previously. Who completed the previous steps?” Participants could respond “I completed them previously” or “another auditor completed them previously.” Second, participants were asked, “Are you expecting to receive a performance evaluation related to your work on the New Technologies Inc. (NTI) audit?” Fifteen participants answered one or both of the questions incorrectly based on their assigned condition. These 15 participants are excluded from our analyses below.

### ***Hypotheses Tests***

#### ***Potential Control Variables***

To rule out potential confounding effects, several control variables were considered. These included measures of overall work experience (*EXPERIENCE*), familiarity testing accounts receivable confirmations (*FAMILIAR\_AR*), whether they have performed a financial statement audit (*FSAUDIT*), whether they currently worked in the assurance practice group (*ASSURANCE*),

gender (*GENDER*), and age (*AGE*). The suspension of judgment subscale of the Hurtt (2010) trait professional skepticism scale (*TRAIT\_SK*) was measured as a control variable.<sup>8</sup> Also, as mentioned above, binary variables were also included to control for whether the participant was recruited in the first or second collection (*COLLECTION*) and whether the participant had notes matching a participant in the opposite condition (*MATCH*). All control variables were included in the initial models below. However, variables that did not significantly ( $p > 0.10$ , one-tailed) influence the dependent measure were excluded.

### ***Skeptical Judgment***

Participants were asked to rate the likelihood of material misstatement (*SKJUDGMENT\_MID1*), fraudulent transactions (*SKJUDGMENT\_MID2*), and that the controller is honest (*SKJUDGMENT\_MID3*) on a scale of 1-7 to measure skeptical judgment. These measures were assessed at the midpoint in the task (*SKJUDGMENT\_MID1-3*) and again at the completion of the task after all evidence was gathered (*SKJUDGMENT\_END1-3*). Per review of skewness and kurtosis tests, *SKJUDGMENT\_MID1* and *SKJUDGMENT\_MID3* have indications of kurtosis and may not be normally distributed. As such, we compare groups using a parametric approach (T-Tests), as well as a non-parametric approach (Wilcoxon Rank Sum/ Mann-Whitney U Tests). Hypothesis 1A predicts that those that complete the entire task will be more skeptical in the judgment than those that only complete the last portion of the task.

There was not a significant difference between those that completed the entire task and those that completed the last portion of the task in the first two skeptical judgment measure (*SKJUDGMENT\_MID1* and *SKJUDGMENT\_MID2*) as ratings of the likelihood of material

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<sup>8</sup> Due to time constraints the entire Professional Skepticism scale was not included in this instrument, only the subscale focusing on the suspension of judgment. This aspect of skepticism was most relevant in our context, which involved participants' skeptical judgment and decisions whether to request additional audit evidence.

misstatement and the likelihood of fraudulent transactions were relatively consistent among the two groups. However, there was a marginally significant difference in our second measure of skeptical judgment (*SKJUDGMENT\_MID2*) when using the non-parametric approach. As shown in Table 3-3, those that completed a portion of the task (M=4.03) reported a lower likelihood of fraud than those that completed the entire task (M=4.31) ( $z=-1.29$ ,  $p=0.10$  one-tailed). Also, there is a significant difference in our third measure of skeptical judgment, *SKJUDGMENT\_MID3*. Those that completed a portion of the task (M=4.13) reported a higher likelihood that the controller was honest (*SKJUDGMENT\_MID3*) as compared to the those that completed the entire task (M=3.94) per comparison t-tests ( $t=1.44$ ,  $p=0.08$  one-tailed) and the Wilcoxon-Rank Sum test ( $z=1.46$ ,  $p=0.07$  one-tailed).

Results on the skeptical judgment measures at the end of the task are similar. There is not a significant difference between groups for *SKJUDGMENT\_END1* or *SKJUDGMENT\_END2*. However, as reported in Table 3-4, those that completed a portion of the task (M=4.39) reported a higher likelihood that the controller was honest (*SKJUDGMENT\_END3*) as compared to those that completed the entire task (M=4.00) per comparison t-tests ( $t=2.15$ ,  $p=0.02$  one-tailed) and the Wilcoxon-Rank Sum test ( $z=1.91$ ,  $p=0.03$  one-tailed). This suggests that those that completed the entire task were more skeptical of the controller's honesty than those that only completed the last portion of the task both at the mid-point of the task and at the end.

[Insert Table 3-3 and Table 3-4]

Next, to ensure that the differences in judgment measures are not attributable to the control variables described above, we performed ANCOVA's for each of the judgment measures. Relatively consistent with the comparison tests above, *TASK* (whether the participant completes a portion of the task or the entire task) is significantly associated with our third measure of skeptical

judgment relating to the controller's honesty at both the mid-point and end of the task (*SKJUDGMENT\_MID3* and *SKJUDGMENT\_END3*) after considering control variables. Panel A of Table 3-5 reports the ANCOVA results for *SKJUDGMENT\_MID3*. *TASK* is marginally significant ( $F=2.64$ ,  $p=0.06$  one-tailed) in the model. Panel B of Table 3-5 reports the ANCOVA results for *SKJUDGMENT\_END3*. Again, *TASK* is marginally significant ( $F=1.84$ ,  $p=0.09$ ) in this model. Taken together, these findings suggest that those that completed the entire task were more skeptical of the controller's honesty than those that only completed the last portion. While there are not significant differences among all judgment measures, these results lend support for H1A as it relates to the third skeptical judgment measure.

[Insert Table 3-5]

### ***Skeptical Action***

Participants had the opportunity to request additional information from the controller prior to completing the task. Skeptical action (*SKACTION*) represents the number of follow-up requests, which ranged from 0 to 4. Per skewness and kurtosis tests, *SKACTION* is left skewed and does not appear to be normally distributed. In addition to t-tests, Wilcoxon-Rank Sum test results are reported. Hypothesis 1B predicts that participants only finishing the task will request less evidence than those performing the task from start to finish. As shown in Table 3-6, those that completed a portion of the task ( $M=3.00$ ) requested significantly less evidence than those completed the entire task ( $M=3.69$ ) per comparison t-test ( $t= -1.94$ ,  $p=0.03$  one-tailed) and Wilcoxon-Rank Sum test ( $z= -1.96$ ,  $p=0.05$  one-tailed).

Also, to ensure that our potential control variables did not influence the results, we analyzed the relationship in a multivariate context. Panel C of Table 3-6 reports the results of an ordered logistic regression with all significant control variables. *TASK* is significant in the model

( $z=1.92$ ,  $p=0.03$  one-tailed). These results support hypothesis 1B. Per odds ratios, those who complete the entire task are 11.2 times more likely to collect an additional piece of evidence compared to those who only complete the last portion of the task holding the control variables in the model constant.

[Insert Table 3-6]

### ***Accountability***

Hypothesis 4A and 4B predict that accountability will attenuate the impact of task identity on skeptical judgment and action. There are not significant differences between the group that only completed a portion of the task with accountability and the group that only completed a portion of the task without accountability in any of our skeptical judgment measures (*SKJUDGMENT\_MIDI-3* and *SKJUDGMENT\_ENDI-3*). Further, there is not a significant difference between accountability conditions in skeptical action (*SKACTION*). Our evidence fails to support hypothesis 4A and 4B.

### ***Mediation Analyses***

Hypotheses 2A and 2B predict that missing information may decrease skeptical judgment and action for those only completing a portion of the task. While hypotheses 3A and 3B predict that feelings associated with task identity, psychological ownership and meaningfulness, decreases skeptical judgment and action for substitute auditors. Mediation analyses will be used to test these predictions.

### **Missing Information**

To determine how the notes transferred influenced the substitute auditors, this analysis includes the 31 participants that completed only the last portion of the task. Six red flags were included in the scenario provided to participants. Table 3-7 reports the number of red flags that



were included in the notes received by the substitute auditors. The two red flags most commonly included in the notes relate to the confirmation discrepancy and the large transaction close to year-end. These two red flags directly relate to the confirmation testing. Other red flags, such as recent turnover in the accounts receivable department and a disagreement with the controller relating to the accounts receivable testing approach, are not directly related to completing the task. Perhaps this is why they are less likely to be included in the notes transferred.

We created a variable to capture the number of red flags included in the notes (*REDFLAGS*) to determine how the content of the information received influenced participant skepticism. Results suggest the total number of red flags did not influence skeptical judgment or action. However, as the prior analyses suggest that participants only completing the last portion of the task were significantly less skeptical of the controller's honesty, we also created a binary variable to capture whether the red flag related to the disagreement with the controller was included in the notes (*CON\_FLAG*) for a post hoc analysis. Mediation analyses are reported in Table 3-8. The results indicate that participants that completed the last portion of the task and received notes containing information relating to the disagreement with the controller (*CON\_FLAG*) were less skeptical of the controller's honesty (*SKJUDGMENT\_MID3*) and as such, requested more evidence (*SKACTION*). The direct path between *CON\_FLAG* and *SKJUDGMENT\_MID3*, as well as the direct path between *SKJUDGMENT\_MID3* and *SKACTION* were marginally significant. Also, results indicate a significant indirect path ( $p < 0.05$ , one tailed) as zero is missing from the confidence interval. This analysis included significant control variables: *FAMAR*, *FSAUDIT*, *ASSURANCE*, *AGE*, and *MATCH*. While the overall number of red flags did not influence skepticism, findings do suggest that information relating to the disagreement with the controller influenced substitute auditors' skeptical judgment and action. This lends some support for

hypothesis 2A as substitute auditors missing information were less skeptical in the judgment of the controller's honesty. Hypothesis 2B is also supported to some degree. While missing information does not directly influence skeptical action, it influences skeptical action indirectly via skeptical judgment.

[Insert Table 3-7 and Table 3-8]

### Task Identity

Hypotheses 3A and 3B predict that feelings associated with task identity, psychological ownership and meaningfulness, will decrease skeptical judgment and action. Mediation tests were performed to determine if either psychological ownership (*OWNERSHIP*) and meaningfulness (*MEANING*) mediate the relationship between *TASK* and any of our measures of skeptical judgment and action. *TASK* does not appear to be associated with *MEANING*, but is associated with *OWNERSHIP*. As anticipated those that completed the entire task have higher levels of psychological ownership than those that only complete the last portion of the task. However, once the proper control variables are added to the model, *TASK* is no longer significantly associated with *OWNERSHIP*. Additionally, *OWNERSHIP* is not significantly associated with any of our skeptical judgment measures or skeptical action. We fail to support hypotheses 3A and 3B. These findings suggest that feelings associated with task identity are not driving the decline in skepticism for substitute auditors in our sample.

## V. CONCLUSION

Often accounting firms must add resources to existing audit engagements due to auditor turnover and changes in client timing. When a new auditor is added to an engagement, it is possible that they will be asked to complete a task already started by another auditor. While some information is contained in the workpapers and might be easy to transfer to substitute auditors,

other evidence may not be transferred as seamlessly. As professional skepticism has been described as an attitude or mindset (Hurt et al. 2013; Nelson 2009; PCAOB 2012), it may be more difficult to transfer to substitute auditors. Professional skepticism is a key component to an effective audit (PCAOB 2012). However, regulators have consistently noted that auditors are not exercising sufficient skepticism while performing audits (PCAOB 2011). Recent literature has focused on factors in the audit environment that may help or hinder skepticism (e.g., Brazel et al. 2016; Bowlin et al. 2015; Turner 2001). In this study, we aim to investigate whether auditor substitution harms skepticism.

We predicted that professional skepticism may be lower for substitute auditors that only complete the last portion of a task as compared to auditors that complete an entire task from start to finish for two possible reasons. First, substitute auditors may not receive all the pertinent information. While most information is documented in the workpapers, there is other client information that the auditor learns not directly related to the task at hand and as such, may not be documented in the workpapers. If a substitute auditor is lacking information about the client, this may influence their skeptical judgment and action. Second, substitute auditors may not feel as invested in the task as an auditor completing the entire task. A meta-analysis, examining the Hackman and Oldham (1976) Job Characteristics Model, demonstrates that higher task identity (i.e., completing a task from start to finish) is associated with many positive work outcomes (Humphrey et al. 2007). Per theory, higher task identity influences positive work outcomes via an increase in experienced meaningfulness (Hackman and Oldham, 1976) and psychological ownership (Downey 2017; Pierce et al. 2009). Consistent with prior literature, we predicted that a substitute auditor that only completes the last portion of a task will be less skeptical than an auditor that completes an entire task because of lower feelings of meaningfulness and ownership. Lastly,

we hypothesized that accountability via an expected performance evaluation would reduce the influence of lower task identity on professional skepticism.

Results suggest that participants that only completed the last portion of a task were less skeptical of the controller's honesty than participants that completed the entire task from start to finish. Additionally, participants that only completed a portion of the task requested less evidence than those that completed the entire task. Mediation analyses suggest that the decline in skepticism is at least partly attributable to certain information not being transferred to substitute auditors. Participants were more likely to transfer information directly related to completing the accounts receivable testing as compared to other red flags not directly related to the task. Specifically, some of the substitute auditors were missing information about a disagreement with the controller. Those that were missing this information were less skeptical of the controller's honesty and therefore requested less audit evidence while completing the task. While participants that completed only a portion of the task had lower feelings of psychological ownership compared to participants completing the entire task, this lower sense of ownership did not decrease skepticism. Taken together, our results suggest that substitute auditors may be less skeptical because they are missing information, not because of feelings associated with lower task identity.

This study is subject to limitations. First, the experiment is based on a hypothetical audit task and the results may not be indicative of the decisions that auditors would make in practice. To address some of the external validity concerns, we began with an existing task (Bennett and Hatfield 2013) and used our practitioner interviews to modify the task to fit the current setting. Also, to request additional information, participants were required to type an email to the controller to proxy for the time it would take in practice to obtain additional documentation. Future research could examine the influence auditor substitution on skepticism for a task other than accounts

receivable confirmation testing. It could be that longer tasks are better able to elicit the feelings of psychological ownership and meaningfulness associated with task identity. Second, our results are based on a relatively small sample size. The participants are professional accountants and offer generalizability despite the small sample size, which we believe to be positive. However, the participating professionals may have on average greater experience and judgmental capabilities than a young associate who would normally be assigned this type of task. Results in a less experienced population may be different and could actually show stronger results.

Although this study has these limitations, the current research extends the auditing literature relating to professional skepticism by examining the influence of auditor substitution on skeptical judgment and actions. To our knowledge, auditor substitution and its possible implications have yet to be explored in the auditing literature. Additionally, the findings have practical implications for audit managers and those responsible for reviewing work that is performed by more than one auditor. Substitute auditors may not be as skeptical in their judgment and actions as compared to an auditor that completes a task from start to finish. Findings suggest that this decline in skepticism is related to the substitute auditor not obtaining all information when tasks are transferred. Future research can investigate policies or procedures that audit firms could implement relating to the transfer of information to substitute auditors. Perhaps, the auditor that completed the first portion of the task could include a description of their skepticism level or a brief overview of their client experience with the information that is transferred to the substitute auditor. It is possible that policies or procedures may help to keep established skepticism from being lost when tasks are transferred.

## References

- American Institute of Certified Public Accountants (AICPA). 2002. *Consideration of Fraud in a Financial Statement Audit*. Auditing Standard AU Section 316. New York, NY: AICPA. Available at: <http://www.aicpa.org/research/standards/auditattest/downloadabledocuments/au-00316.pdf>
- Bauer, T.D., C.R. Estep, and E.E. Griffith. 2017. *The Effects of Psychological Ownership on Specialists' Judgments and Communication in Audit Teams*. Working Paper, University of Illinois at Urbana-Champaign, Emory University and University of Wisconsin-Madison.
- Bennett, G.B. and R.C. Hatfield. 2013. The effect of social mismatch between staff auditors and client management on the collection of audit evidence. *The Accounting Review* 88 (1): 31-50.
- Bobek, D.D., B.E. Daugherty, and R.R. Radtke. 2012. Resolving audit engagement challenges through communication. *Auditing: A Journal of Practice and Theory* 31 (4): 21-45.
- Bowlin, K.O., J.L. Hobson, and M.D. Piercey. 2015. The effects of auditor rotation, professional skepticism, and interactions with managers on audit quality. *The Accounting Review* 90 (4): 1363-1393.
- Brazel, J.F., T.D. Carpenter, and J.G. Jenkins. 2010. Auditors' use of brainstorming in the consideration of fraud: Reports from the field. *The Accounting Review* 85 (4): 1273-1301.
- Brazel, J.F., S.B. Jackson, T.J. Shaffer, and B.W. Stewart. 2016. Outcome effect and professional skepticism. *The Accounting Review* 91 (6): 1577-1599.
- Carpenter, T.D. 2007. Audit team brainstorming, fraud risk identification, fraud risk assessment: Implications of SAS No. 99. *The Accounting Review* 82 (5): 1119-1140.
- Carpenter, T.D. and J.L. Reimers. 2013. Professional skepticism: The effects of a partner's influence and the level of fraud indicators on auditors' fraud judgments and actions. *Behavioral Research in Accounting* 25 (2): 45-69.
- DeZoort, T. P. Harrison, and M. Taylor. 2006. Accountability and auditors' materiality judgments: The effects of differential pressure strength on conservatism, variability, and effort. *Accounting, Organizations and Society* 31: 373-390.
- Downey, D.H. 2017. An exploration of offshoring in audit practice and the potential consequences of associated work "re-design" on auditor performance. *Auditing: A Journal of Practice and Theory* (forthcoming).
- Hall, M. and D. Smith. 2009. Mentoring and turnover intentions in public accounting firms: A research note. *Accounting, Organizations, and Society* 34: 695-704.
- Hackenbrack, K. and W.R. Knechel. 1997. Resource allocations decisions in audit engagements. *Contemporary Accounting Research* 14 (3): 481-499.
- Hackman, J.R. and G.R. Oldham. 1974. *The job diagnostic survey: An instrument for the diagnosis of jobs and the evaluation of job redesign projects* (Tech. Rep. No. 4). New Haven, Conn.: Yale University, Department of Administrative Sciences.
- Hackman, J. R. and G.R. Oldham. 1976. Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance* 16: 250-279.
- Hogan, C.E., A. Rezaee, R.A. Riley, and U.K. Velury. Financial statement fraud: Insights from the academic literature. *Auditing: A Journal of Practice and Theory* 27 (2): 231-252.
- Houston, R. W. 1999. The effects of fee pressure and client risk on audit seniors' time budget decisions. *Auditing: A Journal of Practice and Theory* 18 (2): 70-86.

- Humphrey, S. E., J. D. Nahrgang, and F. P. Morgeson. 2007. Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension. *Journal of Applied Psychology* 92 (5): 1332-1356.
- Hurtt, K. 2010. Development of a scale to measure professional skepticism. *Auditing: A Journal of Practice and Theory* 29 (1):149-171.
- Hurtt, K., H. Brown-Liburd, C. E. Earley, and G. Krishnamoorthy. 2013. Research on auditor professional skepticism: literature synthesis and opportunities for future research. *Auditing: A Journal of Practice and Theory* 32 (Supplement): 45-97.
- International Auditing and Assurance Standards Board (IAASB). 2012. *Professional Skepticism in an Audit of Financial Statements*. New York, NY: IFAC. Available at: <http://www.ifac.org/sites/default/files/publications/files/IAASB%20Professional%20Skepticism%20QandA-final.pdf>
- Lerner, J. and P. Tetlock. 1999. Accounting for the effects of accountability. *Psychological Bulletin* 125 (2): 255-275.
- Messier, W., T. Kozloski, and N. Kochetova-Kozloski. 2010. An analysis of SEC and PCAOB enforcement actions against engagement quality reviewers. *Auditing: A Journal of Practice and Theory* 29 (2): 233-252.
- Nelson, M.W. 2009. A model and literature review of professional skepticism in auditing. *Auditing: A Journal of Practice and Theory* 28 (2): 1-34.
- O'Keefe, T.B., D.A. Simunic, and M.T. Stein. 1994. The production of audit services: Evidence from a major public accounting firm. *Journal of Accounting Research* (Autumn): 241-61.
- Pierce, J.L., I. Jussila, and A. Cummings. 2009. Psychological ownership within the job design context: revision of the job characteristics model. *Journal of Organizational Behavior* 30 (4): 477-496.
- Pierce, J.L., T. Kostova, and K.T. Dirks. 2001. Toward a theory of psychological ownerships in organizations. *The Academy of Management Review* 26, (2): 298-310.
- Public Company Accounting Oversight Board (PCAOB). 2010. *Audit Planning. AS 2101*. Available at: <https://pcaobus.org/Standards/Auditing/Pages/AS2101.aspx>
- Public Company Accounting Oversight Board (PCAOB). 2011. *Concept release on auditor independence and auditor firm rotation*. Release No. 2011-006. Washington, DC: PCAOB. Available at: [http://pcaobus.org/rules/rulemaking/docket037/release\\_2011-006.pdf](http://pcaobus.org/rules/rulemaking/docket037/release_2011-006.pdf)
- Public Company Accounting Oversight Board (PCAOB). 2012. *Maintaining and applying professional skepticism in audits*. Staff Audit Practice Alert No. 10 (SAPA 10). Washington, D.C.: PCAOB. Available at: [http://pcaobus.org/News/Releases/Pages/12042012\\_SAPA10.aspx](http://pcaobus.org/News/Releases/Pages/12042012_SAPA10.aspx)
- Public Company Accounting Oversight Board (PCAOB). 2015. *Concept release on audit quality indicators*. Release No. 2015-005. Washington, D.C.: PCAOB. Available at: [http://pcaobus.org/Rules/Rulemaking/Docket%20041/Release\\_2015\\_005.pdf](http://pcaobus.org/Rules/Rulemaking/Docket%20041/Release_2015_005.pdf)
- Quadackers, L., T. Groot, and A. Wright. 2014. Auditors' professional skepticism: neutrality versus presumptive doubt. *Contemporary Accounting Research* 31 (3): 639-657.
- Stein, M.T., D.A. Simunic, and T.B. O'Keefe. 1994. Industry differences in the production of audit services. *Auditing: A Journal of Practice and Theory* (Supplement): 128-42.
- Trompeter, G.M., T.D. Carpenter, N. Desai, K.L. Jones, and R.A. Riley. 2013. A synthesis of fraud-related research. *Auditing: A Journal of Practice and Theory* 32 (Supplement): 287-321.

