THE PUBLIC COMPANY ACCOUNTING OVERSIGHT BOARD AND ERNST & YOUNG: 
AN INVESTIGATION OF AUDIT QUALITY PROGRESS THROUGH INSPECTION 
REPORT DEFICIENCIES AND EFFECTIVE COMMUNICATIONS 

by 
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THE PUBLIC COMPANY ACCOUNTING OVERSIGHT BOARD AND ERNST & YOUNG:

AN INVESTIGATION OF AUDIT QUALITY PROGRESS THROUGH INSPECTION REPORT DEFICIENCIES AND EFFECTIVE COMMUNICATIONS

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ABSTRACT

My study examines the relationship between Public Company Accounting Oversight Board inspections and audit quality, and assesses whether audit inspections have improved audit quality. My results suggest that audit quality has not increased from inspections. Although, I cannot conclude that audit quality has decreased from inspections due to a number of limitations present in the data. My findings propose that audit quality requires continued improvement.
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INTRODUCTION

Auditing plays an important role in the stability and integrity of the United States and international economies. While a variety of auditing procedures have been used throughout history, the modern day audit has been in practice for only a short amount of time (AICPA 2012). Audit firms developed early stages of auditing techniques throughout the rapid business progression that occurred during the Industrial Revolution (AICPA 2012). The Industrial Revolution encouraged the use of auditing practices, but auditing did not become a mandatory consideration in the United States until after the great stock market crash of 1929 (AICPA 2012).

The stock market crash served as a wakeup call to individuals, businesses, and governments of the need for a system that monitors the market for fraud and financial misrepresentation (AICPA 2012). Within the Sarbanes-Oxley Act (SOX) of 2002, the United States Congress defines audit as “an examination of the financial statements of any issuer by an independent public accounting firm in accordance with the rules of the Board or the Commission … for the purpose of expressing an opinion on such statements” (Sarbanes-Oxley Act 2002). This definition is commonly used in the accounting industry and serves as a sufficient foundation for understanding an audit for the purposes of this study.

For more than fifty years prior to the creation of SOX in 2002, the audit profession was largely self-regulated among audit firms under the American Institute of Certified Public Accountants (AICPA) (Tanyi, Litt 2017). However, the AICPA’s oversight of self-regulatory auditing was generally unsuccessful due to a lack of effective legal authority (Wegman 2008). For example, the AICPA was responsible for monitoring the public accounting profession, but had no power to reprimand auditors for deficiencies found in audit practices or govern the
competency of inept auditors (Wegman 2008). This restriction limited the AICPA’s attempts to improve the audit industry.

Prior to SOX, the AICPA and the International Auditing and Assurance Standards Board (IAASB, previously known as the International Auditing Practices Committee) created auditing standards for both the United States and International audit practices (Knechel 2016). Because no single organization dominated audit regulation, and as a result of loose self-regulation practices, the auditing profession had significant influence over the AICPA, IAASB, and other related audit regulatory entities (Knechel 2016). During the period prior to SOX, a common self-regulation practice for auditors was the peer review program, which was lenient by nature, making it generally ineffective. Congress upgraded the peer review program through its implementation of Public Company Accounting Oversight Board (PCAOB) independent inspections of public audit firms through SOX regulation, which superseded peer review auditor programs (Nagy 2014).

**BACKGROUND**

The United States Congress established the PCAOB under section 101 of the 2002 Sarbanes-Oxley Act (Sarbanes-Oxley Act 2002) in response to an alarming number of fraudulent scandals, such as the well-known Enron and WorldCom frauds (Knechel 2016). This financial chaos resulted from illegal accounting practices, insufficient audit procedures, and non-independent auditors (Tanyi, Litt 2017). The many unveiled fraudulent corporate schemes caused significant economic harm to investors, employees, the public, and financial markets. Congress and the Securities and Exchange Commission (SEC) followed a “fire-alarm” approach in the creation and establishment of the SOX legislation (Kinney 2005). The main goal of SOX
is “to protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws” (Sarbanes-Oxley Act 2002).

The PCAOB is a quasi-governmental entity and nonprofit organization that oversees the United States external audit profession (Tanyi, Litt 2017). The PCAOB is responsible for monitoring the audits of public companies to safeguard the public’s investments, and the audits of brokers and dealers to encourage investor security (PCAOB Website). The SOX Act outlines that the PCAOB regulate audits of public companies “in order to protect the interests of investors and further the public interest in the preparation of informative, accurate, and independent audit reports” (United States SOX Act 2002 - Section 101(a)). The SOX legislation details that the SEC holds the responsibility of overseeing the PCAOB (Palmrose 2013), which includes approving its budgets, regulations, and leading members (PCAOB Website).

The PCAOB states its mission is to oversee public company audits with the goal of increasing investor and public interest protection by ensuring audit work conducted represents “informative, accurate, and independent audit reports” (PCAOB Website). In fulfilling their mission, the “PCAOB aims to improve audit quality, reduce the risks of auditing failures in the U.S. public securities market and promote public trust in both the financial reporting process and auditing profession” (PCAOB Website). For the purposes of this study, I focus on the PCAOB’s pursuit to improve audit quality. Later on, I address audit quality and its correlation with the PCAOB in greater detail.

In summation, the PCAOB’s purpose is to advocate for the welfare of public investors through public company audit standard setting, standard enforcement, and inspection of public audit work prepared by audit firms (Flasher 2013). Contrary to the AICPA, the PCAOB has the ability to penalize audit firms and individuals responsible for inadequate or substandard audit
work (Manita, Elommal 2015). The PCAOB has a significant amount of influence and statutory power over the standards and regulation of the auditing profession.

**PCAOB Inspection Processes and Inspection Reports**

Of the PCAOB’s three major functions (setting standards, enforcing standards, and performing inspections), the focus of this paper is regarding the PCAOB’s inspection process. The remainder of this section addresses the inspection process in greater detail. To review, the United States adoption of SOX grants the PCAOB full authority to inspect any and all accounting firms that perform audit work for public companies registered with the SEC (Abbott, Gunny, Zhang 2013).

