

**DOES AMBIGUITY MATTER? THE EFFECT OF NONAUDIT FEES
ON SOX 404 REPORTING DECISIONS**

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Abstract

Prior behavioral research suggests that auditors may exploit the ambiguity in a standard to justify incentive-compatible reporting methods. The initial implementation of the SOX 404 audit provides a natural setting to empirically investigate the relation between nonaudit fees and auditor objectivity under an ambiguous standard. We examine the effect of ambiguity in the PCAOB's Auditing Standards Nos. 2 and 5 (AS2 and AS5) in the context of the relation between nonaudit fees and auditor objectivity for SOX 404 audits, i.e., audits on the effectiveness of a client's internal control over financial reporting. Although nonaudit fees (as a proportion of audit fees) have declined since 2002, they remain a material source of additional revenues (and profits) for auditors. In AS2 -- the applicable standard for the first three years of the SOX 404 audit (2004-2006) -- the notion of a material weakness in internal control was ill-defined and ambiguous. Over time, the ambiguity in AS2 declined as the PCAOB provided additional guidance. Subsequently, the PCAOB issued AS5 in 2007 to supersede AS2.

Our results, based on a sample of approximately 3,000 companies, indicate a *negative* association between nonaudit fees and the auditor's propensity to issue an adverse SOX 404 opinion on internal control (a proxy for auditor objectivity) during 2004-2006, but not during 2007 or 2008. Further, during 2004-2006, we observe a monotonic decline in the statistical and economic significance of the negative relation. Our findings collectively suggest that the additional guidance provided by the PCAOB during 2005-2006 (and the subsequent issuance of AS5 in 2007 to supersede AS2) reduced ambiguity and were effective in improving audit quality for SOX 404 audits. The study is important for its policy implications, i.e., ambiguity in a standard can affect auditor incentives and behavior.

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1. INTRODUCTION

In this paper, we investigate the effect of ambiguity in the PCAOB's Auditing Standards Nos. 2 and 5 (AS2 and AS5) in the context of nonaudit fees and auditor objectivity for the newly required SOX 404 audit of the client's internal control.¹ The initial implementation of the SOX 404 audit provides a natural setting to empirically investigate the relation between nonaudit fees and auditor objectivity under an ambiguous standard. Specifically, we examine the relation between nonaudit fees paid to the incumbent auditor and the auditor's propensity to issue an adverse opinion on a company's internal control (as a proxy for auditor objectivity) during the first five years of the SOX 404 audit (2004 through 2008).²

Prior behavioral research (e.g., Hackenbrack and Nelson 1996; Nelson and Kinney 1997; Kadous et al. 2003) suggests that auditors have unintentional self-serving biases that preclude them from being objective about their clients' preferred reporting choices. Essentially, auditors have social and economic ties that provide them the necessary incentive to accommodate the client's reporting needs (Bazerman et al. 1997; Johnstone et al. 2001). Put differently, the argument is that auditors are sensitive to client pressure and may be expected to exploit the ambiguity in a standard to justify incentive-compatible reporting choices. To paraphrase Hackenbrack and Nelson (1996), the ambiguous criteria in a standard could actually provide auditors a convenient mechanism to justify aggressive reporting that portrays the

¹ Section 404 of the Sarbanes Oxley Act (SOX 404) mandates an independent audit of the effectiveness of a company's internal control over financial reporting (ICFR).

² As discussed by DeAngelo (1981), audit quality is a joint function of the auditor's competence in discovering a breach in the client's accounting system and independence in reporting the breach. Given similar competence, audit quality is essentially a function of auditor objectivity. Also, the question of whether nonaudit fees paid to the incumbent auditor impair auditor objectivity (and thereby lower audit quality) has drawn considerable attention from regulators and researchers, albeit in the context of the traditional financial statement audit. In particular, the question is motivated by the notion that the potentially more lucrative (consulting) nature of nonaudit services is likely to reduce auditor objectivity by increasing the auditor's economic dependence on the client. To vary the exposition, we utilize the terms auditor independence and objectivity interchangeably.

client favorably. Along the same lines, Farmer et al. (1987, p. 11) suggest that tighter rules assist the auditing profession in resisting client pressure.

For SOX 404 audits, AS2 was the applicable standard for the three years beginning with the fiscal year ending on or after November 15, 2004. AS2 required the auditor to issue an opinion on the effectiveness of the client's internal control over financial reporting. In the event that the client had a material weakness (or weaknesses) in internal control, the standard required the auditor to issue an adverse SOX 404 opinion. Note that a material weakness in internal control does *not* imply or necessarily result in a financial statement misstatement. Rather, the concept is hypothetical in that the material weakness in internal control *could* result in a material financial statement misstatement. Thus, it is possible (and quite common) for a client to receive an adverse SOX 404 opinion on internal control and a clean opinion on the financial statements.

We focus on a specific aspect of the SOX 404 audit, namely, the ambiguity in the relevant standards for determining whether a weakness in internal control is material, a determination that directly impacts the type of SOX 404 opinion. Nelson and Kinney (1997, p. 257) indicate that ambiguity refers to circumstances with "uncertainty about probability." Specifically, the AS2 notion of a material weakness in internal control, i.e., "more than remote likelihood" that internal control will not prevent or detect a material misstatement in the financial statements, was ill-defined and ambiguous (O'Hara 2005; Steinberg 2006).

As evidence of the ambiguity in AS2, the PCAOB subsequently issued five separate releases providing guidance for auditors -- and the SEC conducted at least two separate roundtable discussion sessions -- on the application of the standard. In any event, under AS2 (and especially in the early years), the auditor had considerable leeway and flexibility in determining what was a material weakness, i.e., in deciding whether or not to issue an adverse opinion on the effectiveness of the client's internal control (O'Hara 2005; Steinberg 2006).

Subsequently, the PCAOB (2005, p. 6) clarified that the term "remote" (as in "more than remote likelihood") in AS2 had the same meaning as the term "remote" in SFAS No. 5, *Accounting for*

Contingencies (FASB 1975). Then, in 2007, the PCAOB issued Auditing Standard (AS) No. 5 – effectively superseding AS2 -- for fiscal years ending on or after November 15, 2007.³ AS5 further reduced the ambiguity embedded in the AS2 notion of a material weakness in internal control by replacing the term “more than remote likelihood” with “reasonably possible” and explicitly referring to SFAS No. 5 for the meaning of the term “reasonably possible.”⁴

Potentially, nonaudit fees (by increasing the auditor’s economic dependence on the client) could provide the auditor an added incentive to interpret aggressively (i.e., in favor of the client) the ambiguity in an auditing standard such as AS2 or AS5. In our study, we examine the relation between nonaudit fees and the auditor’s propensity to issue an adverse SOX 404 opinion on the effectiveness of the client’s internal control over financial reporting. Our study period 2004 through 2008 essentially covers the three years of the application of AS2 (2004 through 2006) as well as the first two years (2007 and 2008) of the application of the new standard AS5 (see Appendix A for a list of key events relating to AS2 and AS5). Consistent with recent literature, our analysis is conducted at the level of the local audit office.⁵

As discussed below, it is understandable that the client would prefer to receive a clean rather than an adverse SOX 404 opinion. Other things being equal, issuing an adverse SOX 404 opinion implies that the auditor is able to objectively evaluate a company’s internal control and withstand client pressure to

³ As stated previously, our study is focused on a specific aspect of the SOX 404 audit, i.e., the ambiguity in the relevant standard for determining whether a weakness in internal control is material. Still, for completeness, we note that relative to AS2, AS5 also adopted a “top-down” risk-based approach to selecting the controls to be tested and improved audit efficiency (i.e., reduced the perceived over-auditing of internal controls under AS2) by focusing on the most significant transactions and accounts.

⁴ Although SFAS No. 5 also refers to uncertain probabilities, it is a standard that auditors have previous experience applying in practice.

⁵ Prior research (e.g., Reynolds and Francis 2001; Wallman 1996) indicates that audit firms are partnerships where key audit decisions (such as contracting with the client, administering the audit, and issuing the audit report) are made at local offices. In other words, although other offices may participate in the audit (or exercise oversight over controls and other reporting for risk management and consistency reasons), the lead engagement partner is based in the local office and directs the total effort, interprets the evidence, and ultimately decides on the appropriate audit opinion whether for the financial statement audit or the SOX 404 audit. Moreover, since the fees earned from the client represent a larger portion of office-level revenues than firm-level revenues, the economic impact of a client is likely to be felt more at the local engagement office level than at the national audit firm level. For all these reasons, we focus our analysis at the local office level.

issue a clean opinion. Consequently, the propensity to issue an adverse SOX 404 opinion is expected to be positively correlated with the level of auditor objectivity.

Note that as a result of the restrictions placed by SOX on the provision of nonaudit services to audit clients, nonaudit fees (as a proportion of audit fees) may be expected to be relatively low during the post-SOX time period of our study (2004-2008).⁶ The relatively low proportion of nonaudit fees to audit fees potentially biases the study *against* our being able to document a significant relation between nonaudit fees and the auditor's propensity to issue an adverse SOX 404 opinion. Still, in an intensely competitive market for professional services, any source of *additional* revenues (and profits) – i.e., revenues over and above current audit fees -- may be both welcome and important to the audit firms.⁷ Hence, whether nonaudit fees impair auditor objectivity for SOX 404 audits remains ultimately an open empirical question that we investigate in our study.