- Turner, C.W. 2001. Accountability demands and the auditor's evidence search strategy: The influence of reviewer preferences and the nature of the response (belief vs. action). *Journal of Accounting Research* 39 (3): 683-706.
- Van Dyne, L., and J.L.Pierce. 2004. Psychological ownership and feelings of possession: three field studies predicting employee attitudes and organizational behavior. *Journal of Organizational Behavior* 25 (4): 439-460.
- Vera-Muñoz, S.C., J.L. Ho, and C.W. Chow. 2006. Enhancing knowledge sharing in public accounting firms. *Accounting Horizons* 20 (2): 133-155.

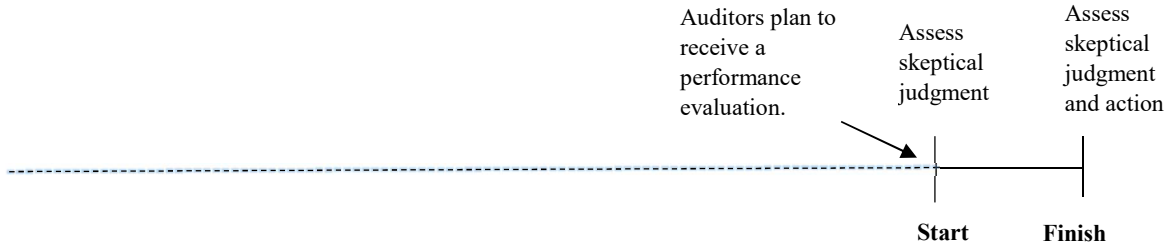


**FIGURE 3-1:  
EXPERIMENTAL DESIGN**

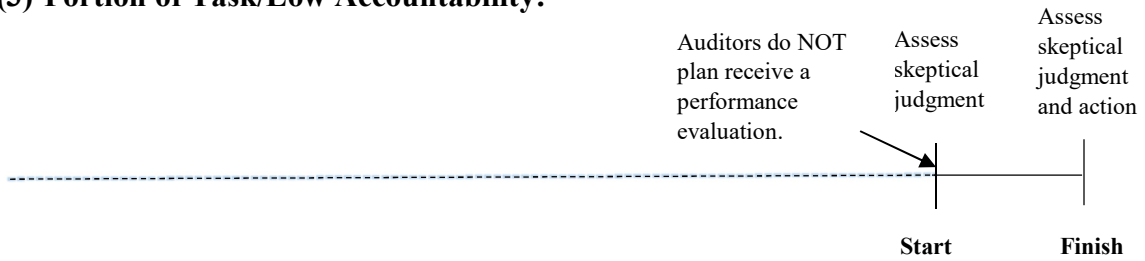
**(1) Entire Task:**



**(2) Portion of Task/ High Accountability:**



**(3) Portion of Task/Low Accountability:**



**TABLE 3-1:  
SEQUENCE OF EXPERIMENTAL PROCEDURES**

<b>Description of Procedure</b>	<b>Variable(s)</b>
1. Background Information (relating to hypothetical audit and task assignment)	
2. Audit Task (AR confirmation testing from start to finish– high task identity; Asked to complete AR confirmation testing already started by another auditor– low task identity)	<ul style="list-style-type: none"> <li>• Task (Manipulated – Entire or Portion of the task is assigned)</li> </ul>
3. Accountability (participant expects or does not expect to receive a performance evaluation)	<ul style="list-style-type: none"> <li>• Accountability (Manipulated only between those assigned a portion of the task)</li> </ul>
4. Assess Skeptical Judgment (during the audit task)	<ul style="list-style-type: none"> <li>• Skeptical Judgment (3 Questions)</li> </ul>
5. Assess Skeptical Action (during last stage of task)	<ul style="list-style-type: none"> <li>• Skeptical Action (Actual choice to request additional evidence)</li> </ul>
6. Assess Skeptical Judgment (upon completion of the audit task)	<ul style="list-style-type: none"> <li>• Skeptical Judgment (3 Questions)</li> </ul>
7. Psychological Ownership Assessment	<ul style="list-style-type: none"> <li>• Psychological Ownership (3 item scale)</li> </ul>
8. Meaningfulness Assessment	<ul style="list-style-type: none"> <li>• Meaningfulness (2 item scale)</li> </ul>
9. Manipulation Check Questions	
10. Demographics and background questions	<ul style="list-style-type: none"> <li>• General Experience</li> <li>• Experience auditing AR</li> <li>• Age</li> <li>• Gender</li> </ul>

**TABLE 3-2:  
PARTICIPANT DEMOGRAPHICS**

		<u>Number</u>	<u>Percent</u>
Gender	Male	27	57%
	Female	20	43%
	N	47	
Age	18-24	4	9%
	25-29	10	21%
	30-34	10	21%
	35-39	4	9%
	40-44	6	13%
	45-49	0	0%
	50-54	7	15%
	55-59	2	4%
	60+	4	9%
	N	47	
Practice Group <sup>9</sup>	Tax	17	36%
	Assurance	20	43%
	Consulting	10	21%
	Other	6	13%
		<u>Mean</u>	<u>(S.D.)</u>
Experience (Years)		15	(12.5)
N		47	
Familiarity with AR Testing (1-9)		5.0	(3.6)
N		47	

<sup>9</sup> Participants could select more than one practice group as applicable. As such there are more responses than participants.

**TABLE 3-3:**  
**Skeptical Judgment at Task Midpoint (*SKJUDGMENT\_MID*)**

**Panel A:** Cell Means (SD) [n] for *SKJUDGMENT\_MID*

	<b>(A) Entire Task</b>	<b>(B) Portion of Task - Accountable</b>	<b>(C) Portion of Task – Not Accountable</b>	<b>(D) Portion of Task</b>
Likelihood of material misstatement ( <i>SKJUDGMENT_MID1</i> )	4.69 (0.95) [16]	4.93 (1.07) [14]	4.41 (1.28) [17]	4.65 (1.20) [31]
Likelihood of fraudulent transactions ( <i>SKJUDGMENT_MID2</i> )	4.31 (0.60) [16]	4.00 (0.96) [14]	4.06 (1.03) [17]	4.03 (0.98) [31]
Likelihood that the controller is honest ( <i>SKJUDGMENT_MID3</i> )	3.94 (0.06) [16]	4.21 (0.58) [14]	4.06 (0.43) [17]	4.13 (0.50) [31]

Questions were measured on a 7-point scale with 1 labeled “strongly disagree” and 7 labeled “strongly agree.”

**Panel B:** Comparison T-Tests [Wilcoxon-Rank Sum Tests] for *SKJUDGMENT\_MID*

	<b>A vs. D (test of H1a)</b>	<b>A vs. B</b>	<b>A vs. C</b>	<b>B vs. C (test of H2a)</b>
Likelihood of material misstatement ( <i>SKJUDGMENT_MID1</i> )	t= -0.12 [z= 0.05]	t= -0.65 [z= -0.72]	t= 0.70 [z= 0.56]	t= 1.20 [z= 1.12]
Likelihood of fraudulent transactions ( <i>SKJUDGMENT_MID2</i> )	t= -1.21 [z= -1.29*]	t= 1.05 [z= 1.16]	t= 0.87 [z= 1.07]	t= -0.16 [z= -0.07]
Likelihood that the controller is honest ( <i>SKJUDGMENT_MID3</i> )	t= 1.44* [z= 1.46*]	t= -1.66* [z= -1.73**]	t= -1.00 [z= -0.99]	t= 0.86 [z= 0.91]

\*, \*\*, \*\*\* Indicate significance at  $p < 0.10$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively (one-tailed).

**TABLE 3-4:  
Skeptical Judgment at the End of Task (SKJUDGMENT\_END)**

**Panel A:** Cell Means (SD) [n] for SKJUDGMENT\_END

	(A) Entire Task	(B) Portion of Task - Accountable	(C) Portion of Task – Not Accountable	(D) Portion of Task
Likelihood of material misstatement (SKJUDGMENT_END1)	4.25 (0.86) [16]	4.00 (1.11) [14]	3.88 (1.22) [17]	3.94 (1.15) [31]
Likelihood of fraudulent transactions (SKJUDGMENT_END2)	3.88 (0.96) [16]	3.43 (0.76) [14]	3.71 (0.92) [17]	3.58 (0.84) [31]
Likelihood that the controller is honest (SKJUDGMENT_END3)	4.00 (0.63) [16]	4.29 (0.47) [14]	4.47 (0.62) [17]	4.39 (0.56) [31]

Questions were measured on a 7-point scale with 1 labeled “strongly disagree” and 7 labeled “strongly agree.”

**Panel B:** Comparison T-Tests [Wilcoxon-Rank Sum Tests] for SKJUDGMENT\_END

	A vs. D (test of H1a)	A vs. B	A vs. C	B vs. C (test of H2a)
Likelihood of material misstatement (SKJUDGMENT_END1)	t= -0.96 [z= -1.05]	t= 0.70 [z= 0.79]	t= 1.00 [z= 1.03]	t= 0.28 [z= 0.31]
Likelihood of fraudulent transactions (SKJUDGMENT_END2)	t= -1.08 [z= -0.97]	t= 1.40* [z= 1.23]	t= 0.52 [z= 0.51]	t= -0.90 [z= -0.68]
Likelihood that the controller is honest (SKJUDGMENT_END3)	t= 2.15** [z= 1.91**]	t= -1.39* [z= -1.30*]	t= -2.15** [z= -2.01**]	t= -0.91 [z= -0.81]

\*, \*\*, \*\*\* Indicate significance at  $p < 0.10$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively (one-tailed).

**TABLE 3-5:  
ANCOVA Results for Skeptical Judgment Measures**

**Panel A:** ANCOVA Results for *SKJUDGMENT\_MID3*

<b>Factor</b>	<b>Hypothesis</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p-value<sup>10</sup></b>
<i>TASK</i>	H1A	0.44	1	0.44	2.64	0.06
<i>AGE</i>	-	0.19	1	0.19	1.11	0.15
<i>ASSURANCE</i>	-	0.78	1	0.78	4.66	0.02
<i>FSAUDIT</i>	-	1.10	1	1.10	6.53	<0.01
<i>FAMILIAR_AR</i>	-	1.00	1	1.00	5.92	<0.01
<b>Model Summary</b>	<b>Adj. R<sup>2</sup></b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
	0.12	1.91	5	0.38	2.27	0.07

**Panel B:** ANCOVA Results for *SKJUDGMENT\_END3*

<b>Factor</b>	<b>Hypothesis</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p-value<sup>10</sup></b>
<i>TASK</i>	H1A	0.47	1	0.47	1.84	0.09
<i>ACCOUNTABLE</i>	H4A	0.39	1	0.39	1.53	0.11
<i>COLLECTION</i>	-	0.86	1	0.86	3.36	0.04
<i>GENDER</i>	-	0.49	1	0.49	1.92	0.09
<i>AGE</i>	-	0.79	1	0.79	3.10	0.04
<i>ASSURANCE</i>	-	2.72	1	2.72	10.64	<0.01
<i>TRAIT_SK</i>	-	0.47	1	0.47	1.83	0.09
<b>Model Summary</b>	<b>Adj. R<sup>2</sup></b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
	0.31	6.97	7	1.00	3.90	<0.01

<sup>10</sup> P-values are reported as one-tailed.

**TABLE 3-6:  
Skeptical Action (*SKACTION*)**

**Panel A:** Cell Means (SD) [n] for *SKACTION*

	(A) Entire Task	(B) Portion of Task - Accountable	(C) Portion of Task- Not Accountable	(D) Portion of Task
Skeptical Action ( <i>SKACTION</i> )	3.69 (0.87) [16]	3.00 (1.30) [14]	3.00 (1.27) [17]	3.00 (1.26) [31]

**Panel B:** Comparison T-Tests [Wilcoxon-Rank Sum Tests] for *SKACTION*

	A vs. D (test of H1b)	A vs. B	A vs. C	B vs. C (test of H2a)
Skeptical Action ( <i>SKACTION</i> )	t= -1.94** [z= -196**]	t= 1.72** [z= 1.79**]	t= 1.80** [z= 1.78**]	t= 0.00 [z= -0.07]

\*, \*\*, \*\*\* Indicate significance at  $p < 0.10$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively (one-tailed).

**Panel C:** Ordered Logistic Regression results for *SKACTION*

Factor	Hypothesis	Coefficient	Robust SE	Z	p-value <sup>11</sup>
<i>TASK</i>	H1B	2.42	1.26	1.92	0.03
<i>AGE</i>	-	0.85	0.44	1.95	0.03
<i>EXPERIENCE</i>	-	-0.14	0.08	-1.69	0.05
<i>ASSURANCE</i>	-	3.93	1.06	3.70	<0.01
<i>MATCH</i>	-	-1.70	0.95	-1.80	0.04
$\alpha_1$ (cutpoint1)		0.12	0.99		
$\alpha_2$ (cutpoint2)		1.39	0.96		
$\alpha_3$ (cutpoint3)		1.54	0.93		

Model Summary

Number of observations	47
Pseudo R <sup>2</sup>	0.25

<sup>11</sup> P-values are reported as one-tailed.

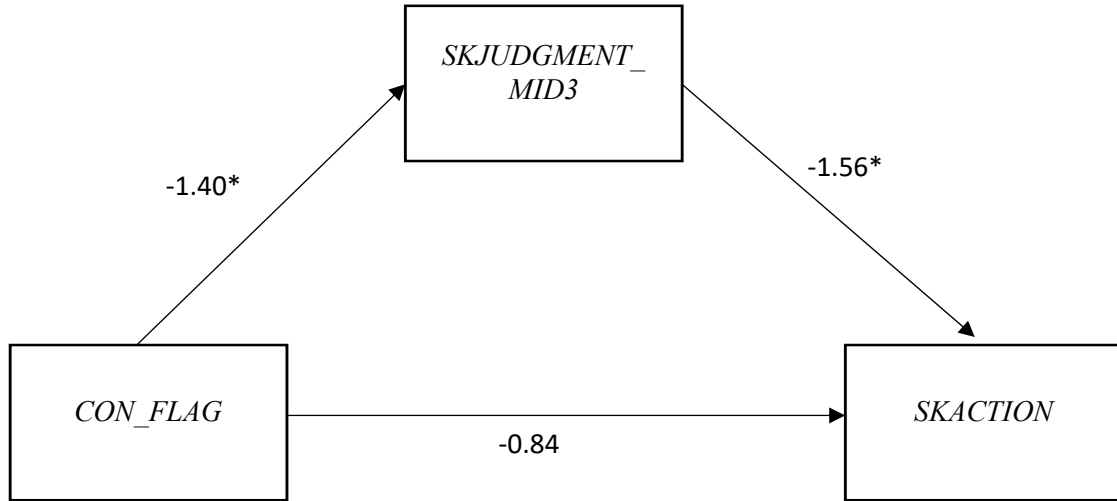
**TABLE 3-7:  
Red Flags Communicated in Electronic Notes**

<b>Red Flag</b>	<b>Notes Sent (n=16)</b>		<b>Notes Received (n=31)</b>	
	<b>Number Included</b>	<b>Percent Included</b>	<b>Number Included</b>	<b>Percent Included</b>
1. Confirmation discrepancy	<b>13</b>	<b>81%</b>	<b>25</b>	<b>81%</b>
2. Large transaction close to year-end	<b>10</b>	<b>63%</b>	<b>17</b>	<b>55%</b>
3. Irregular invoice number (999999)	<b>6</b>	<b>36%</b>	<b>8</b>	<b>26%</b>
4. Controller disagrees with approach	<b>4</b>	<b>25%</b>	<b>10</b>	<b>32%</b>
5. Employee turnover in accounts receivable	<b>0</b>	<b>0%</b>	<b>3</b>	<b>10%</b>
6. Unusual delay	<b>0</b>	<b>0%</b>	<b>2</b>	<b>6%</b>
Average number of total red flags	<b>2.06</b>		<b>2.10</b>	



**TABLE 3-8:**  
**Influence of Red Flags on Skepticism**  
**(n=31)**

**Panel A: Mediation Model**



\*Path is significant at  $p < 0.10$  (one-tailed)

<b>Model Summary</b>	<b>R-Sq</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
Outcome: <i>SKJUDGMENT_MID3</i>	0.2683	1.4667	6.00	24.00	0.2316
Outcome: <i>SKACTION</i>	0.6014	4.9583	7.00	23.00	0.0016

**Panel B: Indirect Effect of *CON\_FLAG* on *SKACTION* via *SKJUDGMENT\_MID3***

<b>Effect</b>	<b>Boot SE</b>	<b>BootLLCI<sup>12</sup></b>	<b>BootULCI<sup>12</sup></b>
0.1683	0.1592	0.0011	0.5813

<sup>12</sup> Confidence intervals represent a 90% confidence level

## APPENDIX 3-1: Experimental Instrument

### Condition #1 Entire Task

#### Part One

#### Consent Information Form

I willingly agree to participate in this study.

- Yes (1)
- No (2)

#### Background Information/ Audit Program

Imagine that you work as an Audit Associate for a public accounting firm that has been hired to perform the financial statement audit of New Technologies Incorporated, NTI, for the 12/31/15 fiscal year-end (FYE). As an Audit Associate, your responsibility is to complete your assigned audit task(s) by obtaining the necessary information from the client. The Audit Supervisor is responsible for assigning, supervising, and reviewing the audit tasks.

It is typical to work on more than one audit throughout the year. Auditors receive performance evaluations for audit engagements in which he/she works over a specified number of hours.

Per the audit supervisor's estimation of the work you need to perform, you WILL receive a performance evaluation related to your work performed on the NTI audit.

You have been assigned to accounts receivable testwork. Specifically, you have been asked to perform testwork and to conclude on accounts receivable confirmations.

Below is the audit program, which describes the steps necessary for completing the task.

#### Audit Program

##### *Accounts Receivable Confirmation Testing:*

- 1. Obtain the accounts receivable aging schedule (Assume the balance of this schedule agrees to the trial balance without exception).*
- 2. Using professional judgment select three customer balances to confirm.*
- 3. Draft the confirmations using an established firm template and ask the Controller to sign the documents before "mailing" them independently (Note: Confirmations will not actually be mailed in this experiment).*
- 4. Review the "returned" accounts receivable confirmations and make sure that the balance on the confirmation agrees to the accounts receivable aging schedule. Follow up on any*

discrepancies noted by the customer. If any discrepancies are noted on the confirmations, determine the reason why there may be a discrepancy between NTI's Accounts Receivable balance and the response noted on the confirmation.

5. Document the conclusion based on the results of the confirmation and additional testwork.

## AR Aging

You begin the task by requesting the Accounts Receivable Aged Trial Balance from the Controller. This schedule provides detailed information regarding outstanding customer balances and the length of time that the receivable has been outstanding.

You receive the schedule two weeks after requested. It took the Controller longer than usual with this request as NTI has experienced significant turnover in their accounting department. Specifically, the Accounts Receivable Manager has recently resigned. The "Accounts Receivable Aging Schedule" from the client is available below.