The PCAOB inspectors are independent from the firms inspected and external to the general audit industry (Nagy 2014). This independence means that PCAOB inspectors do not participate in professional auditing practices beyond the reach of their inspection duties. PCAOB inspectors “audit the auditors” and have unlimited scope during inspection and review of audit work (Nagy 2014). To be more specific, inspection responsibility includes unrestricted ability to access and evaluate the audit work papers and procedures performed by an audit firm (Flasher 2013). This absolute scope is to assure proper compliance of a firm in accordance with the acceptable and applicable regulation standards (Flasher 2013).

According to the PCAOB Website, more than 2,000 public accounting firms are registered with the PCAOB as of 2017, all of which are within the scope of formal audit inspection (PCAOB Website). Inspection frequency depends on the number of public clients that a firm provides professions audit services for (Tanyi, Litt 2017). The SOX Act requires PCAOB registered audit firms that regularly produce audit reports and provide audit opinions for more than 100 clients be subject to inspection annually, and PCAOB registered audit firms with fewer
than 100 clients for whom they provide routine audits for be subject to inspection at least once every three years (Sarbanes-Oxley Act 2002).

Among all accounting firms that provide professional audit work for SEC registrants, the four largest international accounting firms, known as the Big Four, are the most influential players in the audit profession. The Big Four includes Ernst & Young (EY), Deloitte Touche Tohmatsu (Deloitte), PricewaterhouseCoopers (PwC), and Klynveld Peat Marwick Goerdeler (KPMG). Together, these four firms produce a majority of all audit work conducted worldwide, which is a large factor as to why the PCAOB inspects a significant number of offices and audit engagements from each of the Big Four accounting firms every year. Along with the Big Four inspections, the PCAOB inspects hundreds of its thousands of registered firms on a regular basis, but, just because a firm is registered with the PCAOB does not guarantee inspection (PCAOB Website).

The PCAOB inspectors use a complex risk analysis to determine which audit firms warrant inspection, which offices of each firm to inspect, and which specific audit engagements to inspect within each firm location (Nagy 2014). The PCAOB implements this continually developing and advancing risk analysis every year to serve as a technical guide during inspection planning (PCAOB 2017). This analysis is conducted according to a specific model that considers a variety of risks ranging from movements in economic trends, changes within the company or the industry, audit firm inspection history, and audit areas with a high frequency of recurring deficiencies (PCAOB 2017).

Nonetheless, the inspection process is routine and does not warrant supposition of a problem in the inspected firm’s work (Wegman 2008). When the PCAOB discovers a faulty area in audit work during an inspection, inspectors conduct a deeper investigation of the issue and
consider the related audit areas that could be affected, which can require additional resources such as additional documentation, audit specialists, and witness testimonies (Wegman 2008). If the investigation concludes that an audit infringes upon audit standards and the firm has not taken measures to resolve the violation, the PCAOB then proceeds in a disciplinary process (Wegman 2008). Standard protocol for disciplinary action includes a formal hearing and potential legal citations, which can range from fines of significant amounts to suspension or revocation of a firm’s registration status (Wegman 2008).

The PCAOB regards the various issues, problems, and weak audit areas found in PCAOB audit inspection as *deficiencies*. A deficiency can arise during inspection of an audit of financial statements or an audit of internal controls over financial reporting (ICFR). PCAOB registered firms audit both of these areas during the audits of public clients. Additionally, a deficiency can be categorized into the area of accounting it is most closely associated with, such as an internal control deficiency related to inventory.

In accordance with SEC and PCAOB statutory standards, all work conducted in public audits must be in accordance with Generally Accepted Auditing Standards (GAAS) and ensure that financial statements comply with Generally Accepted Accounting Principles (GAAP). A financial statement related deficiency that results from a significant departure from GAAP is called a GAAP-deficiency, and a GAAS-deficiency indicates that the financial statements of an audit are in accordance with GAAP, but the audit procedures did not satisfy GAAS expectations (Abbott, Gunny, Zhang 2013). Lastly, the best-case scenario following an inspection is a clean report, which is issued when the PCAOB inspectors find no GAAP or GAAS audit deficiencies (Abbott, Gunny, Zhang 2013).
To increase transparency between companies and the public, the PCAOB inspectors document the inspection findings and details in an ‘Inspection Report’ made available through the PCAOB Website (Abbott, Gunny, Zhang 2013). The PCAOB provides a complete inspection report to the SEC, certain governing state organizations, and the accounting firm that underwent inspection (Flasher 2013). Because of intricacies within SOX, audit firms may, and usually do, request redaction of certain information captured in these reports from public disclosure (Flasher 2013). The PCAOB provides Inspection Reports on their website, but these are limited publications of the full reports. The public versions of the PCAOB Inspection Reports provide a substantial amount of information, including details regarding the deficiencies discovered and a comprehensive overview of inspection (Nagy 2014).

Each inspection report includes two main sections, titled Part I and Part II. Depending on the year, firm, and redacted portions, the reports often contain additional sections that extend beyond these two standard sections. Part I of the report is publicly available and contains a list of the deficiencies discovered, grouped by issuer, with details provided about each deficiency (Nagy 2014). While the deficiency details are fully disclosed in Part I, the client of the audit firm that was audited and inspected remains anonymous. Part II of the report is the nonpublic portion of the report that discusses quality control weaknesses for the inspected firm (Nagy 2014). However, Part II can become available to the public if the firm fails to appropriately correct the quality control deficiencies cited by the PCAOB inspectors within twelve months of the initial inspection report release date (Nagy 2014). Both the inspection process and the formal report detailing inspection findings are contributions to the audit industry.
LITERATURE REVIEW

Auditing allows investors and stakeholders to have increased confidence in the accuracy and reliability of financial statements. A study regarding investor perceptions of a firm’s audit opinion credibility following PCAOB inspection suggests that investors’ perceived credibility of an audit firm increased after an inspection by the PCAOB (Robertson, Houston 2010). Additionally, if the PCAOB cited a firm for deficiencies, a firm’s cooperation in resolving the issue, rather than denial, yields an even higher degree of an investor’s perception of a firm’s audit opinion credibility (Robertson, Houston 2010). Audit opinion credibility and accuracy are important because auditing detects for signs of fraud and, thus, decreases the likelihood of fraudulent financial reporting. The PCAOB Inspection Reports reinforce the audit profession’s purpose in assuring financial market transparency and deterring financial fraud.

