Audit Partner Effects on Audit Pricing and Audit Quality in the United States

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ABSTRACT

This paper examines the effects of audit partner experience and gender on audit fees and quality in the U.S. Currently audit partner identity is not publicly disclosed in U.S. audit opinions. We circumvent this data limitation by obtaining a sample of auditor-client-year observations from SEC comment letter correspondence between companies and the SEC in which companies copy their audit partners. We then hand-collect partner characteristics data from LinkedIn, including gender and year graduated from college. Analysis of a sample of 536 client-year observations for 337 audit partners from the period 2004-2014 results in a positive relation between audit partner experience, gender, and audit fees. Additional analyses reveal that these associations are most significant for short audit firm tenure and for small local market firm observations. These results suggest that more experienced and female partners command audit fee premiums during the early years of the audit engagement when fee negotiations are most intense, and especially in smaller markets where partner reputation is more visible and consequential. Our audit quality analyses fail to identify any consistent, significant partner experience or gender effects. We conclude from these results that the audit fee premium is a form of an auditor reputation premium, rather than a payment for higher audit quality. Our results have implications for future research on partner-level determinants of audit quality, particularly in light of the PCAOB's passage of a rule requiring public identification of audit partner identity in PCAOB Form AP starting in 2017.

Keywords: audit partner experience, audit partner gender, audit fees, audit quality

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I. INTRODUCTION

This paper examines whether audit pricing and quality vary in the U.S. with certain audit partner characteristics. Individual auditors are an essential input to the audit process and individual auditor characteristics can affect performance. However, we know little about the people who conduct and lead audit engagements, particularly in the U.S. (Francis 2011). This is primarily due to our inability to identify engagement partners overseeing U.S. public company audits because partners are not required to sign U.S. audit opinions. Internationally, a number of countries, such as Australia, Belgium, China, Taiwan, have mandated that audit partners sign audit opinions, thereby publicly disclosing partner identity and allowing for research on audit partners in non-U.S. audit markets. We extend this research by examining individual partner characteristic effects on audit fees and quality in the U.S. audit market, but prior to mandated, widespread disclosure of U.S. audit partner identity.

The U.S. audit market differs from other audit and capital markets in numerous respects. First, engagement partner identity is not yet public and partners are not yet held accountable to the investing public in the U.S., thus potentially limiting partner effects on audit quality and audit fees, which are observed in countries with an engagement partner signature mandate. Second, unlike most other developed countries throughout the world, U.S. auditors face high litigation risks and unique regulatory scrutiny and individual sanctions from the PCAOB and the SEC. Because of these marked differences in the regulatory, legal, and other aspects of the audit market environment, U.S. Big 4 accounting firms most likely operate differently in terms of audit partner assignment, training, etc. These differences underscore the importance of examining the impact of audit partner characteristics on audit quality and pricing in the U.S.

This study utilizes a unique data source – SEC Comment Letter correspondence on which audit partners are copied – to link audit partner names to firm-year observations. We hand-collect data on Big 4 partner characteristics from the partners' profiles on LinkedIn.com. The audit fee regression model results show a significant positive relation between audit partner experience and audit fees after controlling for other determinants of audit pricing. We also find that Big 4 female partners command significantly higher audit fees than their male counterparts. Additional analyses reveal that the positive associations between these audit partner characteristics and audit fees are most significant during the early years of the audit firm's engagement and for clients in small local markets. These results suggest that female partners and those with greater experience demand a fee premium in the initial years of engagement when fee negotiations are most intense, especially in smaller local audit markets where auditors have greater leverage in fee negotiations as compared to larger, more competitive local markets.

We also examine whether auditor experience and gender affect audit quality. The results show no significant partner experience or gender effects on audit quality, neither in smaller markets nor under short audit firm tenure. They suggest that the female partner and partner experience fee premiums are not significantly associated with higher audit quality. Given the evidence of audit fee and not audit quality differences, we conclude that experience and gender premiums are based on reputation or other rent extracting factors, rather than a premium for higher audit quality. Clients likely demand more experienced and female audit partners because of their reputations for expertise, connections, and/or client satisfaction versus their ability to curb aggressive financial reporting.

Our results suggest that clients do not treat partners as interchangeable, but rather they value some partners more highly than others (Taylor 2011). We identify audit partner experience

and gender as distinguishing partner characteristics in the audit contracting process. We further conclude from these results that investors and other public stakeholders could potentially benefit from the disclosure of partner identity in the U.S., which will begin in 2017 (PCAOB 2016). Individual partner information will allow investors to evaluate partners (versus firms). Since we find that audit partner characteristics have a significant impact on audit fees but not audit quality prior to partner name disclosure, post-disclosure investors may push for a stronger link between audit fees and audit quality. Audit partners will may start developing their own reputations for audit quality that are separate from the reputations of their firms or firm offices (Doxey et al. 2015; Anderson et al. 2014), and the effect of the audit partner experience and gender on audit pricing may change.

The rest of this paper is organized as follows. The next section develops testable hypotheses regarding the effects of partner experience and gender on audit fees and quality. We then describe the research design including the data, sample selection process and the regression models. The descriptive statistics and the regression results are presented and described in the following section. We then describe additional analyses and sensitivity tests followed by a conclusion of the findings and their implications for future research as well as the limitations of our study.

II. HYPOTHESES DEVELOPMENT

On the one hand, individual partner characteristics may not significantly affect audit pricing and quality. Years of audit research has focused on the importance of audit firm identity (e.g., firm size, specialization) and assumes that clients are interested in their audit firm's identity and characteristics, but not in those of their partners. In addition, audit services may be viewed as products of engagement teams and/or offices rather than that of individual partners. Although

individual auditors may influence audit outcomes, they are constrained by the quality-control mechanisms within the audit firm. In fact, audit firms try to maintain consistency in audit quality through control mechanisms, including standardized audit programs, training, centralized control of risk and materiality decisions, and socialization (Jeppesen 2007). These firm efforts to establish a set level of audit quality across the firm would mute the impact of differences in partner characteristics on audit pricing and quality.

On the other hand, prior research conducted in non-U.S. auditing environments provides evidence that individual partner characteristics drive fee premiums. Specifically, Cahan and Sun (2015) find that partner experience is positively associated with audit fees in China. Zerni (2012) and Goodwin and Wu (2014) find a positive relation between partner industry specialization and audit fees in Sweden and Australia, respectively. Lastly, Taylor (2011) finds that premium partners audit fewer clients and have shorter partner tenures, compared to "discount" partners.