Following Khurana and Raman (2006) and Li (2009), we use the ratio of the client's nonaudit fees to total local office revenues as our test metric. Since audit fees can also engender economic dependence, following prior literature (e.g., DeFond et al. 2002; Khurana and Raman 2006; Li 2009) we also include the ratio of audit fees to total local office revenues as a variable in our analysis. However, in the context of a SOX 404 audit, deficiencies in the client's internal control are likely to automatically trigger higher audit effort (i.e., additional audit tests and procedures) and higher audit fees, creating a positive (albeit mechanical) relation between the propensity of the auditor to issue an adverse SOX 404 opinion and audit fees.⁸ Because of this confounding relation, potentially neither audit fees nor total (i.e.,

⁶ The increase in audit fees as a result of the SOX 404 audit (Ettredge et al. 2007) may also be expected to contribute to a lower ratio of nonaudit fees to audit fees during the period of our study.

⁷ Descriptive statistics reported later in the paper indicate that during the period of our study (2004-2008), the mean (median) ratio of nonaudit fees to audit fees for the approximately 3,000 companies in our sample was 24 (14) percent. Given that 5 percent is generally viewed as the materiality threshold (Rittenberg et al. 2010), *additional* fees and profits from nonaudit services to the tune of 14 percent (i.e., over and above the current level of audit fees and profits) is likely to be a material consideration for most auditors.

⁸ Consistent with this argument, Raghunandan and Rama (2006) and Hogan and Wilkins (2008) report that audit fees are significantly higher for clients subsequently disclosing internal control deficiencies.

the sum of audit and nonaudit) fees may be useful in the context of a SOX 404 audit for examining whether the auditor's economic dependence on the client impairs auditor objectivity.

Our sample consists of approximately 3000 companies for the fiscal years 2004 through 2008.⁹ Our results indicate that the ratio of nonaudit fees to local office revenues is significantly and *negatively* associated with the auditor's propensity to issue an adverse SOX 404 opinion during 2004 through 2006, but not 2007 or 2008. Moreover, during 2004-2006, there is a monotonic decline in the statistical and economic significance of the negative relation between nonaudit fees and the auditor's propensity to issue an adverse SOX 404 opinion, which is consistent with the notion that the ambiguity in AS2 declined over this time period as the PCAOB and the SEC continued to provide additional guidance.

Our findings suggest that nonaudit fees impaired auditor objectivity for SOX 404 audits for the three years (2004 through 2006) during which AS2 was the applicable standard.¹⁰ These results are robust to alternative nonaudit fee measures and a battery of other sensitivity tests. Also, further analysis utilizing data on various types of nonaudit services revealed that tax services and/or unspecified (other) services had a significant adverse impact on auditor objectivity for SOX 404 audits in 2004 and 2005.

Overall, our study contributes to the literature in several ways. First, the findings provide evidence that the relation between nonaudit fees and auditor objectivity may be linked to potential ambiguity in an auditing standard. While prior *behavioral* research (e.g., Hackenbrack and Nelson 1996) suggests that auditors have an incentive to accommodate a client's reporting preferences and are likely to

⁹ Note that the effective date for SOX 404 audits for non-accelerated filers (i.e., companies with a market float below \$75 million) was repeatedly delayed until at least 2010. Hence, our sample during 2004-2008 basically consists of accelerated filers.

¹⁰ To our knowledge, there is no prior research to indicate whether the auditor's perceived engagement risk (i.e., vulnerability to litigation and reputation loss) on a SOX 404 audit is different from that on a traditional financial statement audit. To the extent that investors are focused on the information in the financial statements for decision making, and given that a material weakness in internal control does not necessarily imply a misstatement in the financial statements, the perceived engagement risk in a SOX 404 audit could be lower than in a financial statement audit. For the purpose of our study, we do not make any assumptions about the engagement risk on a SOX 404 audit. Rather, our objective is simply to examine the relation between nonaudit fees and auditor reporting decisions for SOX 404 audits. In any event, our finding that nonaudit fees compromised auditor independence for SOX 404 audits for 2004-2006, but not 2007-2008, suggests that it is the ambiguity in auditing standard AS2 (rather than lower engagement risk per se) that is driving our results.

exploit the ambiguity in a standard to do so, our study is the first one (to our knowledge) that provides *archival* evidence on this issue.

Second, our study links the incentive to exploit the ambiguity in a standard to the magnitude of nonaudit fees. As discussed later in the paper, although prior research (e.g., DeFond et al. 2002) suggests that market-based institutional incentives (such as litigation and reputation costs) may be expected to dominate the expected benefits from compromising auditor objectivity, other research (e.g., Gul et al. 2007) indicates that there could be exceptions to the general rule. Our study identifies a particular context – ambiguity in an auditing standard – where the traditional market-based institutional incentives (i.e., litigation risk and reputation loss) for maintaining auditor objectivity do not appear to dominate the economic dependence created by nonaudit fees.

Third, the findings provide (to our knowledge) new evidence on the relation between nonaudit fees and auditor objectivity in the context of a SOX 404 audit. By contrast, prior research has focused on the relation between nonaudit fees and auditor objectivity exclusively in the context of a financial statement audit.

Finally, we provide empirical evidence that the additional guidance provided by the PCAOB for implementing AS2 (and the subsequent issuance of AS5 to supersede AS2) were effective in reducing ambiguity and in improving audit quality for SOX 404 audits. That is, relative to the initial three years of the SOX 404 audit and for any given level of nonaudit fees, the later years of a SOX 404 audit were associated with an increased propensity on the part of the auditor to issue an adverse SOX 404 opinion (a proxy for auditor objectivity) and, by implication, higher audit quality. Collectively, our findings suggest that ambiguity in an auditing standard has the potential for affecting auditor incentives and behavior.

The rest of this paper proceeds as follows. In the next section, we develop our hypothesis, and in section 3 we discuss our empirical models and methodology. Section 4 discusses the results and findings from additional analyses, while section 5 provides concluding remarks.

2. PRIOR RESEARCH AND HYPOTHESIS DEVELOPMENT

In this section, we briefly discuss auditor incentives, review the prior literature on nonaudit fees and auditor objectivity for financial statement audits, and state our hypothesis on the relation between nonaudit fees and auditor objectivity in the context of the newly required SOX 404 audit on the effectiveness of the client's internal control over financial reporting.

2.1 Auditor Incentives and Ambiguity

Prior research (e.g., Citron and Taffler 1992) suggests that auditor incentives are a delicate balance between the desire to protect the firm's reputation and avoid litigation, and the need to maintain the profits (quasi rents) from the relationship with the audit client. Specifically, the discretion that auditors allow their clients can affect the financial statements as well as the audit opinion (report) issued by the auditor (e.g., Reynolds and Francis 2001). With respect to the audit report, the auditor potentially trades-off the need to retain the client against the risk of substantial financial and reputational loss if alleged (at a later date) to have allowed the client to exercise an overly-aggressive reporting choice.

In the context of a financial statement audit, Hackenbrack and Nelson (1996) suggest that although the purpose of accounting standards is to restrain the client's use of aggressive reporting choices, the ambiguous criteria in a standard may "actually provide auditors a convenient mechanism to justify aggressive reporting methods" (p. 44). Specifically, they conducted an experiment in which the applicable standards were SFAS No. 5, *Accounting for Contingencies* (FASB 1975) and SFAS No. 77, *Reporting by Transferors for Transfers of Receivables with Recourse* (FASB 1983).

Notably, both SFAS No. 5 and SFAS No. 77 have ambiguity relating to being able to "reasonably estimate" uncollectible accounts. As discussed by Nelson and Kinney (1997, p. 257), ambiguity refers to circumstances with "uncertainty about probability," i.e., situations in which information about probabilities is not known precisely. Thus, in the case of SFAS 5, a decision that bad debts can be reasonably estimated requires their accrual (the conservative choice) while not being able to make such an estimate requires footnote disclosure (the aggressive reporting choice). However, in the case of SFAS No. 77, a decision that the client's uncollectible receivables can be reasonably estimated requires

recording the transfer of the receivables as a sale (the aggressive choice), while not being able to make such an estimate requires that the transfer be recorded as a loan (the conservative reporting choice).

In their experiment with practicing auditors, Hackenbrack and Nelson (1996) report that their subjects preferred the aggressive reporting option with respect to both SFAS No. 5 and SFAS No. 77 when engagement risk (i.e., vulnerability to litigation and reputation loss) was judged to be moderate, but preferred the conservative option (i.e., applied the standards conservatively) when engagement risk was judged to be high. They conclude that auditors are sensitive to client pressure and may utilize the ambiguous criteria in an accounting standard to make and justify incentive-compatible reporting decisions.

2.2 Nonaudit Fees and Auditor Independence for Financial Statement Audits

In previous research relating to financial statement audits, several studies have examined the association between nonaudit fees and auditor objectivity (and, by implication, audit quality) using various proxies such as discretionary accruals, financial statement restatements, and the auditor's propensity to issue a going concern opinion (e.g., Ashbaugh et al. 2003; Chung and Kallapur 2003; DeFond et al. 2002; Frankel et al. 2002; Li 2009). Despite concerns expressed by regulators and the media that the potentially more lucrative nature of nonaudit services is likely to reduce auditor objectivity by increasing the auditor's economic dependence on the client, these studies largely suggest that nonaudit fees do not impair auditor independence for financial statement audits.

Still, it is important to recognize that these findings need not hold in all circumstances, i.e., there could be exceptions to the general rule. As an example, Gul et al. (2007) indicate that nonaudit fees have a negative impact on auditor independence (as proxied by income-increasing discretionary accruals) for small clients when auditor tenure is short. More broadly, recent high profile audit failures (such as Enron, WorldCom, and HealthSouth) suggest that market-based institutional incentives (i.e., litigation risk and reputation loss) do not guarantee audit quality, i.e., they represent necessary, but not sufficient, conditions for maintaining auditor objectivity.