Auditing and inspection procedures are exponentially important because of the world’s continually evolving and advancing economic marketplace. According to the results of Big Four accounting firm surveys from 2012, financial fraud continues to be a dynamic challenge within the global marketplace (Apostolou, Apostolou 2012). Fraud and corruption are difficult to prevent and detect because of increasing globalization of businesses, as well as rising pressure and competition among companies to meet unsurmountable goals (Apostolou, Apostolou 2012).

In addition to these fraud factors, rapid technological advancement often allows for concealed fraud and corruption to remain undetected. It is often advised that in today’s growing global market, companies and accounting firms should be more vigilant in combating fraud before it occurs. This increased fraud awareness and preparedness can be done through improving risk assessment measures and increasing the frequency of unannounced audits (Apostolou, Apostolou 2012). This study reinforces the importance of audits and the PCAOB’s
examination of audits in our globally connected, increasingly high-risk, and rapidly changing financial markets.

**Audit Concerns and Audit Quality**

Knowing how important auditing is for the success of our current and future financial markets and businesses, we can see that auditing practices require a continuous commitment for improvement. Typical critiques of the audit field relate to audit fees and other timely or costly matters, but the most popular feedback regarding audit areas in need of improvement is poor audit quality (Knechel 2016). The state of audit quality is consistently a topic of discussion by the PCAOB, audit firms, audit firm clients, investors, and many other related parties.

Both the progress made to date since the installation of SOX, and the improvement, or lack thereof, following the implementation of the PCAOB’s independent audit oversight serve as two common avenues for assessing audit quality developments (Franzel 2014). The PCAOB’s Division of Registration and Inspections Director, Helen A. Munter, stated in a 2015 conference speech that the state of audit quality is getting better but still needs to improve in the years to come (Munter 2015). The PCAOB expects a high level of audit quality within the audit industry and holds its registrants to high audit quality standards.

While audit quality is a significant topic of discussion, audit quality can be an ambiguous term to define and is considerably difficult to measure. Much of the complexity in defining audit quality arises out of the wide variety of people affected by audit quality and the numerous ways to measure audit quality. The purpose underlying audit quality is found in the “eye of the beholder” (Knechel, Krishnan, Pevzner, Shefchik, Velury 2013). Investors, auditors, regulators, and people in general differ vastly in their conception of audit quality, what determines its success, and how to measure this success (Knechel, Krishnan, Pevzner, Shefchik, Velury
For the purposes of this paper, I use DeAngelo’s (1981) definition, which defines audit quality as “the market-assessed joint probability that a given auditor will both (a) discover a breach in the client's accounting system and (b) report the breach” (DeAngelo 1981).

A 2016 study found that a majority (83%) of audit deficiencies sanctioned by the PCAOB result from a lack of competence of an auditor, rather than alternative weaknesses, such as lack of auditor independence (Manita, Elommal 2015). Additionally, this study provides that, while deficiencies affecting audit quality were more prevalent in non-Big Four firms, deficiencies do not appear to be linked to the size of the firms inspected (Manita, Elommal 2015). Therefore, Big Four deficiency sanctions, particularly those resulting from poor auditor competence, impact a firm’s audit quality. Audit quality is highly dependent on two factors: an auditor’s expertise, which allows for the discovery of more issues, and an auditor’s independence, which allows for greater probability that an auditor will properly deal with the discovered issues (Knechel 2016).

**Audit Quality and the PCAOB**

Researchers are conducting an increasing number of studies that focus on the relationship between audit quality and PCAOB Inspections. PCAOB independent inspections are directly affecting audit quality, and research indicates that audit quality is improving as result of PCAOB inspections (Knechel, Krishnan, Pevzner, Shefchik, Velury 2013). According to a 2016 study, firms that are registered with the PCAOB and subject to inspection provide audits of higher quality than firms that are not subject to PCAOB inspection (Lamoreaux 2016). Overall, the audit industry’s transition from self-regulation to independent regulation by the PCAOB created a positive and lasting impact on audit quality (Knechel 2016).

The PCAOB importantly notes that in regards to the inspection process, the goal is not only to detect deficiencies in public audit work, but rather, the greater goal of the inspection
process is to improve audit quality among public audit firms (Munter 2015). The PCAOB provides audit quality information to each inspected audit firm within the private version of the inspection report (Christensen, Glover, Omer, Shelley 2016). The SEC’s former Commissioner, Luis Aguilar, stated that the success of audit quality “must be measured by significant reduction in the number of deficiencies" identified in audits during PCAOB inspections (Whitehouse 2014).

Recent studies show that users of financial statements highly associate number of firm deficiencies identified during PCAOB inspection with the overall audit quality of a firm (Christensen, Glover, Omer, Shelley 2016). In more recent years, the PCAOB has encouraged firms to use audit quality indicators as a resource to improve audit work and decrease overall number of deficiencies and recurring deficiencies found in annual inspections of larger firms (Cohn 2017). A highly recommended audit quality indicator is tracking recurring deficiencies. A study published in 2012 tracked the deficiencies of larger accounting firms, including both Big Four and second tier firms, for inspection years 2004 through 2009. The study found that the total number of audit deficiencies declined over the years examined, and the most commonly recurring audit deficiencies involved revenue, fair value and estimates, and internal controls (Church, Shefchik 2012).