Furthermore, audit partner identity is an important factor in the auditor selection process. Behn et al. (1997) find that partner involvement is a key component of company controllers' evaluations of audit quality. Fiolleau et al. (2013) find that in the process of choosing an auditor, audit committee members (ACMs) and financial managers actively choose both the audit firm and a particular lead audit engagement partner. Engagement partners plan and supervise the execution of the audit and ultimately determine the type of audit report to be issued to the client (Chin and Chi 2009). To be able to do this, audit partners require certain skills, including technical knowledge, business acumen, communication skills, interpersonal skills, and visibility (Tan 1999). ACMs charged with selecting a company's auditor are particularly interested in certain attributes of audit partners, namely the partner's ability to identify and address accounting

issues on a timely basis, the partner's accessibility, and the partner's ability to liaise with the firm's national technical office (Almer et al. 2014).

Almer et al. (2014) find that audit committee members prefer local partners who have political capital in their audit firm and a high level of technical expertise. These attributes are arguably subject to change with greater experience. The more years of experience, the more expertise and political capital a partner is likely to have (Waller and Felix 1984). Partners who have longer tenure have more audit experience and have had more time to earn a reputation among corporate boards and senior executives (Taylor 2011). Thus, more senior partners are expected to have better skills and reputations than more junior partners, leading them to have higher fees than more junior partners.

Based on the above discussion and prior research, we propose the following hypothesis regarding the relation between audit partner experience and audit fees in the U.S.:

H1: Audit partner experience is positively associated with audit fees.

Prior experimental audit research indicates that individual auditor characteristics such as experience, competence and gender can impact audit quality (see Nelson and Tan 2005; Nelson 2009). For example, *ceteris paribus*, more competent auditors should produce higher quality audits (Francis 2011). On the whole, the effect of individual auditor experience in judgment and decision-making (JDM) research has been examined only across auditor ranks, comparing the judgments of staff, seniors, managers, and partners. This research stream has shown that experience is necessary to complete more complex audit tasks (Abdolmohammadi and Wright 1987). The judgment structures of more experienced auditors are substantially different from those of less experienced auditors (Choo and Trotman 1991). However, auditor experience does not directly equate to expertise (Bonner and Lewis 1990). Libby and Luft (1993) model auditor

expertise such that experience leads to opportunities to acquire knowledge, and knowledge together with ability, influences auditor performance. Moreover, since audit quality is a function of both auditor independence and competence, environmental factors such as client dependence, may constrain the positive effect of auditor competence on audit quality. However, experimental research has not examined the incremental impact of more experience within the partner ranks nor the effect of experience on audit quality under real-world independence constraints.

Archival evidence to triangulate judgment-and-decision-making research is limited to non-U.S. auditors, who operate in less litigious and less stringent regulatory oversight audit environments than U.S. auditors. A number of studies examine audit partner expertise or specialization effects in other countries. Some of these studies find a positive relation between audit partner experience and audit quality as measured by discretionary accruals, modified opinions, and audit failures (Cahan and Sun 2015; Ye, Cheng, and Gao 2014; Chin and Chi 2011). Johnstone and Ittonen (2012) find that discretionary accruals are lower for engagements with industry specialist auditors, but only for those with relatively more years of audit experience. Their result suggests that industry-specialist partners constrain their clients' earnings management, but only if those partners have long experience. However, Wang, Yu and Zhao (2015) provide contrary evidence of engagement and review partner experience being positively related to restatements (audit failures). Based on the lack of specific theory regarding differences between partners and the mixed findings from international research, we formulate the following non-directional hypothesis:

H2: Audit partner experience is not associated with audit quality.

Audit Partner Gender

Historically, the supply of female audit partners, particularly among the Big 4 firms has been low. Recent statistics indicate that the number of females admitted to the partnership in the Big 4 firms varies across firms but is steadily rising.[1] Accounting firms seem to be increasing the diversity, particularly gender diversity, among their partners in response to demand from clients and the marketplace for partner diversity. As Deloitte notes, "achieving gender diversity is a clear business imperative."[2] PwC explains the importance of promoting female partners: "By focusing on diversity across all levels of the firm, right from apprenticeship and graduate entry through to the senior leadership level we are creating a workforce that more accurately reflects our clients and wider society."[3] These remarks demonstrate that there is a demand for female partners in the audit marketplace. The low supply and high demand for female audit partners may have shifted the equilibrium audit fee commanded by female audit partners upwards.

Moreover, clients may have gendered perceptions of audit quality and client satisfaction. Research from other disciplines finds that males and females make decisions differently; there are gender differences in knowledge, skills, abilities, preferences, and behavior. For example, female executives tend to be more diligent, more conservative, less overconfident and less tolerant of risk than males (e.g., Palvia et al. 2015; Huang and Kisgen 2013; Peni and Vahamaa 2010; Eagly and Carli 2003). Hardies et al. (2013) find that female accounting professionals are more risk averse but not necessarily more overconfident. Taken into the auditing setting, female tolerance for less risk may affect their audit contracting decisions through increased auditor effort and/or charging a premium for taking on this risk.

[1] For example, 44 percent of the 2016 partner class of PwC US was female and/or minority (the press release did not break out the percentage for these two groups) while the 2015 partner class was 30 percent female and 21 percent non-white. The 2016 and 2015 partner classes at EY were 29 and 31 percent women, respectively. See articles on www.goingconcern.com

[2] https://www.theguardian.com/business/2016/may/31/deloitte-highest-ever-proportion-female-partners

[3] http://www.consultancy.uk/news/12274/pwc-promotes-61-partners-17-women-to-bridge-diversity-gap

Behavioral research in auditing sheds some light on gender differences in auditor judgment and decision-making but the evidence is mixed and by no means conclusive. Chung and Monroe (2001) find that female audit partners are more accurate and effective information processors in complex audit tasks. O'Donnell and Johnson (2001) find that female auditors exhibit greater efficiency in their audit judgments than male auditors. Niedermeyer et al. (2003) surveyed auditors regarding the practice of audit fee lowballing and found that females find lowballing less acceptable than males. Lambert and Agoglia (2013) find that female auditors are significantly less likely than males to overdocument work they had not completed, exhibiting more ethical behavior in response to delayed supervisor/reviewer feedback.

However, Hardies et al. (2011) and Hardies et al. (2013) find no evidence for a gender difference in overconfidence within a sample of auditors. Also, most survey and experimental audit studies that collected gender information report that auditor judgment and decision-making did not differ based on gender (e.g., Frank and Hoffman 2014; Svanberg and Ohman 2014; Hurtt 2010; Bamber and Iyer 2007). Consequently, behavioral research suggests that some gender research on the general population does generalize to auditors, such as risk aversion, while other research, such as on overconfidence, may not necessarily generalize to the auditing profession.

Several empirical archival studies have been conducted on audit partner gender in foreign markets. Cahan and Sun (2015) document that audit fees to do not vary with partner gender in China. However, Ittonen and Peni (2012) find evidence indicating that firms with female audit engagement partners have significantly higher audit fees in three Nordic countries, and Hardies et al. (2015) find a female audit fee premium among the audits of Belgian public companies. However, neither of these studies includes tests to identify the drivers of the premiums (i.e. audit quality analyses).

