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The Effect of SOX on the Fee Structure of the Big Four Accounting Firms

By
Brittney Beck

Accounting Research Project
Honors Thesis
Synopsis
The corporate scandals of the 21st century have re opened the public eyes to corruption and white-collar crime in corporate America. With Enron’s bankruptcy and a public accounting firm enduring criminal chargers, changes had to be made to auditing standards to try and reassure the public of the accuracy of the financial statements. President Bush passed the Sarbanes-Oxley Act of 2002 to try to bring about reform and correction to the auditing practice and bring integrity back to the leaders of the public companies. The main problem that was concluded from the scandals was that auditor’s independence was being violated and that people governing the finances of the public companies (CEO, CFO and controllers) were not being held accountable for their actions. This research paper will go into the actual effects of the rule changes on the Big Four public accounting firms, with a concentration on the disclosure of audit fees to measure if auditor’s independence is improving due to the new implementations of SOX. The results show that although the percentage of tax fees and all other fees has reduced from 2002 to 2005, total fees are increasing from year to year. Because of the vague classification requirements and the need for public accounting firms to appear independent there is chance that fees can be being misclassified to show a better picture then is occurring in reality. In order really see if the amount of non-audit work conducted by the auditors is being reduced the SEC has to put clearer guidelines on which fees belong in which category.
**Introduction**

Since the passing of the Sarbanes-Oxley Act there has been a lot of research conducted on the results of section 404, auditors’ independence, and audit fees. This is important because until the public believes that it can trust both the auditor of the public companies and CEO/CFO investing will be seriously limited. Professionals all agree that something has to be done to try and stop the collusion between public accounting firms and there auditors, but many believe that as long as the leaders of the public companies are lacking integrity fraud will continue to be prevalent. Still rules were made to try and improve the auditing of public companies. One of the main concerns is on auditor’s independence and the increase of fees created by Section 404 and auditing of internal reporting. I wanted to see how the Big four accounting firms were affected by the new workload and limitations put on what the auditor can and can not do. I looked at a random sample of 51 of the fortune 500 companies and analyzed the fee disclosures from 2002 to 2005. The results I found was that although the percentage of audit to non-audit fees reduced from 2002 to 2005 by approximately 22%, the total audit fees increased by 14% from 2002 to 2005, with no sight of reduction in place. Also audit fees increased by 83.66% from 2002 to 2005. These results prove that Sarbanes-Oxley is accomplishing half of its battle by trying to limit the amount of non-audit services conducted by the independent auditor.

**History of Accounting Laws and Regulations**

The Sarbanes-Oxley Act of 2002 was not the first major change to the auditing standards and guidelines. Auditing first came about after the economic boom following
the industrial revolution when owners voluntarily hired “auditors” to look over management’s performance and their assets. After the stock market crash of 1929, economists believed that the public needed to regain trust in financial reporting, in order for the economy to rebalance and come out of regression. The government adopted and the Securities Act of 1933 and 1934 to try to accomplish this and bring about a positive change. The Securities Act of 1933 wanted investors to be able to obtain significant information about securities being held for sale and “prohibit deceit” in order to give investors enough information to make their own decisions (SIA-1933). The Securities Act of 1934 created the Securities and Exchange Commission (SEC), to govern all of the securities industry and markets. It offered investors protection through the anti fraud provisions which made it illegal to defraud investors (SIA 1934). In 1937, the SEC started issuing financial and auditing standards.

The 1937 requirements included that publicly traded companies be audited once a year, independent auditors would be responsible for reporting on the representation of the financial statements, and making sure the statements were in correspondence with generally accepted accounting principles (GAAP) (Imhoff). It also stated that auditors would have to conduct their audit with professionalism and follow the requirements of GAAS. (Generally accepted accounting standards). With these changes public accounting firms were handed the responsibility of making sure that the financial statements represented the correct financial status of the companies in which it audited to the general public (Imhoff).

Accounting scandals and corruption has been around for decades and in the early 20th century the laws regarding auditing were adjusted to meet new demands. In 1939,
the AICPA created the Committee on Accounting Procedure (CAP), which created 51 pronouncements known as the Accounting Research Bulletins, and formed the basis of the GAAP (AICPA). The problem-by-problem approach of the CAP failed to provide enough governesses and the Accounting Principles Board (APB) was formed. The APB governed accounting rules and regulations for 14 years, and was responsible for 31 standards, but the SEC realized that the APB was unable to react fast enough to the new complex business world and saw the need for a full time governing body. (Wikipedia).

In 1972, the APB was replaced by the Financial Accounting Standards Board (FASB), “the mission of the FASB was to develop standards that would best serve the decision-making needs of investors and creditors” (Imhoff).