NTI		Aged Trial Balance - Accounts Receivable				
New Technologies Incorporated		12/31/2015				
Customer Name	Invoice Number	Total	≤ 30 days	31 - 60 days	61-90 days	>90 days
Abbott Corp.		\$ 629,539				
	568901		76,666			
	567899			45,763		
	567845					253,555
Electronics International	567843					253,555
		\$ 377,031				
	567933		103,456			
	999999				273,575	
Global Tech		\$ 25,436				
Hartman Technology	567957		25,436			
		\$ 662,040				
Morgan, Inc.	569001		239,535			
	569002		422,505			
		\$ 55,134				
Technology Unlimited	568954		33,789			
	568959		21,345			
		\$ 27,979				
Wright Industries	568932		15,678			
	567888			12,301		
		\$ 155,203				
Zorcon	567944		98,421			
	567875			56,782		
		\$ 353,004				
	567801					353,004
<b>Total</b>		<b>2,285,366</b>	<b>1,036,831</b>	<b>114,846</b>	<b>273,575</b>	<b>860,114</b>

Assume that the balance of this schedule agrees to the trial balance without exception. Based on the schedule above, you select the following customer accounts to confirm:

- 1) Abbott Corporation
- 2) Electronics International
- 3) Zorcon

When you ask Mr. Smith, NTI Controller, to sign the confirmations, he asks why you are not testing the accounts receivable balance analytically, which would be much quicker. You explain that the Accounts Receivable balance is significant at NTI, and as such, the confirmation testing is necessary to obtain more persuasive evidence. He disagrees with your approach but agrees to sign the confirmations.

### **Two of three confirmations returned**

Approximately one week later, two confirmations have been returned directly to your accounting firm. Please review the returned confirmations below. You are still waiting for the third confirmation to arrive.

# NTI

New Technologies Incorporated

Abbott Corporation  
14 Edgewood Drive  
Washington, PA

To Whom It May Concern:

Please examine the accompanying statement carefully and either confirm its correctness or report any differences directly to our auditors. Your prompt attention to this request will be appreciated. An enclosed envelope is included for your reply.

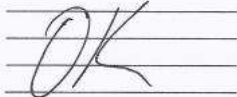
Sincerely,



Evan Smith  
Controller, New Technologies, Inc.

**Confirmation:**

The following invoices receivable from us as of December 31, 2015, are correct, except as noted below:

<u>Invoice No.</u>	<u>Invoice Date</u>	<u>Amount</u>	<u>Notes</u>
INV 568901	12/29/15	\$76,666	
INV 567899	11/18/15	\$45,763	
INV 567845	09/29/15	\$253,555	
INV 567933	09/22/15	\$253,555	

Abbott Corporation

Date: 1/22/16

By:   
Title: AP Manager

# NTI

New Technologies Incorporated

Zorcon  
78 Kinnley Drive  
Columbus, OH

To Whom It May Concern:

Please examine the accompanying statement carefully and either confirm its correctness or report any differences directly to our auditors. Your prompt attention to this request will be appreciated. An enclosed envelope is included for your reply.

Sincerely,

*E. Smith*

Evan Smith  
Controller, New Technologies, Inc.

## Confirmation:

The following invoices receivable from us as of December 31, 2015, are correct, except as noted below:

<u>Invoice No.</u>	<u>Invoice Date</u>	<u>Amount</u>	<u>Notes</u>
INV 567801	08/21/15	\$353,004	<i>Correct</i>

Zorcon

Date: 1/25/16

By: *Roger Thomas*

Title: VP Controller

Accounts Receivable Aging Schedule (from above) reappears

Accounts Receivable Testing Workpaper New Technologies Incorporated (NTI) FYE 12/31/15					
Selection	Customer Name	Invoice Number	AR balance as of 12/31/15 per AR aging schedule	AR balance as of 12/31/15 per customer confirmation	Difference
1	Abbott Corporation	568901	\$ 76,666		
1	Abbott Corporation	567899	\$ 45,763		
1	Abbott Corporation	567845	\$ 253,555		
1	Abbott Corporation	567843	\$ 253,555		
2	Zorcon	567801	\$ 353,004		
3	Electronics International	999999	\$ 273,575		
3	Electronics International	567933	\$ 103,456		

Please complete the above Testing Workpaper by filling in the blank spaces below as it pertains to these two customer selections (5 invoices). The AR balances per the customer confirmations can be found on the letters above. Please enter numerical amounts (excluding commas). The difference column is used to capture difference between AR aging schedule and the confirmation letters. If there is not a difference, please type 0.

	AR Balance as of 12/31/15 per customer confirmation (no commas please)	Difference
1) Abbott: Invoice #568901	<input type="text"/>	<input type="text"/>
1) Abbott: Invoice #567899	<input type="text"/>	<input type="text"/>
1) Abbott: Invoice #567845	<input type="text"/>	<input type="text"/>
1) Abbott: Invoice #567843	<input type="text"/>	<input type="text"/>
2) Zorcon: Invoice #567801	<input type="text"/>	<input type="text"/>

## Information Transfer to Substitute Auditor

The last confirmation from Electronics International arrived the next day, but the client has already left and you are scheduled to work at a different client site tomorrow. As such, you might need to pass this task on to another auditor to complete.

# NTI

New Technologies Incorporated

Electronics International  
8417 New Industrial Parkway  
London, England

To Whom It May Concern:

Please examine the accompanying statement carefully and either confirm its correctness or report any differences directly to our auditors. Your prompt attention to this request will be appreciated. An enclosed envelope is included for your reply.

Sincerely,

*E. Smith*

Evan Smith  
Controller, New Technologies, Inc.

### Confirmation:

The following invoices receivable from us as of December 31, 2015, are correct, except as noted below:

<u>Invoice No.</u>	<u>Invoice Date</u>	<u>Amount</u>	<u>Notes</u>
INV 999999	12/31/15	\$273,575	
INV 567933	11/16/15	\$103,456	<u>We do not owe this invoice as</u> <u>OK</u> 12/31/15

Electronics International

Date: 1/21/16

By: Harold Baaker

Title: Accounting Manager



If necessary, the Audit Supervisor will send the new auditor tasked with completing the assignment the following:

1. The "Accounts Receivable Aging Schedule" obtained from the client, NTI.
2. The three confirmation letters that have been returned.
3. The workpaper documentation that you filled in for the two selections.
4. Any additional information that you feel is pertinent to pass on to the next auditor included in the note space below.

Please include your notes for the next auditor below:

### Skeptical Judgment Measures (Midpoint)

At this stage in the accounts receivable confirmation testing, please estimate the likelihood of the following three events:

	Extremely Unlikely (1)	Very Unlikely (2)	Unlikely (3)	Not Sure (4)	Likely (5)	Very Likely (6)	Extremely Likely (7)
1) The accounts receivable balance is materially misstated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Fraudulent revenue transactions have been recorded.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) The NTI Controller, Mr. Smith is honest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for working on the accounts receivable confirmation testing. As this is a two-part study, you will be receiving another link within one week to complete a second brief survey. We greatly appreciate your time and input.

## Part Two

### Third confirmation with a discrepancy

Remember that you work as an Audit Associate for a public accounting firm that has been hired to perform the financial statement audit of New Technologies Incorporated, NTI, for the 12/31/15 fiscal year-end (FYE).

It is typical to work on more than one audit throughout the year. Auditors receive performance evaluations for audit engagements in which he/she works over a specified number of hours.

Per the audit supervisor's estimation of the work you need to perform, you WILL receive a performance evaluation related to your work performed on the NTI audit.

You have previously completed steps 1-3 on the audit program below and documented the conclusion for two of the three selected customers as described in step 4.

*Audit Program (from above) reappears*

Below is the Accounts Receivable Aging Schedule obtained from the client as described in step 1.

As described in step 2, the following customer accounts were selected to confirm:

1. Abbott Corporation
2. Electronics International
3. Zorcon

*\*\*AR Aged Trial Balance (from above) reappears*

You mailed the three confirmations independently and two were returned while you were still working on the NTI audit. See those confirmations below.

*\*\*Abbott Corporation Confirmation Letter (from above) reappears*

*\*\*Zorcon Confirmation Letter (from above) reappears*

The third confirmation was received, but you did not have time to finish the testing. However, your schedule was adjusted and you now have the time to complete the testing related to the third confirmation below.

*\*\*Electronics International Confirmation Letter (from above) reappears*

Below is the documentation for the first two confirmations.

Accounts Receivable Testing Workpaper New Technologies Incorporated (NTI) FYE 12/31/15						
Selection	Customer Name	Invoice Number	AR balance as of 12/31/15 per AR aging schedule	AR balance as of 12/31/15 per customer confirmation	Difference	
1	Abbott Corporation	568901	\$ 76,666	\$ 76,666	\$	-
1	Abbott Corporation	567899	\$ 45,763	\$ 45,763	\$	-
1	Abbott Corporation	567845	\$ 253,555	\$ 253,555	\$	-
1	Abbott Corporation	567843	\$ 253,555	\$ 253,555	\$	-
2	Zorcon	567801	\$ 353,004	\$ 353,004	\$	-
3	Electronics International	999999	\$ 273,575			
3	Electronics International	567933	\$ 103,456			

Below are your notes related to this task:

*\*\*Insert notes from part one*

### Finishing the task

Please review the final confirmation and Accounts Receivable Aged Trial Balance below to complete the task.

*\*\*AR Aged Trial Balance (from above) reappears*

*\*\*Electronics International Confirmation Letter (from above) reappears*

Discrepancies on returned confirmations are not always caused by an error on the part of the audit client. For instance, the customer that responded to the confirmation might have made an error, such as confirming the invoices as of a different date than requested.

Typically, an auditor will gather additional information and audit evidence regarding the discrepancy to determine if the confirmed amount has been misstated in the client's records. The Controller may have information that could be used in determining whether the discrepancy indicates a misstatement in the client's records.

The choice to gather more audit evidence is a matter of auditor's professional judgment.

Based on your review of the accounts receivable confirmation, what is your choice of action?

- Document the conclusion of your testwork based on the given information. (1)
- Request additional information from the Controller (2)

*(Note: If option 1 is selected the task will end and the participants will be directed to the conclusion before requesting all information and demographic questions. If option 2 is selected the task will continue below.)*

How important on a scale of 1 (Not important at all) to 9 (Very Important) is it that you request additional information to complete your accounts receivable testing?

\_\_\_\_\_ Importance of obtaining additional evidence (Sliding Scale)

You meet with Mr. Smith, NTI Controller, to ask about the discrepancy.

He verbally states the following:

“Most of NTI’s customer orders are FOB shipping point. This means that the customer takes ownership when the product is shipped. Most international orders take at least a week to arrive. The invoice is dated December 31st, so the order would have shipped the same day. Due to the shipping terms, even though the customer does not physically have the product, they do owe for the shipment. NTI recorded the receivable in the right year because the material was shipped on December 31st, and thus, considered a “Sale” and the property of the customer on 12/31. If you want a copy of the invoice and related shipping document send me an email request.”

Use the space below to draft an email to Mr. Smith, Controller.

Please select one of the two options below.

- Send (1)
- Cancel email without sending (and document conclusion on the testwork) (2)

*(Note: If option 1 is selected the task will end and the participants will be directed to the conclusion before requesting all information and demographic questions. If option 2 is selected the task will continue below.)*

Later that afternoon you receive the following email from the Controller:

To: Auditors

From: Mr. Smith, Controller

Attached you will find a copy of the invoice and a copy of the shipping documentation relating to the accounts receivable confirmation you had a question about.

The dates on the shipping manifest clearly shows that the shipment was in-transit at year-end. The information on the invoice shows that it was the same shipment that was invoiced on 12/31. The invoice number (999999) was used as the system was down and a manual invoice had to be created. As you can see from the attachments, proper documentation was maintained.

This should be all you need to complete your testwork.

Attachments:

# NTI

New Technologies Incorporated

# INVOICE

DATE: 12/31/2015  
INVOICE#: 999999

Bill to:  
Accounts Payable Department  
Electronics International  
8417 New Industrial Parkway  
London, England

DESCRIPTION	AMOUNT
Order #747832:	
10,000 boxes of Wire A67B1-2 @ 27.35/box	273,500.00
Delivery Fee	75.00
TOTAL	\$ 273,575.00

Make all checks payable to New Technologies, Inc.



In the meeting, the Controller stated that the shipping terms with Electronic International were “FOB Shipping Point.” This would indicate that Electronics International, not NTI, legally owned the items in transit as of 12/31/15 (year-end) and that the receivable is properly accounted for at year-end.

Prior to documenting your conclusion, you have the opportunity to ask Mr. Smith to verify his statements regarding shipping terms by asking for additional information (e.g. sales contract). Generally, audit evidence is stronger when verbal statements can be verified or corroborated with additional documentation. However, auditors use their professional judgment in deciding when corroborating audit evidence is necessary.

Based on the available information (statements from the Controller, review of related invoice and shipping documentation), what is your choice of action?

- Document your conclusion on the testwork, based on the given information. (1)
- Email the Controller to request additional information. (2)

*(Note: If option 1 is selected the task will end and the participants will be directed to the conclusion before requesting all information and demographic questions. If option 2 is selected the task will continue below.)*

Use the space below to draft an email to Mr. Smith, Controller.

Please select one of the two options below.

- Send (1)
- Cancel email without sending (and document conclusion on the testwork) (2)

*(Note: If option 1 is selected the task will end and the participants will be directed to the conclusion before requesting all information and demographic questions. If option 2 is selected the task will continue below.)*



How important on a scale of 1 (Not important at all) to 9 (Very Important) is it that you obtain this additional information (e.g. sales contract) in order for you to reach a conclusion on accounts receivable?

\_\_\_\_\_ Importance of obtaining additional evidence (Sliding Scale)

**Conclusion (Skeptical Judgment End)- requested all information**

You are still waiting on Mr. Smith to send you the requested sales contract. At this stage in the task, please estimate the likelihood of the following three events:

	Extremely Unlikely (1)	Very Unlikely (2)	Unlikely (3)	Not Sure (4)	Likely (5)	Very Likely (6)	Extremely Likely (7)
1) The accounts receivable balance is materially misstated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Fraudulent revenue transactions have been recorded.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) The NTI Controller, Mr. Smith is honest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Conclusion (Skeptical Judgment End)– did not request all information**

You selected that you were ready to conclude the task. Please estimate the likelihood of the following three events:

	Extremely Unlikely (1)	Very Unlikely (2)	Unlikely (3)	Not Sure (4)	Likely (5)	Very Likely (6)	Extremely Likely (7)
1) The accounts receivable balance is materially misstated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Fraudulent revenue transactions have been recorded.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) The NTI Controller, Mr. Smith is honest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for completing the assigned accounts receivable confirmation testing. Please complete a few last questions relating to your prior audit experience and opinion of the confirmation task.

### Manipulation Check Questions and Demographics

During this survey you started with step 4 of the audit program. The other steps were performed previously. Who completed the previous steps?

- I completed them previously.
- Another auditor completed them previously.

Are you expecting to receive a performance evaluation related to your work on the New Technologies Incorporated (NTI) audit?

- Yes.
- No.

Please assess the extent to which you agree with the following statements relating to the accounts receivable confirmation testwork performed.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
This was my accounts receivable testwork. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a high degree of personal ownership for the accounts receivable testwork. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I sense that this was my work. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please assess the extent to which you agree with the following:

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
The accounts receivable testing was useless or trivial. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The accounts receivable confirmation testing was very meaningful. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Statements that people use to describe themselves are given below. Please select the response that indicates how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
I take my time when making decisions. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't like to decide until I've looked at all of the readily available information. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I dislike having to make decisions quickly. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to ensure that I've considered most available information before making a decision. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wait to decide on issues until I can get more information. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your gender?

- Male (1)
- Female (2)

Which of the following best describes your age group?

- 18-24 (1)
- 25-29 (2)
- 30-34 (3)
- 35-39 (4)
- 40-44 (5)
- 45-49 (6)
- 50-54 (7)
- 55-59 (8)
- 60+ (9)

What is your current job title?

What practice group do you work in? Please select all that apply.

- Tax
- Assurance
- Consulting
- Other

How many years of work experience do you have?

Have you ever worked on a financial statement audit?

- Yes (1)
- No (2)

Have you ever worked on accounts receivable testwork during an audit?

- No (1)
- Yes, one time (2)
- Yes, more than once (3)
- Yes, many times (4)

On a scale of 1(Not Familiar) to 9 (Very Familiar), how familiar are you with accounts receivable confirmation testing?

	1 Not Familiar (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 - Very Familiar (9)
Familiarity with Receivable Confirmation Testing (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Have you ever completed an audit task that was start by a different auditor?

- Yes (1)
- No (2)

Of all the audit tasks you are assigned, approximately what percentage of tasks are you unable to complete from start to finish?

- Not applicable to my job (0)
- 0% (1)
- 1-9% (2)
- 10-19% (3)
- 20-29% (4)
- 30-39% (5)
- 40-49% (6)
- 50-59% (7)
- 60-69% (8)
- 70-79% (9)
- 80-89% (10)
- 90-100% (11)

If applicable, please describe situations that you have experienced that have prevented you from completing a task from start to finish?

## Condition #2 and #3 –Portion of the Task: Accountable and Not Accountable

### Consent Information Form

I willingly agree to participate in this study.

- Yes (1)
- No (2)

### Background Information

Imagine that you work as an audit associate for a public accounting firm.

As an audit associate your responsibility is to complete your assigned tasks on various audit engagements by obtaining the necessary information from the client. It is typical to work on more than one audit engagement throughout the year. Auditors receive performance evaluations for audit engagements in which he/she works over a specified number of hours.

You have completed your assigned tasks relating to your current audit earlier than planned and are notified by the audit supervisor working on the New Technologies Inc. (NTI) audit that they need your help to meet a deadline on their audit.

### Accountability manipulation

*Accountable:*

Per the Audit Seniors estimation of the work you need to perform, you **WILL** receive a performance evaluation related to your work performed on the NTI audit.

*Not Accountable:*

Per the Audit Seniors estimation of the work you need to perform, you will **NOT** receive a performance evaluation related to your work performed on the NTI audit.

### Accounts Receivable Task Passed from Auditor A

You have been assigned to complete the Accounts Receivable testwork **already started by another auditor**. Specifically, you have been asked to complete testwork and to conclude on accounts receivable confirmations. The original auditor has completed steps 1 -3 on the audit program below. Additionally, the original auditor has received and documented the conclusion for two of the three selected customers as described in step 4.

*\*\*Same Audit Program per Above in Condition 1*

Below is the Accounts Receivable Aging Schedule obtained from the client by the original auditor as described in step 1.

As described in step 2, the following customer accounts were selected to confirm:

1. Abbott Corporation
2. Electronics International
3. Zorcon

**\*\*Same Accounts Receivable Aging Schedule per Above in Condition 1**

The original auditor mailed three confirmations independently and two were returned while they were still working on the NTI audit. See those confirmations below.

**\*\*Same Abbott Corporation and Zorcon Confirmation Letter per Above in Condition 1**

The third confirmation was received just as the original auditor was leaving the NTI audit. You will need to finish the testing related to this third confirmation.

**\*\*Same Electronics International Confirmation Letter per Above in Condition 1**

Below is the documentation for the two confirmations returned already completed by the original auditor.

Accounts Receivable Testing Workpaper New Technologies Incorporated (NTI) FYE 12/31/15						
Selection	Customer Name	Invoice Number	AR balance as of 12/31/15 per AR aging schedule	AR balance as of 12/31/15 per customer confirmation	Difference	
1	Abbott Corporation	568901	\$ 76,666	\$ 76,666	\$	-
1	Abbott Corporation	567899	\$ 45,763	\$ 45,763	\$	-
1	Abbott Corporation	567845	\$ 253,555	\$ 253,555	\$	-
1	Abbott Corporation	567843	\$ 253,555	\$ 253,555	\$	-
2	Zorcon	567801	\$ 353,004	\$ 353,004	\$	-
3	Electronics International	999999	\$ 273,575			
3	Electronics International	567933	\$ 103,456			

The prior auditor has also passed on the following notes related to this task:

**\*\*Insert notes from part one of higher task identity condition**

### Skeptical Judgment Measures (Midpoint)

After reviewing the accounts receivable confirmation testing performed thus far and the other participant's electronic notes, please estimate the likelihood of the following three events:

	Extremely Unlikely (1)	Very Unlikely (2)	Unlikely (3)	Not Sure (4)	Likely (5)	Very Likely (6)	Extremely Likely (7)
The accounts receivable balance is materially misstated. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fraudulent revenue transactions have been recorded. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Controller is honest. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*\*\*\*The instrument for condition #2 and #3 (portion of the task) is then the same as condition #1 above (entire task) from the 'Finishing the task' section to the end.*



**CHAPTER 4: FRAUD INQUIRIES: THE IMPACT OF QUESTION STRUCTURE AND  
RAPPOR ON CLIENT REPORTING**

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## I. INTRODUCTION

Audit Standard (AS) 2110 requires auditors to make inquiries of management about fraud as part of the risk assessment process conducted during the planning phase of the audit (Public Company Accounting Oversight Board [PCAOB] 2010, AS 2110.54 - 2110.58). One of the main objectives of the inquiries and overall risk assessment process is to assist the auditor in designing audit procedures to address identified risks (PCAOB 2010, AS 2110.03). Regulators and researchers have demonstrated that auditors have difficulty responding to fraud risks with proper testing (Hammersley et al. 2011; PCAOB 2010; Trompeter et al. 2013). However, Hammersley et al. (2011) provides evidence indicating that audit seniors are better at modifying testing procedures when more specific fraud risks are identified. As such, if the client discloses information during these inquiries, it would likely help auditors identify specific fraud risks and modify the audit testing to increase the likelihood of detecting potential fraud.