In regards to partner gender and audit quality, Cahan and Sun (2015) find that Chinese female audit partners have lower propensity to issue modified audit opinions, which suggests that female auditors are less independent. However, Ittonen et al. (2013) find that female audit engagement partners in the Finnish and Swedish audit markets constrain auditee earnings management more so than males. Hardies, Breesch, and Branson (2014) conclude that in the Belgian private company audit market, female auditors provide higher audit quality and are more independent than male auditors, as measured by issuance of going concern opinions to financially distressed companies. In Taiwan, Chin and Chi (2009) find that audit quality (measured by earnings quality) is higher for female audit partners.

In summary, female audit partners may command higher fees due to a variety of factors, including low supply and high demand for partner diversity, gendered perceptions about audit quality, and/or gendered perceptions of client satisfaction. Clients may perceive female auditors to be more diligent, risk averse and conservative and to deliver better client service. Consistent with these notions, we expect female partners to be associated with higher audit fees. However, absent sufficient consistent prior research on gender and audit quality to warrant the formation of a directional hypothesis, we do not predict that female provide higher quality audits than their male counterparts. Formally stated, our hypotheses on partner gender are as follows:

H3: Female audit partners have higher audit fees than male partners.

H4: There is no difference in audit quality between female and male audit partners.

III. RESEARCH DESIGN

Data

Although engagement audit partner signatures on audit opinions are not required in the U.S., a unique data source does exist that identifies a sample of individual auditor-client pairs. The Audit Analytics Securities and Exchanges Commission (SEC) Comment Letter database provides a list of all auditors who have been named, or "copied," by clients in comment letter correspondence with the SEC since 2004. The SEC Comment Letter database has been used in a number of studies, including Laurion et al. (2015), Johnston and Petacchi (2015), Bozanic et al. (2015), and Cassell et al. (2013). Specifically, the database provides among other items, information about the client (name and Central Index Key), the date of the client's letter in which the auditor(s) was copied, the dissemination date of the letter, and the dates and names of the SEC filings referenced in the letters. Following Laurion et al. (2016), we assume that the audit partner copied in the comment letter correspondence was the engagement partner on the company's annual audit for the year the comment letter was issued, applying the CompuStat convention for converting dates to fiscal years.[4]

Sarbanes-Oxley Act of 2002 (SOX) Section 408 requires that the SEC review each registrant's 10-K filing at least once every three years. It also reviews other SEC filings, such as registration statements, prospectuses, and proxy filings. Following its review, the SEC issues a comment letter when it deems a filing to be materially deficient or when it simply requires further clarification on a filing disclosure or figure (Cassell et al. 2013). According to the 2013 SEC annual report, the SEC reviewed between 40 to 52 percent of corporations in the fiscal years ended 2009 through 2013.[5] These statistics suggest that, in general, a large percentage of companies are reviewed and receive comment letters and further suggests that the firm

[4] If the letter date is between January 1 and May 31, the prior year is used for the audit year. If the letter date is between June 1 and December 31, the year of the letter is the audit year.
[5] Specifically, the SEC reviewed 52, 48, 48, 44 and 40 percent of corporations in the fiscal years ended 2013, 2012, 2011, 2010, and 2009 (See http://www.sec.gov/about/secpar/secafr2013.pdf#appendix, page 44).

observations included in the SEC Comment Letter database are a fairly representative sample of the population of U.S. public companies.

Sample

The sample selection process begins with a search of the Audit Analytics SEC Comment Letter database for comment letters that copy a Big 4 audit partner.[6] As of October 2014, the database had 8,884 comment letter observations that copied a Big 4 audit firm and audit partner by name. We removed same year observations to yield a sample of 6,562 unique firm-year observations consisting of 1,749 Big 4 individual auditor names.

We then searched for each audit partner's background profile online, with the main source of partner background information being LinkedIn.com. We were able to locate experience (bachelor degree year) and gender information for the partners included in 1,477 firm-year observations. We omit companies not listed in Research Insight (76), foreign-based companies (214), financial institutions (342), missing control variable data (144), and missing audit fee data (20). Lastly, 145 observations were dropped because they were the only observation in their MSA, 2-digit SIC industry (a qualification necessary to calculate the local specialist control variable). This results in a final sample of 536 observations, consisting of 337 individual partners and 347 individual companies.

INSERT TABLE 1 ABOUT HERE

A comment letter may copy one or multiple audit partners, and some partners appear more than once, either for different companies or for the same company in letters from multiple years. Most of the 337 partners included in the sample were copied in an SEC comment letter correspondence just once in our sample period (220 out of 337), 67 partners were copied twice,

[6] We used the stand-alone rather than the WRDS integrated version of the database, accessible through auditanalytics.com. The Audit Analytics SEC Comment Letters database begins with letters issued in 2004.

28 appear three times, 15 four times, and 7 partners appeared more than four times in the sample companies' comment letters. Our main analysis measures the individual partner characteristics of the first partner listed in the copied section of the SEC Comment Letter.[7]

Models and Measures

Audit fees

To test our audit fees hypotheses, we adopt the following audit pricing model from prior literature (Cahan and Sun 2015; Hardies et al. 2015; Francis et al. 2005):

$$AUFEE = \beta_0 + \beta_1 EXPER + \beta_2 GENDR + \beta_3 ASSETS + \beta_4 ROA + \beta_5 LEV + \beta_6 LOSS + \beta_7 NSUBS + \beta_8 REC + \beta_9 INV + \beta_{10} GC + \beta_{11} FORSA + \beta_{12} DECYE + \beta_{13} S404 + \beta_{14} SPEC + + \beta_{15} OSIZE + \beta_{16} TEN + \beta_{17\text{-}24} IND + \beta_{25\text{-}34} YEAR + e, \quad (1)$$

where:

AUFEE	= natural log of audit fees in millions.
EXPER	= number of years since the partner's baccalaureate degree.
GENDR	= 1 if partner is female, 0 if male.
ASSETS	= natural log of total assets in millions.
ROA	= ratio of net income to total assets.
LEV	= ratio of long-term debt to total assets.
LOSS	= 1 if company reported a loss for the year, else 0.
NSUBS	= natural log of the number of consolidated subsidiaries.
REC	= ratio of receivables to total assets.
INV	= ratio of inventory to total assets.
GC	= 1 if there is going concern modification in the audit report, else 0.
FORSA	= ratio of foreign sales to total sales.
DECYE	= 1 if December fiscal year-end, else 0.
S404	= 1 if integrated SOX 404(b) and external audit is conducted, else 0.
SPEC	= 1 if auditor is local specialist per MSA and SIC code (2-digit), else 0.
OSIZE	= natural log of total audit fees for the auditor's office.
TEN	= natural log of years of audit firm tenure.
IND	= dummy variables measuring industry effects.[8]
YEAR	= dummy variables measuring year effects.