By end of the 1970’s, both accounting and auditing practices were being scrutinized for not looking out for the best interest of the public. The accounting firms were also dealing with increased economic pressure due to inflation and the global expansion of their major clients (Imhoff). This translated into numerous amounts of mergers and the Big 8 accounting firms were consolidated into the big 5 with the merger of Arthur Young and Ernst & Whinney in 1989 to form Ernst & Young and the merger of Price Waterhouse and Coopers & Lybrand in 1998 to form PricewaterhouseCoopers.

The accounting world and the accounting profession saw the biggest change in corporate structure and regulation after the major scandals of the 21st century. Enron, WorldCom, and Tyco being a few to hit mainstream. All 5 of the accounting firms were involved in scandals, but Arthur Anderson and its involvement with Enron caused the most impact and brought the problem of auditor’s independence to the public’s attention. The financial scandal of Enron was the first to bring about criminal charges of a public
accounting firm, which eventually lead to its dissolution. Due to the vast amount of corruption and white-collar crimes, on July 30th 2002, President Bush passed the Sarbanes-Oxley Act of 2002 (SOX). The next section of this paper will summarize the important accepts of SOX that effected the accounting profession.

**Sarbanes-Oxley Act of 2002**

The main sections of SOX that affected the auditing phase within public accounting firms is Section 101, which established the Public Company Accounting Oversight Board (PCAOB); Section 201 which outlines a list of prohibited activities that can be done by auditors; Section 203, which deals with mandatory audit partner rotation; and Section 404, which deals with management assessment of internal controls. These sections along with Section 302, which states that the CEO and CFO must sign off that the “appropriateness of the financial statements and disclosures contained in the periodic report, and that those financial statements and disclosures fairly present, in all material respect, the operations and financial condition of the issuer” (SOX Act of 2002) drastically changed the accounting world. Although section 302 has a huge influence on public companies it will not be looked at in this paper because of the lack of effect it has on the auditors themselves. For the rest of this section I will go into each relevant change and give the opinions of professionals.

Section 101 through Section 103 of the SOX act establishes the PCAOB, its responsibilities, and its duties. It states the board will consist of five financially educated members, and 2 of those members must be CPA’s but no more than two can be CPA’s. It also states that board members will serve on a full time basis and they must remain
independent (SOX of 2002). Over 70% of professionals disagree with the amount of members on the board and the CPA requirements (Hill, McEnroe, Stevens). Within the “70%, 23% recommended the board be made up of entirely of CPA’s, 17% thought it should be comprised of 4 CPA’s, and 60% recommended 3 CPA’s”, the main reason given included that only CPA’s really understand the scope of the business and financial statements (Hill, McEnroe, Stevens). Section 103 goes into the actually duties of the board which among other things consist of registering public accounting firms, conducting inspections, enforce compliance of the act, setting the budget and managing the operations of the board. Of the professionals surveyed “73% agreed that the PCAOB, should conduct investigations and impose sanctions upon auditors” (Hill, McEnroe, Stevens). It also states, “that the board is required to talk with accounting professionals to adjust standards and report modification to the commission on an annual basis”. This section also states that accounting firms are required to maintain for a period of a least 7 years all audit work papers and documentation to support their results. 86% of professionals agree with the added benefit of this standard of keeping working papers for at least 7 years (Hill, McEnroe, Stevens).

Section 201 deals with auditors independence, which according to the AICPA standard AU 220 states that auditors must be independent in both fact and appearance “in all matters relating to the assignment” (AICPA Professional Standards). Section 201 lays out an outline of services that are outside the scope of the practice of auditors. There are 9 areas that SOX recognizes as being prohibited which are “1.) Bookkeeping 2.) Financial information system design and implementation 3.) Appraisal or valuation serves, 4.) Actuarial services; 5.) Internal audit outsourcing services; 6.) Management
functions; 7.) Broker or dealer services; 8.) Legal services related to audit, 9.) Any other services the board deems be prohibited on a case-to-case basis”. The board allows non-audit services that are not prohibited by the above list to be conducted on a pre-approved basis. This to try and eliminate non-audit fees being greater than audit fees which could result in a conflict of interest. According to the article, Auditors’ Reactions to Sarbanes-Oxley and the PCAOB, “80% of respondents said that broker-dealer, investment advisor, and investment banking services should not be provided along with audit services”, similarly respondents thought that auditors should be allowed to provide “internal audit outsourcing services (69%), bookkeeping (63%), appraisal or valuation services (59%). Regarding bookkeeping and other services related to reporting 95% of large firms thought it should be prohibited, where only 53% of smaller firms thought it should be prohibited”. In the other restricted areas the opinions of allowance were equally for and against the standard.