While the fraud inquiry process has yet to be examined extensively in the literature, one prior study provides evidence that individuals are more inclined to report fraud to an inquiring auditor as compared to an auditor who does not ask about potential fraud risks (Kaplan et al. 2011). These findings lend support for the fraud inquiry requirement during the audit. This study aims to extend the auditing literature by examining whether the nature and type of questions posed during a fraud interview impact the likelihood and extent of client reporting.

The Center for Audit Quality (CAQ) has offered practical guidance for audit committee members to utilize when discussing fraud with management (CAQ 2010). While not specifically geared toward auditors, these recommendations will likely be helpful to auditors when conducting required fraud inquiries with management. Per the CAQ guidance, simply mentioning the word fraud can hinder the discussion. The employee may perceive a greater risk of reporting if the auditor uses

the word fraud, and therefore, will be more hesitant to share information relating to potential fraud. Instead, focusing the interview on potential risks and control weaknesses (i.e., avoiding the word fraud) may lead to a more informative discussion (CAQ 2010). These recommendations contrast the audit standard (AS 2110) that is currently used in practice by auditors, which specifies inquiries of management that do include the word fraud (PCAOB 2010). I hypothesized that avoiding the word fraud in line with CAQ guidance would increase the likelihood of reporting.

The type of questions (open-ended vs. closed) posed during a fraud interview may also impact the likelihood and extent of reporting. Investigative interview guidance in the U.S., the Cognitive Interview (Fisher and Geiselman 1992), and a framework utilized in the United Kingdom, the PEACE model (Walsh and Bull 2012), recommend using open-ended type questions to elicit the most information from the interviewee. This guidance suggests open-ended type questions allow the interviewee to feel a greater sense of control, which increases participation (Fisher and Geiselman 1992). The first fraud inquiry in AS 2110 suggests a closed type question. Therefore, if auditors use the questions directly from the audit standard, it is possible they may be missing an opportunity to obtain information from the client.

Lastly, the current study examines whether rapport between the auditor and the client influences the likelihood of sharing information relating to potential fraud. Prior literature demonstrates that clients are more likely to be cooperative when there is commitment in an auditor-client relationship (de Ruyter and Wetzels 1999). Additionally, while interviewing professional auditors, Bennett and Hatfield (2016) note that audit partners feel that relationship-building with clients is necessary to obtain evidence to perform the audit. However, prior research has not examined whether rapport between the auditor and client impacts the ability of the auditor to obtain information. Rapport-building techniques have been shown to increase in the amount of correct

information that is reported during police interviews of cooperative eyewitnesses (Collins, Lincoln, and Frank 2002), as well as a reduce anxiety of eyewitnesses (Kieckhaefer, Vallano, and Schreiber Compo 2014). Prior research also finds that rapport is most beneficial when open-ended type questions are posed (Vallano and Schreiber Compo, 2011).

A 2 (Fraud: Mentions or Avoids) x 2 (Question Type: Open or Closed) x 2 (Rapport with Auditor: Absent or Present) experimental design was used to investigate the influence of these three variables on the likelihood of reporting potential fraud to an auditor. Participants were recruited from Amazon's Mechanical Turk to assume the role of a client that has recently observed questionable behavior. Participants that decided to report the potential fraud had to forgo a small bonus (\$0.20) to report the fraud to proxy for the possible costs of reporting in the workplace (i.e. time, reputation harm, possible retaliation, etc.).

While not predicted, results indicate a significant three-way interaction effect (Fraud x Question Type x Rapport) on the likelihood and extent of reporting. Findings indicate that mentioning the word fraud led to a significant decrease in reporting for the group of participants that were asked a closed question by an auditor without established rapport. The first inquiry of management in the current audit standards is a closed type question that mentions the word fraud. If auditors use this question in practice and do not have established rapport with the client, the likelihood of reporting potential fraud may be harmed. Either rephrasing a closed question to avoid the word fraud or selecting an auditor that has rapport with the client to conduct the inquiries may increase the likelihood of reporting.

This study extends literature from criminology into an audit setting. The influence of the nature and type of fraud inquiries on reporting are somewhat consistent with prior research and expectations. However, this study demonstrates that rapport between the auditor and client can

alter these relationships. Additionally, this study offers practical implications for auditors and current standard-setters as it provides preliminary insight as to how the nature and type of questions might interact with auditor-client rapport to influence the likelihood of client reporting during fraud inquiry procedures. Findings suggest that auditors should assess whether they have rapport with the client before performing fraud inquiries. If they do not have rapport with the client, the likelihood of reporting will be higher if the auditor avoids the word fraud consistent with recommendations by the CAQ. However, if the auditor has established rapport with the client, using the word fraud will result in a higher likelihood of reporting consistent with the current audit standard.

## II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### *Fraud Inquiries*

Professional standards require fraud inquiries as a part of the risk assessment procedures conducted during an audit (PCAOB 2010 AS 2110.54 - 2110.58). Per anecdotal evidence, auditors are currently conducting these inquiries verbally using a script of questions similar to those specified in AS 2110. While the aim of these required inquiries is to assist the auditor in identifying risks of material misstatement relating to fraud, it is possible that management or other interviewees involved in fraud will intentionally deceive or withhold information from the auditor. Prior accounting literature focusing on client inquiries demonstrates that auditors struggle to detect client deception in an interview setting (Holderness 2014; Lee and Welker 2007, 2008, and 2011). As such, this study seeks to extend that line of literature by examining factors that may increase the likelihood that clients, not directly involved with fraud, will share information relating to the potential fraud with the auditor in an inquiry setting.

Prior accounting literature has examined company policies and procedures, along with other situational factors, that promote the likelihood of individuals to report fraud to auditors or anonymous reporting channels (e.g. Seifert et al. 2010; Taylor and Curtis 2013; Zhang et al. 2013). However, these studies have not examined the likelihood of an employee to share potential fraudulent information when asked directly by an auditor. One exception is a prior study that examines the likelihood of reporting fraud to an auditor in an interview setting. Kaplan et al. (2011) provide experimental evidence suggesting individuals are more likely to report potential fraud to an inquiring auditor, as compared to an auditor that does not specifically ask about an employee's awareness of fraud. Employees appear to view fraud inquiries as part of the auditor's role and are more inclined to disclose potential fraud when directly asked by an auditor. Kaplan et al. (2011) lends support to auditors conducting fraud inquiries as their findings suggest this questioning does improve the likelihood of reporting. As the fraud inquiries are required by the audit standards, this study aims to add to the literature by considering whether the nature and type of questions, as well as the relationship between the auditor and client, could influence the likelihood of the client to report potential fraud when specifically asked by an auditor.

### ***Nature of the Inquiry Questions***

One factor that may impact the likelihood of the client to report potential fraud to an inquiring auditor relates to the nature of the questions posed. Currently in practice audit firms rely on guidance in AS 2110 to conduct fraud inquiries of management. Table 4-1 includes the eight specific inquiries that should be made of management from the standard (PCAOB 2010). Some of the inquiries directly mention the word fraud. For example, the first required inquiry of management is to ask "whether management has knowledge of fraud, alleged fraud, or suspected fraud" (PCAOB 2010, AS 2110.56 a1). A similar type of question was used by Kaplan et al. (2011)

in the manipulation of fraud inquiry being absent or present to investigate the influence on reporting intentions. In the inquiry present condition, participants were told that an auditor met with a hypothetical employee and asked whether the employee was “aware of any fraud, or suspected fraud, or potentially material questionable events affecting the division...” (Kaplan et al. 2011, 37). The results indicate fraud reporting intentions are indeed higher in the condition in which fraud inquiry is present as compared to absent; however, it is possible that a different fraud questioning approach may be more productive at bringing potential fraud issues to light than the current approach referenced in the standards.

The Center for Audit Quality (CAQ) provides guidance for audit committee members on conducting a conversation with management relating to financial reporting fraud (CAQ 2010). The recommendations are geared toward interviews conducted by audit committee members. However, the aim of management fraud inquiries conducted by audit committee members and auditors are very similar in that both parties are seeking to identify and address fraud risks. The CAQ provides ten possible questions to start a fraud dialogue with management, while suggesting the questions should be tailored as necessary. For example, the first recommended question reads: “what are the potential sources of business influence on the accounting staff’s judgment or determinations?” (CAQ 2010, 22). All questions are included in Table 4-2. These questions differ in relation to the inquiries required for auditors by AS 2110 as the CAQ questions are specifically designed to avoid the use of the word fraud. Per the CAQ, “the mere mention of the word fraud can be enough to stall a conversation or at best elicit a canned response” (CAQ 2010, 22).

Employees may not be as forthcoming with information relating to a potential fraud when asked by an auditor because of costs associated with reporting, such as time helping to investigate the questionable behavior, possible reputational harm with colleagues, and even possible

retaliation for reporting. Prior research demonstrates that firms with higher interactional justice, which relates to the fair treatment of whistleblowers during prior fraud reporting, increases the likelihood of future fraud reporting as employees are less fearful of retaliation (Seifert et al. 2010). Therefore, by using the word fraud the auditor may increase the salience of their concerns associated with reporting and reduce the likelihood that the client is comfortable speaking up about questionable accounting practices. This discussion leads to the following hypotheses stated in alternative form:

*H1a: The likelihood of client reporting will be higher when the auditor inquiry avoids the word fraud as compared to when the auditor inquiry mentions the word fraud.*

*H1b: The client will share more detailed reports of potential fraud when the auditor inquiry avoids the word fraud as compared to when the auditor inquiry mentions the word fraud.*

### ***Type of Questions***

In addition to the nature of the inquiry questions, the type of question, open-ended or closed, may also influence the likelihood of client reporting during the fraud inquiry process. Existing guidance relating to police interview techniques for cooperative eyewitnesses, such as the Cognitive Interview, recommends the use of open-ended questions in an interview as a method to shift control from the interviewer to the interviewee to encourage greater participation (Fisher and Geiselman 1992). While interviewing a cooperative witness in a criminal setting is different from an auditor interviewing a client about potential fraud, the goal for interviewee participation is consistent. The interviewer (the auditor) maintains control of the interview, but the interviewee (the client) has the knowledge that the auditor is interested in learning. The use of open-ended questions allows for a more detailed response, which generally leads to the interviewee feeling that he/she has a greater role in the interview, and in turn, generates more participation (Fisher and Geiselman 1992).



In addition to the Cognitive Interview recommendations, Walsh and Bull (2010) provide empirical support for the interview techniques, termed the PEACE model, which is used by investigators in the United Kingdom. PEACE is an acronym for sequential phases of the interview process: (1) Planning and preparation, (2) Engage and explain, (3) Account, (4) Closure, and (5) Evaluation (Walsh and Bull 2010). Consistent with the Cognitive Interview recommendations, the account phase within PEACE model suggests using open-ended questions, without interrupting, to obtain the necessary information and then following-up with closed probing questions to produce detailed and accurate witness testimonies (Walsh and Bull 2010).

Based on the existing interview frameworks and recommendations, it is likely that open-ended questions will elicit more client participation during auditor fraud inquiries. If auditors base their fraud inquiries on the audit standards, the first inquiry required of management is a closed type question. Therefore, it is important to understand if the type of questions (i.e., open-ended vs. closed) posed impacts the likelihood of potential fraud reporting. This discussion leads to the following hypotheses stated in the alternative form:

*H2a: The likelihood of client reporting will be higher (lower) when an auditor asks an open-ended (closed) type question.*

*H2b: The client will share more (less) detailed reports of potential fraud when an auditor asks an open-ended (closed) type question.*

### ***Auditor-Client Relationship***

In addition to the nature and type of questions that are posed during the fraud inquiry, it is also likely that the relationship between the auditor and the client will influence the likelihood of client reporting. In an experimental setting, prior research has demonstrated employees are more likely to report potential fraud to supervisors that they believe to be more trustworthy (Seifert et al. 2014). This finding is consistent with the stream of literature in management demonstrating trust in a leader can increase employee voice, or the ability to raise workplace issues (e.g., Frost et

al. 1978; Gao et al. 2011; Tschannen-Moran and Hoy 2000). The trust increases an employee's willingness to be vulnerable.

Prior research focusing on the trust in the auditor-client relationships has focused primarily on auditor trust in the client, and the possibility of this trust impairing objectivity and independence. Bazerman et al. (1997) note that it is impossible for auditors to maintain appropriate independence due to the nature of the relationship (i.e., the auditor is paid by the client and interacts directly with the client). However, King (2002) argues that past studies fail to consider the impact of group persuasion and norms, and demonstrates that the biases existing from a close auditor-client relationship are mitigated by auditors' interactions with other auditors.

Even since the Sarbanes-Oxley Act of 2002, which was passed in part to strengthen independence requirements, research studies have continued to examine and identify potential independence issues resulting from the nature of auditor-client relationships. Kerler and Brandon (2010) find that when auditors have greater trust in client management, they are more likely to have a higher commitment to support the client's preferred accounting method. Bamber and Iyer (2007) examine the potential loss of objectivity resulting from an auditor identifying with the client, but similar to King (2002), they note that this effect is mitigated when the auditor has a strong professional identity. Lastly, Rennie et al. (2010) survey professional auditors and identify factors that increase auditor trust in the client, such as an increase in the openness of communication of the client. Auditors that completed the survey indicate trust in a client is important to some extent. However, they also stress the importance of maintaining a questioning mindset and implementing rigorous audit testing procedures to ensure independence and objectivity is not diminished (Rennie et al. 2010).

While the literature that focuses on the auditor's perception of the auditor-client relationship is comprehensive, there is limited research examining the relationship from the client perspective. In a survey study of audit clients, de Ruyter and Wetzels (1999) examine the antecedents and consequences of commitment in the auditor-client relationship as perceived by the client. Among other relationships, they find evidence that commitment increases client cooperation. This study highlights the importance of commitment in the auditor-client relationship and auditors having the appropriate social skills to develop these relationships (de Ruyter and Wetzels 1999). While prior research has suggested that commitment in the auditor-client relationship is effective at increasing client cooperation, the literature has not yet examined how simple rapport-building may influence the likelihood of client cooperation. This study will address the gap in the literature by examining the impact of rapport-building on client willingness to disclose information relating to a potential fraud.

### ***Building Rapport***

While the interview frameworks, such as the Cognitive Interview (Fisher and Geiselman 1992) and the PEACE model (Walsh and Bull 2010), suggest that rapport-building is an essential component during the interview of a cooperative witness, a recent review of the literature notes there is a limited number of empirical studies that has focused on this topic in the context of investigative interviewing (Vallano and Schreiber Compo 2015). As rapport-building has been studied in multiple contexts, such as investigative interviewing and interrogation, there is not a consensus on the definition of rapport. It is a difficult construct to describe as it is the relationship between the interviewee and interviewer, which can be perceived differently (Vallano and Schreiber Compo 2015). Tickle-Degnen and Rosenthal (1990) define rapport in terms of three critical components: (1) mutual attentiveness, (2) positivity, and (3) coordination. Other research summarizes rapport as

consisting of “a relationship that results from interaction between people and provides participants with a warm feeling, is harmonious and natural (unforced), offers trust, and stimulates cooperation” (Vanderhallen et al. 2011, 112). The literature focusing on rapport in an interrogation context, often describes the relationship as more of a professional relationship as compared to a purely positive relationship. In a recent review of interrogation methods, rapport is defined as “a working relationship between operator and source based on a mutually shared understanding of each other’s goals and needs, which can lead to useful, actionable intelligence or information” (Kelly et al. 2013, 169). In the context of an audit interview of a client about potential fraud risks, rapport-building likely would fall in the middle of the two mainstream definitions. The rapport built between an auditor and client is perhaps more of a working relationship than rapport developed in clinical or investigative interviews, such as those involving children witnesses. However, the rapport between an auditor and client is likely warmer than rapport formed during interrogations.

There are several verbal and nonverbal ways in which the interviewer can build rapport with the interviewee. This study will focus on basic rapport-building methods that could be easily implemented by auditors in practice. The Cognitive Interview (Fisher and Geiselman 1992) presents two methods to build rapport: (1) personalizing the interview and (2) developing and communicating empathy. To personalize the interview, Fisher and Geiselman (1992) recommends that the interviewer frequently use the interviewee’s name, add personal information to the discussion, avoid speech or questioning that sounds rehearsed, and listen actively. Developing and communicating empathy can be performed by the interviewer by considering the interviewee’s perspective prior to the interview and providing a statement of understanding of the interviewee’s perspective (Fisher and Geiselman 1992). A recent survey of law enforcement interviewers in police training reports using similar methods to build rapport as those suggested by the Cognitive

Interview. These include discussing common interests, disclosing information about themselves, demonstrating understanding, and maintaining a friendly attitude (Vallano et al. 2015).

While building rapport in an adult investigative interview context has not been studied extensively, prior experimental studies do demonstrate that building rapport has benefits. Collins et al. (2002) demonstrate building rapport with an eyewitness leads to an increase in the amount of correct information reported during the interview, suggesting participants in the rapport condition spent longer searching for memories and on the interview overall. Similarly, another study demonstrates that adult eyewitnesses are less likely to report inaccurate information when rapport is built with the interviewee (Vallano and Schreiber Compo 2011). Lastly, building rapport can potentially reduce anxiety during interviews of eyewitnesses (Kieckhafer et al. 2014). These experimental studies are complemented by a recent survey of law enforcement interviewers which recognize several benefits of building rapport that include, “to get the interviewee to talk/open up” (Vallano et al. 2015, 374).

This study seeks to extend the line of literature relating to rapport by examining the impact of rapport in a different setting, specifically in an audit interview of a client to discuss fraud risks. Bennett and Hatfield (2016) note that audit partners consider relationship building with clients critical to obtaining information and evidence. Similarly, recent audit interview guidance suggests that "the most important task that auditors must perform throughout the interview process is to develop and maintain rapport - a feeling of trust and understanding established between an interviewer and interviewee" (Seipp and Lindberg 2012, 27). However, prior research has yet to empirically examine whether building rapport with the client increases auditors' ability to obtain information and evidence. While the police interview of an adult eyewitness is different than an auditor interview of a client, it is likely that the benefits of rapport will be similar. As rapport appears

to reduce anxiety and increase a sense of trust in the police interviewer, it is also likely to have the same positive effects in this audit context. Specifically, I expect that when an auditor develops rapport with a client during a fraud inquiry, the client will be more likely to share information relating to potential fraud risks. This discussion leads to the following hypotheses stated in the alternative form:

*H3a: The likelihood of client reporting will be higher (lower) when the auditor has more (less) rapport with the client.*

*H3b: The client will share more (less) detailed reports of potential fraud when he/she has more (less) rapport with the auditor.*

### ***Building Rapport and Question Type***

Prior research suggests that the type of questions (open-ended or closed) posed during interviews are likely to moderate the impact of building rapport on positive interview outcomes. Vallano and Schreiber Compo (2011) provide evidence demonstrating that the positive benefits of rapport are greater in responses to open-ended questions as compared to closed type questions. As discussed above, interview guidelines suggest the use of open-ended questions during interviews to transfer control from the interviewer to the interviewee to increase participation (Fisher and Geiselman 1992). It is likely rapport is most beneficial when the interviewee has more control to elaborate and participate in the interview. This discussion leads to the following hypotheses stated in the alternative form:

*H4a: The relationship between auditor-client rapport and the likelihood of client reporting will be moderated by question type such that the positive relationship is stronger for open-ended questions than closed type questions.*

*H4b: The relationship between auditor-client rapport and the amount of detail reported relating to potential fraud will be moderated by question type such that the positive relationship is stronger for open-ended questions than closed type questions.*

### III. RESEARCH METHOD

#### *Task*

Amazon Mechanical Turk participants accessed the online experimental instrument developed in Qualtrics using an electronic link. The task was adapted from Kaplan et al. (2009) and begins with background information describing a hypothetical company. Participants were asked to assume the role of the client (Assistant Purchasing Manager). Materials present a scenario in which the Assistant Purchasing Manager discovers a payment to an unfamiliar vendor, which has an address identical to the home address of the direct supervisor (Purchasing Manager). Next, participants have a meeting with Alex, the auditor, to discuss potential risks that exist at the company.