Following prior research, our dependent measure *AUFEE* transforms the audit fees in millions using the natural log function in order to normalize the distribution of audit fees. We

[7] Alternative measures of the experience test variable are considered in the Supplementary Analysis section later in the paper.

[8] Industry groupings are based upon prior auditing research (Hogan and Jeter 1999).

hand-collected data for the test variables (*EXPER* and *GENDR*) from LinkedIn profiles. We define partner experience (*EXPER*) as the number of years that have elapsed since the partner obtained his/her undergraduate degree to the letter date year. Audit partner gender (*GENDR*) was identified from the partner's name. If the name did not clearly identify the partner's gender, then we referred to the partner's profile picture on LinkedIn and/or pronouns used in the partner's profile to verify gender.

We include control variables in our model for other determinants of audit fees. Client size (*ASSETS*) is the biggest driver of audit fees (Palmrose 1986; Simunic 1980). Client profitability, measured through *ROA* and *LOSS*, also impacts audit fees. More profitable (distressed) companies are expected to have lower (higher) audit fees. We also control for client leverage (*LEV*) with the expectation that more leveraged companies will have higher audit fees although prior research has found mixed results with respect to the relation between leverage and audit fees (Hay et al. 2006).

To isolate audit office and audit firm effects from that of the partner, we also include control variables for office size (*OSIZE*) and audit firm tenure (*TEN*). Larger offices are known to have higher audit quality and fees (Francis and Yu 2009; Choi et al. 2010) and audit firms tend to charge a lower fee in the initial years of engagement (Desir et al. 2013; Ghosh and Lustgarten 2006; Ettredge and Greenberg 1990). Prior research finds that audit fees are positively associated with audit firm industry specialization (*SPEC*), internal control over financial reporting audits (*S404*), and audits performed in the peak busy season (*DECYE*) (Craswell et al. 1995; Johnstone and Bedard 2001; Francis et al. 2005; Hay et al. 2006).

Prior research has shown that riskier, more complex clients have higher audit fees (Hay et al. 2006). We control for various aspects of risk and complexity through the *FORSA, NSUBS,*

REC, and *INV* variables. We also control for the receipt of a going concern opinion (*GC*) as a proxy for audit risk since distressed clients are expected to have higher audit fees. Lastly, we include dummy variables following Hogan and Jeter (1999) to control for any potential industry (*IND*) and year effects (*YEAR*) on audit fees.

Audit quality

Consistent with Carey and Simnett (2006), we utilize abnormal working capital accruals (*ABWC*) as a measure of audit quality. Prior research suggests that abnormal working capital accruals identify management misreporting or lower audit quality and that management has significant discretion over such accruals (Schelleman and Knechel 2010; Carey and Simnett 2006; Myers et al. 2003; DeFond and Park 2001). Following Carey and Simnett (2006) and DeFond and Park (2001), *ABWC* is the difference between realized working capital and an expected level of working capital needed to support a current sales level, where a historic relation of working capital to sales captures expected working capital. To test our audit quality hypotheses, we adopt the following absolute value of abnormal working capital accruals (*ABWC*) model from prior literature (Carey and Simnett 2006):

$$ABWC = \beta_0 + \beta_1 EXPER + \beta_2 GENDR + \beta_3 PBANK + \beta_4 GC + \beta_5 ASSETS + \beta_6 LEV + \beta_7 LOSS + \beta_8 FEERAT + \beta_9 ROA + \beta_{10} AGE + \beta_{11} GROWTH + \beta_{12} CFLOW + \beta_{13} TEN + \beta_{14} OSIZE + \beta_{15\text{-}22} IND + \beta_{23\text{-}32} YEAR + e, \quad (2)$$

where:

ABWC	= absolute value of abnormal working capital accruals (DeFond and Park 2001).
EXPER	= number of years since partner's baccalaureate degree.
GENDR	= 1 if partner is female, 0 if male.
PBANK	= probability of bankruptcy as measured by the adjusted Zmijewski score.
GC	= 1 if there is a going concern modification in the audit report, else 0.
ASSETS	= natural log of total assets in millions.
LEV	= ratio of long-term debt to total assets.
LOSS	= 1 if company reported a loss for the year, else 0.
FEERAT	= ratio of non-audit fees to total fees paid to the incumbent auditor.

ROA = ratio of net income to total assets.
AGE = natural log of years the company is listed on Research Insight.
GROWTH = change in assets from prior year.
CFLOW = cash flow from operations divided by total assets.
TEN = natural log of audit firm tenure.
OSIZE = natural log of total audit fees for the auditor's office.

The test variables *EXPER* and *GENDR* are measured the same way as described above in the audit fees model. The model includes control variables to reduce the possibility that the measure of audit partner experience proxies for other cross-sectional determinants of abnormal working capital accruals. We include company age (*AGE*) because accruals differ with changes in firm life cycle (Myers et al. 2003), company size based on total assets (*ASSETS*) because large firms tend to record larger, more stable accruals (Dechow and Dichev 2002), and cash flow from operations (*CFLOW*) because accruals and cash flows are negatively correlated on average (Dechow 1994). Companies with a higher probability of bankruptcy (*PBANK*)[9], which received a going concern modified opinion (*GC*), had lower return on assets (*ROA*), in a loss position (*LOSS*), and higher leveraged (*LEV*) tend to be riskier and financially distressed and in turn more likely to manage accruals and misreport (Carey and Simnett 2006). *GROWTH* is included because accruals are expected to be associated with a company's growth opportunities (Johnson et al. 2002). The *FEERAT* and *TEN* variables reflect the level of auditor independence which impacts accruals management (Li 2009; Carey and Simnett 2006; Myers et al. 2003). Prior research has shown that larger offices (*OSIZE*) provide higher audit quality (Francis and Yu 2009). Lastly, similar to the audit fees model, we include dummy variables (*IND, YEAR*) to control for any potential industry and year effects.

IV. RESULTS

[9] Following Carey and Simnett (2006), this measure is based on the model calculated by Carcello et al. (1995), who use the weightings for the b* statistic from the Zmijewski (1984) weighted probit bankruptcy prediction model = -4.803 +3.6(net income/ total assets) - 5.4(total debt / total assets) + 0.1(current assets / current liabilities).