Section 203, deals the mandatory rotation of audit partners every 5 years, this standard was brought about to try and stop collusion between long relationships of audit partners and companies which results in reduced audit quality (Arel, Brody, Pany). An audit partner is defined as “a member of the audit engagement team who has responsibility for decision-making on significant auditing, accounting and reporting matters that affect the financial statements or who maintains regular contact with management and the audit committee” (George). Auditors must also remain off the audit for at least 5 years before they are able to return to the audit engagement. This collusion was made obvious with the crash of Enron and Arthur Anderson. Many people were unaware of which employees were Enron and which employees belong to Arthur
Anderson, because of the lackadaisical attitude the Arthur Anderson employees took with their clients. Also many of the Enron employees were former Arthur Anderson auditors, which meant that Arthur Anderson was auditing and reviewing the work of their former associates which could have affected the auditors ability to be independent (Herrick, Barrionuevo). Sec 206 of SOX deals with this problem and the problems resulting from conflicts of interest and states that “the CEO, CFO, Controller, Chief Accounting Officer or person in an equivalent position cannot have been employed by the company’s audit firm during the 1-year preceding the audit”.

In addition to these standards SOX required the General Accounting Office (GAO), to do a report of the effects of requiring a mandatory rotation of public accounting firms to try and secure auditors independence. “Concerns about the potential effects of mandatory audit firm rotation include whether its intended benefits would outweigh the cost and the loss of company-specific knowledge gained by an audit firm through years of experience auditing the client” (GAO highlights). GAO concluded that at this point of time the benefits of requiring mandatory rotation does not out way the costs. GAO believes “that mandatory audit firm rotation may not be the most efficient way to strengthen auditor independence and improve audit quality considering the additional financial costs and loss of institutional knowledge of public company’s previous auditor of records, as well as the current reform being taken”. At this time GAO is going to keep a close eye on auditor independence and may reopen this area at a later date when the effects of the recent changes can be determined.

The Section 404 dealing with management’s assessment of Internal Controls has caused the most controversy of the Sarbanes-Oxley Act. “This section requires each
annual report of an issuer to contain an “internal control report” (SOX of 2002). This created two responsibilities when dealing with the audit of internal control; 1.) State what management’s responsibilities are in maintaining internal controls, and 2.) Say whether the internal controls are effective. The main controversial with statement 404 has to do with the increase of audit fees. The PCAOB issued “Auditing standard No. 2” which deals with both section 201 and section 404 and how an auditor should conduct their audit to achieve the highest amount of efficiency at the lowest cost to the companies. In a policy statement released by the PCAOB in May of 2005, it stated “that auditors should integrate their audits, exercise judgments in their audit plans, use a top-down approach, use the work of others, and engage in direct conversations with audit clients”. The PCAOB realizes that in the first year of implementation of section 404 the costs have been too high. The PCAOB feels that is due to the initial start up costs that will not be present in following years, and the auditors not conducting an integrated audit. Auditors admitted not integrating the internal controls audit into the audit of the financial statements and instead conducted two separate audits (PCAOB statement). Audit standard No2. hopes to reduce future costs by designing the integrated audit model, “which combines the audit of internal control over financial reporting with the audit of the financial statements, such that the objectives of the two audits are achieved simultaneously through a single coordinated process” (PCAOB statement). With this an auditor will collect evidence and plan the audit with both audits in mind. It also states that auditors should use their own professional judgment and mend audit plans to their specific needs.
Another main point addressed by the PCAOB is that this model is suppose to be addressed from the “top-down”, meaning that audits should start at the company level of controls and work down the process. If the guidelines are followed correctly the PCAOB expects to see a drop in audit prices by approximately 46%.

**Change in the industry**

The SOX act did not only change the actually work conducted by the auditors, it also changed the amount of work and the amount of employees public accounting firms need to keep up the work load. The cost that the public accounting firms endured to reach the goals set by SOX was passed along to corporations with the end result being the stakeholders. The public accounting industry has always had a high employee turnover rate; the highest being in the senior associate level, “one out of four senior associate leave annually”, stated a PwC study. The survey states that the main reason why people leave is the long hours and the lack of compensation. All of the big four firms are trying to deal with the shortage of junior staff employees by revamping their internal structures. Although public accounting firms hired 17% more people from 2000-2003, these candidates have not yet completed the CPA requirements, so there is a big shortage at the middle manager level. (Accounting shortage). The big four firms are starting to carter to their recent hires with bigger bonuses, inside referral fees, and added amenities and perks. (Gullapalli). The survey also stated that that 52.8% of professionals interviewed said that the accounting industry is less attractive than it was 5 years ago. The lack of middle managers and experienced staff is a major concern for the public accounting firms and they are aggressively hiring to compensate. The big four public accounting firms are
increasing their staff to try to keep up with both SOX and the high turnover. Ernst and Young had an employee growth rate of 347.8% in 2005 (Hoovers). Public firms are forced to pull employees out of other departments, turn down new clients, and drop smaller clients to adapt to the new workload created (Gullapalli). The big four dropped 280 clients with less than 100 million dollars in revenue, and a total of 1,600 companies switched auditors in 2004 compared to 904 in 2003 (Turner, Williams, Weirich).