A case with possible fraud due to misappropriation of assets was selected because it is consistent with prior literature and is the most common type of fraud (ACFE, 2016). Additionally, per the 2016 Association of Certified Fraud Examiners (ACFE) Global Fraud Study, billing schemes are risky based on frequency and median loss (ACFE 2016). Only one type of fraud will be utilized as prior studies demonstrate that the type of fraud, misappropriation of assets or financial statement fraud, does not impact the likelihood of reporting (Kaplan et al. 2011).

#### *Independent Variables*

There are three main independent measures of interest: (1) nature of inquiry questions, (2) type of inquiry questions, and (3) rapport with the auditor.

#### **Nature of Inquiry Questions**

The nature of the inquiry questions, whether the word fraud is mentioned or avoided (*FRAUD*) was randomly assigned. As mentioned above, the current audit standards (AS 2110) recommend several inquiries that should be made of management which include the word fraud;

whereas, the CAQ strictly recommends avoiding the word fraud for these discussions. The inquiries suggested by both AS 2110 and the CAQ are included in Table 4-1 and 4-2, respectively. To keep the experiment to a reasonable length, only one question was posed to participants by Alex, the auditor. The question was based on the first inquiry that is currently used in practice from AS 2110– “whether management has knowledge of fraud, alleged fraud or suspected fraud affecting the company” (PCAOB 2010). The verbiage of the CAQ recommended inquiries are different and to avoid introducing confounds, I modified the first inquiry of AS 2110 to exclude the word fraud in the spirit of the CAQ guidance instead of using one of the exact CAQ inquiries. Instead of the word fraud, I substituted the “misuse of company resources” into the question in the condition when the word fraud is avoided. This phrase is based on the ACFE definition of occupational fraud (ACFE 2018).

### **Type of Inquiry Questions**

The type of inquiry question (*TYPE*), open-ended or closed was also randomly assigned to subjects. To isolate the impact of question type, participants received either an open-ended or closed type question. The space for the participants’ response was consistent across conditions as not to bias the amount of information provided based on the available space.

The specific questions for each of the four conditions are listed below:

1. Fraud is mentioned (closed type):  
*Do you have knowledge of fraud, alleged fraud, or suspected fraud affecting the company?*
2. Fraud is mentioned (open-ended type):  
*What knowledge do you have of fraud, alleged fraud, or suspected fraud affecting the company?*
3. Fraud is avoided (closed type):  
*Do you have knowledge of the misuse of APEX resources or assets?*
4. Fraud is avoided (open-ended type):  
*What knowledge do you have of the misuse of APEX resources or assets?*



## **Rapport with the Auditor**

Rapport with the auditor (*RAPPORT*), absent or present, was randomly manipulated between subjects. After reading the background information and about the questionable expenses, participants read about the prior interactions between the client (the role participants are assuming in the scenario) and two different audit managers. The interaction with one audit manager included rapport and the other interaction lacked rapport. I alternated the order (rapport present and absent) and participants were assigned to the second audit manager for the fraud interview. Providing a comparison description has been used to manipulate managerial characteristics in prior research (Christ and Vance 2015). I followed this format and tailored the description to manipulate rapport.

Criminology research has manipulated rapport using a script for the interviewer to follow, which either includes behaviors recommended to build rapport from Fisher and Geiselman (1992) or lacks these behaviors (Collins et al. 2002; Kieckhaefer et al. 2015; Vallano and Schreiber Compo 2011; Vallano et al. 2015). This study uses some of these same recommended techniques to manipulate rapport prior to the fraud interview. In the rapport present condition, the auditor and client have known each other professionally for several years. Additionally, the auditor and the client were described as sharing similar hobbies. The auditor also shows concern for the client's time.

## ***Dependent Variables***

During the meeting with the auditor, participants were asked one of four possible fraud inquiry questions (fraud mentioned/closed type; fraud mentioned/open-ended type; avoid fraud/closed type; avoid fraud/open-ended type) depending on their assigned condition. Participants then selected whether they wanted to report the questionable expenses to the auditor. All participants were paid a \$1.80 participation fee and could earn a \$0.20 bonus. In the scenario, participants were

on track to earn a \$0.20 bonus with their current supervisor. However, if they decided to report the questionable expenses to the auditor, they did not receive the bonus. Giving up the \$0.20 bonus to report the expenses served as a proxy for the possible costs (i.e. time, reputation, loss of promotion, retaliation, etc.) an employee would have to incur to report fraud in practice.

The main dependent variable is binary and measured whether the participant decided to report the questionable expenses (*REPORT*). If participants selected that they did not want to report, they were asked how much, if any, of their \$0.20 bonus they would be willing to forgo to report. Lastly, if participants decided to report, they were asked to respond to the auditor's question given the scenario. Word count (*WORDS\_REPORTED*) and number of key details reported (*DETAILS\_REPORTED*) were examined to determine if the independent variables also influenced the extent of the fraud reported. *WORDS\_REPORTED* represents the number of words the participants reported to the auditor. *DETAILS\_REPORTED* is measured as the number of key details reported relating to the questionable expenses. Scores ranged from 0 (no details were reported) to 5 (all key details were reported). These key details include the following five items: 1) there was activity with an unfamiliar vendor, 2) the vendor's address is identical to an APEX employee, 3) Pat, Purchasing Manager, is the employee with the matching address, 4) the unusual expenses totaled \$800,000, and 5) the expenses were paid but services had not yet been received.

[Insert Table 4-3]

## IV. RESULTS

### *Participants*

I recruited 179 participants from Amazon's Mechanical Turk (MTurk) to complete the study. Throughout the experiment, attention check questions were posed to ensure that participants were paying attention to key details of the case scenario. Most of the check questions required the

correct response before the participant could advance to the next page of the survey. At the end of the experiment, participants were asked which role they assumed during the risk meeting. Eight participants did not respond that they acted as the client and were excluded from the sample. Participants took an average of 8.2 minutes to complete the experiment. Fourteen participants completed the study in less than 5 minutes and were also excluded from the sample. The final sample size for the subsequent analyses is 157 participants. As reported in Table 4-4, 52% of participants were male and 71% of the participants are aged 18-39.

Recent accounting literature has started to explore the costs and benefits of using MTurk participants in accounting research. Farrell, Grenier, and Leiby (2017) find that MTurk workers make choices to forgo wealth similar to participants used in prior studies even at lower wages. For this study it was also important for participants to have prior work experience so they could relate to observing questionable behavior in the workplace and deciding whether to report the behavior to an auditor. As reported in Table 4-4, all participants but one reported having prior work experience, with 68% of participants reporting over ten years of previous work experience. Additionally, 66% of participants completed ethics training at work and 44% have observed someone of greater authority behaving questionably in the workplace.

[Insert Table 4-4]

### ***Manipulation Check Questions***

At the end of the experiment, manipulation check questions were included. To check that the rapport manipulation was successful, participants were asked to complete the bond subscale of the Working Alliance Inventory (Andrusyna, Tang, DeRubeis, and Luborsky 2001), the rapport scale (adapted from Puccinelli and Tickle-Degnen 2004), and select questions from the interaction questionnaire (Vallano and Schreiber Compo 2011). The Cronbach's Alpha for the four items on the

bond subscale of the Working Alliance Inventory is 0.91. As anticipated, those in the rapport present condition ( $M=5.68$ ) rated the bond between the client and auditor significantly higher than those in the rapport absent condition ( $M=3.58$ ) ( $t=-13.16$ ;  $p < 0.01$ ). The Cronbach's Alpha for the four items on the rapport scale is 0.93. Again, as expected those in the rapport present condition ( $M=5.63$ ) rated the rapport between the auditor and client significantly higher than those in the rapport absent condition ( $M=3.29$ ) ( $t=-14.20$ ,  $p < 0.01$ ). Lastly, the Cronbach's Alpha for the interaction questionnaire items was 0.87. Those in the rapport present condition ( $M=5.79$ ) rated the interaction of higher quality than those in the rapport absent condition ( $M=3.81$ ) ( $t=-13.31$ ,  $p < 0.01$ ). These results suggest that the rapport manipulation was effective.

Participants were also asked if the auditor used the word fraud and whether the auditor's question was phrased as an open-ended or closed question. However, the nature and type of questions were intended to be subtle manipulations that participants did not have to necessarily notice. For example, someone may have been more likely to report the questionable expenses when the word fraud was avoided but not recall that the auditor didn't specifically mention the word fraud. Therefore, these manipulation checks were not used to exclude participants.

### *Descriptive Testing*

#### *Decision to Report*

Panel A of Table 4-5 presents the descriptive statistics for the main dependent measure, *REPORT*. Of the 157 participants, 95 (61%) selected to report the questionable expenses to the auditor when first asked. Those that were asked an open-ended question that avoided fraud and had rapport with the auditor were the group most likely to report (77%) as anticipated. As described above, if participants selected not to report, they were asked how much of the \$0.20 bonus were they willing to give-up to report, if any. Only 6 of the 62 participants chose to report when asked

a second time with the option to give-up only a portion of the bonus. On average, these 6 participants were willing to forgo \$0.04 of their \$0.20 bonus to report the questionable expenses.

[Insert Table 4-5]

### ***Number of Words***

Panel A of Table 4-6 reports the descriptive statistics for *WORDS\_REPORTED*. Participants reported an average of 17 words across all conditions. Participants that were asked open-ended questions that avoided the word fraud and had rapport with the auditor reported the most words with an average of 27.1 words. This pattern appears consistent with participants' decision to report (*REPORT*).

[Insert Table 4-6]

### ***Details Reported***

Panel A of Table 4-7 reports the descriptive statistics relating to *DETAILS\_REPORTED*. On average, participants reported 1.4 out of a possible 5 key details. Somewhat surprisingly, participants that were asked closed questions that avoided the word fraud and had no rapport with the auditor provided the most detailed information with an average of 2.0 details. However, those that were asked open-ended questions that avoided the word fraud and had rapport with the auditor followed with an average of 1.8 details.

[Insert Table 4-7]

### ***Hypotheses Tests***

#### ***Potential Covariates***

To rule out potential confounding effects, several control variables were considered. These include years of work experience (*WORK*), whether the participant has completed ethics training at work (*ETHICS*), gender (*GENDER*), age (*AGE*), and experience on Amazon Mechanical Turk

(*MTurk*). Additionally, consistent with Kaplan et al. (2011), participant impression of auditors (*IMPRESSION\_AUDITORS*) and experience with auditors (*EXPERIENCE\_AUDITORS*) were measured and considered as control variables, as well as whether the participant has discovered a person of greater authority engaging in questionable behavior (*QUESTIONABLE\_BEHAVIOR*). I also included eight items that captured the participants' perception of the questionable expenses (*PERCEPTION*) consistent with Kaplan et al. (2011). These items have a Cronbach's alpha of 0.79 and were aggregated into one variable that captures the average of the eight items.

Lastly, proactivity (*PROACTIVE*) was measured and considered as a control variable. Zhang et al. (2013) provide evidence that individuals scoring higher on the proactivity scale are more likely to report potential fraud. This individual trait was measured using the shortened version (ten items) of the Bateman and Crant (1993) scale, which has been utilized in prior research (Seibert et al. 1999; Zhang et al. 2013). The Cronbach's alpha for these items is 0.92, and I aggregated the items into one variable representing the average. All control variables were included in initial model below. Control variables that did not significantly ( $p > 0.10$ ) influence the dependent measure were excluded from the regression analyses below.

### ***Decision to Report***

A logistic regression was used to examine the relationship between the decision to report (*REPORT*) and the three main independent measures of interest, whether fraud is mentioned during the inquiry (*FRAUD*), whether a closed type question is used (*TYPE*), and whether rapport is present between the auditor and client (*RAPPORT*). The model also included the possible interactions of these main independent measures, as well as four significant covariates: *GENDER*, *MTURK*, *IMPRESSION\_AUDITORS*, and *PERCEPTION*. Participants in the sample that are female, have less experience on Amazon Mechanical Turk, have a more favorable impression of auditors, and perceive

the questionable expenses to be more severe were more likely to report the potential fraud to the auditor. As these variables have a significant influence on *REPORT*, they were included in future models.

H1A, H1B, and H1C relate to the main effects of *FRAUD*, *TYPE*, and *RAPPORT*, respectively. H1A predicts that interview questions avoiding the word fraud as compared to mentioning the word fraud will lead to a higher likelihood of reporting. H1B predicts that using open-ended interview questions will lead to a higher likelihood of reporting when compared to closed type questions. H1C predicts that auditor-client rapport will lead to a higher likelihood of reporting as compared to a lack of rapport between the auditor and client. Panel B of Table 4-5 notes that there is a significant main effect of *TYPE*. However, this overall main effect will not be interpreted given that there are several significant interactions in the model. There is a significant interaction between *TYPE* and *RAPPORT* ( $z=-2.37$ ,  $p=0.02$ ), a marginally significant interaction between *FRAUD* and *TYPE* ( $z=-1.82$ ,  $p=0.07$ ), and a significant three-way interaction between *FRAUD*, *TYPE*, and *RAPPORT* ( $z=2.02$ ,  $p=0.04$ ).

First, I performed comparison tests examining the effect of each independent measure holding the other two constant. Table 4-8 reports the results. Panel A examines the influence of *FRAUD* on *REPORT* in each of the four *RAPPORT* and *TYPE* conditions. There is a significant effect of using the word fraud on the likelihood to report when rapport is absent and closed type questions are used ( $z=-2.15$ ,  $p=0.03$ ). Participants are more likely to report when fraud is avoided as predicted in H1A; however, this effect is only significant in a rapport absent/closed type question context. Panel B examines the influence of *TYPE* on *REPORT* in each of the four *RAPPORT* and *FRAUD* conditions. There is a significant effect of type when rapport is absent and fraud is avoided ( $z=1.96$ ,  $p=0.05$ ). Participants are more likely to report when a closed question is used in a rapport absent/fraud avoided

context. This effect is inconsistent with H1B, which predicted that participants will be more likely to report when an open-ended question is used. It will be investigated below. Lastly, Panel C tests the influence of *RAPPORT* on *REPORT* in each of the four *TYPE* and *FRAUD* conditions. There is a marginally significant influence of rapport on the likelihood to report when open-ended questions that avoid fraud are used ( $z=1.63$ ,  $p=0.10$ ). Rapport appears to lead to an increase in reporting when open-ended questions are used during the interview consistent with the prediction in H3A/H4A; however, this effect is significant only when the word fraud is avoided.

[Insert Table 4-8]

Next, to better understand these effects and their boundary conditions, separate regression models were run for the two groups of each independent measure. Panel A of Table 4-9 presents regression results when the file is split by *TYPE*. There is a significant interaction between *RAPPORT* and *FRAUD* when closed type questions are used ( $z=2.09$ ,  $p=0.04$ ) but not open-ended questions ( $z=-1.08$ ,  $p=0.28$ ). Table 4-10 examines the *RAPPORT* x *FRAUD* interaction when closed *TYPE* questions are used. Panel C presents the interaction plot, which demonstrates that when rapport is absent avoiding the word fraud leads to a higher likelihood of reporting, but when rapport is present mentioning the word fraud leads to a higher likelihood of reporting. Panel B presents contrast tests, which suggest that when closed type questions are used and rapport is absent, the likelihood of reporting is higher if the word fraud is avoided as compared to mentioned ( $z=-2.18$ ,  $p=0.03$ ). This finding is in line with H1A. However, it appears that avoiding the word fraud is important when closed questions are asked by an auditor with no rapport. The word fraud may be more alarming when used in a more direct closed question by an unfamiliar auditor.

Table 4-9 Panel B includes the regression results when the file is split by *FRAUD*. There is a significant interaction between *RAPPORT* and *TYPE* when fraud is avoided ( $z=-2.52$ ,  $p=0.01$ ) but not



when fraud is mentioned ( $z=0.41$ ,  $p=0.68$ ). Table 4-11 examines the *RAPPORT*  $\times$  *TYPE* interaction when *FRAUD* is avoided. The interaction plot in Panel C of Table 4-11 indicates that when fraud is avoided and rapport is present participants are more likely to report when open-ended questions are used. However, when fraud is avoided and rapport is absent, participants are more likely to report when closed questions are used. Contrast tests in Panel B demonstrate that when fraud is avoided and rapport is absent, those that are asked closed questions ( $M=0.85$ ) were more likely to report than those that are asked open-ended questions ( $M=0.52$ ) at marginally significant levels ( $z=-1.91$ ,  $p=0.06$ ). H4C predicts that when rapport is present, participants will be more likely to report when open-ended questions are used. The slope when rapport is present was expected, but the effect of question type when rapport is absent was not anticipated.

Prior research has focused primarily on the benefits of mixing rapport with open-ended questions (Vallano and Schreiber Compo 2011). However, in the context of this study, the data suggest that closed questions are more effective when rapport is lacking. I collected the process measure, personal obligation, for post hoc analysis purposes. Personal obligation is a three-item scale adapted from Jordan and Roloff (1990). The items had a Cronbach's Alpha of 0.79, so they were combined to capture the average of the three items. Post hoc analyses indicate that those asked questions that avoided the word fraud by and auditor lacking rapport rated their obligation to report questionable expenses significantly higher when asked closed questions ( $M=5.2$ ) as compared to open-ended questions ( $M=4.2$ ) ( $t=2.04$ ,  $p=0.04$ ). It is possible that when rapport is absent, participants felt more obligated to report when asked closed questions that required a shorter response that did not require elaboration.

Panel C of Table 4-9 displays regression results when the file is split by *RAPPORT*. The main effect *TYPE* is significant when *RAPPORT* is absent. Consistent with above, when rapport is absent,

the likelihood of reporting is higher when closed type questions are used as compared to open-ended questions.

[Insert Table 4-9, Table 4-10, and Table 4-11]

### ***Supplemental Analysis: Number of Words and Details Reported***

Regression results split by the three main independent measures using *WORDS\_REPORTED* and *DETAILS\_REPORTED* as dependent measures were also examined to determine if the interaction patterns were consistent with *REPORT*.

#### ***Regression Results Split by TYPE***

Panel A of Table 4-12 displays the regression results for the two models split by *TYPE*. Consistent with the regression model for *REPORT*, there is a significant interaction between *RAPPORT* and *FRAUD* when closed *TYPE* questions are used in both the *WORDS\_REPORTED* and *DETAILS\_REPORTED* models. The interaction plots are included in Table 4-13 Panel A for *WORDS\_REPORTED* and Table 4-14 Panel A for *DETAILS\_REPORTED*. They are consistent with the interaction plot for *REPORT*. When closed type questions are used and rapport is absent, participant responses were longer and included more key details when the word fraud was avoided as compared to when the word fraud was mentioned. This finding is consistent with hypotheses H1B, but is restricted to a closed question/rapport absent context. However, when closed type questions are used and rapport is present, participants responded with longer reports and more key details when the word fraud was mentioned as compared to avoiding the word fraud.

Per post hoc analyses, participants asked closed questions by an auditor that had rapport felt more comfortable reporting when questions included the word fraud (M=5.2) than when questions avoided the word fraud (M=3.5) ( $t=2.16$ ,  $p=0.03$ ). It is possible that when rapport is present, participants did not feel intimidated by the word fraud. Instead, the word fraud made they feel more

comfortable that it was appropriate to report the questionable expenses. On the other hand, those that are asked closed questions by an auditor that lacked rapport felt less comfortable reporting when the questions mentioned the word fraud ( $M=3.3$ ) than when asked questions that avoided the word fraud ( $M=4.2$ ) ( $t=1.55$ ,  $p=0.12$ ). While not significant at conventional levels, this finding is consistent with my initial prediction and recommendation by the CAQ, that directly mentioning fraud makes clients less comfortable sharing information.

### ***Regression Results Split by FRAUD***

Panel B of Table 4-13 displays the results for the two models split by *FRAUD*. Consistent with the regression model for *REPORT*, there is a significant interaction between *RAPPORT* and *TYPE* when the word *FRAUD* is avoided in both the *WORDS\_REPORTED* and *DETAILS\_REPORTED* models. The interaction plots are presented in Table 4-13 Panel B for *WORDS\_REPORTED* and Table 4-14 Panel B for *DETAILS\_REPORTED*. They are relatively consistent with the interaction plot for *REPORT*. When fraud is avoided and rapport is present, open-ended type questions lead to longer reports with more key details as compared to closed questions. However, when fraud is avoided and rapport is absent, question type does not appear to influence words or details reported. Contrast tests do not highlight unique findings. However, those in the rapport present condition that were asked questions that avoid fraud provided longer and more detailed fraud reports when open-ended questions were used as compared to closed questions (*WORDS\_REPORTED*  $t=2.39$ ,  $p=0.02$ ; *DETAILS\_REPORTED*  $t=1.81$ ,  $p=0.07$ ). This finding supports H2B, but only in the rapport present/avoid fraud context.