Audit Fees

Descriptive Statistics

Table 2 shows the descriptive statistics for the variables included in the audit fees regression model. The average (median) partner years of experience for the audit fees sample is 22.7 (22.5), and female audit partners audited 15.7 percent of the sample observations. The average (median) natural log of audit fees in millions is 0.455 (0.357). The average (median) natural log of company assets in millions is 6.882 (6.821). Transformed back into raw numbers, the average (median) audit fee of the companies is $1.58 million ($1.43 million), and the average (mean) total assets is $974.57 million ($916.9 million). Receivables and inventory constitute on average 12 and 9 percent of total assets, respectively. The average (median) return on assets (*ROA*) is -2.999 (3.129), and 31 percent of the sampled companies had a loss for the year. In addition, 40 percent of the companies in the sample had a going concern opinion. This may be reflective of the types of companies that receive comment letters from the SEC and/or the types of companies (more distressed) that copy their auditor by name. Half of the companies were audited by audit offices considered local industry specialists. Most companies had a December year-end and a SOX 404(b) ICFR audit. On average, the total assets of companies in the sample are funded 20 percent by long-term debt, and foreign sales constituted on average 25 percent of sales. The average (median) audit firm tenure was 8.9 (9) years.

INSERT TABLE 2 HERE

Hypothesis Tests

H1 and H3 predict positive relations between both audit partner experience and female audit partners and audit fees, respectively. To test these hypotheses, we estimate Equation 1

using ordinary least squares regression. The results are shown in Table 3. The model is significant at the 1 percent significance level and explains 77.86 percent of the variation in audit fees. Consistent with H1, the coefficient on audit partner experience (*EXPER*) is positive and significant, ($p<.05$). In addition, consistent with H3, the coefficient on *GENDR* is positive and significant ($p < .01$). The control variables *ASSETS, ROA, REC, FORSA, S404, SPEC,* and *OSIZE* are significant in the predicted directions. The remaining control variables are not significant at any conventional level. These results suggest that female audit partners and partners with more experience command fee premiums and support H1 and H3.

INSERT TABLE 3 HERE

Audit Quality

Descriptive Statistics

Table 4 shows the descriptive statistics (mean, median, and standard deviation) for the variables included in the estimation of Equation 2 for abnormal working capital accruals (*ABWC*). The sample is reduced from 536 to 517 due to 19 observations missing data for one or more control variables in Equation 2. The mean (median) *ABWC* is 0.059 (0.029). The average and median partner years of experience (*EXPER*) is 22 years, and 15.3 percent of the sample (78 observations) was audited by female audit partners (*GENDR*). For the sake of brevity, we discuss the descriptive statistics here only for the new control variables unique to the *ABWC* model. Mean (median) *PBANK* is -3.85 (-4.24), *FEERAT* mean (median) is 0.15 (0.11), mean (median) *AGE* is 2.6 (2.8), mean (median) *GROWTH* is 0.19 (0.06), and mean (median) *CFLOW* is 0.06 (0.08). Compared to the sample in Carey and Simnett (2006), the companies in our sample are

younger, somewhat riskier (higher *PBANK* and *GC*) but still have positive operating cash flows, on average.

INSERT TABLE 4 HERE

Hypothesis Tests

H2 and H4 predict that audit quality will not vary with audit partner experience and gender. To test these hypotheses, we estimate Equation 2 for abnormal working capital accruals (*ABWC*). Per the Table 5 results, the model is highly significant ($p<0.001$) with an adjusted R-squared equal to 22 percent. The coefficient on *EXPER* variable is not significant ($p>0.10$ both one and two-tailed), and *GENDR* is negative (lower abnormal working capital accruals) and not significant at the conventional levels based on a non-directional hypothesis ($p=0.11$, two-tailed; $p=0.055$ one-tailed). These results suggest that partner experience does not improve audit quality and that the audit quality of female partners is not significantly different from male partners. Consistent with prior literature, smaller companies that are more leveraged, less profitable, higher growth and with lower cash flows have higher abnormal working capital accruals. All the other control variables are not significant at any conventional level.

INSERT TABLE 5 HERE

Additional Analyses

We perform additional analyses of partner experience and gender effects on audit fees in settings where partner characteristics are deemed most important. The individual partner impact on audit fees is greatest in the initial years of the client engagement, where fee negotiations are most intense and where partner selection matters the most, and in smaller local markets, where there is less competition among the audit firms and partners. We re-estimate the audit fee model

using select observations of the sample to gain further insight regarding partner characteristics effects on audit fees in these settings.

To help maintain auditor independence, the Sarbanes-Oxley Act of 2002 mandated audit partner rotation every 5 years, thus reducing the long-term impact of any one audit partner on the client. Consequently, the role of any one audit partner in the audit pricing negotiation process is likely to be most instrumental in the initial years of engagement, when the initial partner's characteristics are important to winning the engagement and developing a relationship with the auditee. After the initial engagement partner is rotated off, the impact of each subsequent engagement partner on the negotiation of audit fees is likely to be less as subsequent audit fee negotiations are anchored on the initial fee and adjusted for set increases in the consumer price index/cost of living index/inflation rate. Consequently, we predict that our initial hypotheses H1 and H3 will manifest themselves under conditions of short audit firm tenure but not necessarily or to a lesser extent when audit firm tenure is long.[10]

To test our prediction, we estimate equation 1 using observations with short audit firm tenures. We define short audit firm tenure as those observations in the first quartile (25%) of the distribution, which is tenure of less than 5 years.[11] Table 6 shows the results of estimating equation 1 for short audit firm tenure observations. Both the *EXPER* and *GENDR* variables are positive and significant ($p<0.05$).[12] In the interest of completeness, we estimated equation 1 using only long audit firm tenure observations (cutoff being the fourth quartile amount of 12

[10] It is possible that audit partner experience is inextricably tied to audit firm tenure effects. Examining the relation between audit partner experience and audit fees under short audit firm tenure also allows us to isolate the effect of audit partner experience from audit firm tenure.
[11] The 5 year cut off also coincides with the mandated time period for audit partner rotation. This helps ensure that we are capturing the first partner on the engagement.
[12] The results are robust to defining short audit firm tenure using the median of the audit firm tenure distribution as a cutoff.

years). The untabulated results find both the *EXPER* and *GENDR* variables as not significant (p values of 0.35 and 0.59, respectively) for long audit firm tenure observations. These results suggest that individual audit partner experience and gender effects only matter during the early years of the audit engagement when fee negotiations are most intense.

INSERT TABLE 6 ABOUT HERE

Prior research suggests that the level of concentration and competition in the local audit market and audit market size affect an audit firm's fees (Eshleman 2013; Numan and Willekens 2012; Bandyopadhyay and Kao 2004; Pearson and Trompeter 1994). Audit market concentration in the U.S. seems to decrease audit fees (Numan and Willekens 2012). Moreover, Eshleman (2013) finds that the effect of audit market concentration on the level of audit fees depends on the size of the audit market (i.e., the size and/or number of clients in the local geographic area). When the audit market contains fewer (more) clients and/or those clients are small (large) in size, audit fees are increasing (decreasing) in audit market concentration (Eshleman 2013).