Of particular interest to us in this paper are the studies that examine the impact of nonaudit fees on the willingness of the auditor to issue a going concern qualification (as a proxy for auditor objectivity). Specifically, DeFond et al. (2002) examine 2001 (i.e., pre-SOX) fee data at the national audit firm-level and report that there is no association between nonaudit fees and the probability of the auditor issuing a going concern opinion. More recently, Li (2009) utilizes both 2001 (pre-SOX) and 2003 (post-SOX) fee data at the local audit office level. Consistent with DeFond et al. (2002), she also reports that there is no relation between nonaudit fees and the propensity of the auditor to issue a going concern opinion.

2.3 Hypothesis

As noted previously, in the context of a SOX 404 audit a material weakness in internal control does *not* necessarily imply that the financial statements are misstated. Consequently, an adverse SOX 404 opinion on internal control can be (and generally is) accompanied by a clean opinion on the company's financial statements. Still, prior research (e.g., Ashbaugh et al. 2009) suggests that the market values a clean opinion on internal control for the implied favorable effects on the client's information quality. In particular, Ashbaugh et al. (2009) suggest that the market largely anticipates internal control deficiencies based on publicly known client characteristics (such as the complexity of operations), and responds favorably to a clean (unqualified) SOX 404 audit opinion on internal control by lowering the client's cost of equity capital. Also, Ettredge et al. (2009) find that adverse SOX 404 opinions are associated with an increased frequency of auditor switches. For both these reasons, it is understandable that the client would prefer to receive -- and that the auditor would prefer to issue -- a clean opinion rather than an adverse SOX 404 opinion on internal control.

As discussed previously, the AS2 notion of a material weakness in internal control (i.e., "more than remote likelihood" that internal control will not prevent or detect a material misstatement in the financial statements) was ambiguous. Subsequently, the PCAOB (2005) attempted to clarify that the term "remote likelihood" in AS2 had the same meaning as the term "remote" in SFAS No. 5. Given auditors' prior experience in applying SFAS No. 5, the PCAOB (2005) potentially lowered the ambiguity in AS2 by referring to SFAS No. 5. Later, in AS5, the PCAOB (2007) replaced the term "more than remote

likelihood” (in AS2) with “reasonably possible” and explicitly referred to SFAS No. 5. Also, as noted previously (and discussed at greater length in Section 4 below), although SOX prohibits auditors from providing many types of nonaudit services to their audit clients, in the post-SOX period nonaudit fees continue to be a material source of additional revenues and profits for the audit firms.

Consequently, in the context of a SOX 404 audit, the additional revenues (and profits) from nonaudit services may be expected to increase the economic dependence of the auditor on the client and thereby raise the auditor’s sensitivity to client pressure, i.e., increase the auditor’s incentive not to jeopardize client relations. However, despite this raised sensitivity, the auditor is expected to objectively evaluate the client’s internal control and withstand client pressure to issue a clean SOX 404 opinion. This suggests a correlation between the propensity to issue an adverse SOX 404 opinion and auditor objectivity.

Hence, our objective is to examine whether auditors exploited the ambiguity in AS2 (and AS5) to make reporting choices that would please the client. Our conjecture is that nonaudit fees combined with the ambiguity in AS2 (and AS5) is associated with a reduced propensity on the part of the auditor to issue an adverse SOX 404 opinion on internal control. Our Hypothesis (stated in the alternative form) to test the effect of nonaudit fees on auditor objectivity in the context of a SOX 404 audit is as follows:

H1: Other things being equal, higher nonaudit fees are associated with a reduced propensity on the part of the auditor to issue an adverse SOX 404 opinion.

3. SAMPLE SELECTION AND RESEARCH METHODOLOGY

3.1 Sample Selection

Our sample is drawn from the Audit Analytics database, which obtains data on auditors’ SOX 404 reports and fees from companies’ 10-K filings with the SEC. The sample period covers the first five years of SOX 404 audits (i.e., fiscal years ending November 15, 2004 through December 31, 2008). The initial sample consisted of 20,506 client-year observations. As noted previously, our analysis is at the level of the local audit office. To calculate the proportion of nonaudit fees and audit fees for a client to the local office’s total revenues, we needed information on fees as well as the identity of the local engagement

office conducting the audit. These data requirements reduced our sample size to 18,700 client-year observations. We also required our sample observations to have the requisite financial data on Compustat for the control variables (discussed below) included in our analysis. These selection procedures yielded a final sample of 17,372 client-year observations over the five year period. Note that these observations consist of 515 (2,471), 425 (3,184), 319 (3,294), 282 (3,367) and 139 (3376) clients receiving adverse (clean) SOX 404 audit opinions during 2004, 2005, 2006, 2007, and 2008 respectively. As one would expect (given improvements in internal control over time), the proportion of adverse SOX 404 opinions relative to all auditor reports declined from a high of about 17 percent (515/2986) in 2004 to about 4 percent (139/3515) in 2008.

3.2 Regression Model

To test our hypothesis about the relation between nonaudit fees and the auditor's propensity to issue an adverse SOX 404 opinion, we employ the following logistic regression model:

$$\text{ADVERSE} = b_0 + b_1\text{NAFEE/OFFREV} + b_2\text{AFEE/OFFREV} + b_3\text{LNAT} + b_4\text{LEV} + b_5\text{LOSS} + b_6\text{GROWTH} + b_7\text{RECEIVABLE} + b_8\text{INVENTORY} + b_9\text{SEGMENT} + b_{10}\text{RESTRUCT} + b_{11}\text{RESTATE} + b_{12}\text{BIG4} + b_{13}\text{AUDCHG} + b_{14}\text{GC} + b_{15}\text{FOREIGN} \quad (1)$$

We estimate model (1) on a year-by-year basis over the 2004-2008 period. The dependent and independent variables in the model are defined in Table 1. Specifically, the dependent variable ADVERSE is a dummy variable equal to 1 if the auditor issued an adverse SOX 404 opinion on the effectiveness of the client's internal control over financial reporting (ICFR), and 0 otherwise. The test variable in the regression is NAFEE/OFFREV, which represents the client's nonaudit fees scaled by the total revenues of the local office through which the audit was conducted. Consistent with recent literature (e.g., Khurana and Raman 2006; Li 2009), this variable attempts to capture the economic importance of the nonaudit fees earned from the client at the level of the individual engagement office. At any given level of office revenues, the higher the nonaudit fees from the client, the greater the auditor's economic dependence on the client. Thus, as hypothesized previously, the predicted sign for variable NAFEE/OFFREV is negative.

In model (1), the variables AFEE/OFFREV through FOREIGN represent our control variables. Variable AFEE/OFFREV represents the client's audit fees scaled by the total revenues of the local audit office. Audit fees, similar to nonaudit fees, may be expected to increase the auditor's economic dependence on the client. However, as discussed previously, in the context of a SOX 404 audit deficiencies in the client's internal control are likely to automatically trigger greater audit effort and higher audit fees (Raghunandan and Rama 2006; Hogan and Wilkins 2008). Hence, the predicted sign for this variable in the regression is positive.

The remaining control variables in the model (LNAT through FOREIGN) are based on prior research on client and other characteristics related to the presence of control deficiencies (Doyle et al. 2007; Ashbaugh-Skaife et al. 2007). Specifically, larger clients are expected to have stronger internal controls and thus less likely to receive an adverse SOX 404 opinion. Therefore, the predicted sign for variable LNAT (log of the client's total assets) is negative. By contrast, clients reporting higher leverage (variable LEV), incurring losses (LOSS), having more receivables and inventory (RECEIVABLE and INVENTORY, respectively), announcing in the current year a restatement of previously issued financial reports (RESTATE), and receiving a going concern opinion on their financial statement audit (GC) are more likely to have internal control deficiencies. Hence, the predicted sign for these variables is positive. Similarly, clients with more complex operations are more likely to have internal control issues. Thus, the predicted signs for variables GROWTH (sales growth), SEGMENT (number of segments), RESTRUCT (restructuring during the current year), and FOREIGN (foreign operations) are all positive. Our model also controls for type of auditor (BIG4) and auditor change during the current year (AUDCHG). Consistent with the notion based on prior financial statement audit research that large auditors provide audits of higher quality and that clients experiencing an auditor change are likely to have issues, the predicted sign for both BIG4 and AUDCHG in the regressions is positive.

4. EMPIRICAL FINDINGS

4.1 Descriptive statistics

Table 2 presents the mean (and median) values for our independent variables by type of SOX 404 audit opinion (i.e., adverse or otherwise) for each of the five years (2004-2008). The table also presents the results of a test of differences in these mean (and median) values. For our test variable NAFEE/OFFREV, the mean value consistently exceeds the median indicating that the variable is right skewed. In the five years examined, the mean for variable NAFEE/OFFREV (for clients receiving an adverse SOX 404 opinion or otherwise) ranges from a low of 2.5 percent (in 2005) to a high of 4.5 percent (in 2008) indicating that on average nonaudit fees from an audit client accounted for about 3.5 percent of local office revenues.

Although 3.5 percent may appear to be a low percentage, recall that it represents nonaudit revenues from an *individual* client relative to the sum total of all (audit and nonaudit) revenues from *all* clients of that local audit office. In dollar terms (untabulated), these nonaudit revenues represent a mean (median) of \$2.6 (\$1.2) million of additional revenues for the local offices. Along the same lines, perhaps another measure of the economic importance of nonaudit revenues to the auditor is the ratio of nonaudit fees to audit fees (variable NAFEE/AFEE). Untabulated results indicate the mean (median) value for the NAFEE/AFEE variable over the entire sample period 2004-2008 to be 24 (14) percent.¹¹

As noted previously, given the restrictions placed by SOX on the provision of nonaudit services to audit clients (and the increase in audit fees as a result of the SOX 404 audit), this relatively low percentage of nonaudit fees to audit fees is not surprising. Also as noted previously, the low proportion of nonaudit fees to audit fees potentially biases our study *against* finding a significant relation between nonaudit fees and the auditor's propensity to issue an adverse SOX 404 opinion. Nonetheless, in a competitive market for professional services, these *additional* revenues and profits -- to the tune of about

¹¹ For individual years, untabulated results for the nonaudit fees to audit fees ratio (NAFEE/AFEE) show the mean (median) to be 29 (18), 22 (14), 22 (14), 23 (13), and 22 (13) percent in 2004, 2005, 2006, 2007, and 2008, respectively.