The other main difference in the search for experienced and qualified help is that due to SOX and section 404, public accounting firms are not only competing with themselves for the “best of the best” but they are now competing with major companies that are trying to get their internal controls in order to reduce the increase in audit fees created by SOX (Jill Lerner).

**Previous Research**

In November 2000 the SEC made it mandatory for all public companies to disclose both audit and non-audit fees paid to its auditors. The SEC was trying to regulate non-audit fees to audit fees and make sure that independence was not being compromised. In the paper, *The impact of SEC’s Public Fee Requirement on Subsequent Period Fees and Implications for Market Efficiency*, Mr. Francis and Mr. Wang use the fees disclosure for 2000 and 2001 to see the real impact of the disclosure and the “surprise” factor of finding out the auditing fees of other companies. The paper goes into how the disclosing of fees affected the pricing of future audit services. Prior to fee disclosure public accounting firms had the upper hand because it was very costly for companies to see what other companies were paying for their audits. The paper focuses
on two periods $T$ and $T-1$; $T$ equals the year of the disclosures and $T-1$ equals the year before the disclosure was mandatory. This is because the SEC made fee disclosure mandatory in 2000, so 2000 fees would be unaffected by the disclosure. The initial audit fee data was gathered from Standard and Poors database, then first time audits, audits not done by the big four accounting firms, and financial institutions were eliminated. The end result was a sample size of 2,123 firms.

Once the sample size was gathered a few different tests were conducted to see the effect on audit fee disclosure on the pricing of future audits. The test begins with a univariate test of the variance of audit fees. The test finds that “variance is lower in 2001 than in 2000, and the two amounts are significantly different at $p<.0001$;” and “that the public disclosure of audit fees increased the precision of subsequent period audit pricing leading to a smaller cross sectional variance in fees” (Francis, Wang). A similar test is then conducted using a regression residual and the results show that because of the disclosure it “reduces asymmetry and increases accuracy”. Through a multivariate analysis the data concludes that the public companies now how the upper hand and the “bargaining power” over public accounting firms. “The fee adjustment is about double in magnitude for positive fee surprises (overpricing) than for negative fee surprises (under pricing)” (Francis, Wang).

The paper than goes into testing the results on audit pricing for year 2002 and 2003, the sample size is reduced to 1,088 firms having available fee data for all four years. The results show there is a little change from 2001 to 2002, and in 2003 the audit fees seem to have made their final adjustments to the initial surprises of the disclosed fees. With the knowledge I have gained through this paper I will be looking at the effects
of audit pricing from 2003 – 2005. According to Francis and Wang by 2003 the market had evened out the price of the audit fees from one year to the next. This means that any big changes in fees from 2003- 2005 will have resulted from the outside environment.

In 2002, there was a study done by Carson, Simnett, Soo, and Wright done on the long-term trends of the audit fees paid to the independent auditors. The study looked at audit fee disclosures from 1984 to 1990 of publicly listed companies of Australia. Australia companies have had to disclosure their audit fees since 1980. The paper answers three criteria research questions 1.) Has the significance of the core determinants of audit fees changed over time? 2.) What is the relationship between audit fees and other service fees? and 3.) Should potentially significant ‘one-off’ events be considered when examining the determinants of audit fees?".

In Australia a “Normal” audit fees is determined through client size (total assets), client complexity (which consists of number of subsidiaries and fiscal year end), and Client risk (profitability, prior losses, and audit qualifications). In the model they also use a dummy variable to control for the difference of the 2 major types of business in Australian industrial and finance verses mining companies. The study also adjusts the numbers throughout the sample years by the price Index to make sure the numbers are comparable. The whole sample size consisted of 11.035 firm years and 1,969 different firms.

The paper checks to see if any “one-off” factors could have influenced the change in accounting fees through out the years. The factors that were investigated were auditing standards (to consists for changes made in 92 and 95), accounting standards (industry specific standards), audit review of half yearly accountants (“half yearly
accounts were required to be audited or reviewed by audit firms from 1992, which led to an increase in audit and non-audit provided after this period”, audit firm mergers, and litigation risk and costs. The paper thinks that these “one-off” events may help to explain the unnatural movements in audit fees.

