8-1-2004

Practitioners’ perceptions of the incidence and materiality of financial statement misrepresentation

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Repository Citation
Massey, Dawn W.; Porco, Barbara; and Lee (Van Hise), Joan, "Practitioners’ perceptions of the incidence and materiality of financial statement misrepresentation" (2004). Business Faculty Publications. 97.
http://digitalcommons.fairfield.edu/business-facultypubs/97

Published Citation
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Practitioners’ Perceptions of the Incidence and Materiality of Potential Financial Statement Misrepresentation

ABSTRACT

In response to accounting failures of unprecedented proportions (e.g., Enron, WorldCom, etc.), in 2002 Congress passed and President Bush signed into law one of the most sweeping accounting reform bills since the Great Depression of the 1930s: the Sarbanes-Oxley Act (SOX). SOX was intended to restore the public’s confidence in corporate reporting (Leone, 2003a). To achieve this end, the bill contained numerous provisions aimed at improving corporate governance, financial disclosure and audits of published financial statements. While the provisions of the law affect multiple constituencies, perhaps no parties are more directly affected than managers of public companies, boards of directors of those public companies, and their external auditors.

As implementation of SOX has gone forward, each of these three groups has encountered ethical dilemmas associated not only with certain provisions of the legislation, but also with the SEC rules designed to put into action those provisions. The purpose of this paper is to highlight some of the unintended ethical consequences associated with SOX. One potential unintended ethical consequence of SOX is the possibility that it is contributing to an exodus of qualified CFOs and/or discouraging potential CFOs. As a result, SOX may be creating a shortage of qualified CFOs and, unwittingly encouraging less qualified individuals to seek out positions as CFOs, coupled with contributing to management inappropriately spending shareholders’ money (e.g., for insurance coverage for board of directors members, for consultants to advise the “experts” on the board, etc.). Additionally, the new act may be creating a shortage of qualified directors and, unwittingly encouraging less qualified individuals to seek out director positions.
INTRODUCTION

Financial statement misrepresentation has become the most costly area of financial statement fraud according to KPMG’s 2003 fraud survey (KPMG, 2003). The number and prominence of recent audit failures in cases involving misrepresentation of financial statements has led to a new and refocused emphasis on the auditor’s responsibility for detecting fraud. Indeed, recent changes in auditing standards on fraud detection, coupled with the provisions of the Sarbanes-Oxley Act (SOX), have transformed the nature of the relationship between company management and the external auditors. While auditors once considered their client’s management “innocent until proven guilty,” this presumption has shifted to skepticism about client management’s innocence (Katz, 2003).

What is unclear, however, is whether the external regulatory changes that shape practitioners’ presumption of management’s (lack of) innocence affect practitioners’ perception of the existence and magnitude of financial statement misrepresentation. Prior research finds an association between contextual factors and auditors’ perception of ethical issues such as financial statement misrepresentation¹, particularly when the magnitude (i.e., “intensity”) of the issue increases (e.g., Ketchand, et al. 1999; Shafer, et al. 1999, 2001). In this paper, we use data from a survey of practitioners to attempt to shed some light on auditors’ perceptions about the causes of financial statement misrepresentation in the post-SOX era as well as the expected materiality of such misstatements.

¹ See Jones, et al. 2003 for a review of the auditor ethics literature.
The findings of this study are intended to establish benchmarks for the current state of auditors’ perception of the causes and materiality of financial statement misrepresentation in the post-SOX era. By doing so, our work will expand pre-SOX era research investigating the association between materiality and auditors’ perception of ethical issues such as financial statement misrepresentation (see, e.g., Ketchand, et al., 1999; Shafer, et al., 1999, 2001). In addition, because SAS No. 99 (AICPA, 2003a) requires auditors to hold a “brainstorming session” to discuss the likelihood of fraud on their audits, our findings can assist auditors in public practice by serving as a starting point for their brainstorming meetings.