### ***Regression Results Split by RAPPORT***

Lastly, Panel C of Table 4-12 provides the regression results for *WORDS\_REPORTED* and *DETAILS\_REPORTED* split by *RAPPORT*. For the *WORDS\_REPORTED* model, there is a

significant interaction, *FRAUD x TYPE*, when *RAPPORT* is present. Unlike the other interactions that are consistent among all three dependent measures, this interaction is unique to *WORDS\_REPORTED*. Per the interaction plot displayed in Table 4-13 Panel C, when rapport is present and the word fraud is avoided, open-ended questions lead to a greater number of words reported compared to closed questions as anticipated. However, when rapport is present and the word fraud is mentioned, question type does not appear to influence the number of words reported.

[Insert Table 4-12, Table 4-13. and Table 4-14]

## V. CONCLUSION

As fraud inquiries are required by the current audit standards, it is prudent for auditors to use this opportunity to obtain pertinent information from the client to plan the audit to address applicable fraud risks. Prior research supports the required fraud inquiries by demonstrating that individuals are more likely to report to an inquiring auditor as compared to an auditor that does not ask about fraud (Kaplan et al., 2011). The current study aims to extend the literature by examining if fraud inquiries currently conducted by auditors in practice are performed in a manner that is most likely to encourage client reporting. Specifically, I investigate whether the nature of the question (avoids or mentions the word fraud), type of question (open-ended or closed), and rapport between the auditor and client (present or absent) influences the decision to report a potential fraud to an inquiring auditor.

The CAQ recommends strictly avoiding the word fraud when having conversations with management relating to fraud risks. Additionally, they provide a list of recommended questions that are all open-ended (CAQ 2010). However, the first suggested fraud inquiry in the audit standard is in contrast with the CAQ recommendations as it includes the word fraud and is a closed type question. I hypothesized that participants will be more likely to report when the word fraud is avoided

and open-ended type questions are used consistent with the CAQ guidance. I also investigated whether rapport between the auditor and client influences the likelihood of reporting. Prior criminology research suggests that rapport increases in the amount of correct information that is reported during police interviews of cooperative eyewitnesses (Collins, Lincoln, and Frank 2002) and can reduce anxiety of eyewitnesses (Kieckhafer, Vallano, and Schreiber Compo 2014). Consistent these findings, I predicted that rapport between the auditor and client would lead to an increase in client reporting.

While not anticipated, results indicate a significant three-way interaction between the independent measures (nature of the question, type of question, and rapport between the auditor and client) on the likelihood of reporting. Results suggest when an auditor lacking rapport with the client asks a closed question, clients are more likely to report when the word fraud is avoided. However, when a closed question is posed and the auditor has rapport with the client, reporting intentions are higher when the word fraud is mentioned.

These results should be interpreted considering limitations of this study. Individuals reading a hypothetical scenario about a supervisor engaging in fraud is not the same as experiencing the situation in the workplace. However, recruiting participants with prior working experience minimizes this limitation because participants can imagine or refer to a prior experience in which they observed questionable behavior. Also, if participants selected to report the potential fraud, they had to forgo a \$0.20 bonus to proxy for the actual costs associated with reporting in the workplace. While the costs are different, the process of debating whether it is necessary to report despite the cost is likely similar. Another limitation of the study is that some of the results were not fully anticipated or explained. While process measures were collected and post hoc analyses

were performed, future research can explore the findings further. Additionally, future research could examine other factors that might encourage or discourage reporting in a fraud inquiry setting.

Despite the limitations, this study extends the literature and offers practical implications. This study contributes to the limited stream of literature relating to fraud inquiries by examining whether the nature and type of questions posed by auditors influences the likelihood of client reporting. Additionally, as far as I am aware, the auditing stream of literature has yet to empirically examine the impact of rapport building with the client in an interview setting.

From a practical standpoint, tips are noted as the most common method of fraud detection in the 2016 ACFE Global Fraud Study (ACFE 2016). As tips are critical to fraud detection, it is important that required fraud inquiries are conducted by auditors in a manner that is most likely to encourage client reporting of potential fraud. Even if a specific fraud incident is not disclosed, clients sharing information relating to potential fraud risks would likely help auditors better design testing procedures to address these risks. The findings should be of interest to both auditors and regulators. The first inquiry in the current audit standard is a closed question that includes the word fraud. Findings suggest that auditors should evaluate whether they have established rapport with the client that they are interviewing. If the auditor lacks rapport with the client, avoiding the word fraud during the interview may improve the likelihood of reporting consistent with CAQ recommendations. However, if the auditor has rapport with the client, mentioning the word fraud during the interview may improve the likelihood of reporting consistent with the current audit standard.

## References

- Andrusyna, T., T. Tang, R. DeRubeis, and L. Luborsky. 2001. The factor structure of the Working Alliance Inventory in cognitive-behavioral therapy. *Journal of Psychotherapy Practice and Research* 10: 173-178.
- Association of Certified Fraud Examiners (ACFE). 2016. *Report to the Nations on Occupational Fraud and Abuse*. Austin, TX: ACFE.
- Association of Certified Fraud Examiners (ACFE). 2018. *What is Fraud?* Available at: <http://www.acfe.com/fraud-101.aspx>
- Bamber, E.M. and V.M. Iyer. 2007. Auditors' identification with their clients and its effect on auditors' objectivity. *Auditing: A Journal of Practice and Theory* 26 (2): 1-24.
- Bateman, T.S. and J.M. Crant. 1993. The proactive component of organizational behavior. *Journal of Organizational Behavior* 14: 103-118.
- Bazerman, M., K. Morgan, and G. Loewenstein. 1997. The impossibility of auditor independence. *Sloan Management Review* (Summer): 89-94.
- Bennett, G.B. and R.C. Hatfield. 2016. Staff auditors' proclivity for computer mediated communication with clients and its effect on skeptical behavior. Working paper, University of Massachusetts Amherst.
- Center for Audit Quality (CAQ). 2010. *Deterring and Detecting Financial Reporting Fraud: A Platform for Action*. Washington, DC: CAQ.
- Christ, M. and T. Vance. 2015. *Cascading Controls: The effects of Manager Incentive Frame on Subordinate Behavior*. Working Paper, University of Georgia and University of Illinois.
- Collins, R., R. Lincoln, and M.G. Frank. 2002. The effect of rapport in forensic interviewing. *Psychiatry, Psychology, and Law* 9 (1): 69-78.
- de Ruyter, K. and M. Wetzels. 1999. Commitment in auditor-client relationships: antecedents and consequences. *Accounting, Organizations, and Society* 24: 57-75.
- Farrell, A.M., J.H. Grenier, and J. Leiby. 2017. Scoundrels or stars? Theory and evidence on the quality of workers in online labor markets. *The Accounting Review* 92 (1): 93-114.
- Fisher, R.P. and R.E. Geiselman. 1992. *Memory-enhancing Techniques for Investigative Interviewing: The Cognitive Interview*. Springfield, IL: Charles C. Thomas.
- Frost, T., D.V. Stimpson, and M.R.C. Maughan. 1978. Some correlates of trust. *Journal of Psychology* 99: 103-108.
- Gao, L. O. Janssen, and K. Shi. 2011. Leader trust and employee voice: The moderating role of empowering leader behaviors. *The Leadership Quarterly* 22: 787-798.
- Hammersley, J.S., K.M. Johnstone, and K. Kadous. 2011. How do audit seniors respond to heightened fraud risk? *Auditing: A Journal of Practice and Theory* 30 (3): 81-101.
- Holderness Jr, D. K. 2014. Detecting deception in client inquiries: A review and implications for future research. *Journal of Forensic and Investigative Accounting* 6 (2): 81-125. Available at: [http://www.bus.lsu.edu/accounting/faculty/lcrumbley/jfia/Articles/FullText/v6n2\\_article\\_03.pdf](http://www.bus.lsu.edu/accounting/faculty/lcrumbley/jfia/Articles/FullText/v6n2_article_03.pdf)
- Jordan, J.M. and M.E. Roloff. 1990. Acquiring assistance from others: The effect of indirect requests and relational intimacy on verbal compliance. *Human Communication Research* 16 (4): 519-555.
- Kaplan, S.E., K. Pany, J.A. Samuels, and J. Zhang. 2009. An examination of the effects of procedural safeguards on intentions to anonymously report fraud. *Auditing: A Journal of Practice and Theory* 28 (2): 273-288.



- Kaplan, S.E., K.R. Pope, and J.A. Samuels. 2011. An examination of the effect of inquiry and auditor type on reporting intentions for fraud. *Auditing: A Journal of Practice and Theory* 30 (4): 29-49.
- Kelly, C.E., J.C. Miller, A.D. Redlich, and S.M. Kleinman. 2013. A taxonomy of interrogation methods. *Psychology, Public Policy, and Law* 19 (2): 165-178.
- Kerler, W.A. and D.M. Brandon. 2010. The effects of trust, client importance, and goal commitment on auditors' acceptance of client-preferred methods. *Advances in Accounting, Incorporating Advances in International Accounting* 26: 246-258.
- Kieckhaefer, J.M., J.P. Vallano, and N. Schreiber Compo. 2014. Examining the positive effects of rapport building: When and why does rapport building benefit adult eyewitness memory? *Memory* 22 (8): 1010-1023.
- King, R.R. 2002. An experimental investigation of self-serving biases in an auditing trust game: The effect of group affiliation. *The Accounting Review* 77 (2): 265-284.
- Lee, C. and R. B. Welker. 2007. The effect of audit inquiries on the ability to detect financial misrepresentations. *Behavioral Research in Accounting* 19: 161-178.
- Lee, C. and R. B. Welker. 2008. The effect of audit experience on detection deception in audit inquiries. *International Journal of Auditing* 12: 205-220.
- Lee, C. and R. B. Welker. 2011. Prior exposure to interviewee's truth-telling (baselining) and deception-detection accuracy in interviews. *Behavioral Research in Accounting* 23 (2): 131-146.
- Public Company Accounting Oversight Board (PCAOB). 2010. *Identifying and Assessing Risks of Material Misstatement. AS 2110*. Available at: <https://pcaobus.org/Standards/Auditing/Pages/AS2110.aspx>
- Puccinelli, N.M., and L. Tickle-Degnen. 2004. Knowing too much about others: Moderators of the relationship between eavesdropping and rapport in social interaction. *Journal of Nonverbal Behavior* 28 (4): 223-243.
- Rennie, M.D., L.S. Kopp, and W.M. Lemon. Exploring trust and the auditor-client relationship: Factors influencing the auditor's trust of a client representative. *Auditing: A Journal of Practice and Theory* 29 (1): 297-293.
- Seibert, S.E., J.M. Crant, and M.L. Kraimer. 1999. Proactive personality and career success. *Journal of Applied Psychology* 84 (3): 416-427.
- Seifert, D.L., J.T. Sweeney, J. Joireman, and J.M. Thornton. 2010. The influence of organizational justice on accountant whistleblowing. *Accounting, Organizations and Society* 35: 707-717.
- Seifert, D.L., W.W. Stammerjohan, and R.B. Martin. 2014. Trust, organizational justice, and whistleblowing: A research note. *Behavioral Research in Accounting* 26 (1): 157-168.
- Seipp, E. and D.L. Lindberg. 2012. A guide to effective audit interviews. *The CPA Journal*. 82 (4): 26-31.
- Taylor, E.Z. and M.B. Curtis. 2013. Whistleblowing in audit firms: Organizational response and power distance. *Behavioral Research in Accounting* 25 (2): 21-43.
- Tickle-Degnen, L. and R. Rosenthal. 1990. The nature of rapport and its nonverbal correlates. *Psychological Inquiry* 1 (4): 285-293.
- Trompeter, G.M., T.D. Carpenter, N. Desai, K.L. Jones, and R.A. Riley. 2013. A synthesis of fraud-related research. *Auditing: A Journal of Practice and Theory* 32 (Supplement): 287-321.



- Tschannen-Moran, M. and W.K. Hoy. 2000. A multidisciplinary analysis of nature, meaning, and measurement of trust. *Review of Educational Research* 7: 547-593.
- Vallano, J.P. and N. Schreiber Compo. 2011. A comfortable witness is a good witness: Rapport-building and susceptibility to misinformation in an investigative mock-crime interview. *Applied Cognitive Psychology* 25: 960-970.
- Vallano, J.P., J.R. Evans, N. Schreiber Compo, and J.M. Kieckhaefer. 2015. Rapport-building during witness and suspect interviews: A survey of law enforcement. *Applied Cognitive Psychology* 29: 369-380.
- Vallano, J.P. and N. Schreiber Compo. 2015. Rapport-building with cooperative witnesses and criminal suspects: A theoretical and empirical review. *Psychology, Public Policy, and Law* 21 (1): 85-99.
- Vanderhallen, M., G. Vervaeke, and U. Holmberg. 2011. Witness and suspect perceptions of working alliance and interviewing style. *Journal of Investigative Psychology and Offender Profiling* 8: 110-130.
- Walsh, D. and R. Bull. 2010. What is really effective in interviews with suspects? A study comparing interviewing skills against interview outcomes. *Legal and Criminological Psychology* 15: 305-321.
- Zhang, J., K. Pany, and P.M.J. Reckers. 2013. Under which conditions are whistleblowing “best practices” best? *Auditing: A Journal of Practice and Theory* 32 (3): 171-181.

**TABLE 4-1: INQUIRIES OF MANAGEMENT (EXCERPT FROM AS 2110)**  
(PCAOB, 2010 AS 2110.56 a)

<b>Inquiries of management regarding:</b>	
1	Whether management has knowledge of fraud, alleged fraud, or suspected fraud affecting the company
2	Management's process for identifying and responding to fraud risks in the company, including any specific fraud risks the company has identified or account balances or disclosures for which a fraud risk is likely to exist, and the nature, extent, and frequency of management's fraud risk assessment process
3	Controls that the company has established to address fraud risks the company has identified, or that otherwise help to prevent and detect fraud, including how management monitors those controls
4	For a company with multiple locations (a) the nature and extent of monitoring of operating locations or business segments and (b) whether there are particular operating locations or business segments for which a fraud risk might be more likely to exist
5	Whether and how management communicates to employees its views on business practices and ethical behavior
6	Whether management has received tips or complaints regarding the company's financial reporting (including those received through the audit committee's internal whistleblower program, if such program exists) and, if so, management's responses to such tips and complaints;
7	Whether management has reported to the audit committee on how the company's internal control serves to prevent and detect material misstatements due to fraud
8	Whether the company has entered into any significant unusual transactions and, if so, the nature, terms, and business purpose (or the lack thereof) of those transactions and whether such transactions involved related parties

**TABLE 4-2: CAQ RECOMMENDED FRAUD INQUIRIES**  
(CAQ, 2010, 22)

<b>Example questions to improve fraud</b>	
1	What are the potential sources of business influence on the accounting staff's judgment or determinations?
2	What pressures for performance may potentially affect financial reporting?
3	What about the way the company operates causes concern or stress?
4	What areas of the company's accounting tend to take up the most time?
5	What kind of input into accounting determinations does non-financial management have?
6	What are the areas of accounting which you are most worried?
7	What are areas of recurring disagreement or problems?
8	How does the company use technology to search for an unnatural accounting activity?
9	If a <i>Wall Street Journal</i> article were to appear about the company's accounting, what would it most likely talk about?
10	If someone wanted to adjust the financial results at headquarters, how would they go about it and would anything stop them?

**TABLE 4-3: EXPERIMENTAL PROCEDURES**

<b>Description of Procedures</b>	<b>Variable(s)</b>
1. Consent Form	
2. Background Information — Hypothetical Company	
3. Potential Fraud Scenario	
4. Description of Auditor-Client Interaction	<ul style="list-style-type: none"><li>• Rapport manipulation (absent or present)</li></ul>
5. Fraud Inquiry Questions	<ul style="list-style-type: none"><li>• Question nature (mentions or avoids fraud) and type (open-ended or closed) manipulation</li></ul>
6. Decision of whether to report the questionable expenses	<ul style="list-style-type: none"><li>• Main dependent measure</li></ul>
7. Manipulation Check Questions	
8. Demographics	<ul style="list-style-type: none"><li>• Work experience, MTurk experience, gender, age, impression of auditors, experience with auditors</li></ul>
9. Proactivity Scale (Control Variable)	<ul style="list-style-type: none"><li>• Proactivity (10 item scale)</li></ul>

**TABLE 4-4: PARTICIPANT DEMOGRAPHICS  
(n=157)**

		<u>Number</u>	<u>Percent</u>
Gender	Male	82	52%
	Female	75	48%
Age	18-24	13	8%
	25-29	30	19%
	30-34	48	31%
	35-39	21	13%
	40-44	12	8%
	45-49	10	6%
	50-54	12	8%
	55-59	7	5%
	60+	4	3%
Years of Work Experience <sup>13</sup>	Less than 1 year	0	0%
	1-3 years	10	6%
	4-6 years	23	15%
	7-9 years	17	11%
	10-12 years	17	11%
	13-15 years	24	15%
	16-20 years	26	17%
	21-30 years	19	12%
	Greater than 30 years	20	13%
Discovered person of authority behaving questionably <sup>13</sup>	Yes	68	44%
	No	88	56%
Completed Ethics Training <sup>13</sup>	Yes	103	66%
	No	53	34%
Time on mTurk	Less than one week	0	0%
	Several weeks	4	3%
	One month	6	4%
	Several months	37	29%
	One year	29	18%
	Several years	61	40%
	Many years	20	13%
		<u>Mean</u>	<u>(S.D.)</u>
Impression of auditors <sup>13</sup> (1-7, where 7=very favorable)		4.2	(1.2)
Extent of interaction with auditors <sup>13</sup> (1-5, where 5=extensive experience)		1.8	(1.0)

<sup>13</sup> One participant reporting having no prior work experience, and as such, was removed from any work related demographic questions. The total sample size for these work-related questions is 156 participants.

**TABLE 4-5:**  
**Descriptive Statistics and Logistic Regression Results for Reporting (*REPORT*)**

**Panel A:** Frequency (Percentage)[n] of Participants that Reported

	Rapport		Total
	Absent	Present	
Open-end Question			
<i>Mentions Fraud</i>	11 (55%) [20]	13 (62%) [21]	24 (58%) [41]
<i>Avoids Fraud</i>	7 (41%) [17]	17 (77%) [22]	24 (62%) [39]
Closed Question			
<i>Mentions Fraud</i>	12 (50%) [24]	7 (54%) [13]	19 (51%) [37]
<i>Avoids Fraud</i>	18 (75%) [24]	10 (63%) [16]	28 (70%) [40]
Total	48 (56%) [85]	47 (65%) [72]	95 (61%) [157]

**Panel B:** Logistic Regression Results for *REPORT*

Variables	Parameter Estimate	<i>p-value</i> <sup>14</sup>
<i>FRAUD</i>	0.56	0.58
<i>TYPE</i>	2.07	0.04
<i>RAPPORT</i>	1.55	0.12
<i>FRAUD</i> x <i>TYPE</i>	-1.82	0.07
<i>FRAUD</i> x <i>RAPPORT</i>	-0.95	0.34
<i>TYPE</i> x <i>RAPPORT</i>	-2.37	0.02
<i>FRAUD</i> x <i>TYPE</i> x <i>RAPPORT</i>	2.02	0.04
<i>GENDER</i>	1.94	0.05
<i>MTURK</i>	-2.24	0.03
<i>IMPRESSION_AUDITORS</i>	2.88	< 0.01
<i>PERCEPTION</i>	3.75	< 0.01

<sup>14</sup> P-values reported are two-sided.