We expect that small, less competitive markets allow certain audit partners greater opportunity to charge fee premiums. In turn, we anticipate that partner characteristics take on greater importance in these smaller markets when setting fees. To test this notion, we estimate equation 1 using observations located in small local markets (based on Metropolitan Statistical Area and two-digit SIC code). Small market observations were identified as those companies in the bottom quartile (local market sizes of less than 6 companies).

Table 7 presents the results of estimating the audit fees model for small market observations. The results find the *EXPER* variable as positive and significant ($p<0.05$), and the *GENDR* variable as positive and marginally significant ($p<0.10$), consistent with the full sample

results. For completeness, we estimated the model using only observations included in the large local markets (cutoff being the upper quartile amount of 46 companies). The untabulated results find the *EXPER* variable is not significant in large local markets ($p>0.10$) and the *GENDR* variable as positive and significant ($p< .05$). These results suggest that partner experience and gender matter in smaller, less competitive audit markets, which is consistent with prior research that finds there are limits placed upon an audit firm's ability to command a premium in the audit marketplace due to market competition (Eshleman 2013; Numan and Willekens 2012). Also, the existence of a female audit fee premium is not constrained by market size and may be driven by a mix of demand- and supply-side factors, such as the limited supply of female partners vis-à-vis a high demand and gendered perceptions of audit quality and client satisfaction. We leave this question for future research to examine.

INSERT TABLE 7 ABOUT HERE

Consequently, from our main and additional cross-sectional analyses, we conclude that H1 and H3 regarding the positive relation between audit fees and experience and female gender are supported. We fail to find support for an effect of partner experience on audit quality, which is consistent with the null expectation in H2. Lastly, we also do not find strong, consistent support for the female audit fee premium being due to higher quality audits delivered by female audit partners. Therefore, we conclude that H4 is supported, but we encourage future research in this regard.

Supplementary Analyses

Our main analysis measures the characteristics (*EXPER* and *GENDR*) of the first partner listed in the comment letter. However, while in some comment letters only one partner is copied, in others multiple individuals from the audit firms are copied. To check the robustness of our

main results, we use alternate measures of partner experience. Specifically, we re-estimate the models measuring experience (*EXPER*) as the listed partner with the most experience, and as the average experience of all the listed partners. In addition, we re-estimate the models using only those observations that listed only one audit partner in the comment letter. The test variable results remain qualitatively similar (positive and significant) as the main results discussed above.[13]

We next consider whether the severity of the comment letter affects the presented partner characteristics and audit fee relation. Comment letter severity may represent company risk that is priced in the audit fee but not captured by the audit fee model. We follow Cassell et al. (2013) to measure comment letter severity and re-estimate equation 1 including these measures as the following control variables: *NUMF* (number of filings mentioned in the initial comment letter from the SEC), *NUMR* (number of rounds of correspondence between the SEC and the company), and *NUMT* (the number of Audit Analytics identified topics mentioned in the initial comment letter from the SEC for that comment letter conversation). The untabulated results of these models find that the test variables remain qualitatively the same as those presented in the tables. The *NUMT* variable is positive and significant in the models, while the *NUMR* and *NUMF* variables are not significant at any conventional level.

Lastly, we consider several alternative measures of audit quality other than abnormal working capital accruals. Specifically, we estimated discretionary accruals and going concern models to further examine partner experience and gender effects on audit quality. Similar to the main findings presented in the paper, the results of these audit quality models fail to show

[13] The *EXPER* variable drops to p<.10 significance for the full sample model when measuring experience as the average of all partners listed and when including only observations with only one partner listed. The *GENDR* variable drops to p<.10 for the Table 6 model when including observations with only one partner listed and becomes insignificant for the Table 7 model when measuring *EXPER* as the average experience of all partners listed. For all the other models, the significance levels of the test variables are the same as those presented.

significant partner experience and gender effects on audit quality. In sum, based on the results of the sensitivity tests performed, we conclude that the reported results are robust.

V. CONCLUSION AND DISCUSSION

The purpose of this study is to examine whether audit quality and audit fees in the U.S. vary with audit partner experience and gender. While audit partner characteristics and audit outcomes have been examined in other countries, evidence is absent in the U.S. due to the lack of disclosure of audit partner identity. Our contributions are three-fold. First, this paper is one of the first to study how audit fees and quality vary with partner characteristics using data on U.S. audit partners. Second, we extend the literature on the partner-level determinants of audit fees around the world by adding U.S. evidence on partner effects (e.g., Knechel et al. 2015; Zerni 2012; Taylor 2011; Chi and Chin 2011; Cahan and Sun 2015; Gul et al. 2013; Goodwin and Wu 2014). We examine this effect prior to the engagement partner identity mandate taking effect, making our study different from studies of audit partner effects in other countries reliant on data availability from engagement partner signature mandates. Third, our findings regarding the impact of auditor experience among audit partners also extend behavioral research on the impact of auditor experience at the partner level on audit quality and auditor independence in decision making (Choo and Trotman 1991).

We provide evidence of an audit fee premium associated with partner experience and gender in the United States. Our audit quality analyses examining whether reputation or higher audit quality underlies the observed higher fees for female and more experienced partners do not identify significant differences in audit quality on these partner characteristics. Taken together, these results suggest that the fee premium for audit partner experience and gender is a likely reputation, rather than an audit quality, premium. Furthermore, we find that the fee premiums

associated with female partners and those with more experience manifest during the initial period of audit firm engagement when audit partner identity matters most to the audit fee negotiation process, and in smaller, less competitive local audit markets.

These findings extend research on the role of audit partners and auditor gender in audit contracting (e.g., Gul et al. 2013; Ittonen and Peni 2012; Hardies et al. 2015), the research on differential effect of partner versus audit firm tenure on audit quality and fees (Gul et al. 2011; Taylor 2011; Carey and Simnett 2006), and the impact of audit market characteristics, such as size and competition, on auditor ability to command a fee premium (Numan and Willekens 2012). Ittonen and Peni (2012) and Hardies et al. (2015) argue that the female audit fee premium may exist because of gender differences in knowledge, skills, abilities, preferences, and behavior. Our finding of a female audit fee premium in conjunction with an absence of significant audit quality differences between male and female partners supports the notion that the female audit fee premium is driven by supply-side factors such as a demand for diversity, gendered perceptions about audit quality, or client. Our findings are also consistent with Niedermeyer et al. (2003), who find that females are less accepting of low-balling on initial engagements, which would be consistent with a female audit fee premium while audit firm tenure is short. We encourage future research to provide further insight of the role that partner gender has in the audit contracting and audit engagement management processes.