LITERATURE REVIEW AND DEVELOPMENT OF RESEARCH QUESTIONS

Auditors’ ethical perception and changes in the auditing environment

Ethical perception is the ability of an individual to perceive that an issue (e.g., financial statement misstatement) has an ethical component.\(^2\) Research has shown that various individual factors (e.g., general demographic characteristics, ethical development, personal values, character, and training and experience) as well as contextual factors (e.g., the immediate job context, the broader external context, and issue-specific factors) associate with auditors’ ethical perception (see Jones, et al., 2003 for a recent review of the literature). Of particular interest to this study, several contextual factors particular to the auditing environment, including severe consequences (Karcher, 1996) and high-risk factors (Shaub and Lawrence, 1996), associate with a heightened ethical perception.

\(^2\)Some studies in prior research use different terms for “ethical perception,” including: “identification of an ethical dilemma” (e.g., Jones, et al., 2003); “ethical sensitivity” (e.g., Shaub, 1989); and “ethical awareness” (e.g., Cohen, et al, 2001). Regardless of the term used, all of the studies investigate the ability of an individual to perceive that an issue that has an ethical component. Accordingly, we have chosen to use the term “ethical perception” in our manuscript.
Over nearly two decades, changes in the audit environment have been implemented to heighten auditors’ skepticism about their clients and, presumably, their sensitivity to the possibility of financial statement misrepresentation. Indeed, prior to the adoption of the Expectation Gap standards in the late 1980’s the audit environment generally operated under the assumption that the client was ethical. However, with the adoption of SAS No. 53, *The Auditor’s Responsibility to Detect and Report Errors and Irregularities*, in 1988 (AICPA, 1988), there was a subtle shift in attitude in that auditors were, post SAS No. 53, to assume the client was ethical only if there was no evidence to the contrary.

This shift was further accentuated by the adoption of SAS No. 82, *Consideration of Fraud in a Financial Statement Audit* in 1997 (AICPA, 1997), which was prompted by the Private Securities Litigation Reform Act of 1995. SAS No. 82 required the auditor to specifically assess the risk of material misstatement at the beginning of the audit. In addition, the auditor was required to adopt a neutral stance with respect to the integrity of management. That is, “the auditor neither assumes that management is dishonest nor assumes unquestioned honesty” (AICPA, 1997, Appendix B, Paragraph 9).

The adoption of the Sarbanes-Oxley Act in 2002 and the increased scrutiny of the profession that accompanied it have contributed to a further shift in auditors’ attitudes toward clients. This shift has also been codified in auditing standards as SAS No. 99, *Consideration of Fraud in a Financial Statement Audit* (AICPA, 2003a), which was an anticipated evolution of SAS No. 82. As Katz (2003) notes, SAS No. 99 increases the level of skepticism with

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3 When SAS No. 82 went into effect, plans were immediately put in place to thoroughly review the standard with an eye towards improving it. SAS No. 99 (AICPA, 2003a) reflects the outcome of that comprehensive review as well as the suggestions made by the Public Oversight Board’s Panel on Audit Effectiveness.
which the auditor is to view the client, advising “auditors to be skeptical about their clients’ honesty” (see also AICPA 2003a, SAS No. 99, paragraph 13).

Using the new mindset mandated by SAS No. 99, auditors are required to look for specific fraud risk factors in the course of the audit. Auditors should, therefore, be aware of the likely sources of fraud and their impact on the financial statements.

Traditionally, two general classes of fraud have been identified: asset misappropriation and financial statement misstatement. While more common (KPMG, 2003), asset misappropriation is less of a concern to the auditors as long as the financial statements have been corrected to reflect the misappropriation of assets. In contrast, financial statement misstatement is less common, but accounts for the greatest dollar loss to shareholders (KPMG, 2003). Accordingly, auditors should be most attuned to the possibility of financial statement misstatement.

Financial Statement Misstatement in the Pre-SOX Era

Based upon a review of securities litigation and regulatory enforcement data for the period 1995-1999, PricewaterhouseCoopers (PwC) identified the most frequent methods of perpetuating financial statement fraud (Hacker, 2002). The results of PwC’s analysis for this pre-SOX period are presented in Table 1.