The results found for all three of the research questions was that the mean of audit fees and non-audit fees for all 16 years was the median was A$33,800 which is twice as big as the constant sample and the amount of fees paid the auditors for the full sample median of A$13,400 verse A$34,500 for the constant sample. Also median ratio of audit fees is 29.1% higher for the full sample period. The results found are that median audit fees were an average of A$350,000-A$450,000, with the peak fee being obtained in 1993, and audit fees have basically “remained stable suggesting a mature audit market”. Audit fees showed an increasing upward trend through the 16 years in the study, which could “raise questions about the independence of the audit firms as firms become more dependent upon the non-audit fees” (Carson…Wright).

In determining what actually affects the amount of the audit fees the paper supports prior research and states that the client’s size is the most influential driver on audit costs in every year of the audit. The paper also concludes that audit fees are associated with the complexity of the audit, which was measured by the ratio of assets and the ratio of accounts receivable. The study suggests that the bigger the amounts in these two categories the more amount of substantial testing would have to be done to come up with an audit opinion. It also finds that there is a less significant effect on ratio of accounts receivable on the constant sample, this suggest that this could be a result of “the learning effects in which auditors adjust their audit approach over time for a
continuing client to deal with complexity of issues” (Carson…Wrights). Risk of the overall sample, which was measured by debt ratio and net income lose, has an effective on audit fee prices. The results show that there is a “risk premium included in audit fees for firms that have high leverage and lower profits and liquidity” (Carson…Wright). It also shows that firms with a higher debt to equity ratio pay higher audit fees. The mining dummy used shows that the mining industry clients receive a discount when compared to firms in other industries. The paper also looked at the ratio of fees when a firm received an unqualified verse a qualified opinion, the results show that firms do not receive higher fees for firms that were issued a qualified opinion and that long standing audit firms are often offered a discount even though there audits are riskier.

The study also found out that the amount of audit verse non-audit services obtained from a company had an effect of the fees that they paid; “there is a consistent positive relationship between non-audit fees and higher levels of audit fees”. The paper states that this relationship is not from “knowledge spillover” but form the fact that complex clients require a higher level of audit and non-audit fees.

The results of whether audit fees were affected by “one-off events” varied with the different events that were tested for relevance. In looking at the impact of auditing standards there is no relation from the new standards and the pricing of the audit nor was there any relationship between the merger of the public accounting firms and audit fees. The paper looked at litigation risk and found it had a high correlation with audit fee pricing. The paper also states that the results it found could be a little misleading because there is “difficulty in determining the appropriate time period for trying to measure the
effect of one off events, given the possible impact of leads and lags on the effect of these events on audit fees” (Carson…Wright),

This paper concludes that audit size and audit risk do have an effect on the pricing of audits and that audit fees are in a mature market. It also agrees with prior studies in that “firms that require a high level of non-audit services are also paying higher audit fees suggesting that audit fees are not being discounted to obtain more profitable non-audit service fees” (Carson…Wright). It also tried to find the effects of “one-off” events, but due to the lead and lag time of these areas the results are mainly inconclusive.

In 1993, there was a study conducted to determine if providing non-audit services to audit clients creates knowledge spillovers and produces “economic rents” for auditors (Davis, Ricocheted, Trompterer). Internal billing records and working papers were gathered from participating firms, and the fees are broken into auditing, tax, accounting and other. The paper confirms an obvious assumption that client size, audit complexity, and risk are highly correlated with the amount of audit fees. It also finds that there is a positive relationship between non-audit and audit fee, “although purchaser of non audit services pay higher audit fees than non purchaser, the higher fees are associated with a proportional increase in audit effort” and not providing economic rent for auditors by charging a low audit fee for clients that also are receiving non-audit services. (Davis, Ricchiute, Trompterer). This study proves with empirical testing what we all believe to be true that audit and non-audit fees are related to each other. This is important in my study because I will be studying the increase and decrease in non-audit to audit fees for the year following SOX. I will be looking at the effects of SOX on the amount of non-
audit to audit fees provided to audit clients. The implementation of SOX should have
greatly reduced the number of non-audit fees received from a company.

In November 2005, there was a study conducted by Raghunandan and Rama on
the effects of Section 404 mandatory disclosure on material weakness on audit fees.
“The sample included 731 manufacturing firms with a fiscal year end of Dec. 31, 2004
and filed their section 404 report by May 15th 2005”. The paper found that audit fees
were 59% higher for firms that had a material weakness then firms that did not disclosure
a material weakness. However “the material weakness indicator variable is not
significant in explaining audit fees for the same firms for the fiscal year ending December
31, 2003”. The results suggest that although SOX was passed in 2002 many public
accounting firms waited until 2003 to do substantial testing on the internal control of the
public company. The study found that audit fees increased by “105% for firms that did
not disclose a weakness compared to 164% for firms that did disclosure a material
weakness”. An interesting finding was that the increase of fees did not vary depending
on the significance of the weakness of the internal controls.