Similarly, the PCAOB reports that the most common recurring deficiencies relate to audit areas involving internal control, fair value, and revenue recognition (Munter 2015). To build upon deficiencies related to internal controls, research published in 2016 evaluates the relationship between PCAOB internal control deficiencies and the firm’s responses to these ICFR deficiencies. This study found that auditors did not cooperate with the PCAOB to reconcile deficiencies within a year of inspection, and auditors were generally unresponsive to PCAOB
sanctions (Calderon, Song, Wang 2016). This study states in its conclusion that it appears auditors do not address PCAOB deficiencies sufficiently when they arise, which negatively contributes to the quality of future audits (Calderon, Song, Wang 2016). Nonetheless, a similar study determined that PCAOB inspections are improving the quality of audits overall, and specifically audit of internal controls, as PCAOB inspections encourage auditors to remediate deficiencies identified in their audit work (Defond, Lennox 2016).

**RESEARCH QUESTION**

My research question is two-fold. In specifically looking at inspection report data, and using deficiencies as proxy for measuring audit quality, I ask the following: does the PCAOB improve audit quality through inspections? Using the report data to substantiate PCAOB and EY claims, I conduct further analysis that asks the following: is EY doing its due diligence in addressing PCAOB claims and concerns over inspections to create actual improvements in audit quality?

**HYPOTHESIS**

The PCAOB states that its mission and the goal of audit inspections is to improve audit quality. Therefore, if PCAOB inspections improve audit quality, then I expect a decrease in deficiencies. I use changes in inspection report deficiencies to proxy for audit quality. My hypothesis is that PCAOB inspections improve audit quality.

**METHODOLOGY**

I examine the PCAOB Inspection Reports of EY for the inspections of years 2004 through 2016. The PCAOB first implemented public audit firm inspections in 2003 following the passage of SOX. I did not include the PCAOB’s first year of inspection in 2003 in my data collection because the PCAOB confined this year’s assessment to a limited review of audit firms,
rendering its content dissimilar to all other inspection year reports. I end the sample in 2016, the last available year of data publicly released by the PCAOB. I limit my data collection to only that of EY reports because of a limited amount of time allotted to gather all necessary inspection report data. The PCAOB releases public versions of Inspection Reports on its website\(^1\) under the *Firm Inspection Reports* section.

The format of these reports has remained generally consistent since 2004 and details each deficiency, or list of deficiencies by *Issuer*. The PCAOB includes the number of offices inspected and, more recently, the number of audit engagement inspected in Inspection Reports. The reports for years 2010 through 2016 become increasingly more transparent and contain more detail and analysis of deficiencies than previous reports. In particular, Inspection Reports from 2014 through 2016 include drastically improved quality of information and expanse of information, such as the audit standards infringed upon, audit assertions impacted, and provided deficiency statistics. However, one must note that the PCAOB organizes the recent developments in report disclosures by audit firm client, not individual deficiency. Therefore, the additional report content, while informative, does not provide more detail on the individual deficiencies, which are the focus of my research project. Nonetheless, the various changes for increased report transparency is noteworthy in tracking the progression of PCAOB Inspection Report developments.

Using the publicly available Inspection Reports, I hand-collect the inspection report deficiency data and classify the data by the type of deficiency listed in the report. I focus on the publicly released ‘Part I’ section, which details the deficiencies identified and sanctioned by the PCAOB. Specifically, the PCAOB organizes deficiencies by *Issuer*, referring to the audit client

\(^1\) https://pcaobus.org/
that issues the financial statements (e.g., the company being audited). When an Issuer has several deficiencies, I account for and classify each individually identifiable deficiency into the appropriate audit category. Appendix A includes EY’s 2009 PCAOB Inspection Report title page followed by a report page that lists inspection deficiencies.

I first determine the nature of each deficiency listed in the reports as a financial statements (FS) or internal controls (IC) related deficiency. A FS related deficiency results from issues in an audit firms substantive testing of accounts, and an IC related deficiency results from issues in the audit firms testing of a company’s internal controls. I separate deficiencies in this way because an audit results in separate FS and IC opinions, auditors use different procedures and frameworks for these two types of audits, and FS and IC audits are generally treated differently by the PCAOB, audit firms, and the industry as a whole. I then categorize each FS or IC deficiency as one of the following deficiency types: pervasive\(^2\), revenue, consolidations, securities and investments, reserves, inventory, goodwill, fair value, allowance for loan losses, assets (including property, plant and equipment), tax, and miscellaneous/other\(^3\).

I analyze my complete set of data with the goal of determining the audit categories containing the highest number of recurring deficiencies. I conduct data analysis using Excel and Tableau to identify prominent consistencies, patterns, and trends presented in the deficiency results for the period of inspection years under review. In addition to my initial analysis, I cross-reference the significant recurring deficiency findings with EY and PCAOB publications or public responses related to the most frequently recurring deficiency categories presented in my data results. This parallel comparison aligns highly recurring deficiencies over the years with EY

\(^2\) Pervasive: an all-encompassing category in which the IC or FS deficiency related to multiple audit categories, resulting in a wide impact on all related categories

\(^3\) Miscellaneous/other: an accumulation of the deficiency categories that rarely occurred in the time period (ex: pension, cash flows, lease, settlements, going concern)
and PCAOB discussions that have developed in corresponding years all in response to issues of recurring audit deficiency categories.

**RESULTS**

I first analyze the data on a large-scale inspection to review the aggregate results. I proceed to narrow my data observations to analyze FS versus IC deficiencies, and then determine the specific deficiency categories that are highly recurring and have a large number of total deficiency reporting’s throughout the timeline under observation.

I first present the study’s cumulative results. Figure 1, below, is a graphical depiction of the total number of deficiencies recorded in the PCAOB Inspection Report for EY for the years 2004 through 2016.