Table 1 about here.

As shown in Table 1, the most common method for perpetuating financial statement fraud in the pre-SOX era is in the area of revenue recognition. Examples of revenue recognition manipulative practices include:

- Early recognition of revenue, via timing of shipments and title transfers;
• Overestimation of percentage of completion judgments as to when the work is reasonably complete and whether the company can collect for services; and
• Recording bogus sales involving actual shipment of goods that a customer never ordered or fake customers.

The second most common method for perpetuating financial statement fraud is asset overstatement. Asset overstatement includes misuse of reserves and improper capitalization of expenses; overstatements of the value of inventory (e.g., by not writing down the value of obsolete goods); overstatement of property values; creation of fictitious assets; and understatement of allowances for receivables.

As shown in Table 1, the third most common method for perpetuating financial statement fraud is understatement of liabilities, costs or expenses. Examples of manipulative practices involving the understatement of liabilities, costs or expenses include:

• Off-balance sheet financing arrangements (e.g., operating leases, take-or-pay contracts, contingent liabilities);
• The presence of guarantees and warranties; and
• Subsidiary/affiliate/partnership dealings (e.g., Enron’s use of off-balance sheet Special Purpose Entities)

Fourth, financial statement fraud is perpetuated by the use of improper accounting estimates. As a result of the uncertainties inherent in business activities, financial statement items cannot be measured with precision but can only be estimated. The estimation process involves judgments based on the latest available, reliable information. Estimates may be required, for example, of bad debts; inventory obsolescence; the fair value of financial assets; or the useful lives of, or expected pattern of consumption of the future economic benefits embodied in
depreciable assets; or actuarial and investment return assumptions in accounting for pensions. Accounting estimates by their nature are easily subject to aggressive accounting practices and, therefore, are a means to manage earnings. The use of reasonable estimates is an essential part of the preparation of financial statements thus improper estimates undermines their reliability.

Finally, as indicated in Table 1, fraud is perpetuated by improper accounting for business combinations or restructuring. Examples include:

- “Big bath” restructuring charges that are perpetrated under the guise of corporate restructurings or mergers to avoid future charges related to normal operating cost;
- “Merger magic” where a large percentage of the acquisition price is charged off because it is classified as in-process research and development to show improved future operating results; and
- Liabilities for “potential exposures” in a business combination which can be improperly included in the business combination and taken into income in future periods

Financial Statement Misstatement in the Post-SOX Era

Based on the findings of prior research and given changes in the post-SOX auditing environment that now require auditors to adopt a heightened professional skepticism and, ex ante, assess the likelihood of fraud on their audits, it is worthwhile to investigate the frequency practitioners associate with aforementioned methods of financial statement misstatement. Using data applicable to the pre-SOX era from PricewaterhouseCoopers, we thus investigate the first research question:
Research Question 1: Of the five most common methods of perpetrating financial statement fraud in the pre-SOX era, which do practitioners believe is most prevalent in the post-SOX era?

Auditors’ ethical perception and materiality

Several studies find that auditors are more perceptive of ethical issues (e.g., financial statement misrepresentation) when the “moral intensity” (Jones, 1991) of the issue increases. According to Jones (1991) there are six characteristics, which together comprise the construct, “moral intensity.” The first of these, the magnitude of the consequences, is similar to auditors’ concept of materiality.4

Shafer and his colleagues (i.e., Ketchand, et al. 1999; Shafer, et al. 1999, 2001) perform three studies that investigate whether auditors increase their ethical perception when the materiality of the issue increases. In each of the studies, materiality was manipulated between high and low materiality. Not surprisingly, the authors find that auditors display greater ethical perception when the materiality of the issue is high. These findings suggest that an assessment of the expected materiality of financial statement misstatements in the post-SOX period is also warranted as it likely associates with auditors’ perception of the causes of financial statement misstatements. This leads to the second research question:

Research Question 2: In the post-SOX era, what is the expected impact on the financial statements of each of the most common methods of perpetrating financial statement fraud?