The model that was used to “examine the association between audit fees and the
type of internal control report” and used also used in prior research of Simunic in
conducting its test, which “measures client size and complexity of risk”. In conclusion
this papers gives clear evidence that audit fees are being effected by the amount of work
that has to be done in association with Section 404, and that when a company has weak
internal controls there is a heavy repercussion on the impact of audit fees the next audit
year.
Enron brought the issue of audit to non-audit fees received from independent audits to the spotlight, because Enron was receiving more in non-audit fees from Arthur Anderson then it was receiving audit fees. Many people feel that this lessens auditor’s independence because auditors will be less likely to challenge management’s judgment, because they will be afraid to lose the audit client and the high revenue from consulting services. From the year 2000 to 2003 total fees increased by 13%, according to article “the nature and disclosure of fees paid to auditors”. “Overall, there has been a slight increase in total fees from 2000 to 2003, which makes it difficult to make reasonable inferences concerning the assertion that auditors can become economically dependent upon clients or the effect from SOX” (Markelevich, Barragato, Hoitash). For the same period audit fees increased about 80%, the increased is said to come from a combination of factors. The paper states that the reasons are “1.) Increased risk of litigation; 2.) Changes in the scope and complexity of audit engagements; 3.) Transitions from the big five to the big four; and 4.) Reaction to the new regulatory restrictions forbidding auditors from rendering certain non-audit services”. Median fees paid to non-audit services declined from 32% in 2003 from 52% in 2000, which is consistent with what the SEC was trying to accomplish. In the category of non-audit fees, tax services make up the biggest percent, and decreased 8% from 2000 to 2003. When dealing with the Big 5 accounting firms, at the time, the median total fees increased by 20%, but median audit fees grew approximately 91%, where as non-audit fees decreased approximately 27%.
Hypothesis

From the prior studies done on both the long term trends of audit fees and the effects of Sarbanes-Oxley on audit fees I have formed two questions in which I used as a basis for coming up with my hypothesis. The two research questions that I will be testing are R1: To determine if auditing fees went down in 2005 due to the impacts of auditors following “Accounting Standard No2” guidelines issued by the PCAOB. My hypothesis is that auditing fees will be reduced in 2005 compared to 2002 and 2003, due to the public accounting firms becoming more comfortable with section 404 and starting to implement the “integrated audit”. The Big four public accounting firms by 2005 have been dealing with the SOX implications for 2002, 2003, and 2004 and according to the PCAOB fees should start to become reduced in 2005 due to the learning curve, and first time start up fees obtained by the public accounting firms in earlier years not reoccurring in future years. Although the SEC expects to see an overall drop of audit fees of 46%, I am only expecting a reduction in total fees by approximately 15%.

The second research question I will be discussing is R2: Determining if non-audit fees were reduced for the years between 2002 and 2005. On the case of the auditing vs. non-auditing fees I expect the results to show a big decrease in the percentage of non-audit to audit fees conducted in 2005 compared to 2002. I came to this conclusion because from prior studies this trend can already by noticed, but I expect an even further reduction in the category of tax fees and all other fees in 2005. This is due to the vast amounts of restrictions put on the amount of non-audit related work a public accounting firm can do for its clients and still remain independent. Also because public accounting firms and companies know that people are going to be looking at the relationship between
non-audit fees related to audit fees to judge independence, both sides are going to be very careful about having non-audit fee become too high compared to audit fees.

Methodology

There have been many studies done on the effects of Sarbanes-Oxley on both auditing fees and the actual nature of public accounting firms. The concentration of the rest of this paper will be on the Big four accounting firms and the public companies they audit. I used a sample size of 51 companies audited by the big four and looked at both total fees and the breakdown of those fees. I than analyzed the trends of the audit fees disclosed from 2002 to the most current disclosure of 2005. I analyzed the audit fees and their relationship between each other and each of the four years being tested. I also looked at each of the four categories of fee classification as a percentage of the total audit fees conducted for that year. This was done to examine the relationship of each category to total fees the public company paid to its independent auditor.

Sample Size

The study conducted is made up of a sample of 51 of the Fortune 500 companies. The study wanted to look at auditing fees of the Big Four public accounting firms for years 2002-2005. Since the Big Four accounting firms audit almost all of the Fortune 500 companies, and the revenues made from both audit reports and other work done for the Fortune 500 companies makes up about 80% of the Big Four’s revenue, the sample size seemed to focus on the niche I am concerned about. Also because the fortune 500 companies are comparable in both size and revenue to each other it seems like a good
comparison tool, because the companies can easily be compared to each other in size and risk.