**TABLE 4-6: Descriptive Statistics and Regression Results for Number of Words Reported (*WORDS\_REPORTED*)**

**Panel A:** Cell Means (SD)[n] for *WORDS\_REPORTED*

	Rapport		Total
	Absent	Present	
Open-end Question			
<i>Mentions Fraud</i>	14.7 (16.7) [20]	15.3 (15.9) [21]	15.0 (16.1) [41]
<i>Avoids Fraud</i>	14.2 (19.9) [17]	27.1 (28.0) [22]	21.5 (25.4) [39]
Closed Question			
<i>Mentions Fraud</i>	13.8 (13.8) [24]	17.2 (28.4) [13]	15.0 (19.8) [37]
<i>Avoids Fraud</i>	19.7 (16.6) [24]	12.2 (13.8) [16]	16.7 (15.8) [40]
Total	15.8 (16.5) [85]	18.6 (22.7) [72]	17.0 (19.6) [157]

**Panel B:** Regression Results for *WORDS\_REPORTED*

Variables	Parameter Estimate	<i>p-value</i> <sup>15</sup>
<i>FRAUD</i>	0.74	0.46
<i>TYPE</i>	2.25	0.03
<i>RAPPORT</i>	1.67	0.10
<i>FRAUD</i> x <i>TYPE</i>	-2.09	0.04
<i>FRAUD</i> x <i>RAPPORT</i>	-1.02	0.31
<i>TYPE</i> x <i>RAPPORT</i>	-2.59	0.01
<i>FRAUD</i> x <i>TYPE</i> x <i>RAPPORT</i>	2.12	0.04
<i>GENDER</i>	2.00	0.05
<i>MTURK</i>	-2.82	< 0.01
<i>IMPRESSION_AUDITORS</i>	3.66	< 0.01
<i>PERCEPTION</i>	4.65	< 0.01

<sup>15</sup> P-values reported are two-sided.

**TABLE 4-7: Descriptive Statistics and Regression Results for Number of Details Reported  
(DETAILS\_REPORTED)**

**Panel A:** Cell Means (SD)[n] for *DETAILS\_REPORTED*<sup>16</sup>

	Rapport		Total
	Absent	Present	
Open-end Question			
<i>Mentions Fraud</i>	1.3 (1.6) [20]	1.5 (1.7) [21]	1.4 (1.7) [41]
<i>Avoids Fraud</i>	1.3 (1.5) [17]	1.8 (1.8) [22]	1.6 (1.7) [39]
Closed Question			
<i>Mentions Fraud</i>	1.0 (1.2) [24]	1.3 (1.9) [13]	1.1 (1.4) [37]
<i>Avoids Fraud</i>	2.0 (1.6) [24]	1.1 (1.3) [16]	1.6 (1.6) [40]
Total	1.4 (1.5) [85]	1.5 (1.7) [72]	1.4 (1.6) [157]

**Panel B:** Regression Results for *WORDS\_REPORTED*

Variables	Parameter Estimate	<i>p-value</i> <sup>17</sup>
<i>FRAUD</i>	-0.42	0.67
<i>TYPE</i>	1.04	0.30
<i>RAPPORT</i>	0.61	0.55
<i>FRAUD</i> x <i>TYPE</i>	-1.33	0.18
<i>FRAUD</i> x <i>RAPPORT</i>	0.09	0.93
<i>TYPE</i> x <i>RAPPORT</i>	-2.05	0.04
<i>FRAUD</i> x <i>TYPE</i> x <i>RAPPORT</i>	1.81	0.07
<i>MTURK</i>	-1.74	0.08
<i>IMPRESSION_AUDITORS</i>	1.89	0.06
<i>PERCEPTION</i>	5.67	< 0.01

<sup>16</sup> Scores range from 0-5 and represent the number of key facts provided.

<sup>17</sup> P-values reported are two-sided.



**TABLE 4-8: COMPARISON TESTS FOR *REPORT***

**Panel A:** Comparison Tests for *FRAUD* Effect on *REPORT*

<i>RAPPORT</i>	<i>TYPE</i>	Diff <i>FRAUD</i> (Mentions – Avoids)	Std. Error	Parameter Estimate	<i>p-value</i> <sup>18</sup>
Present	Open-ended	-0.14	0.18	-0.74	0.46
Present	Closed	0.20	0.22	0.90	0.37
Absent	Open-ended	0.11	0.19	0.56	0.58
Absent	Closed	-0.30	0.14	-2.15	0.03

**Panel B:** Comparison Tests for *TYPE* Effect on *REPORT*

<i>RAPPORT</i>	<i>FRAUD</i>	Diff <i>TYPE</i> (Closed – Open-end)	Std. Error	Parameter Estimate	<i>p-value</i> <sup>18</sup>
Present	Mentions	0.03	0.19	0.16	0.87
Present	Avoids	-0.30	0.21	-1.47	0.14
Absent	Mentions	-0.08	0.16	-0.51	0.61
Absent	Avoids	0.33	0.17	1.96	0.05

**Panel C:** Comparison Tests for *RAPPORT* Effect on *REPORT*

<i>TYPE</i>	<i>FRAUD</i>	Diff <i>RAPPORT</i> (Present – Open-end)	Std. Error	Parameter Estimate	<i>p-value</i> <sup>18</sup>
Open-ended	Mentions	0.07	0.18	0.40	0.69
Open-ended	Avoids	0.31	0.19	1.63	0.10
Closed	Mentions	0.18	0.18	1.01	0.31
Closed	Avoids	-0.32	0.20	-1.59	0.11

<sup>18</sup> P-values reported are two-sided.

**TABLE 4-9: Logistic Regression Results for *REPORT***

**Panel A: Logistic Regression Results for *REPORT* split by *TYPE***

Open-ended Type			Closed Type		
Variables	Estimate	<i>p</i> -value (two-sided)	Variables	Estimate	<i>p</i> -value (two-sided)
<i>RAPPORT</i>	1.65	0.10	<i>RAPPORT</i>	-1.50	0.13
<i>FRAUD</i>	0.70	0.48	<i>FRAUD</i>	-2.24	0.03
<i>RAPPORT x FRAUD</i>	-1.08	0.28	<i>RAPPORT x FRAUD</i>	2.09	0.04
<i>GENDER</i>	2.02	0.05	<i>GENDER</i>	0.79	0.43
<i>MTURK</i>	-2.87	< 0.01	<i>MTURK</i>	-0.82	0.41
<i>IMPRESSION_AUDITORS</i>	1.13	0.26	<i>IMPRESSION_AUDITORS</i>	4.18	< 0.01
<i>PERCEPTION</i>	2.25	0.02	<i>PERCEPTION</i>	3.67	< 0.01
N=80 Pseudo R <sup>2</sup> =0.27			N=77 Pseudo R <sup>2</sup> =0.39		

**Panel B: Logistic Regression Results for *REPORT* split by *FRAUD***

Fraud is Avoided			Fraud is Mentioned		
Variables	Estimate	<i>p</i> -value (two-sided)	Variables	Estimate	<i>p</i> -value (two-sided)
<i>RAPPORT</i>	1.50	0.13	<i>RAPPORT</i>	0.54	0.59
<i>TYPE</i>	2.12	0.03	<i>TYPE</i>	-0.40	0.69
<i>TYPE x RAPPORT</i>	-2.52	0.01	<i>TYPE x RAPPORT</i>	0.41	0.68
<i>GENDER</i>	2.06	0.04	<i>GENDER</i>	0.47	0.64
<i>MTURK</i>	-1.46	0.14	<i>MTURK</i>	-2.08	0.04
<i>IMPRESSION_AUDITORS</i>	2.53	0.01	<i>IMPRESSION_AUDITORS</i>	1.38	0.17
<i>PERCEPTION</i>	2.28	0.02	<i>PERCEPTION</i>	2.96	< 0.01
N=79 Pseudo R <sup>2</sup> =0.28			N=78 Pseudo R <sup>2</sup> =0.31		

**Panel C: Logistic Regression Results for *REPORT* split by *RAPPORT***

Rapport is Present			Rapport is Absent		
Variables	Estimate	<i>p</i> -value (two-sided)	Variables	Estimate	<i>p</i> -value (two-sided)
<i>FRAUD</i>	-0.85	0.39	<i>FRAUD</i>	0.02	0.99
<i>TYPE</i>	-1.44	0.15	<i>TYPE</i>	1.92	0.06
<i>FRAUD x TYPE</i>	0.99	0.32	<i>FRAUD x TYPE</i>	-1.54	0.12
<i>GENDER</i>	1.36	0.17	<i>GENDER</i>	0.09	0.93
<i>MTURK</i>	-1.24	0.21	<i>MTURK</i>	-2.84	< 0.01
<i>IMPRESSION_AUDITORS</i>	1.42	0.16	<i>IMPRESSION_AUDITORS</i>	2.88	< 0.01
<i>PERCEPTION</i>	1.85	0.07	<i>PERCEPTION</i>	4.37	< 0.01
N=72 Pseudo R <sup>2</sup> =0.17			N=85 Pseudo R <sup>2</sup> =0.50		

**TABLE 4-10: RAPPORT x FRAUD WHEN CLOSED TYPE QUESTIONS ARE USED**

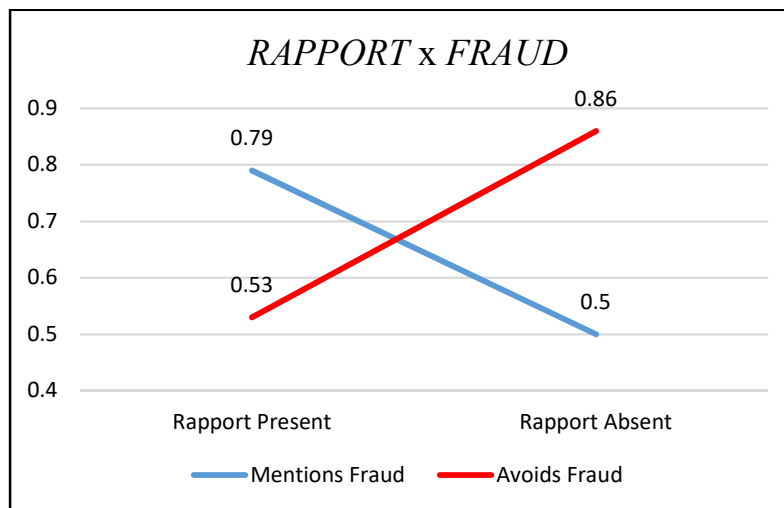
**Panel A:** Cell means for *REPORT* when closed *TYPE* questions are used<sup>19</sup>

	<b>Rapport Present</b>	<b>Rapport Absent</b>
<b>Mentions Fraud</b>	Cell 1 0.79	Cell 2 0.50
<b>Avoids Fraud</b>	Cell 3 0.53	Cell 4 0.86

**Panel B:** Contrast tests between cells for *REPORT* when closed *TYPE* questions are used

<b>Comparison</b>	<b>Difference</b>	<b>Parameter Estimate</b>	<b>p-value<sup>20</sup></b>
Cell 1 vs. Cell 2	0.28	1.42	0.16
Cell 1 vs. Cell 3	0.25	1.02	0.31
Cell 1 vs. Cell 4	-0.07	-0.55	0.58
Cell 2 vs. Cell 3	-0.03	-0.12	0.91
Cell 2 vs. Cell 4	-0.35	-2.18	0.03
Cell 3 vs. Cell 4	-0.32	-1.31	0.19

**Panel C:** Interaction Plot *RAPPORT* x *FRAUD* when closed *TYPE* questions are used



<sup>19</sup> When calculating cell means, model covariates (*GENDER*, *MTURK*, *IMPRESSION\_AUDITOR*, and *PERCEPTION*) were held at their respective means.

<sup>20</sup> P-values are reported as two-tailed.

**TABLE 4-11: TYPE x RAPPOR when FRAUD IS AVOIDED**

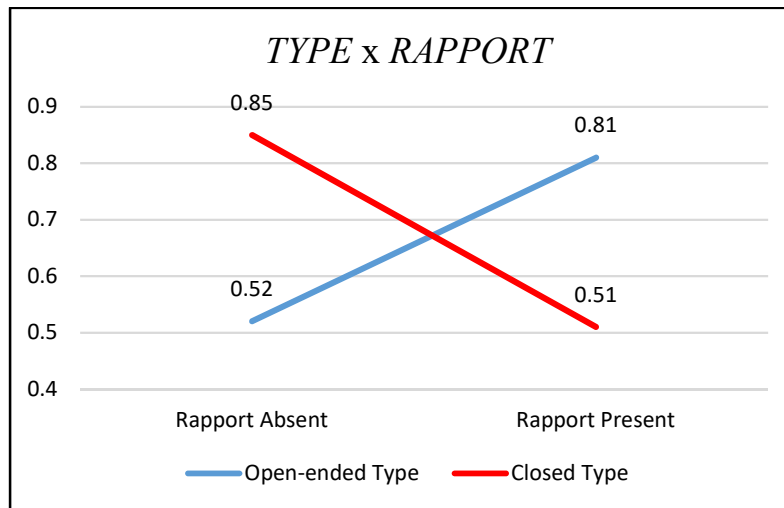
**Panel A:** Cell means for *REPORT* when *FRAUD* is avoided<sup>21</sup>

	<b>Rappor Present</b>	<b>Rappor Absent</b>
<b>Open-ended Type</b>	Cell 1 0.81	Cell 2 0.52
<b>Closed Type</b>	Cell 3 0.51	Cell 4 0.85

**Panel B:** Contrast tests between cells for *REPORT* when *FRAUD* is avoided

<b>Comparison</b>	<b>Difference</b>	<b>Parameter Estimate</b>	<b>p-value<sup>22</sup></b>
Cell 1 vs. Cell 2	0.29	1.49	0.14
Cell 1 vs. Cell 3	0.30	1.54	0.12
Cell 1 vs. Cell 4	-0.04	-0.32	0.75
Cell 2 vs. Cell 3	0.01	0.03	0.97
Cell 2 vs. Cell 4	-0.33	-1.91	0.06
Cell 3 vs. Cell 4	-0.34	-1.72	0.09

**Panel C:** Interaction Plot *TYPE* x *RAPPOR* when *FRAUD* is avoided



<sup>21</sup> When calculating cell means, model covariates (*GENDER*, *MTURK*, *IMPRESSION\_AUDITOR*, and *PERCEPTION*) were held at their respective means.

<sup>22</sup> P-values are reported as two-tailed.

**TABLE 4-12: Regression Results for *WORDS\_REPORTED* and *DETAILS\_REPORTED*<sup>23</sup>**

**Panel A:** Regression Results for *WORDS\_REPORTED* and *DETAILS\_REPORTED* split by *TYPE*

Open-ended Type			Closed Type		
Variables	Words Estimate	Details Estimate	Variables	Words Estimate	Details Estimate
<i>RAPPORT</i>	1.38	0.58	<i>RAPPORT</i>	-2.40**	-2.57**
<i>FRAUD</i>	0.18	-0.33	<i>FRAUD</i>	-1.88*	-2.87***
<i>RAPPORT x FRAUD</i>	-1.20	0.08	<i>RAPPORT x FRAUD</i>	2.26**	2.84***
<i>GENDER</i>	1.70*	0.57	<i>GENDER</i>	2.27	2.15**
<i>MTURK</i>	-0.90	-1.14	<i>MTURK</i>	-1.62	-1.12
<i>IMPRESSION_AUDITORS</i>	1.17	1.50	<i>IMPRESSION_AUDITORS</i>	1.65*	1.21
<i>PERCEPTION</i>	2.50**	4.93***	<i>PERCEPTION</i>	3.03***	2.99***
N=80			N=77		

**Panel B:** Regression Results for *WORDS\_REPORTED* and *DETAILS\_REPORTED* split by *FRAUD*

Fraud is Avoided			Fraud is Mentioned		
Variables	Words Estimate	Details Estimate	Variables	Words Estimate	Details Estimate
<i>RAPPORT</i>	1.49	0.94	<i>RAPPORT</i>	-0.01	0.65
<i>TYPE</i>	0.92	1.31	<i>TYPE</i>	-0.60	-0.77
<i>TYPE x RAPPORT</i>	-2.39**	-2.24**	<i>TYPE x RAPPORT</i>	1.02	0.47
<i>GENDER</i>	1.72*	1.53	<i>GENDER</i>	1.54	0.15
<i>MTURK</i>	-0.16	0.32	<i>MTURK</i>	-2.33**	-2.70***
<i>IMPRESSION_AUDITORS</i>	1.15	0.76	<i>IMPRESSION_AUDITORS</i>	1.13	1.56
<i>PERCEPTION</i>	2.10*	3.92***	<i>PERCEPTION</i>	3.41***	3.86***
N=79			N=78		

**Panel C:** Regression Results for *WORDS\_REPORTED* and *DETAILS\_REPORTED* split by *RAPPORT*

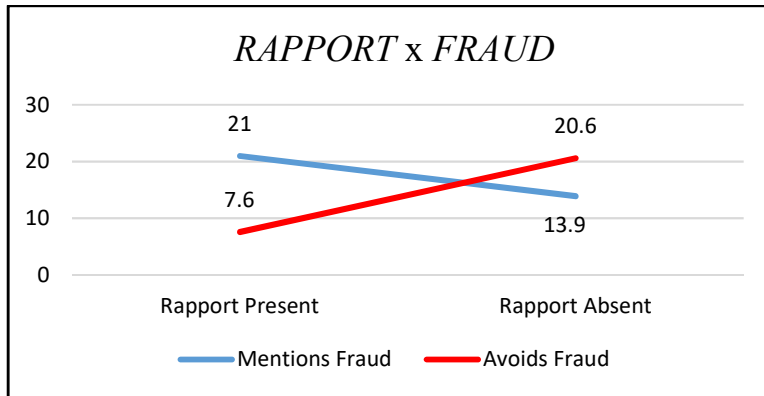
Rapport is Present			Rapport is Absent		
Variables	Words Estimate	Details Estimate	Variables	Words Estimate	Details Estimate
<i>FRAUD</i>	-1.47	-0.25	<i>FRAUD</i>	-0.10	-0.31
<i>TYPE</i>	-2.40**	-1.85*	<i>TYPE</i>	0.66	1.14
<i>FRAUD x TYPE</i>	2.13**	1.43	<i>FRAUD x TYPE</i>	-0.92	-1.49
<i>GENDER</i>	1.84*	1.48	<i>GENDER</i>	1.74*	1.02
<i>MTURK</i>	-0.89	-0.75	<i>MTURK</i>	-2.24**	-1.36
<i>IMPRESSION_AUDITORS</i>	0.73	0.44	<i>IMPRESSION_AUDITORS</i>	2.11**	2.20**
<i>PERCEPTION</i>	2.51**	4.10	<i>PERCEPTION</i>	3.11***	3.52***
N=72			N=85		

\*, \*\*, \*\*\* Indicate significance at  $p < 0.10$ ,  $p < 0.05$ , and  $p < 0.01$ , respectively. P-values are reported as two-sided.

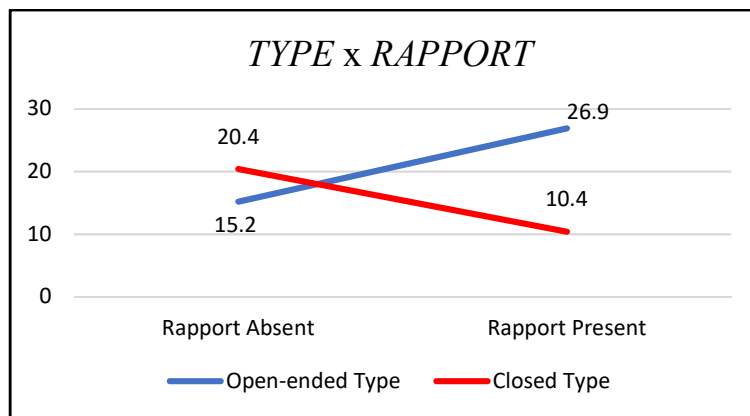
<sup>23</sup> OLS regression was used for *WORDS\_REPORTED* and *DETAILS\_REPORTED*. Using ordered logistic regression for *DETAILS\_REPORTED* does not change the inferences above.