*Figure 1: Total Number of Deficiencies Identified per Inspection Year of EY*

Total Deficiencies by Year Inspected

![Bar chart showing total deficiencies per year: 2004-2009: 10, 11, 10, 8, 10, 9, 2010-2013: 40, 49, 57, 92, 2014-2016: 61, 52, 52.](#)

Figure 1 shows a generally consistent number of deficiencies for inspection years 2004 through 2009, with deficiency counts hovering around 10, ranging from as low as 8 to as high as 11. Following this steady period of inspection years, the number of deficiencies recorded drastically begin to increase starting in 2010, continuing to rise through the 2013 inspection year. The 2013 inspection report contains the highest count of 92 recorded deficiencies among all
inspection report years under review. The spike in 2013 reflects the PCAOB’s increased focus on IC audits. In 2013, the PCAOB specifically targeted IC audits, which resulted in a greater number of recorded deficiencies. The number of deficiencies reported by the PCAOB following this 2013 peak year decline in 2014 and remain generally consistent from 2014 through 2016.

Overall, Figure 1 shows two prominent relevant ranges, the first being years 2004 through 2009, and the second being 2010 through 2016. The natural learning curve for the PCAOB and audit firms inspection processes is one consideration in addressing this clear divide in the data. Within the second relevant range, the PCAOB improved its inspection processes and procedures, which resulted in a higher count of total deficiencies.

Next, I evaluate the number of FS deficiencies compared to the number of IC deficiencies recorded and track the changes and trends for these two main measures. Figure 2, below, shows the total number of FS and IC deficiencies recorded over the years inspected. The green markings represent FS deficiencies and the orange markings represent IC deficiencies.

*Figure 2: FS versus IC Deficiencies per Inspection Year*

As shown in Figure 2, it is evident that overall, both FS and IC deficiencies have increased and there has been a general shift from higher counts of FS deficiencies in early
inspection years to an increasing number of IC deficiencies over the time period. In years 2004 through 2008, FS and IC deficiencies had a generally similar total number of deficiencies each year, and FS deficiencies consistently outnumbered IC deficiencies. This relationship changed in 2009 when IC deficiencies and FS deficiencies were nearly equal, with four FS deficiencies and five IC deficiencies identified. The data change again in 2010, when FS deficiencies (23) outnumber IC deficiencies (17).

The largest data shift occurs in years 2011 through 2013, where IC deficiencies are significantly greater than FS deficiencies. The largest divides in this period occur in 2012 and 2013, where FS deficiency rates are 16 and 35, and IC deficiency rates are 41 and 57, respectively. In 2013, the PCAOB became more vocal regarding the alarming number of deficiencies recorded in PCAOB Inspection Reports (Crump 2013). More specifically, the PCAOB had a greater focus on the increasing number of IC deficiencies (Tysiac 2013). This concern aligns with the peak number of deficiencies in 2013, as shown in both Figure 1 and Figure 2. The data results converge again in inspection years 2014 through 2016, with an equal number of 26 deficiencies for both FS and IC audits in 2015.

Above, I provide comprehensive deficiency results and FS versus IC deficiency results. Next, I present the results according to the audit category related to report deficiencies. Table 1, below, presents the data results for the audit categories related to each deficiency identified. This table splits Figure 1 and Figure 2 into the multiple categories that make up the aggregate data presented above. The final column in Table 1, titled “Number of Years w/o Deficiency,” counts the number of years in which a deficiency did not occur between 2004 through 2016 inspection years. Thus, a low number indicates a deficiency occurred for more years, and a high number indicates that the deficiency occurred for fewer years. The purpose of Table 1 is to detect not
only the largest number of deficiencies reported by the PCAOB, but to also identify the more commonly recurring deficiencies among the inspection report years under review.

Table 1: FS, IC, and Total Deficiency Results by Audit Category

<table>
<thead>
<tr>
<th>Category</th>
<th>FS Deficiencies</th>
<th>IC Deficiencies</th>
<th>Total Deficiencies</th>
<th>Number of Years w/o Deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>62</td>
<td>68</td>
<td>130</td>
<td>0</td>
</tr>
<tr>
<td>Inventory</td>
<td>38</td>
<td>37</td>
<td>75</td>
<td>2</td>
</tr>
<tr>
<td>Pervasive</td>
<td>6</td>
<td>41</td>
<td>47</td>
<td>5</td>
</tr>
<tr>
<td>Assets / PPE</td>
<td>25</td>
<td>21</td>
<td>46</td>
<td>2</td>
</tr>
<tr>
<td>Consolidations</td>
<td>17</td>
<td>22</td>
<td>39</td>
<td>4</td>
</tr>
<tr>
<td>Fair Value / Estimates</td>
<td>22</td>
<td>4</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>Goodwill</td>
<td>12</td>
<td>10</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>Securities / Investments</td>
<td>10</td>
<td>9</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>ALL</td>
<td>9</td>
<td>10</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>Misc. / Other</td>
<td>12</td>
<td>3</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Tax / Income Tax</td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Reserves</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>

As shown above in light red highlights, Revenue and Inventory have (1) the highest number of total deficiencies, and (2) the lowest counts of years in which these deficiencies occur less often throughout the thirteen years under review, meaning these are the audit areas with the most recurring deficiency categories. To further support the results in Table 1, I examine these two main factors, (1) the total deficiency counts and (2) the number of years in which a deficiency did not occur, under the FS and IC results separately. Table 2, below, shows the counts for IC and FS deficiencies by category, with both IC and FS measures considered in conjunction with the number of years a deficiency did not occur. The second and third column relate to FS measures, and the fourth and fifth column relate to IC measures.
Table 2 highlights the top three audit categories under both FS and IC measures that yield (1) the highest total number of deficiencies among all years inspected and (2) the lowest count of years in which a deficiency did not appear in PCAOB Inspection Reports, thus, a highly recurring deficiency. In consideration of the FS results above, Revenue, Inventory, and Assets are the top three ranking deficiency categories that meet the two factors under examination. Similarly, Revenue, Pervasive, and Inventory are the top three ranking deficiency categories for the IC results. When analyzing the FS and IC results separately, I find both Revenue and Inventory among the top recurring deficiency issues, with Revenue being the highest ranking under both measures. This data reinforce the aggregate results presented in Table 1 and determine that, overall, the most recurring deficiency categories for EY during this period of PCAOB inspection years are Revenue and Inventory, with Revenue being the most recurring deficiency.
EY and PCAOB Extended Analysis

In the remainder of this section, I cross-examine my deficiency data results with corresponding EY and PCAOB discussions to address my second research question. Specifically, I try to match EY responses to deficiencies of subsequent inspection results. The goal of this extended analysis is to evaluate whether EY is actually implementing real changes to improve audit quality, or employing a false-front tactic that results in ineffective contributions to important audit issues. I first review EY’s statements that relate to inspection report deficiency issues.