14 percent over and above current audit fees (based conservatively on the *lower* median value reported above) – may be expected to be a material consideration for auditors.¹² Hence, the relation between nonaudit fees and auditor objectivity on SOX 404 audits remains an important (and previously unexamined) empirical research question that we investigate in our study.

The univariate tests in Table 2 suggest that nonaudit fees (as a proportion of local office revenues) for clients receiving adverse SOX 404 opinions is generally not significantly different from that of other clients. However, these univariate comparisons are potentially misleading since the likelihood of receiving an adverse SOX 404 opinion is also correlated with the other (control) variables in the model. Hence, in our multivariate regression analysis discussed below we control for these other variables in examining the relation between nonaudit fees and the auditor's propensity to issue an adverse SOX 404 opinion.

As one would expect (based on our earlier discussion), the univariate results in Table 2 for all five years suggest that the proportion of audit fees to total local office revenues (variable AFEE/OFFREV) is significantly higher for clients receiving an adverse SOX 404 opinion. Further, the results suggest that clients receiving an adverse SOX 404 opinion are more likely to be smaller (variable LNAT), report a loss (LOSS), experience a restructuring (RESTRUCT), and announce during the current year a restatement of previously issued financial statements (RESTATE). Table 2 also suggests that clients experiencing an auditor change (AUDCHG) and receiving a going concern qualification on their financial statements (GC) are more likely to receive an adverse SOX 404 opinion. However, Table 2 suggests that clients with a Big 4 auditor (BIG4) are less likely to receive an adverse SOX 404 report.

Table 3 presents the correlation matrix for the dependent and independent variables for year 2004. For brevity, we do not present a correlation matrix for the other years (2005-2008) since the

¹² As noted previously (fn. 6), the prior auditing literature views 5 percent as material. Assuming that nonaudit services are at least as lucrative as audit services, nonaudit fees (and profits) -- amounting to 14 percent over and above current fees (and profits) from audit services – can reasonably be expected to be a material consideration for auditors. In additional analyses discussed in section 4.3 below, we examine both the fee ratio (NAFEE/AFEE) and the log of nonaudit fees (LN_NAFEE) as alternative test variables to examine the impact of nonaudit fees on SOX 404 reporting decisions.

pairwise correlations among the variables in the later years were similar to those reported for year 2004. Although several pairwise correlations in Table 3 are significant, we evaluate collinearity in our multivariate analysis using VIFs (variance inflation factors) as discussed below.

4.2 Logistic regression results

The annual regressions in Table 4 examine whether the propensity of the auditor to issue an adverse SOX 404 opinion is affected by the auditor's economic dependence on the client for nonaudit fees, i.e., the regressions test whether the nonaudit fee-based test variable NAFEE/OFFREV has incremental explanatory power over and above the control variables in the model. Note that the highest VIF for any variable in any of the regressions is only 1.915 (for variable LNAT in 2006), indicating that collinearity is not likely to be an issue in interpreting the regression results.

In the regressions, the test variable NAFEE/OFFREV measures the strength of the auditor/client economic bond based on the dollar amount of nonaudit fees paid to the auditor as a proportion of the total revenues of the local practice office. To the extent that nonaudit fees increase the auditor's economic dependence on the client and, thereby, provide the auditor an added incentive to interpret aggressively (i.e., in favor of the client) the ambiguity in the auditing standard AS2 or AS5, the *higher* the magnitude of the test variable, the *lower* the propensity of the auditor to issue an adverse SOX 404 opinion.

In Table 4, the test variable NAFEE/OFFREV has the predicted negative sign, and is significant at p-values of 0.002, 0.024, and 0.043 in 2004, 2005, and 2006, respectively. The effect of nonaudit fees on the propensity of the auditor to issue an adverse SOX 404 opinion during 2004 through 2006 is also economically significant. As the test variable NAFEE/OFFREV increases by one standard deviation, the likelihood of an adverse SOX 404 audit report is reduced by 2.8 percent, 1.3 percent, and 1 percent in 2004, 2005, and 2006, respectively. These effects are quite large, since the mean likelihood of receiving an adverse SOX 404 opinion is only 17 percent, 12 percent, and 9 percent in 2004, 2005, and 2006, respectively. The monotonic decline in both the statistical and economic significance of variable NAFEE/OFFREV during 2004, 2005, and 2006 is consistent with the notion that the ambiguity in AS2 declined over this time period as the PCAOB continued to provide additional guidance. By contrast,

NAFEE/OFFREV is not significant in 2007 or 2008. As discussed previously, 2004 through 2006 represents the first three years of the SOX 404 audit when the applicable auditing standard was AS2. By contrast, 2007 and 2008 represent the years when AS2 was superseded by the less ambiguous auditing standard AS5.

In Table 4, the variables AFEE/OFFREV through FOREIGN represent control variables. As discussed previously, internal control deficiencies may be expected to automatically trigger higher audit effort in terms of additional audit tests and procedures which, in turn, could result in higher audit fees. Consistent with this expectation, variable AFEE/OFFREV (i.e., the ratio of audit fees to local office revenues) is significant with a positive sign in each of the five years. Note also that variable RESTATE is consistently significant with the predicted positive sign, i.e., an announcement by the client during the current year of a restatement of previously issued financial reports is associated with a greater likelihood of the auditor issuing an adverse SOX 404 opinion. The other control variables, where significant, have the predicted signs.

4.3 Additional Analyses

4.3.1 *Alternative Nonaudit Fee Test Metrics*

Following Ashbaugh et al. (2003) and DeFond et al. (2002), we also utilized the fee ratio (i.e., the ratio of client nonaudit fees to client audit fees or NAFEE/AFEE, in panel A of Table 5) and the log of nonaudit fees (LN_NAFEE, in panel B of Table 5) as alternative test variables to examine the impact of nonaudit fees on auditor objectivity in the context of a SOX 404 audit. These annual regressions utilize the same dependent variable ADVERSE and all of the control variables in model (1) discussed previously, except that for the test of LN_NAFEE in panel B Table 5 the control variable AFEE/OFFREV (client audit fees scaled by local audit office revenues) is replaced by the variable LN_AFEE (log of client audit fees) to correspond to the test variable. For brevity, we do not show the entire regression results since the findings for the control variables were similar to those shown previously in Table 4.

In the Table 5 panel A regressions, the alternative test variable NAFEE/AFEE has the predicted negative sign and is significant in 2004, 2005, and 2006 (with p-values of 0.008, 0.021, and 0.069,

respectively) but not in 2007 or 2008. In the Table 5 panel B regressions also, the alternative test variable LN_NAFEE has the predicted negative sign and is significant in 2004, 2005, and 2006 (with p-values of 0.001, 0.006, and 0.015, respectively) but not in 2007 or 2008.

Collectively, the results in Table 5 panels A and B from using the alternative nonaudit fee test variables (NAFEE/AFEE and LN_NAFEE) are consistent with the results reported previously in Table 4, i.e., the *higher* the magnitude of the nonaudit fee variable, the *lower* the propensity of the auditor to issue an adverse SOX 404 opinion during 2004-2006 (when AS2 was the applicable auditing standard) but not in 2007 or 2008 (when AS5 was the applicable standard). Also, over the three-year window 2004-2006 when AS2 was the applicable standard, both the alternative test variables exhibit a monotonic decline in statistical significance consistent with the results reported previously in Table 4.

4.3.2 Type of Nonaudit Service

To obtain additional insights into the relation between nonaudit fees and the auditor's propensity to issue an adverse SOX 404 opinion, in our analyses we also examined the components of nonaudit fees. Specifically, Audit Analytics reports information for three major components of nonaudit fees paid to the incumbent auditor, i.e., audit related fees, tax services fees, and other unspecified fees. During the period of our study, these three components accounted on average for about 42 percent, 50 percent, and 8 percent, respectively, of total nonaudit fees. In prior research, Kinney et al. (2004) report that unspecified (other) nonaudit fees are positively associated with financial statement restatements, while tax services fees are typically negatively associated with such restatements. Also, Hollingsworth and Li (2009) report that while fees for tax services were associated with an increased cost of equity capital for audit clients in the pre-SOX period, there was no significant relation between such fees and the cost of equity in the post-SOX period.

In our analysis, we calculated the ratio for each of the three components of nonaudit fees (audit related fees, tax services fees, and other unspecified fees) to total local audit office revenue, and re-estimated model (1) by replacing the single nonaudit fees test metric (NAFEES/OFFREV) with the three component test metrics (RELATE/OFFREV, TAX/OFFREV, and OTHER/OFFREV). Table 6 reports

the results for all five years. For 2004, both the tax and unspecified (other) services components, i.e., variables TAX/OFFREV and OTHER/OFFREV, are significant with the predicted negative sign with p-values of 0.009 and 0.083, respectively. However, for 2005, only the tax services component (TAX/OFFREV) is significant with the predicted negative sign with a p-value of 0.003. By contrast, for 2006, the results suggest that the negative relation between nonaudit fees and the propensity of the auditor to issue an adverse SOX 404 opinion reported previously in Tables 4 and 5 is driven not by the effect of any single component but by the combined effect of all the three components of nonaudit fees.