In choosing which companies were going to be involved in the study I obtained a list of the Fortune 500 companies and numbered them from 1 to 500, than a random number generator was used to generate 60 numbers. From those 60 numbers I matched the appropriate numbers to the 60 companies that would be studied.

Data

For each of the 60 companies the auditing fees for 2002-2005 was collected from the definitive 14A proxy statements of each company. Since 2002, public firms are required to disclosure their two most recent years of independent auditor fees in their proxy statements. The fees must be broken up into four categories monitored and set by the SEC; Audit Fees, Audit-related fees, Tax fees, and All other fees. The information was gathered from Edgars financial database and all financial information regarding for the 4 years in the study was collected. Although the study started with 60 companies some companies were eliminated. Companies were eliminated if they did not have the necessary 4 years of fee disclosures, if they switched auditors within the 4 years, or if they were not audited by one of Big Four public accounting firms. After the elimination process there were 51 companies remaining in which all the necessary information was collected.
Findings

R1: Did Audit fees decreases in 2005 due to the impacts of the learning curve and “Accounting Standard No. 2”?

After I collected all the information regarding the 51 companies I was surprised by the results that were found. The PCAOB thought that with the auditors becoming more familiar with the “integrated audit” and the learning curve from conducting the internal control report in 2002, 2003, and 2004, that 2005 fees would be reduced by approximately 46%, this whoever was not the case. The results showed a very different picture when dealing with total fees and audit fees. Average total fees increased from $5,761,632 to $8,454,771 and Median total fees increased from $5,566,530 to $6,371,184 from 2002 to 2005 respectively. These results can be found in Figure 1. The rest of the analysis will focus on the median of fees opposed to the average of fees to try and rule out any outliers that could have contributed to the average being either too high or too low in proportion to the total. For the years of 2002 to 2005 the median total fees increased approximately by approximately 14.4%. Although some of the increase is due to the growth of the company itself, according to the PCAOB the audit fees still should have reduced due to the learning curve auditors should be gaining with 2005 being the 4th year of having to report on internal controls associated implementation of Section 404.

The next interesting results that were found was that although total fees only went up by 14.4% median audit fees increased from $3,043,000 to $5,589,000 an increase of 83.66%, from 2002 to 2005 respectively. The audit fees from 2004 to 2005 increased approximately 31%, from 2003 to 2004 they increased 25.13%, and from 2002 to 2003 the fees increased by 6.43%. The results show that instead of auditing fees starting to
decrease from year to year they are actually increasing by a greater percentage from year to year. Similar statistics can be seen with total fees, where as although there was a slight decrease of 7.43% from 2002 to 2003, there was a 20% increase of total fees from 2003 to 2004.

These results are not consistent with my hypothesis because I assumed that total fees would have started to decrease in 2005, due to both the learning curve and the amount of services that are no longer allowed to be conducted by an auditor. When looking at audit-related fees there was an approximately 15% decrease in audit-related fees in 2005 compared to 2004. Also when dealing with audit related fees in comparison to total fees there was a reduction from 11.72% in 2002 to 8.72% in 2005 (note: for this the mean value was used because of the distribution of the median values they did not total up correctly). Refer to Figure 2 for actual number data. Also the percentage of money paid to the auditors for audit fees compared to total fees increased 24.47% from 2002 to 2005.

R2. Were non-audit fees reduced for the years between 2002 and 2005?

With the passing of Sarbanes-Oxley there are many things that can no longer be conducted by the independent auditor that was allowed in prior period. I used the sample size of the 51 fortune 500 companies to try to determine if in fact fees for non-audit related work (tax fees and other fees) were reduced in the years following the restrictions. Total non-audit to audit fees did decrease in the years that were looked at. In this case, I grouped audit and audit related fees together to make up total audit fees and I grouped tax fees and all other fees to make up total non-audit fees. Looking at graph 1 and figure 2
the results show that as the years go by the amount of non-audit fees that are collected are seriously reduced from 2002 to 2005. The percentage of non-audit fees compared to total fees is reduced from 32% in 2002 to 10.22% in 2005. The biggest percentage of non-audit fees comes from tax fees making up 25.94% in 2002 and 10.04% in 2005. Median tax fees was reduced from $1,015,797 in 2002 to $344,817 in 2005 an approximate reduction of 66.05%. The category consisting of all other fees also saw a major reduction where the median fee in 2002 was $61,807 in and $0 in 2005. This is because in all the 51 firms looked at only 13 firms reported amounts in other fees making the median number be 0. When looking at the average of all other fees it was reduced from 6% in 2002 to .18% in 2005 making it not a significant contribution to total fees. These results did support my hypothesis that total non-audit fees would be reduced in 2005 due to the guidelines set out by SOX.