Following the PCAOB’s release of the EY 2012 Inspection Report, EY publicly acknowledged the increase in IC deficiencies, and added that throughout the years prior to the 2012 report, IC inspection deficiencies have been increasing not only for EY, but across the audit industry as a whole (Cohn 2013). To continue, EY informed the PCAOB of its efforts in the release of a public report in December of 2012, which detailed concerns and insights regarding IC deficiency issues (Cohn 2013). Also following the 2012 Inspection Report, Americas managing partner at EY, Steve Howe, released a statement in response to the PCAOB report. On behalf of the firm, Howe regarded the importance of PCAOB inspections in stating his “respect and benefit from this process as it aids us in continuously improving the quality of our work and fulfilling our responsibility to investors and other stakeholders” (Cohn 2013). Howe continued to inform that EY is dedicating significant efforts to improve and develop IC audit procedures, and subsequently listed the specific progress areas EY has targeted to advance the quality of IC audit work (Cohn 2013).

Figure 1 and Figure 2 illustrate the drastic increase in deficiencies from 2012 to 2013, with the total number of deficiencies jumping from 57 to 92, respectively. Similarly, IC
deficiencies rose from 41 in 2012 to 57 in 2013, which contrasts with EY’s communicated efforts toward improving this audit area. Although, when continuing this observation from 2013 through 2014, overall deficiencies drop from 92 to 61 and IC deficiencies decrease from 57 to 31, nearly cutting IC deficiency counts in half.

Two years later, EY released another statement declaring it was “fully committed to delivering high-quality audits,” and provided that not only was EY’s audit quality improving, but EY had confidence that audit quality across the industry was improving (Rapoport 2015). Figure 1 shows the number of deficiencies falling from 61 in 2014 to 52 in 2015, which serves as evidence to support EY’s 2015 statement regarding its dedicated efforts towards improving audit quality.

In addition to the Inspection Reports, the PCAOB also released a number of statements, publications, and Staff Audit Practice Alerts in an effort to communicate with and inform audit firms subject to inspection. These publications contain information and guidance over newly developing audit areas of concern, and are designed to impact how an audit firm conducts its current and upcoming audit work to be in full compliance with PCAOB standards, regulations, and expectations (Cohn 2013). I proceed with a chronological review of PCAOB statements, publications, and discussions relevant to this study.

In December of 2012, the PCAOB released a report to firms that addressed growing concerns over inadequate IC audit practices (Tysiac 2013). Less than a year later, the PCAOB issued a similar Staff Audit Practice Alert warning audit firms of the staggering increases in IC deficiency counts since 2010 (Cohn 2013). As depicted in Figure 2, IC deficiencies rose from 5 to 57 in the years 2010 through 2013. Thus, it is clear that the PCAOB issued these alerts as additional efforts to communicate its IC audit expectations, as well as its escalating concerns.
regarding the significant lack of appropriate IC audit procedures. The former PCAOB Chairman, James Doty, responded to this matter with a statement advising auditors to thoroughly address the contents of the PCAOB alerts because effective company controls is an exceedingly important audit area that is under close examination by regulators (Tysiac 2013).

The PCAOB issued another Staff Practice Audit Alert in 2013 regarding deficiencies related to revenue, and included in the alert a briefing on audit requirements for revenue, as this is one of the most important audit areas inspected by the PCAOB (Cohn 2013). The alert details specific revenue audit areas where auditors should focus on improving procedures, such as testing appropriate revenue recognition and period end cut-off, and evaluating presentation and proper disclosure matters (Cohn 2013).

Following this alert, Doty released another statement warning auditors to take extra caution and care through all stages of audit work conducted over revenue, as revenue is inherently an area of high audit risk (Cohn 2013). In the same 2013 discussion, the PCAOB communicated that revenue is an audit area that regularly generates a large number of deficiencies during inspections (Cohn 2013). Table 1, above, reflects this fact as revenue has the highest total number of deficiencies (130), as compared to the total deficiencies identified among other audit categories, with inventory having the second largest total number of deficiencies (75). Revenue not only has the highest number of deficiencies, but it is also the most frequently recurring deficiency. Figure 3, below, shows EY’s total number of revenue deficiencies across all inspection years under review.
Figure 3: Total Revenue Deficiencies per Inspection Year of EY

Figure 3 illustrates an overall increase in the number of revenue deficiencies throughout the time period. While the results generally range between 1 and 5 deficiencies from 2004 through 2009, an upward trend begins after 2009 and continues to increase through 2016. EY’s revenue deficiency data are reflective of the revenue concerns expressed by the PCAOB in 2013. With revenue deficiencies rising from 1 in 2009, and 7 in 2011, to EY’s largest amount of 28 in 2013, the PCAOB was responsive to this issue in a timely matter through the issuance of two Staff Practice Audit Alert’s over exclusively revenue focused matters. Through these publications, the PCAOB extended itself as a resource to firms by providing a substantial amount of useful information in the revenue focused alerts, such as offering specific guidance on how to improve audits of revenue related accounts.