4.3.3 Auditor Industry Specialization

In a recent study, Lim and Tan (2008) suggest that the effect of nonaudit fees on auditor independence (in the context of the traditional financial statement audit) is conditional on auditor industry specialization. They suggest that industry specialist auditors are more likely to be concerned about litigation exposure and loss of reputation, and more likely to benefit from knowledge spillovers associated with providing nonaudit services. Consistent with this argument, their findings suggest that financial statement audit quality (as measured by the auditor's propensity to issue a going concern opinion, the client's propensity to avoid missing analysts' earnings forecasts, and earnings response coefficients) is higher when nonaudit services are obtained from an incumbent industry specialist auditor than from a non-specialist auditor.

Following Lim and Tan (2008), we calculated auditor market shares as the sales of all clients of that audit firm in a particular industry divided by total sales of all clients in that industry, and identified the auditor with the largest market share as the specialist for that industry. We identified industries based on their two-digit SIC codes. In our analysis, we interacted the industry specialist dummy variable with our nonaudit fee test variable and the audit fee control variable. In untabulated results, none of the interaction variables were significant in any of the five years 2004 through 2008. Thus, for SOX 404 audits, the findings suggest that the auditor's industry specialization does not mitigate the negative relation between nonaudit fees and the auditor's propensity to issue an adverse SOX 404 audit opinion during 2004-2006 reported previously.

4.3.4 Size of the Local Audit Office

Craswell et al. (2002) suggest that the smaller local audit offices typically have fewer publicly listed companies, and that these public clients are more likely to dominate the audit office's portfolio. Along the same lines, Francis and Yu (2009) suggest that larger offices provide higher quality audits. To mitigate any possible effect related to the size of the local office, we partitioned our sample of clients by the size of the local audit office performing the audit as measured by total office revenues. We then re-did our analysis separately for clients audited by local audit offices above and below the median size. The results for both groups of clients were similar to that reported previously. These findings suggest that the negative relation we reported previously between nonaudit fees and the auditor's propensity to issue an adverse SOX 404 opinion during 2004-2006 is not affected by the size of the local office performing the audit.

In alternative analysis that also focuses on the size of the local audit office, we dropped from our sample all observations for local audit offices with fewer than 10 public audit clients. The results for this alternative analysis were similar to those reported previously except that our test variable NAFEE/OFFREV was no longer significant in 2006.

4.3.5 Auditor Changes

When there is an auditor change, the new incoming auditor is likely to be less familiar with and to be less knowledgeable of the client. Consequently, it may be more challenging for the new incumbent auditor to identify a material weakness (or weaknesses) in the client's internal control. Although our earlier analysis controlled for auditor changes during the current year (variable AUDCHG), in additional analysis we deleted from our sample all clients that experienced an auditor change in the year prior to each sample year. The findings from this additional analysis were similar to those reported previously. Collectively, the results suggest that the negative relation between nonaudit fees and the likelihood of the client receiving an adverse SOX 404 opinion during 2004-2006 is not driven by auditor changes.

4.3.6 Big 4 and non-Big 4 Auditors

In this analysis, we interacted the BIG4 dummy variable with our nonaudit fee test variable and the audit fee control variable. In the regressions, the interaction variables were *not* significant in any of the five years. Separately, to address potential concerns relating to auditor self-selection and/or audit quality differences between Big 4 and non-Big 4 auditors, we deleted from our sample all non-Big 4 auditor clients. For this analysis of only Big 4 clients, the number of observations was reduced to 2631, 3014, 2921, 2883, and 2777, for 2004, 2005, 2006, 2007, and 2008, respectively. Once again, the results were similar to the findings reported previously, i.e., there was a negative and significant relation between nonaudit fees and the propensity of the auditor to issue an adverse SOX 404 opinion during 2004-2006, but not during 2007 or 2008. Collectively, these results indicate that our findings on the relation between nonaudit fees and auditor independence on SOX 404 audits during 2004-2008 are not sensitive to auditor type.

4.3.7 Pooled Analysis with a Crude Proxy for the Level of Ambiguity

For this analysis, we pooled our observations over the five years (2004-2008) and included an additional variable AMBI as a crude proxy for the level of ambiguity in AS2 and AS5 relating to the auditor's subjective probability assessments in determining whether a weakness in the client's internal control will not prevent or detect a material misstatement in the financial statements.¹³ As discussed previously, the ambiguity level was the highest in 2004 (when AS2 was first applied) and declined over time as the PCAOB provided more guidance (during 2005 and 2006) and subsequently issued AS5 (in 2007) to supersede AS2. As a crude proxy for the level of ambiguity, we assigned variable AMBI a value of 4 in 2004, 3 in 2005, 2 in 2006, and 1 in 2007 and 2008. In the pooled analysis, we included variable AMBI as well as an interaction variable (NAFEE/OFFREV×AMBI) between our test variable NAFEE/OFFREV and AMBI as additional explanatory variables. In this analysis, based on "robust" test statistics that control for client and year clustering (Gow et al. 2010), the interaction variable

¹³ Although the prior behavioral literature (e.g., Hackenbrack and Nelson 1996; Nelson and Kinney 1997) discusses the notion of ambiguity, it does not provide a measure of ambiguity. Hence, in our study, we rely on a crude proxy for the level of ambiguity in AS2 and AS5.

NAFEE/OFFREV \times AMBI was significant with a negative sign with a p-value of 0.031. Once again, these results suggest that the negative relation reported previously between nonaudit fees and the likelihood of the auditor issuing an adverse SOX 404 opinion on internal control during 2004-2006 is associated with the level of ambiguity in AS2.

4.3.8 Analysis without Restatement Observations

An announcement during the current year of a restatement of the client's previously issued financial reports may be expected to be associated with an adverse SOX 404 opinion. Our current analysis already controls for this event by including RESTATE as an independent variable. Still, to eliminate the potential confounding effect (if any) of restatements on adverse SOX 404 opinions, we deleted from our sample all observations with RESTATE = 1.¹⁴ The results of this alternative analysis were similar to those reported previously, i.e., the p-values for the NAFEE/OFFREV test variable were 0.005, 0.050, and 0.083 in 2004, 2005, and 2006, respectively, and not significant in 2007 and 2008.

4.3.9 Analysis Based on the Year of the SOX 404 Audit

In this analysis, we partitioned the sample by the year of the SOX 404 audit rather than the client's fiscal year. Since the SOX 404 audit became mandatory for fiscal years ending on or after November 15, 2004, the sample for the first year of the audit consists of clients with fiscal years ending between November 15, 2004 and November 14, 2005. Similarly, the sample for the second year of the SOX 404 audit consists of clients with fiscal years ending between November 15, 2005 and November 14, 2006, and so on. The number of total observations (and the number of adverse SOX 404 opinions/clean SOX 404 opinions) for this analysis were 3688 (655/3033), 3819 (450/3369), 3760 (330/3430), 3633 (266/3367), 3105 (108/2997) for the first, second, third, fourth, and fifth year of the SOX 404 audit, respectively. The results for this alternative analysis were similar to the findings reported previously except that our test variable NAFEE/OFFREV was no longer significant for the third year of the SOX 404 audit (i.e., for fiscal years ending between November 15, 2006 and November 14, 2007).

¹⁴ This deletion reduced our sample size to 2935, 3447, 3450, 3442, and 3358 observations in 2004, 2005, 2006, 2007, and 2008, respectively. The number of adverse/clean SOX 404 opinions during those years were 488/2447, 368/3079, 275/3175, 228/3214, 116/3242, respectively.

Thus, the test variable was significant with a negative sign for the first two years of the SOX 404 audit (p-values of 0.004 and 0.011, respectively) but not for the subsequent years.

5. CONCLUDING REMARKS

Prior behavioral research (e.g., Hackenbrack and Nelson 1996) suggests that auditors are sensitive to client pressure and may exploit the ambiguity in an accounting (or auditing) standard to justify incentive-compatible reporting choices. In this paper, we examine the impact of the ambiguity in the PCAOB standards AS2 and AS5 on the relation between nonaudit fees and auditor objectivity in the context of the newly required SOX 404 audit on the effectiveness of the client's internal control over financial reporting. As discussed previously, despite the restrictions placed by SOX on the supply of nonaudit services to audit clients, nonaudit fees continue to be a material source of additional revenues (and profits) for auditors.

During the first three years of the SOX 404 audit (2004 through 2006), the applicable rule was the PCAOB's auditing standard AS2. In AS2, the phrase "more than remote likelihood" that internal control will not prevent or detect a material financial statement misstatement was ill-defined and ambiguous. Over time, the ambiguity in AS2 declined as the PCAOB provided additional guidance. In 2007, AS5 superseded AS2 and was relatively clear about its phraseology ("reasonable possibility" that internal control will not prevent or detect a material financial statement misstatement) from the very beginning by explicitly stating that "reasonable possibility" had the same meaning as the phrase "reasonably possible" in SFAS No. 5. By linking the criteria in AS5 to the criteria in SFAS No. 5 (a standard that auditors have prior experience applying in practice), the PCAOB further lowered the ambiguity surrounding the requirements of a SOX 404 audit.

In our study, we find a negative relation between nonaudit fees and auditor objectivity as measured by the propensity of the auditor to issue an adverse SOX 404 opinion during the first three years (2004 through 2006), but find no relation during 2007 and 2008. Also, during 2004-2006, we observe a monotonic decline in the statistical and economic significance of the negative relation between nonaudit

fees and the auditor's propensity to issue an adverse SOX 404 opinion. These results are robust to alternative nonaudit fee test variable definitions and model specifications.