The findings of this study have implications for the PCAOB's rule requiring engagement partner signatures on audit opinions (PCAOB 2016; 2015). Currently, audit partner identity is not publicly available to investors in the U.S. The PCAOB's newly passed rule stipulates that audit partner identities on all PCAOB audits be disclosed starting in 2017 on a separate PCAOB form that will become publicly available on the PCAOB's website. When audit partner identity

becomes public information in the U.S., consistent with this study's results, audit partners may develop their own reputation above and beyond the reputations of their firms or firm offices (Doxey et al. 2015; Anderson et al. 2014). Once the new PCAOB requirement of audit partner disclosure goes into effect, the firm reputation may become of secondary importance to the investing community. Also, such disclosure may change the relation between partner characteristics and audit quality and the relation between audit fees and audit quality.

Our study is subject to several limitations. First, our sample consists of partners listed in SEC Comment Letters and having background information available on LinkedIn.com. The results generated from this select group of partners may not be generalizable to the entire population of U.S. audit partners. Second, our sample consists of companies receiving SEC Comment Letters that are relatively more distressed than the general population of public companies. While we control for company risk and profitability, and we believe theoretically the results should still hold for more profitable companies, care should still be taken in generalizing our results. Lastly, despite controlling for client risk in the models, we cannot rule out the possibility that our results are due to more experienced partners being assigned to *ex ante* higher risk engagements, which are costlier (Kinney 2015; Bedard 2012), because we cannot observe the partner-assignment strategy within the Big 4 firms. We encourage future research to verify our findings once the additional data becomes available on U.S. audit partners.

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TABLE 1
Sample Description
Audit Fees Analysis

PANEL A: Sample Firm-Year Observations Determination

Initial sample [a]		1,477
Financial institution (SIC in 6000s)	(342)	
Foreign based companies	(214)	
Only company in local market (per MSA and 2 digit SIC)	(145)	
Missing control variables data per Research Insight	(144)	
Not listed on Research Insight	(76)	
No audit fee data per Audit Analytics	(20)	
Final sample		536

[a] The initial sample includes company/year observations receiving an SEC comment letter that identifies the audit partner(s) (per the salutation or cc listing) and also had partner degree date available for the period 2004-2014.

PANEL B: Distribution of partners across comment letters

Number of partners listed in:	
1 comment letter	220
2 comment letters	67
3 comment letters	28
4 comment letters	15
5 comment letters	5
6 comment letters	1
7 comment letters	1
Total number of individual partners in sample	337
Total number of individual companies in sample	347

TABLE 2
Descriptive Statistics for Audit Fees Analysis (N=537)

Variable[a]	*MEAN*	*MEDIAN*	*MIN*	*MAX*	*SD*
AUFEE	0.455	0.357	-3.474	3.728	1.115
EXPER	22.737	22.500	5.000	45.000	5.902
GENDR	0.157	0.000	0.000	1.000	0.364
ASSETS	6.882	6.821	1.024	12.537	2.017
ROA	-2.999	3.129	-244.23	168.94	25.772
LEV	0.199	0.130	0.000	1.705	0.250
LOSS	0.313	0.000	0.000	1.000	0.464
NSUBS	0.525	0.000	0.000	2.251	0.689
REC	0.124	0.103	0.000	0.500	0.098
INV	0.088	0.043	0.000	0.834	0.116
GC	0.399	0.000	0.000	1.000	0.490
FORSA	0.253	0.021	0.000	3.445	0.350
DECYE	0.621	1.000	0.000	1.000	0.486
S404	0.825	1.000	0.000	1.000	0.381
SPEC	0.507	1.000	0.000	1.000	0.500
OSIZE	4.125	4.189	0.312	6.091	1.055
TEN	1.975	2.197	0.000	2.944	0.722
TENURE	8.858	9.000	1.000	19.000	4.809

[a] Variable definitions:

AUFEE	= natural log of audit fees in millions.
EXPER	= number of years since partner's bachelor degree.
GENDR	= 1 if partner is female, 0 if male.
ASSETS	= natural log of total assets.
ROA	= ratio of net income to total assets.
LEV	= ratio of long-term debt to total assets.
LOSS	= 1 if company reported a net loss for the year, else 0.
NSUBS	= natural log of the number of consolidated subsidiaries.
REC	= ratio of receivables to total assets.
INV	= ratio of inventory to total assets.
GC	= 1 if going concern modification in the audit report, else 0.
FORSA	= ratio of foreign sales to total sales.
DECYE	= 1 if December fiscal year-end, else 0.
S404	= 1 if integrated S404 and external audit, else 0.
SPEC	= 1 if auditor is local specialist per MSA and 2-digit SIC code, else 0.
OSIZE	= natural log of total audit fees for the auditor's office.
TEN	= natural log of years of audit firm tenure.
TENURE	= years of audit firm tenure

TABLE 3
OLS Regression Results for Audit Fees

$$AUFEE = \beta_0 + \beta_1 EXPER + \beta_2 GENDR + \beta_3 ASSETS + \beta_4 ROA + \beta_5 LEV + \beta_6 LOSS + \beta_7 NSUBS + \beta_8 REC + \beta_9 INV + \beta_{10} GC + \beta_{11} FORSA + \beta_{12} DECYE + \beta_{13} S404 + \beta_{14} SPEC + \beta_{15} OSIZE + \beta_{16} TEN + \beta_{17\text{-}24} IND + \beta_{25\text{-}34} YEAR$$

Variable [a] [b]	***Prediction***	***Coefficient***	***t-statistic***	***Significance***
EXPER	+	0.007	1.69	**
GENDR	+	0.204	3.07	***
ASSETS	+	0.435	24.51	***
ROA	-	-0.007	5.72	***
LEV	+	0.049	0.49	
LOSS	+	-0.039	0.60	
NSUBS	+	0.008	0.19	
REC	+	1.605	6.27	***
INV	+	0.005	0.02	
GC	+	0.066	1.12	
FORSA	+	0.267	3.53	***
DECYE	+	0.023	0.45	
S404	+	0.302	4.07	***
SPEC	+	0.066	1.36	*
OSIZE	+	0.119	5.08	***
TEN	+	-0.004	0.11	
Intercept	none	-4.132	15.74	***

N	536
Adjusted R^2	77.86%
Model F-Value	59.78***

*, **, and *** indicate significance at $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively (based on one-tailed tests where relation is predicted; otherwise, two-tailed).

[a]See Table 2 for the variable definitions.

[b]Industry and Year dummy variables have been suppressed for expositional convenience.