**TABLE 4-13: Interaction Plots for *WORDS\_REPORTED***

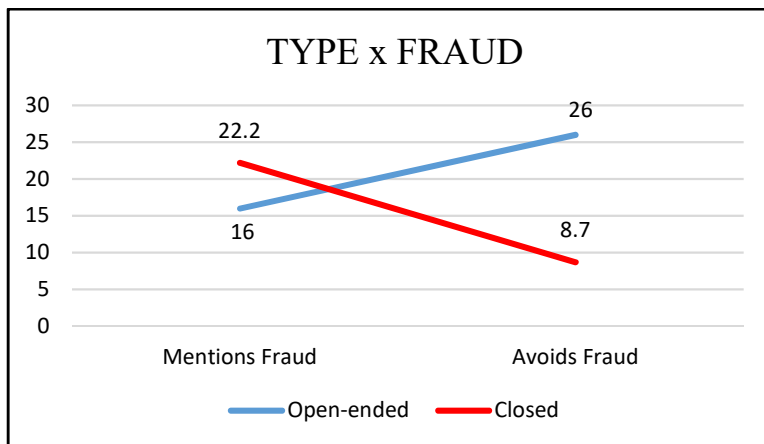
**Panel A:** Interaction Plot *RAPPORT* x *FRAUD* when closed *TYPE* questions are used



**Panel B:** Interaction Plot *TYPE* x *RAPPORT* when *FRAUD* is avoided

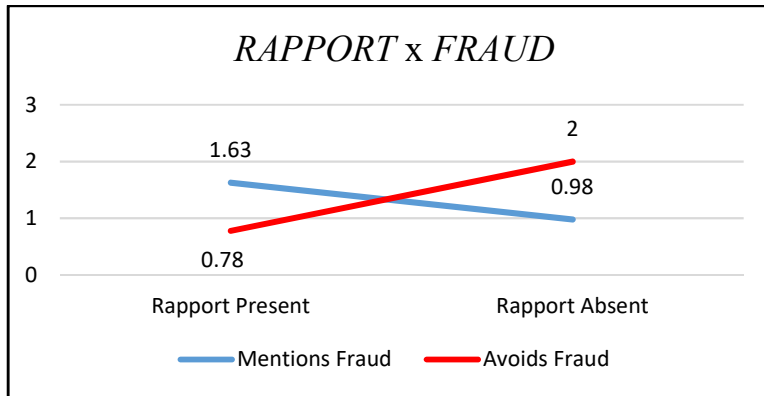


**Panel C:** Interaction Plot *TYPE* x *FRAUD* when *RAPPORT* is present

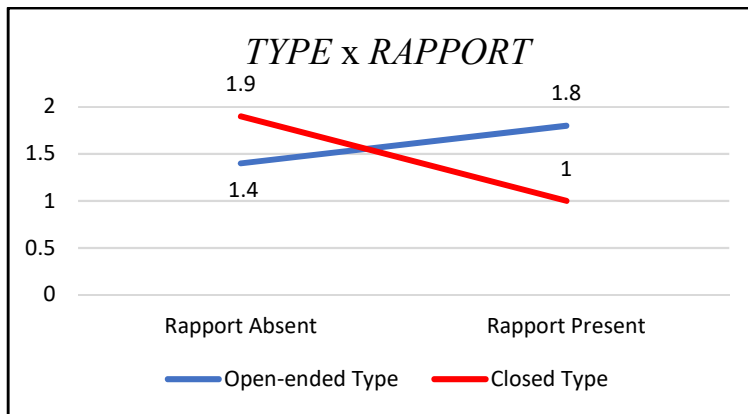


**TABLE 4-14: Interaction Plots for *DETAILS\_REPORTED***

**Panel A:** Interaction Plot *RAPPORT* x *FRAUD* when closed *TYPE* questions are used



**Panel B:** Interaction Plot *TYPE* x *RAPPORT* when *FRAUD* is avoided



**APPENDIX 4-1: Experimental Instrument  
(adapted from Kaplan et al. 2009)**

**Consent Information Form**

I willingly agree to be in the study.

- Yes (1)
- No (2)

----

**Background Information:**

APEX Inc. is a manufacturing company of consumable materials. APEX has produced steady operating results, but recently performed slightly below the industry average.

Imagine that you work in the Purchasing Department at APEX as an Assistant Manager and report to Pat, the Purchasing Manager.

In addition to other tasks, you are responsible for reviewing purchase acquisitions on a monthly basis for any unusual activity. When performing this monthly task, you note an APEX purchase from an unfamiliar vendor. After further investigation, you discover that the vendor's post office box is identical to that of Pat, the Purchasing Manager. Expenses of \$800,000 have been paid via a check that was mailed to this vendor address. However, the services have not yet been received.

You are not comfortable with these expenses and consider reporting this incident. However, you have a flexible work schedule that comes with a great salary and benefit package. Also, Pat is supportive and takes care of the entire purchasing department, especially in the form of consistent annual bonuses.

----

**Attention Checks:**

You work for which of the following companies?

- Google
- Apex
- Apple
- None of the above



Who do you report to?

- Pam
- Paul
- Pat
- None of the above

----

**Background:**

Putnam and Jacobs, LLP has been hired to perform the annual audit of APEX. As part of the annual audit, the external auditors from Putnam and Jacob are required to interview several members of APEX management about potential risk factors. As the client, you consider using this opportunity to report the questionable expense transactions.

----

**Attention Check:**

In this scenario, you are:

- the auditor and work for Putnam and Jacobs, CPAs
- the client and work for APEX
- neither

----

**Rapport Present:**

There are two audit managers that work for Putnam and Jacob on the APEX account that will be conducting the risk interviews. Below are descriptions of the two audit managers and their prior interaction with you.

**Adrian**

Adrian is very new to the APEX account and has had limited interaction with you. Adrian met with you once to request audit documentation. However, Adrian did not thank you for the help with the audit. In your initial meeting, the conversation involved only work-related topics.

**Alex**

You and Alex have known each other professionally for several years. Alex thanks you for your help with the audit each time you meet. You also enjoy many of the same hobbies. You and Alex typically discuss shared interests before the conversation turns to work-related topics.

**The Audit Manager, Alex, is assigned to interview you** to discuss potential risks relating to the purchasing cycle. Alex, from Putnam and Jacobs, schedules a meeting with you to discuss

potential risks at APEX a few days after you discovered the unfamiliar vendor and questionable expenses.

----

### **Rapport Absent:**

There are two audit managers that work for Putnam and Jacob on the APEX account that will be conducting the risk interviews. Below are descriptions of the two audit managers and their prior interaction with you.

#### **Adrian**

You and Adrian have known each other professionally for several years. Adrian thanks you for your help with the audit each time you meet. You also enjoy many of the same hobbies. You and Adrian typically discuss shared interests before the conversation turns to work-related topics.

#### **Alex**

Alex is very new to the APEX account and has had limited interaction with you. Alex met with you once to request audit documentation. However, Alex did not thank you for the help with the audit. In your initial meeting, the conversation involved only work-related topics.

**The Audit Manager, Alex, is assigned to interview you** to discuss potential risks relating to the purchasing cycle. Alex, from Putnam and Jacobs, schedules a meeting with you to discuss potential risks at APEX a few days after you discovered the unfamiliar vendor and questionable expenses.

----

### **Fraud/Closed:**

It is the day of the risk interview. Alex, the auditor, asks the following question:

Do you have knowledge of **fraud, alleged fraud, or suspected fraud** affecting the company?

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### **Fraud/Open:**

It is the day of the risk interview. Alex, the auditor, asks the following question:

What knowledge do you have of **fraud, alleged fraud, or suspected fraud**?

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### **Avoid Fraud/Closed:**

It is the day of the risk interview. Alex, the auditor, asks the following question:

Do you have knowledge of the misuse of APEX resources?

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**Avoid Fraud/Open:**

It is the day of the risk interview. Alex, the auditor, asks the following question:

What knowledge do you have of the misuse of APEX resources?

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**Main DV:**

As listed in the HIT your compensation for completing this study is \$1.80. You are on track to earn a \$0.20 bonus at APEX with Pat as your supervisor. You have the opportunity to report the questionable expenses to Alex, the auditor; however, if you choose to do so you will be assigned to a new supervisor. The new supervisor will not be able to offer you a \$0.20 bonus.

- Report the questionable expenses to Alex, the auditor. You will not earn a \$0.20 bonus.
- Keep the questionable expenses to yourself for now. You will earn a \$0.20 bonus.

If report the questionable expenses to the auditor is selected:

You selected to report the questionable expenses. Please respond to Alex's below as you would given this situation.

\*\*Insert one of the four questions (depending on participant's condition)

If keep the questionable expenses to yourself for now is selected:

You selected to keep the questionable expenses to yourself for now and earned a \$0.20 bonus. How much, if any, of the \$0.20 are you willing to give up to report the expenses to the auditor?

If you do not wish to report the expenses, please select 0 below and retain your \$0.20 bonus.

Otherwise, please select the amount you are willing to give up to report the expenses to the auditor. Whatever amount you select below will be deducted from your \$0.20 bonus.

\$0.00 --- \$0.19

**Thank you for completing the main part of the study. Please complete a few general questions relating to the workplace scenario.**

**Manipulation Checks:**

Did Alex, the auditor, specifically ask about fraud during the risk interview?

- Yes
- No

Open-ended type questions do not limit or restrict a response; whereas, closed type questions restrict a response usually requiring a “yes” or “no” answer.

For example:

“What did you have for breakfast?” is an example of an open-ended question

“Did you have cereal for breakfast?” is an example of a closed question

Did Alex, the auditor, use an open-ended or closed type question during the risk interview?

- Open-ended question
- Closed

During the risk interview, you were asked to assume the role of

- the auditor
- the client
- neither

**Process Measures:**

How obligated did you feel to report the questionable expenses to Alex, the auditor?

1 – Not Obligated .....7 – Highly Obligated

How much pressure did you feel to report the questionable expenses to Alex, the auditor?

1 – No Pressure .....7 – Extreme Pressure

How willing were you to report the questionable expenses to Alex, the auditor?

1 – Not Willing .....7 – Very Willing

How comfortable did you feel to report the questionable expenses to Alex, the auditor?

1 – Not Comfortable .....7 – Very Comfortable

How much did you feel part of the interview with Alex, the auditor?

1 – Not a part at all .....7 – A large part

Do you feel you played an active role in the interview with Alex, the auditor?

1 – No, not active .....7 – Yes, very active

**Gender Questions:**

Did you perceive Alex, the auditor, to be male or female?

- Male
- Female

Did you perceive Pat, the purchasing manager, to be male or female?

- Male
- Female

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**Rapport Questions:**

There is a mutual liking between you, the client, and Alex, the auditor.

- Strongly Agree
- Agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Disagree
- Strongly disagree

You feel confident in Alex's ability to help address the issue relating to the unfamiliar vendor.

- Strongly Agree
- Agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Disagree
- Strongly disagree

You feel appreciated by Alex, the auditor.

- Strongly Agree
- Agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Disagree
- Strongly disagree

There is a mutual trust between you and Alex, the auditor.

- Strongly Agree
- Agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Disagree
- Strongly disagree

Alex, the auditor, was aware and interested in conversation with you.

- Strongly Agree
- Agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Disagree
- Strongly disagree

You liked and felt warm towards Alex, the auditor.

- Strongly Agree
- Agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Disagree
- Strongly disagree

You felt comfortable with Alex, the auditor.

- Strongly Agree
- Agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Disagree
- Strongly disagree

You had rapport with Alex, the auditor.

- Strongly Agree
- Agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Disagree
- Strongly disagree

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### **Interaction Questionnaire:**

Please rate the interaction between you and Alex, the auditor, on the following characteristics.

Cooperative (1=not cooperative 4 = somewhat cooperative 7=extremely cooperative)

Cold (1=not cold 4 = somewhat cold 7=extremely cold)

Friendly (1=not friendly 4 = somewhat friendly 7=extremely friendly)

Positive (1=not positive 4 = somewhat positive 7=extremely positive)

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### **Perception of Scenario:**

Please respond to the following items as it relates to your opinion of the questionable expenses

The potential magnitude of harm done to APEX is

1 - Very Low ..... 9 - Very High

The potential magnitude of harm done to the client is

1 - Very Low ..... 9 - Very High

The number of stakeholders that could be harmed is

1 - Very Few ..... 9 - Very Many

The personal cost of informing the auditor of this instance is

1 - Very Low ..... 9 - Very High

The likelihood that the act by the Purchasing Manager is morally wrong is

1 - Very Unlikely ..... 9 - Very Likely

The personal responsibility of informing the auditor of this instance is

1 - Very Low ..... 9 - Very High

The likelihood that the company will thoroughly investigate this instance if reported is

1 - Very Unlikely ..... 9 - Very Likely

The likelihood that the company will correct the questionable act is

1 - Very Unlikely ..... 9 - Very Likely

The level of disciplinary action facing the transgressor is likely

1 - Very Low ..... 9 - Very High

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### **Demographics:**

Thank you for providing your responses to the questions relating to the workplace scenario. Below are a few final questions about yourself.

Which of the following best describes your age group?

- 18-24
- 25-29
- 30-34
- 35-39
- 40-44
- 50-54
- 55-59
- 60+

What is your gender?

- Male
- Female



Which of the following best describes how long you have been completing HITs on mTurk?

- Less than one week
- Several weeks
- One month
- Several months
- One year
- Several years
- Many years

What is your native language? \_\_\_\_\_

What year were you born? \_\_\_\_\_

Do you have prior work experience?

- Yes
- No

How many years of work experience do you have?

- Less than 1 year
- 1-3 years
- 4-6 years
- 7-9 years
- 10-12 years
- 13-15 years
- 16-20 years
- 21-30 years
- Greater than 30 years

Which type(s) of companies have you worked for

- Organization that operates in one state
- Organization that operates in multiple states
- Organization that operates in North America
- Global organization

What is the extent that you have interacted with an external auditor?

- No experience
- Little experience
- Some experience
- A lot of experience
- Extensive

What is your impression of external auditors?

- Very unfavorable
- Moderately favorable
- Neither favorable or unfavorable
- Slightly favorable
- Moderately favorable
- Very favorable

In your prior work experience, have you ever had ethics training?

- Yes
- No

Have you ever discovered a person of greater authority engaging in questionable behavior?

- Yes
- No

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**Proactivity Scale (1-Strongly Agree – 7-Strongly Disagree:**

1. I am constantly on the lookout for new ways to improve my life.
2. Wherever I have been, I have been a powerful force for constructive change.
3. Nothing is more exciting than seeing my ideas turn into reality.
4. If I see something I don't like, I fix it.
5. No matter what the odds, if I believe in something I will make it happen.
6. I love being a champion for my ideas, even against others' opposition.
7. I excel at identifying opportunities.
8. I am always looking for better ways to do things.
9. If I believe in an idea, no obstacle will prevent me from making it happen.
10. I can spot an opportunity long before others do.

## CHAPTER 5: CONCLUSION

### *Summary and Contributions*

This dissertation examines audit quality from three different perspectives, and each study examines the auditors' ability to detect material misstatement. The three papers aim to offer contributions to both literature and practice.

The first study examines the influence of the PCAOB inspection process on audit quality. Prior research demonstrates that audit firms tend to lose clients following public Part II inspection reports, which describe quality control criticisms (Nagy 2014). However, Nagy (2014) provides evidence that audit firms also gain new clients following a Part II report. This study adds to the literature by focusing on a group of companies not previously examined, those that are switching to audit firms identified to be providers of poor quality audits. An archival approach is used to determine whether these companies switch to Part II report auditors because they prefer a lower quality auditor that may not detect material misstatement or to negotiate lower fees. Results suggest that companies are switching to triennially inspected, Part II report auditors in preference for a lower quality audit. These companies are not to be able to negotiate lower fees, which indicating that they are not switching for economic reasons. These findings should be of interest to regulators as they suggest a possible unintended consequence of the Part II inspection reports. While the inspection reports are a signal of audit quality (PCAOB 2015), some companies may be using them to identify auditors that provide low audit quality.

The second study investigates the influence of auditor substitution on audit quality. In practice it may be necessary to add an auditor to an existing engagement because of auditor turnover or changes in client timing. When staffing changes occur, it is possible that a substitute

auditor may be asked to complete a task that has already been started. While some information may be relatively easy to transfer between auditors, professional skepticism, which is a mindset, may be more difficult to communicate. Regulators have been critical of auditors when it comes to maintaining an appropriate level of skepticism (PCAOB 2011), and as such, recent literature has focused on factors that may influence skepticism (Brazel et al. 2016; Bowlin et al. 2015). This paper aims to add to this literature by examining the process of auditor substitution and whether it is a barrier to skeptical judgment and action. Results from an experiment using public accountants indicates that substitute auditors are less skeptical in their judgment and actions than auditors completing an entire task. Post hoc analyses demonstrate that the decline in skepticism is at least partly attributable to substitute auditors missing key information not transferred from the original auditor. These findings have practical implications for auditors and suggest that firms should consider adding policies to ensure all information is transferred to substitute auditors. Extra documentation or conversation during the transfer of a task could assist substitute auditors from losing the level of skepticism gained by the original auditor.

Lastly, the third study explores how fraud inquiries of management are conducted by auditors and the potential influence on client reporting. The current audit standards require auditors to interview management to discuss fraud risks as part of planning procedures (PCAOB 2010, AS 2110). Prior literature lends support for this requirement by demonstrating that individuals are more likely to report potential fraud to an inquiring auditor as compared to an auditor that does not ask about fraud (Kaplan et al. 2011). The current audit standard includes inquiries that mention the word fraud and are closed type questions (PCAOB 2010, AS 2110). However, the Center for Audit Quality (CAQ) recommends avoiding the word fraud and using open-ended questions when having a conversation with management about fraud risks (CAQ 2010). This study aims to extend

the literature by examining whether the nature and type of questions posed by auditors influences the likelihood of client reporting. In addition, this study explores whether rapport between the auditor and client may increase the likelihood of reporting. Amazon Mechanical Turk participants with prior work experience are recruited to complete the experiment, which entails reading a hypothetical scenario and deciding whether to report potential fraud. Participants choosing to report had to forgo a small bonus to serve as a proxy for costs incurred in practice to report fraud. Results suggest that when rapport between the auditor and client is lacking and closed type questions are used, clients are more likely to report when the word fraud is avoided as compared to when it is mentioned. This has practical implications as the current standards include some closed type questions that mention the word fraud. Findings suggest that avoiding the word fraud or assigning an auditor with client rapport to perform the interview may increase reporting intentions.

### ***Suggestions for Future Research***

Future research can extend each of the three papers. The first study contributes to the literature by focusing on the group of companies that switch to triennially inspected auditors after public Part II inspection reports. This adds to the literature because most studies place the emphasis on companies that switch from auditors following negative events. Future research could investigate whether companies switch to auditors following negative events other than Part II inspection reports. Future work can also examine whether companies switch to auditors following other reputation harming events to obtain discounted fees or a lower quality audit. Understanding possible motivations for hiring auditors after a negative event may be informative to investors of those companies.

The second study extends the literature by examining the implications of staffing changes after the audit begins. As the results demonstrate that some information is lost in the transfer of a task between auditors, future research can investigate whether extra documentation or policies surrounding information hand-off to the substitute auditor can reduce the loss of skepticism. Additionally, the study does not consider the influence of the review process on shared tasks. Future research could examine whether auditors review work performed by two auditors with a different level of scrutiny than work performed by one auditor.

Lastly, the third study contributes to the literature by providing initial evidence relating to best practices when conducting fraud inquiries of management. The current study examines how participants respond to one question posed by the auditor after reading a hypothetical scenario. Future research could attempt to create a more realistic atmosphere by conducting in-person interviews with more than one question. In-person interviews would be particularly insightful with regards to examining the influence of rapport on client reporting. It would also be interesting to investigate whether auditors successfully implement information gathered during fraud inquiries into the audit plan, and if so, how they modify their plans. Finally, the influence of auditor inquiries on future anonymous reporting could also be explored. It may be that the conversation with the auditor prompts an employee to report but they prefer to do so anonymously.

## References

- Bowlin, K.O., J.L. Hobson, and M.D. Piercey. 2015. The effects of auditor rotation, professional skepticism, and interactions with managers on audit quality. *The Accounting Review* 90 (4): 1363-1393.
- Brazel, J.F., S.B. Jackson, T.J. Shaffer, and B.W. Stewart. 2016. Outcome effect and professional skepticism. *The Accounting Review* 91 (6): 1577-1599.
- Center for Audit Quality (CAQ). 2010. *Deterring and Detecting Financial Reporting Fraud: A Platform for Action*. Washington, DC: CAQ.
- Kaplan, S.E., K.R. Pope, and J.A. Samuels. 2011. An examination of the effect of inquiry and auditor type on reporting intentions for fraud. *Auditing: A Journal of Practice and Theory* 30 (4): 29-49.
- Nagy, A.L. 2014. PCAOB quality control inspection reports and auditor reputation. *Auditing: A Journal of Practice & Theory* 33 (3): 87-104.
- Public Company Accounting Oversight Board (PCAOB). 2010. *Identifying and Assessing Risks of Material Misstatement. AS 2110*. Washington, D.C.: PCAOB. Available at: <https://pcaobus.org/Standards/Auditing/Pages/AS2110.aspx>
- Public Company Accounting Oversight Board (PCAOB). 2011. *Concept release on auditor independence and auditor firm rotation*. Release No. 2011-006. Washington, DC: PCAOB. Available at: [http://pcaobus.org/rules/rulemaking/docket037/release\\_2011-006.pdf](http://pcaobus.org/rules/rulemaking/docket037/release_2011-006.pdf)
- Public Company Accounting Oversight Board (PCAOB). 2015. *Concept Release on Audit Quality Indicators*. Available at: [https://pcaobus.org/Rulemaking/Docket%20041/Release\\_2015\\_005.pdf](https://pcaobus.org/Rulemaking/Docket%20041/Release_2015_005.pdf)