Collectively, our findings suggest that nonaudit fees (together with the ambiguity in AS2) lowered the propensity of the auditor to issue an adverse SOX 404 opinion during 2004-2006. Further, the results suggest that the additional guidance provided by the PCAOB during 2005 and 2006 (and the subsequent issuance of AS5 in 2007 to supersede AS2) reduced ambiguity and were effective in improving audit quality for SOX 404 audits. We contribute to the literature by providing new evidence on the relation between nonaudit fees and auditor objectivity in the context of a SOX 404 audit, by providing evidence that links the incentive to exploit the ambiguity in a standard to the magnitude of nonaudit fees, and by documenting a context – ambiguity in auditing standards – where the economic dependence created by nonaudit fees appears to outweigh the market-based institutional incentives (i.e., litigation exposure and loss of reputation) for promoting auditor objectivity.¹⁵

Our findings are important for their policy implications, i.e., they suggest that ambiguity in a standard can impact auditor incentives and behavior. However, consistent with other studies that examine the effect of regulatory events (e.g., Ali and Kallapur 2001), our study is subject to the limitation that some other economic event occurring during the same time period as our study period (2004-2008) -- but unrelated to the ambiguity in AS2 and AS5 -- may be driving our results. To the extent that there is such a significant (but unknown) confounding factor, our results must be interpreted with caution.

¹⁵ As noted previously, although prior research by and large suggests that nonaudit fees do not impair auditor independence for financial statement audits, it is important to recognize that there may be exceptions to the general rule. Thus, Gul et al. (2007) suggest that nonaudit fees have a negative impact on auditor objectivity for small clients when auditor tenure is short. In any event, recent well-publicized audit failures (such as Enron and WorldCom) suggest that the threat of litigation and loss of reputation are not a guarantee of audit quality, i.e., they are necessary, but not sufficient, conditions for maintaining auditor objectivity.

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APPENDIX A

Key Events

Fiscal year end	Date	Event
11/15/2004		Auditing Standard No. 2 (AS2) effective for SOX 404 audits
	4/13/2005	SEC round table on first year SOX 404 audits
	5/16/2005	PCAOB issues 18 staff guidance Q&As accompanied by a Board Policy Statement expressing the Board's view how to properly plan and perform an effective audit under AS2.
	6/8-6/9/2005	The PCAOB's Standing Advisory Group discusses implementation issues related to the first year of the SOX 404 audit and appropriate strategies for the second year of the audit.
	11/30/2005	PCAOB issues report on the initial implementation of AS2.
	5/10/2006	The SEC and PCAOB sponsor a roundtable to discuss the second-year experience with the reporting and auditing requirements of SOX 404.
	5/16/2006	SEC issues additional guidance in response to SEC Roundtable Discussion.
	5/17/2006	PCAOB's issues a four-point plan for improving SOX 404 implementation; SEC announces the next steps for SOX 404 implementation
	6/12-6/13/2006	The PCAOB's Standing Advisory Group discusses the implementation of Section 404 and AS2, and various potential amendments to AS2.
	2/22/2007	The PCAOB's Standing Advisory Group discusses and proposes changes to AS2.
	4/18/2007	PCAOB issues a 2 nd year report on the implementation of AS2
	7/25/2007	SEC approves PCAOB Auditing Standard No. 5; AS2 suspended
11/15/2007		AS5 effective for SOX 404 audits

Table 1 Variable Definitions

Variable	Definition
ADVERSE	= 1 if the auditor issued an adverse SOX 404 opinion on the effectiveness of the client's internal control over financial reporting (ICFR) for the current year, 0 otherwise.
NAFEE/OFFREV	client nonaudit fees divided by total local office revenues for the current year.
AFEE/OFFREV	client audit fees divided by total local office revenues for the current year
LNAT	natural logarithm of total assets at the end of current year.
LEV	total liabilities divided by total assets at the end of current year.
LOSS	=1 if client has negative net income at the end of current year, 0 otherwise.
GROWTH	sales growth from prior year to current year.
RECEIVABLE	total accounts receivables divided by total assets at the end of current year.
INVENTORY	total inventories divided by total assets at the end of current year.
SEGMENT	natural log of the number of client business segments in the current year.
RESTRUCT	= 1 if the client had a restructuring in the current year, 0 otherwise. This variable equals 1 if at least one of the following Compustat annual data items is not equal to zero: #376, #377, #378 or #379.
RESTATE	= 1 if in the current year the client announced a restatement of previously issued financial reports, 0 otherwise.
BIG4	= 1 if auditor is a Big 4 auditor in the current year, 0 otherwise.
AUDCHG	= 1 if there is auditor change in the current year, 0 otherwise.
GC	= 1 if the client received a going concern auditor opinion on financial statements, 0 otherwise.
FOREIGN	= 1 if the client has foreign operations, 0 otherwise.

Table 2 Descriptive Statistics

N =	<u>First Year (2004)</u>						<u>Second Year (2005)</u>					
	ADVERSE = 1		ADVERSE = 0		t-stat p-value	Sign rank p-value	ADVERSE =1		ADVERSE =0		t-stat p-value	Sign rank p-value
	515		2471				425	3184				
Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median			
NAFEE/OFFREV	0.030	0.007	0.032	0.007	0.414	0.486	0.027	0.005	0.025	0.005	0.622	0.593
AFEE/OFFREV	0.164	0.060	0.120	0.035	0.000	0.000	0.181	0.081	0.120	0.037	0.000	0.000
LNAT	6.446	6.143	7.004	6.871	0.000	0.000	6.435	6.121	6.918	6.785	0.000	0.000
LEV	0.579	0.541	0.561	0.550	0.194	0.486	0.563	0.521	0.554	0.540	0.565	0.408
LOSS	0.381	0.000	0.179	0.000	0.000	0.000	0.412	0.000	0.183	0.000	0.000	0.000
GROWTH	0.189	0.089	0.199	0.120	0.586	0.002	0.191	0.105	0.224	0.131	0.142	0.058
RECEIVABLE	0.185	0.110	0.205	0.130	0.054	0.003	0.181	0.128	0.206	0.130	0.025	0.662
INVENTORY	0.096	0.031	0.073	0.017	0.000	0.057	0.086	0.032	0.079	0.022	0.246	0.058
SEGMENT	0.719	0.693	0.603	0.000	0.002	0.061	0.803	0.693	0.631	0.000	0.000	0.000
RESTRUCT	0.320	0.000	0.233	0.000	0.000	0.000	0.351	0.000	0.230	0.000	0.000	0.000
RESTATE	0.052	0.000	0.010	0.000	0.000	0.000	0.134	0.000	0.033	0.000	0.000	0.000
BIG4	0.819	1.000	0.894	1.000	0.000	0.000	0.765	1.000	0.845	1.000	0.000	0.000
AUDCHG	0.148	0.000	0.055	0.000	0.000	0.000	0.148	0.000	0.074	0.000	0.000	0.000
GC	0.031	0.000	0.012	0.000	0.001	0.001	0.054	0.000	0.012	0.000	0.000	0.000
FOREIGN	0.334	0.000	0.304	0.000	0.186	0.388	0.377	0.000	0.319	0.000	0.017	0.023

Table 2 Descriptive Statistics (cont.)

N =	<u>Third Year (2006)</u>						<u>Fourth Year (2007)</u>					
	ADVERSE = 1		ADVERSE = 0		t-stat p-value	Sign rank p-value	ADVERSE =1		ADVERSE =0		t-stat p-value	Sign rank p-value
	319		3294				282		3367			
	Mean	Median	Mean	Median			Mean	Median	Mean	Median		
NAFEE/OFFREV	0.029	0.006	0.031	0.007	0.766	0.426	0.037	0.008	0.031	0.007	0.158	0.454
AFEE/OFFREV	0.232	0.096	0.156	0.056	0.000	0.001	0.251	0.107	0.161	0.058	0.000	0.000
LNAT	6.398	6.312	7.188	7.067	0.000	0.000	6.336	6.325	7.157	7.054	0.000	0.000
LEV	0.566	0.520	0.567	0.561	0.946	0.140	0.582	0.574	0.566	0.564	0.333	0.532
LOSS	0.386	0.000	0.179	0.000	0.000	0.000	0.468	0.000	0.217	0.000	0.000	0.000
GROWTH	0.165	0.094	0.213	0.138	0.042	0.002	0.268	0.111	0.187	0.106	0.004	0.617
RECEIVABLE	0.178	0.132	0.212	0.130	0.009	0.733	0.191	0.130	0.202	0.126	0.420	0.532
INVENTORY	0.086	0.030	0.069	0.016	0.005	0.041	0.079	0.023	0.067	0.015	0.065	0.171
SEGMENT	0.763	0.693	0.674	0.000	0.053	0.295	0.739	0.693	0.667	0.000	0.141	0.167
RESTRUCT	0.326	0.000	0.230	0.000	0.000	0.000	0.291	0.000	0.233	0.000	0.027	0.029
RESTATE	0.138	0.000	0.036	0.000	0.000	0.000	0.192	0.000	0.045	0.000	0.000	0.000
BIG4	0.712	1.000	0.818	1.000	0.000	0.000	0.699	1.000	0.798	1.000	0.000	0.000
AUDCHG	0.107	0.000	0.066	0.000	0.007	0.025	0.103	0.000	0.047	0.000	0.000	0.000
GC	0.053	0.000	0.011	0.000	0.000	0.000	0.067	0.000	0.015	0.000	0.000	0.000
FOREIGN	0.382	0.000	0.371	0.000	0.686	0.786	0.443	0.000	0.386	0.000	0.057	0.058

Table 2 Descriptive Statistics (cont.)