In looking at the years following the alarming 2013 peak deficiency year, deficiencies decreased in 2014, yet continued to remain a rising issue in the two most recent years of released Inspection Reports. This confirms that revenue continues to be a significant audit issue, as it yields a high number of deficiencies and remains a highly discussed audit improvement matter by the PCAOB.
Another significant audit issue that is gaining the attention of regulators is recurring audit deficiencies. The PCAOB’s Director of Registration and Inspections, Helen Munter, stated in a 2015 speech that recurring audit deficiencies is the number one area that the PCAOB is calling upon for improvement among auditors (Munter 2015). This issue has quickly ascended to a global level and is discussed amongst major audit supervisors and enforcers around the world. Munter declared that the PCAOB expects audit firms to utilize Inspection Report results to track common recurring deficiencies to improve audit areas in which a firm is continuously underperforming (Munter 2015).

In another statement, Munter acknowledged signs of improvement in the 2014 inspection results but concluded this praise with another call for firms to focus attention to the many recurring deficiencies that still remain (Whitehouse 2015). This discussion continues through 2017, as the PCAOB announced that it continues to identify the same deficient audit areas that it has already sanctioned firms for in prior years of inspection (Cohn 2017).

Munter vocalizes her concern over recurring deficiencies again in 2017 as she states, “the number and significance of the recurring audit deficiencies that were identified suggests that some firms may need to consider whether additional or different steps need to be taken to improve and sustain audit quality” (Cohn 2017). Figure 3 supports this statement, as shown by the upward trend of revenue deficiencies in 2015 and 2016, signaling that firms are not utilizing their past Inspection Reports as a tool for improving weak audit areas that have a history of recurring deficiencies. Furthermore, Figure 3 reinforces Munter’s concern regarding this issue, for EY has received a revenue deficiency in every inspection year recorded to date. In summation of this PCAOB review, the PCAOB appears consistent in its call for firms to improve audit practices in continually underperforming audit areas.
DISCUSSION

This study finds that revenue and inventory audit categories have the largest total number of deficiencies and the most recurring deficiency rates for EY across all PCAOB inspections conducted from 2004 through 2016, with revenue being the most prevalent audit deficiency issue. The secondary analysis supports my inspection report deficiency results. The publications and discussions regarding these reports reflect deficiency trends and recurrences present throughout the years under review.

In conclusion, I reject my hypothesis. The data does not support that inspections have improved audit quality. I reject my hypothesis because the data results appear to have no significant decrease in number of reported deficiencies over the time frame. However, I cannot conclude that the opposite of my hypothesis is true either. The deficiency data does not suggest that audit quality has decreased. My findings propose that audit quality requires continued improvement.

Given the nature of PCAOB Inspection Reports and the discussions related to important audit matters, there are a number of inherent data limitations in this study. Data is limited to audits of public companies, for the PCAOB regulation does not extend to audits of private companies. The PCAOB Inspection Reports analyzed in this study are limited to EY report results and do not include the Inspection Reports of other Big Four audit firms, or any other smaller sized audit firms subject to PCAOB inspection. Additionally, this data only extends to EY offices within the United States and does not include data from other countries in which EY operates. Another significant limitation is that PCAOB inspections are a relatively recent development in the audit profession. The inspection processes and Inspection Reports are still evolving, as the reports have become much more transparent and detailed in recent years. This is
a data limitation because information may not be consistent, and therefore, may not be comparable across years.

The data collected is limited to publicly released and accessible information, which is a limitation that impacts both the Inspection Reports and communications between firms and their regulators. The Inspection Reports used in this study, made available through the PCAOB website, are the public versions of these reports; thus, redacted information from these reports could not be included in this study. The reports do not identify the firm offices inspected or the specific engagements inspected per office, and the severity of each reported deficiency is not disclosed. The data in the secondary analysis is limited to publicly released materials that are relevant to my research. Any privately held EY and PCAOB communications, either individually or jointly, are not included on considered in the results of this study.

I next present a consideration which might account for the patterns and anomalies found in the results of this study. I consider the changes in accounting standards and regulations that occurred during the years 2004 through 2016. It is reasonable that a change in the treatment of an area of accounting could have impacted the audit procedures conducted within those affected areas of accounting. Thus, a greater number of deficiencies could have occurred during the years following a significant accounting change. For example, the FASB and the IASB came together in May of 2014 to change revenue recognition accounting standards (Cohn 2013). In another example, the 2013 COSO Internal Control – Integrated Framework was implemented by companies in 2014, which could have impacted the inspection outcomes of audits over IC in the years 2014 and 2015, for professionals must familiarize themselves with the intricacies of this change (Whitehouse 2015).
To enrich the findings in this study, I provide suggestions of the next steps to pursue following this research. Considering that the PCAOB conducts inspections of EY and releases these Inspection Reports annually, I recommend continued monitoring of deficiency rate totals and observing the frequencies of recurring deficiencies. More specifically, I recommend collecting future data to measure whether the rates of recurring deficiencies have increased, decreased, or remained constant throughout the years following this analysis. In combination with the deficiency measures discussed, it is important to analyze the PCAOB’s movement towards increasing the transparency of these reports, as this may have a critical impact on future inspection report results. Lastly, I recommend continued tracking of the related communications and public statements of the PCAOB and EY. With this follow-up assessment, the development of the audit matters addressed in this study can be thoroughly readdressed to draw relevant future conclusions. It is important to note that these recommended next steps can be extended beyond EY to include data from other Big Four firms.

In addition to the next steps discussed above, I recommend extending the application of this research to also consider critical audit matters and the disclosure of the audit partners leading audits. These are two current developments in auditing that could impact the future of PCAOB inspections processes, Inspection Reports, and audit quality of inspected firms.