TABLE 4
Descriptive Statistics for Abnormal Working Capital Analysis (N=517)

Variable [a]	*MEAN*	*MEDIAN*	*MIN*	*MAX*	*SD*
ABWC	0.059	0.029	0.001	0.686	0.097
EXPER	22.716	22.000	5.000	45.000	5.807
GENDR	0.153	0.000	0.000	1.000	0.360
PBANK	-3.848	-4.241	-6.522	3.047	1.699
GC	0.400	0.000	0.000	1.000	0.490
ASSETS	6.886	6.797	1.024	12.269	2.019
LEV	0.518	0.494	0.035	1.950	0.315
LOSS	0.333	0.000	0.000	1.000	0.472
FEERAT	0.150	0.111	0.000	0.792	0.141
ROA	-2.873	3.067	-104.78	25.640	21.702
AGE	2.636	2.773	0.693	3.584	1.609
GROWTH	0.195	0.059	-0.573	6.956	0.607
CFLOW	0.061	0.083	-1.625	1.706	0.191
TEN	1.999	2.197	0.000	2.944	0.699
OSIZE	4.129	4.189	0.312	6.091	1.070

[a] Variable definitions:

ABWC	= absolute value of abnormal working capital accruals.
EXPER	= number of years since partner's bachelor degree.
GENDR	= 1 if partner is female, 0 if male.
PBANK	= probability of bankruptcy as measured by adjusted Zmijewski score.
GC	= 1 if going concern modification in the audit report, else 0.
ASSETS	= natural log of total assets.
LEV	= ratio of long-term debt to total assets.
LOSS	= 1 if company reported a net loss for the year, else 0.
FEERAT	= ratio of nonaudit fees to total fees paid to the incumbent auditor.
ROA	= ratio of net income to total assets.
AGE	= natural log of the number of years the company on Research Insight.
GROWTH	= change in assets from prior year.
CFLOW	= cash flow from operations over total assets.
OSIZE	= natural log of total audit fees for the auditor's office.
TEN	= natural log of audit firm tenure.

TABLE 5
Abnormal Working Capital Model Results
Full Sample

$$ABWC = \beta_0 + \beta_1 EXPER + \beta_2 GENDR + \beta_3 PBANK + \beta_4 GC + \beta_5 ASSETS + \beta_6 LEV + \beta_7 LOSS + \beta_8 FEERAT + \beta_9 ROA + \beta_{10} AGE + \beta_{11} GROWTH + \beta_{12} CFLOW + \beta_{13} TEN + \beta_{14} OSIZE + \beta_{15\text{-}22} IND + \beta_{23\text{-}32} YEAR$$

Variable [a] [b]	***Prediction***	***Coefficient***	***t-statistic***	***Significance***
EXPER	?	0.001	0.72	
GENDR	?	-0.018	1.60	
PBANK	+	-0.025	4.35	***
GC	+	0.005	0.49	
ASSETS	-	-0.010	3.41	***
LEV	+	0.172	6.59	***
LOSS	+	0.005	0.48	
FEERAT	-	0.005	0.19	
ROA	-	-0.001	2.08	**
AGE	-	-0.007	0.91	
GROWTH	+	0.018	2.60	***
CFLOW	-	-0.087	2.80	***
TEN	none	-0.005	0.69	
OSIZE	-	-0.001	0.25	
Intercept	none	-0.059	1.24	
N	517			
Adjusted R^2	22.16%			
Model F-Value	6.07***			

*, **, and *** indicate significance at $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively (based on one-tailed tests where relation is predicted; otherwise, two-tailed).

[a]See Table 4 for the variable definitions.

[b]Industry and Year dummy variables have been suppressed for expositional convenience.

TABLE 6
Audit Fees Model Results
Short Audit Firm Tenure Observations (5 years and less)

$$AUFEE = \beta_0 + \beta_1 EXPER + \beta_2 GENDR + \beta_3 ASSETS + \beta_4 ROA + \beta_5 LEV + \beta_6 LOSS + \beta_7 NSUBS + \beta_8 REC + \beta_9 INV + \beta_{10} GC + \beta_{11} FORSA + \beta_{12} DECYE + \beta_{13} S404 + \beta_{14} SPEC + \beta_{15} OSIZE + \beta_{16} TEN + \beta_{17\text{-}24} IND + \beta_{25\text{-}34} YEAR$$

Variable [a] [b]	***Prediction***	***Coefficient***	***t-statistic***	***Significance***
EXPER	+	0.022	2.15	**
GENDR	+	0.303	1.99	**
ASSETS	+	0.430	9.22	***
ROA	-	-0.007	3.22	***
LEV	+	-0.035	0.13	
LOSS	+	-0.127	0.90	
NSUBS	+	-0.001	0.01	
REC	+	1.853	3.22	***
INV	+	-0.555	0.83	
GC	+	-0.062	0.40	
FORSA	+	0.100	0.63	
DECYE	+	0.022	0.17	
S404	+	0.129	0.91	
SPEC	+	-0.009	0.08	
OSIZE	+	0.036	0.57	
TEN	+	0.207	1.86	**
Intercept	none	-4.107	6.73	***
N	167			
Adjusted R^2	59.54%			
Model F-Value	8.63***			

*, **, and *** indicate significance at $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively (based on one-tailed tests where relation is predicted; otherwise, two-tailed).

[a]See Table 2 for the variable definitions.

[b]Industry and Year dummy variables have been suppressed for expositional convenience.

TABLE 7
Audit Fees Model Results
Small Local Market Observations

$$AUFEE = \beta_0 + \beta_1 EXPER + \beta_2 GENDR + \beta_3 ASSETS + \beta_4 ROA + \beta_5 LEV + \beta_6 LOSS + \beta_7 NSUBS + \beta_8 REC + \beta_9 INV + \beta_{10} GC + \beta_{11} FORSA + \beta_{12} DECYE + \beta_{13} S404 + \beta_{14} SPEC + \beta_{15} OSIZE + \beta_{16} TEN + \beta_{17\text{-}24} IND + \beta_{25\text{-}34} YEAR$$

Variable [a] [b]	***Prediction***	***Coefficient***	***t-statistic***	***Significance***
EXPER	+	0.018	2.35	***
GENDR	+	0.132	1.27	*
ASSETS	+	0.396	10.82	***
ROA	-	-0.005	1.86	**
LEV	+	0.077	0.37	
LOSS	+	-0.010	0.08	
NSUBS	+	-0.090	1.39	
REC	+	1.281	2.60	***
INV	+	-0.612	1.81	
GC	+	0.173	1.86	**
FORSA	+	0.446	3.58	***
DECYE	+	-0.098	1.11	
S404	+	0.304	2.04	**
SPEC	+	0.141	1.43	*
OSIZE	+	0.055	1.31	*
TEN	+	-0.132	1.66	
Intercept	none	-2.181	3.69	***

N	139
Adjusted R^2	80.51%
Model F-Value	18.82***

*, **, and *** indicate significance at $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively (based on one-tailed tests where relation is predicted; otherwise, two-tailed).

[a]See Table 2 for the variable definitions.

[b]Industry and Year dummy variables have been suppressed for expositional convenience.