N =	<u>Fifth Year (2008)</u>					
	ADVERSE = 1		ADVERSE = 0		t-stat p-value	Sign rank p-value
	139		3376			
	Mean	Median	Mean	Median		
NAFEE/OFFREV	0.045	0.007	0.030	0.006	0.006	0.795
AFEE/OFFREV	0.305	0.160	0.168	0.061	0.000	0.000
LNAT	6.164	6.036	7.149	7.064	0.000	0.000
LEV	0.598	0.598	0.588	0.592	0.693	0.795
LOSS	0.576	1.000	0.346	0.000	0.000	0.000
GROWTH	0.184	0.038	0.139	0.065	0.000	0.341
RECEIVABLE	0.225	0.163	0.195	0.120	0.250	0.069
INVENTORY	0.098	0.031	0.071	0.016	0.109	0.100
SEGMENT	0.547	0.000	0.667	0.000	0.005	0.093
RESTRUCT	0.259	0.000	0.273	0.000	0.078	0.727
RESTATE	0.166	0.000	0.040	0.000	0.726	0.000
BIG4	0.561	1.000	0.800	1.000	0.000	0.000
AUDCHG	0.173	0.000	0.038	0.000	0.000	0.000
GC	0.144	0.000	0.026	0.000	0.000	0.000
FOREIGN	0.432	0.000	0.417	0.000	0.000	0.730

Note: All p-values are two-tailed.

ADVERSE = 1 if the auditor issued an adverse SOX 404 opinion on the effectiveness of the client's internal control over financial reporting (ICFR), 0 otherwise.

NAFEE/OFFREV client nonaudit fees divided by total local office revenues.

Pl. See Table 1 for definitions of other variables.

Table 3 Correlations

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 ADVERSE	-0.015	0.079	-0.116	0.024	0.186	-0.010	-0.035	0.073	0.058	0.076	0.125	-0.087	0.136	0.060	0.024
2 NAFEE/OFFREV	1.000	0.608	0.124	0.127	-0.062	0.003	0.170	-0.029	0.025	0.000	-0.009	-0.344	0.031	-0.006	0.142
3 AFEE/OFFREV		1.000	0.069	0.118	-0.025	-0.027	0.159	-0.019	0.005	-0.020	-0.002	-0.450	0.172	-0.001	0.126
4 LNAT			1.000	0.470	-0.331	-0.113	0.143	-0.078	0.095	0.068	0.018	0.204	-0.100	-0.073	0.102
5 LEV				1.000	-0.027	-0.134	0.394	-0.127	-0.156	0.016	0.049	-0.088	0.011	0.110	0.188
6 LOSS					1.000	0.025	-0.213	-0.059	0.032	0.218	0.045	-0.026	0.066	0.204	-0.071
7 GROWTH						1.000	-0.079	-0.016	0.014	-0.071	0.035	0.010	0.024	-0.037	-0.051
8 RECEIVABLE							1.000	-0.136	-0.171	-0.134	-0.012	-0.314	0.030	-0.059	0.402
9 INVENTORY								1.000	0.147	0.057	0.010	0.050	0.011	0.014	-0.072
10 SEGMENT									1.000	0.294	-0.018	0.135	0.008	0.027	0.204
11 RESTRUCT										1.000	0.026	0.094	0.016	0.101	0.051
12 RESTATE											1.000	0.016	0.064	0.026	-0.032
13 BIG4												1.000	-0.273	-0.006	-0.159
14 AUDCHG													1.000	-0.002	0.010
15 GC														1.000	-0.011
16 FOREIGN															1.000

Note: The correlations are for first-year (2004) SOX 404 audits. Correlations for later years (2005-2008) are similar and not reported for brevity. Correlations of 0.035 are significant at 0.05 level.

ADVERSE = 1 if the auditor issued an adverse SOX 404 opinion on the effectiveness of the client's internal control over financial reporting (ICFR), 0 otherwise.

NAFEE/OFFREV client nonaudit fees divided by total local office revenues.

Pl. See Table 1 for definitions of other variables.

Table 4 Logistic Regression for SOX 404 Audit Opinions**Dep. Var = ADVERSE**

	Exp. Sign	<u>First year (2004)</u>				<u>Second year (2005)</u>			
		coeff.	Chi- square	p-value	VIF	coeff.	Chi- square	p-value	VIF
NAFEE/OFFREV	-	-3.069	8.274	0.002	1.664	-2.301	3.953	0.023	1.519
AFEE/OFFREV	+	1.093	14.428	0.000	1.813	1.189	17.989	0.000	1.738
LNAT	-	-0.147	15.138	0.000	1.778	-0.084	4.444	0.018	1.770
LEV	+	0.733	11.054	0.000	1.720	0.237	1.092	0.148	1.664
LOSS	+	0.760	34.612	0.000	1.348	0.791	36.413	0.000	1.305
GROWTH	+	-0.090	0.537	0.464	1.036	-0.125	1.048	0.306	1.039
RECEIVABLE	+	-0.372	1.364	0.243	1.643	-0.246	0.521	0.471	1.635
INVENTORY	+	1.655	16.045	0.000	1.065	-0.072	0.022	0.882	1.066
SEGMENT	+	0.196	6.819	0.005	1.312	0.222	8.067	0.002	1.319
RESTRUCT	+	0.168	1.879	0.085	1.187	0.322	6.604	0.005	1.171
RESTATE	+	1.667	29.784	0.000	1.014	1.372	55.583	0.000	1.013
BIG4	+	-0.270	2.127	0.145	1.628	-0.077	0.196	0.658	1.614
AUDCHG	+	0.678	15.313	0.000	1.117	0.530	9.489	0.001	1.073
GC	+	0.009	0.001	0.490	1.079	0.640	4.274	0.019	1.113
FOREIGN	+	0.185	2.202	0.069	1.337	0.138	1.167	0.140	1.341
Intercept		-1.414	26.131	0.000	0.000	-2.253	70.283	0.000	0.000
N			2986				3609		
Chi-Square =			234.284				233.679		
Pseudo R ² =			12.55%				12.16%		

Table 4 Logistic Regression for SOX 404 Audit Opinions (Cont.)**Dep Var = ADVERSE**

	Exp. Sign	<u>Third year (2006)</u>				<u>Fourth year (2007)</u>			
		coeff.	Chi- square	p-value	VIF	coeff.	Chi- square	p-value	VIF
NAFEE/OFFREV	-	-2.099	2.948	0.043	1.495	-0.853	0.603	0.219	1.426
AFEE/OFFREV	+	1.239	21.489	0.000	1.655	1.306	25.071	0.000	1.581
LNAT	-	-0.184	17.419	0.000	1.915	-0.193	18.987	0.000	1.804
LEV	+	0.459	3.541	0.030	1.607	0.475	3.408	0.032	1.592
LOSS	+	0.535	12.290	0.000	1.319	0.836	30.977	0.000	1.257
GROWTH	+	-0.304	4.129	0.042	1.027	0.175	2.371	0.062	1.047
RECEIVABLE	+	-0.580	2.300	0.129	1.610	0.215	0.322	0.285	1.552
INVENTORY	+	0.824	2.253	0.067	1.089	0.507	0.707	0.200	1.093
SEGMENT	+	0.146	2.716	0.050	1.365	0.156	2.672	0.051	1.375
RESTRUCT	+	0.306	4.621	0.016	1.150	0.238	2.291	0.065	1.151
RESTATE	+	1.163	33.535	0.000	1.020	1.525	69.849	0.000	1.008
BIG4	+	-0.102	0.316	0.574	1.608	0.115	0.404	0.262	1.537
AUDCHG	+	0.255	1.479	0.112	1.027	0.612	7.184	0.004	1.018
GC	+	0.549	2.549	0.055	1.099	0.447	1.943	0.082	1.118
FOREIGN	+	0.184	1.665	0.099	1.299	0.243	2.736	0.049	1.248
Intercept		-1.854	41.612	0.000	0.000	-2.656	78.606	0.000	0.000
N			3613				3649		
Chi-Square =			184.628				221.096		
Pseudo R ² =			11.08%				14.01%		

Table 4 Logistic Regression for SOX 404 Audit Opinions (Cont.)**Dep Var = ADVERSE**

	<u>Fifth year (2008)</u>				
	Exp. Sign	coeff.	Chi- square	p-value	VIF
NAFEE/OFFREV	-	0.439	0.105	0.746	1.400
AFEE/OFFREV	+	1.120	11.399	0.000	1.569
LNAT	-	-0.130	4.628	0.016	1.648
LEV	+	-0.192	0.301	0.584	1.507
LOSS	+	0.582	8.463	0.002	1.169
GROWTH	+	0.136	0.699	0.202	1.087
RECEIVABLE	+	0.840	3.121	0.039	1.478
INVENTORY	+	1.756	6.029	0.007	1.102
SEGMENT	+	-0.139	0.960	0.327	1.366
RESTRUCT	+	0.117	0.267	0.303	1.173
RESTATE	+	1.199	20.442	0.000	1.018
BIG4	+	-0.290	1.434	0.231	1.544
AUDCHG	+	1.171	19.984	0.000	1.031
GC	+	1.390	19.342	0.000	1.110
FOREIGN	+	0.039	0.037	0.424	1.228
Intercept		-3.160	57.881	0.000	
N			3515		
Chi-Square =			153.410		
Pseudo R ² =			15.08%		

Note: p-values are one-tailed for signed expectations.

ADVERSE = 1 if the auditor issued an adverse SOX 404 opinion on the effectiveness of the client's internal control over financial reporting (ICFR), 0 otherwise.

NAFEE/OFFREV = client nonaudit fees divided by total local office revenues.

Pl. See Table 1 for definitions of other variables.