Conclusion

The Sarbanes-Oxley Act of 2002 greatly affected the role of the independent auditor. The public accounting firms are learning to adjust to the new standards and are finding ways to balance out the effects of the new auditing rules. Many firms are complaining about the increase costs due to section 404 and internal reporting and there does not seem to be a decrease in auditing fees coming in the near future. Even with the new scope of limitations of what an auditor can do during the audit, total audit fees still continue to rise. The money that public accounting firms are losing in tax and financial information systems fees they are gaining in the new work composed from internal control reporting. In Graph 2, the relationship between audit fees, audit-related fees, tax
fees, and all other fees are shown, all the areas are reducing but audit fees are growing at an extremely high rate. The PCAOB has not been able to lower the cost of audit fees in 2005 even with the implementation of “Accounting standard No.2” and the learning curve the public accounting firms should be experiencing. The raise of audit fees from year to year could be from numerous items and it could also be that public accounting firms are pricing their audits higher to compensate for the lost of both clients and non-audited related work.

**Limitations on Results**

There are two main limitations on the results that were gathered in this research paper. The first limitation is the sample makeup and the amount of the sample size and the second is the nature of the disclosures. Because I could not gain access to the Standard and Poors audit fee database or the Compustat audit analytic database the number of firms that could be tested was limited. I made the decision to only deal with Fortune 500 companies because of their similar make up to each other and almost every one of the companies is audited by a Big four accounting firm. Because I had to individually go into ever company’s proxy statement for the four years and extract the data I needed and then reformat it, I had to limit the results to the 60 companies, ending up with only 51 firms. These results are consistent with prior research, but probably cannot hold true to the entire population of public companies. Also with the limitation of the Fortune 500 companies the impact of SOX on the smaller accounting firms and smaller public companies was not tested.
The other main problem is that critics are unsure if the audit fee classifications can be trusted. Auditors from different firms are all classifying the fees different ways into the regulated 4 sections provided by the SEC (Skantz, Dickens). A survey was sent to external auditors and asked them to classify 25 different services typically done by an audit team into the 4 categories regulated by the SEC. It found that all 31 participants classified only 3 of the 25 items in the same category, and all other were classified consistently less than 75% (Skantz, Dickens). The paper feels that because of the weak and unclear wording of SOX, and the fact that auditors may want to represent more audit than non-audit fees, they could be purposely “misclassifying” fee disclosures. The paper argues that until clearer guidelines of classification takes place it will be hard to know if different activity is really being done or if the classification of the same fees is switching categories from year to year.
<table>
<thead>
<tr>
<th>Variable</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
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<td>Total Fees</td>
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<td>$8,454,771</td>
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<td>Audit Fees</td>
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<td>All Other Fees</td>
<td>349,088</td>
<td>134,051</td>
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<td>15,098</td>
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</tbody>
</table>

Figure 1
Descriptive Statistics: Years 2002-2005

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<th>Variable</th>
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<th>Median</th>
<th>Mean</th>
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<td>Total Fees</td>
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<td>$6,201,867</td>
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<td>500,000</td>
<td>893,835</td>
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<td>1,761,208</td>
<td>1,015,797</td>
<td>1,068,540</td>
<td>395,000</td>
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<td>All Other Fees</td>
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<td>134,051</td>
<td>10,000</td>
<td>24,471</td>
<td>0</td>
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</tbody>
</table>

Figure 2
Fee Breakdown as Percent of Total

<table>
<thead>
<tr>
<th>Variable</th>
<th>2002</th>
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<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
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<td>100.00%</td>
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<td>Audit Fees</td>
<td>56.55%</td>
<td>59.58%</td>
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<td>9.93%</td>
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<td>8.76%</td>
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<tr>
<td>Tax Fees</td>
<td>25.94%</td>
<td>28.40%</td>
<td>13.14%</td>
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<tr>
<td>All Other Fees</td>
<td>6.06%</td>
<td>2.16%</td>
<td>0.30%</td>
<td>0.18%</td>
</tr>
</tbody>
</table>
Graph 1

Audit vs Non Audit Fees

Year

Total Fees

Non Audit

Audit

2002 2003 2004 2005

2002 2003 2004 2005

Amount

Audit Fees

Audit Related Fees

Tax Fees

All Other Fees

Breakdown of Fees
References:


PricewaterhouseCoopers study, “The value of the PwC professional experience” Summer 2003


Raghunandam, K., Rama, Dasaratha. SOX Section 404 Material Weakness Disclosures and Audit Fees, November 2005. Florida International University.


The Enron Crisis: The AICPA, The Profession & the Public Interest, AICPA, [http://www.aicpa.org/info/regulation02.html](http://www.aicpa.org/info/regulation02.html)