**IMPLICATIONS**

The implications of this research are relevant to the PCAOB because this study analyzes the regulatory inspections of audit firms and the publications related to these inspections from its formation through the 2016 inspection year. My findings suggest that the PCAOB and audit firms should continue focused efforts in improving audit quality, for it can be argued that audit quality requires additional improvement. Building on this, the PCAOB has the resources to act as
a catalyst to improve the state of audit quality through its evolving inspection processes and communications. My findings are relevant to audit firms because I research the PCAOB’s inspections of EY audit work, and the conclusions of this study can be extended to similar audit firms, such as other Big Four firms and midsized regional firms. This study is helpful to audit firms because the results suggest that firms should continue to dedicate significant efforts towards the improvement of audit quality.

Furthermore, the implications of this study can be extended beyond the PCAOB to other regulatory agencies that are similar to the PCAOB, such as global audit regulators. The implications of this study can also extend beyond auditors and audit firms to other groups which are regulated in a similar manner to that of United States audit firms. I analyze the interactions between a regulator and the groups subject to its regulation to make inferences regarding the effectiveness in fulfilling the mutual goals of each party involved. The results of this research indicate the importance of utilizing currently available resources to improve the outcomes of future returns. My results also highlight the value of constructive communication between regulator and the parties under regulation to propel the improvement of a collective objective.

I next provide advice to the PCAOB, audit firms, and companies based on my research findings. First, I advise the PCAOB to continue to communicate concerns and expectations with auditors and audit firms. This is because these releases have been relevant, timely, and provide helpful and focused content. The PCAOB should also continue its momentum towards increasing transparency and level of detail in Inspection Reports, for this greater level of disclosure is valuable to companies, audit committees, investors, and all other users of audited materials.

Second, I advise audit firms to focus on the PCAOB’s publications and communications regarding inspection expectations and audit quality concerns. Additionally, audit firms should
reassess their procedures in weak audit areas that have either a high number of total deficiencies in any particular inspection year, or audit areas with frequently recurring deficiencies in certain audit categories across inspection years. This is to utilize the results of Inspection Reports as a resource to improve the outcomes of future inspection report findings.

Finally, I advise public companies to continuously monitor the PCAOB’s communications regarding important audit matters. This is best done through confirmation with audit committees and engaged audit firms to ensure appropriate awareness of the relevant audit inspection issues, and additional confirmation that these groups are taking steps to proactively moderate high priority matters. In addition to this, I recommend that it would be best practice for companies to keep account of audit firms that have taken steps to minimize PCAOB inspection report deficiencies when selecting an audit firm. This awareness ensures that a public company’s audit engagements are with firms that regard audit quality improvement as a priority.

CONCLUSION

This study evaluates the relationship between audit quality and PCAOB audit inspections of public accounting firms. Specifically, I designed this study to evaluate whether the PCAOB inspections improved audit quality. I examined PCAOB Inspection Reports of EY for the years 2004 through 2016. I used the deficiencies listed in these inspections reports as proxy for measuring the audit quality of EY. I conducted further analysis over audit quality improvements by using the inspection report data to substantiate related PCAOB and EY inspection report and audit quality claims.

Given that the PCAOB and EY have the mutual goal of improving audit quality. I presented the argument that if PCAOB inspections improve audit quality, then I should expect a
decrease in deficiencies. My predicted hypothesis was that PCAOB inspections improve audit quality.

I find that the number of inspection report deficiencies remains considerably consistent within the two relevant ranges under examination. Therefore, I reject my original hypothesis and my results suggest that audit quality has not increased from PCAOB inspections. I also emphasize that I cannot conclude that audit quality has decreased from PCAOB inspections. This conclusion is the result of a number of limitations present in the data.

Overall, based on inspection deficiencies and discussions, my findings propose that audit quality requires continued improvement. This study contributes to the field of accounting because audit quality should continue to be a matter of high priority within the professional audit industry.
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APPENDIX A

Report on

2008 Inspection of Ernst & Young LLP
(Headquartered in New York, New York)

Issued by the
Public Company Accounting Oversight Board
May 19, 2009

THIS IS A PUBLIC VERSION OF A PCAOB INSPECTION REPORT
PORTIONS OF THE COMPLETE REPORT ARE OMITTED
FROM THIS DOCUMENT IN ORDER TO COMPLY WITH
SECTIONS 104(g)(2) AND 105(b)(5)(A)
OF THE SARBANES-OXLEY ACT OF 2002

PCAOB RELEASE NO. 104-2009-069
Firm failed to identify a material weakness in the issuer's internal controls over the accounting for sales returns.\textsuperscript{13v}

Issuer B

In this audit, the Firm failed to identify a departure from GAAP that it should have identified and addressed before issuing its audit report. The issuer failed to appropriately account for estimated future product returns at the time of sale in accordance with SFAS No. 48.\textsuperscript{13v}

Issuer C

In this audit, there was no evidence in the audit documentation, and no persuasive other evidence, that the Firm had identified certain terms and conditions contained in the issuer's revenue contracts and evaluated their effect on the issuer's ability to report revenue on a gross basis. Further, there was no evidence in the audit documentation, and no persuasive other evidence, that the Firm had identified and evaluated certain other terms and conditions included in these contracts, such as multiple products and deliverables, acceptance clauses, guarantees of cost savings, and volume rebates, that may have affected the issuer's revenue recognition.

Issuer D

During the fourth quarter, the issuer recorded three individually significant adjustments to correct misstatements in its income tax balances. Two of these misstatements related to prior years. The third related to the issuer's first quarter adoption of Financial Accounting Standards Board Interpretation No. 48, Accounting for Uncertainty in Income Taxes ("FIN 48"). The issuer corrected all three misstatements, which netted to an insignificant amount, by adjusting the current year's income tax expense. The Firm concluded that two of the adjustments should have been recorded as corrections of prior years' errors and the third adjustment should have been recorded

\textsuperscript{13v} The Firm identified this failure in the course of performing additional procedures following receipt of the inspection team's comments on aspects of the Firm's audit of the issuer's accounting for sales returns. The Firm revised its opinion on the issuer's ICFR related to the matter discussed here.

\textsuperscript{13v} The issuer has restated its financial statements related to this matter.