Table 5 Logistic Regression for SOX 404 Audit Opinions Using Alternative Test Metrics

Dep Var = ADVERSE

Panel A: Alternative Test Measure: NAFEE/AFEE

<u>First year (2004)</u>						<u>Second year (2005)</u>			
	Exp. Sign	coeff.	Chi-square	p-value	VIF	coeff.	Chi-square	p-value	VIF
NAFEE/AFEE	-	-0.427	5.712	0.008	1.033	-0.420	4.160	0.021	1.022
AFEE/OFFREV	+	0.599	5.601	0.009	1.320	0.872	11.873	0.000	1.312
N			2986				3609		
Chi-Square =			231.714				234.135		
Pseudo R ² =			12.42%				12.18%		
<u>Third year (2006)</u>						<u>Fourth year (2007)</u>			
	Exp. Sign	coeff.	Chi-square	p-value	VIF	coeff.	Chi-square	p-value	VIF
NAFEE/AFEE	-	-0.407	2.183	0.069	1.041	-0.066	0.102	0.375	1.016
AFEE/OFFREV	+	0.988	16.372	0.000	1.270	1.212	25.215	0.000	1.221
N			3613				3649		
Chi-Square =			182.811				220.586		
Pseudo R ² =			10.99%				13.98%		
<u>Fifth year (2008)</u>									
	Exp. Sign	coeff.	Chi-square	p-value	VIF				
NAFEE/AFEE	-	-0.160	0.209	0.324	1.012				
AFEE/OFFREV	+	1.131	12.888	0.000	1.240				
N			3515						
Chi-Square =			153.539						
Pseudo R ² =			15.09%						

Table 5 Logistic Regression for SOX 404 Audit Opinions Using Alternative Test Metrics
(Cont.)

Dep. Var = ADVERSE

Panel B Alternative Test Measure: LN_NAFEE

		<u>First year (2004)</u>					<u>Second year (2005)</u>			
	Exp. Sign	coeff.	Chi-square	p-value	VIF	coeff.	Chi-square	p-value	VIF	
LN_NAFEE	-	-0.144	9.200	0.001	2.099	-0.122	6.490	0.005	1.911	
LN_AFEE	+	1.027	121.102	0.000	3.582	1.257	151.015	0.000	3.493	
N			2889				3381			
Chi-Square =			334.641				364.128			
Pseudo R ² =			18.23%				20.10%			
		<u>Third year (2006)</u>					<u>Fourth year (2007)</u>			
	Exp. Sign	coeff.	Chi-square	p-value	VIF	coeff.	Chi-square	p-value	VIF	
LN_NAFEE	-	-0.111	4.714	0.015	2.008	-0.051	0.905	0.171	1.938	
LN_AFEE	+	0.958	76.122	0.000	3.941	1.023	71.082	0.000	3.982	
N			3326				3310			
Chi-Square =			220.597				263.694			
Pseudo R ² =			14.82%				18.75%			
		<u>Fifth year (2008)</u>								
	Exp. Sign	coeff.	Chi-square	p-value	VIF					
LN_NAFEE	-	-0.033	0.172	0.339	1.927					
LN_AFEE	+	0.749	19.994	0.000	3.338					
N			3123							
Chi-Square =			154.599							
Pseudo R ² =			17.96%							

Note: p-values are one-tailed for signed expectations. In Panel B, the Ns are smaller than those in Panel A and Table 4 because observations with zero nonaudit fees are not applicable and therefore excluded.

ADVERSE = 1 if the auditor issued an adverse SOX 404 opinion on the effectiveness of the client's internal control over financial reporting (ICFR), 0 otherwise.

NAFEE/AFEE = client nonaudit fees divided by client audit fees.

LN_NAFEE = The natural logarithm of nonaudit fees.

LN_AFEE = The natural logarithm of audit fees.

Pl. See Table 1 for definitions of other variables.

Table 6 Logistic Regression for Types of Non-Audit Fees and SOX 404 Audit Opinions

Dep. Var = ADVERSE

	Exp. Sign	<u>First year (2004)</u>				<u>Second year (2005)</u>			
		coeff.	Chi- square	p-value	VIF	coeff.	Chi- square	p-value	VIF
RELATE/OFFREV	-	-0.574	0.130	0.359	1.320	0.487	0.107	0.743	1.245
TAX/OFFREV	-	-4.105	5.516	0.009	1.336	-6.739	7.708	0.003	1.322
OTHER/OFFREV	-	-4.196	1.919	0.083	1.062	-0.109	0.001	0.486	1.048
AFEE/OFFREV	+	1.035	13.552	0.000	1.718	1.247	20.445	0.000	1.649
LNAT	-	-0.150	15.651	0.000	1.787	-0.082	4.260	0.020	1.774
LEV	+	0.750	11.424	0.000	1.726	0.219	0.935	0.167	1.665
LOSS	+	0.758	34.402	0.000	1.348	0.793	36.507	0.000	1.304
GROWTH	+	-0.093	0.567	0.452	1.035	-0.135	1.222	0.269	1.041
RECEIVABLE	+	-0.375	1.385	0.239	1.643	-0.231	0.456	0.499	1.635
INVENTORY	+	1.665	16.274	0.000	1.067	-0.053	0.012	0.913	1.066
SEGMENT	+	0.202	7.196	0.004	1.319	0.230	8.671	0.002	1.323
RESTRUCT	+	0.166	1.831	0.088	1.188	0.330	6.974	0.004	1.172
RESTATE	+	1.666	29.672	0.000	1.014	1.343	52.818	0.000	1.014
BIG4	+	-0.234	1.598	0.206	1.614	-0.040	0.052	0.820	1.614
AUDCHG	+	0.664	14.552	0.000	1.121	0.501	8.307	0.002	1.076
GC	+	-0.017	0.003	0.960	1.082	0.637	4.198	0.020	1.114
FOREIGN	+	0.176	1.976	0.080	1.338	0.138	1.157	0.141	1.341
Intercept		-1.435	26.952	0.000	0.000	-2.288	72.015	0.000	0.000
N			2986				3609		
Chi-Square =			235.788				239.499		
Pseudo R ² =			13.43%				12.89%		

**Table 6 Logistic Regression for Types of Nonaudit Fees and SOX 404 Audit Opinions
(cont.)**

Dep. Var = ADVERSE

	Exp. Sign	<u>Third year (2006)</u>				<u>Fourth year (2007)</u>			
		coeff.	Chi- square	p-value	VIF	coeff.	Chi- square	p-value	VIF
RELATE/OFFREV	-	-1.377	0.695	0.202	1.236	0.276	0.029	0.864	1.180
TAX/OFFREV	-	-2.026	1.060	0.152	1.248	-0.800	0.255	0.307	1.219
OTHER/OFFREV	-	-4.114	0.910	0.170	1.077	-2.176	0.371	0.271	1.056
ALEE/OFFREV	+	1.232	21.298	0.000	1.599	1.276	24.127	0.000	1.543
LNAT	-	-0.186	17.812	0.000	1.918	-0.196	19.421	0.000	1.820
LEV	+	0.461	3.572	0.029	1.607	0.481	3.473	0.031	1.593
LOSS	+	0.533	12.164	0.000	1.324	0.834	30.685	0.000	1.260
GROWTH	+	-0.305	4.166	0.041	1.028	0.176	2.379	0.062	1.048
RECEIVABLE	+	-0.585	2.339	0.126	1.611	0.216	0.323	0.285	1.552
INVENTORY	+	0.836	2.320	0.064	1.091	0.520	0.745	0.194	1.095
SEGMENT	+	0.145	2.683	0.051	1.365	0.157	2.673	0.051	1.378
RESTRUCT	+	0.305	4.586	0.016	1.150	0.235	2.236	0.067	1.152
RESTATE	+	1.161	33.441	0.000	1.020	1.525	69.798	0.000	1.008
BIG4	+	-0.094	0.269	0.604	1.604	0.124	0.464	0.248	1.538
AUDCHG	+	0.252	1.438	0.115	1.029	0.618	7.284	0.004	1.020
GC	+	0.546	2.518	0.056	1.099	0.447	1.950	0.081	1.118
FOREIGN	+	0.186	1.696	0.096	1.302	0.243	2.754	0.049	1.251
Intercept		-1.848	41.211	0.000	0.000	-2.647	77.750	0.000	0.000
N			3613				3649		
Chi-Square =			184.867				221.191		
Pseudo R ² =			10.90%				14.01%		

**Table 6 Logistic Regression for Types of Nonaudit Fees and SOX 404 Audit Opinions
(cont.)**

Dep. Var = ADVERSE

		<u>Fifth year (2008)</u>			
	Exp. Sign	coeff.	Chi- square	p-value	VIF
RELATE/OFFREV	-	-0.440	0.058	0.405	1.162
TAX/OFFREV	-	-2.144	0.757	0.192	1.211
OTHER/OFFREV	-	3.893	2.755	0.097	1.067
AFEE/OFFREV	+	1.194	13.374	0.000	1.512
LNAT	-	-0.128	4.397	0.018	1.654
LEV	+	-0.207	0.343	0.558	1.507
LOSS	+	0.559	7.743	0.003	1.176
GROWTH	+	0.139	0.716	0.199	1.090
RECEIVABLE	+	0.864	3.294	0.035	1.478
INVENTORY	+	1.765	6.061	0.007	1.104
SEGMENT	+	-0.130	0.842	0.359	1.370
RESTRUCT	+	0.131	0.330	0.283	1.175
RESTATE	+	1.212	20.760	0.000	1.019
BIG4	+	-0.309	1.638	0.201	1.546
AUDCHG	+	1.190	20.523	0.000	1.032
GC	+	1.384	19.034	0.000	1.110
FOREIGN	+	0.022	0.012	0.457	1.234
Intercept		-3.134	56.309	0.000	
N			3515		
Chi-Square =			156.216		
Pseudo R ² =			15.08%		

Note: p-values are one-tailed for signed expectations.

ADVERSE = 1 if the auditor issued an adverse SOX 404 opinion on the effectiveness of the client's internal control over financial reporting (ICFR), 0 otherwise.

RELATE/OFFREV = client audit-related fees divided by total local office revenues.

TAX/OFFREV = client tax fees divided by total local office revenues.

OTHER/OFFREV = client other fees divided by total local office revenues.

Pl. see Table 1 for definitions of other variables.