4 The other five characteristics are: the degree of social consensus; the probability that harm will occur; temporal immediacy; proximity of harm to the target; and the concentration of effect.
APPRAOH AND DESCRIPTIVE STATISTICS

The data for this study were collected via subjects’ voluntary and anonymous responses to our Perception Survey (see Appendix A for a copy of the survey). During the spring of 2005, we distributed the survey to professionals employed in public accounting firms through Human Resource (HR) personnel in those firms. All of the Big Four accounting firms, as well as three additional national public accounting firms participated. We asked each HR representative to distribute the survey to members of the professional staff at different firm levels and practice areas thus providing the authors with survey responses from subjects with a variety of experiences. A total of 235 surveys, all of which were usable, were returned to the researchers. Descriptive information for the total sample appears in Table 2. Overall, 44.5% (55.5%) of respondents were female (male). Approximately 17% of respondents were partners/principals, 21% were managers/directors, 27% were supervisors/seniors and 35% were associates. Respondents were drawn from audit/assurance services (62.4%), tax (18.3%) and other functions (e.g., national office researcher/trainer, human resources/recruiter, etc) (19.2%).

Table 2 about here.

RESULTS

Research Question 1

RQ1 asked which of the five most common methods of perpetuating financial statement fraud in the pre-SOX era practitioners believe is most prevalent in the post-SOX era. Table 3 presents the results of the survey, which are useful in assessing Research Question 1.
As shown in Table 3, and consistent with findings in Table 1 for the pre-SOX era, post-SOX, practitioners perceive revenue recognition as the most common method of perpetuating financial statement fraud. Similarly, in both periods, improper accounting for business combinations or restructuring is the fifth most common method of perpetuating financial statement misstatement.

Among rankings 2-4, however, there are differences. First, Table 3 shows that in the post-SOX period, practitioners perceive improper accounting estimates as the second most common means of misstating financial statements. This is in contrast to the data in Table 1 for the pre-SOX era, in which improper accounting estimates is the fourth most common method of perpetuating financial statement fraud.

Second, the data in Table 3 indicate that the method post-SOX practitioners perceive as third most common for perpetuating financial statement misstatement is asset overstatement. In the pre-SOX era, the data in Table 1 show that asset overstatement is the second most common method of perpetuating financial statement fraud.

Finally, in our post-SOX data as presented in Table 3, understatement of liabilities, costs or expenses is the method practitioners perceive as fourth most common for perpetuating financial statement fraud. In the pre-SOX period, the data in Table 1 indicate that understatement of liabilities, costs or expenses is ranks third.

The differences in findings for the frequency of the methods of misstating financial statements as observed in the pre-SOX period and perceived in the post-SOX period are summarized in Table 4.
Research Question 2

RQ 2 considered the amount of the expected impact on the financial statements of each of the most common methods of perpetrating financial statement fraud in the post-SOX era. Table 5 presents the results of the survey questions inquiring about the magnitude of the impact on financial statement misstatements of the various methods. The results presented in Table 5 are useful in assessing Research Question 2.

Table 5 about here.

As shown in Table 5 (Panel A), subjects’ most prevalent response for each method of financial statement misstatement coincides with their perceptions about the frequency of each of the methods of financial statement misstatement. That is, the most prevalent response for revenue recognition and improper accounting estimates, the most common and second most common method of financial statement misstatement, respectively, is that the methods have a \textbf{greatly significant impact} on financial statement misstatements (according to 41.0\% of subjects for revenue recognition and 34.9\% of subjects for improper accounting estimates). Asset overstatement and understatement of liabilities, costs or expenses, respectively, are the third and fourth most common methods of financial statement misstatements. The most prevalent responses for asset overstatement (given by 48.9\% of subjects) and understatement of liabilities, costs or expenses (given by 29.3\% of subjects), is that those methods result in a \textbf{significant impact} on financial statement misstatements. Finally, for improper accounting for business combinations and restructuring, there was a tie for most prevalent response. An equal number of subjects (i.e., 29.3\%) indicated that improper accounting for business combinations and restructuring has either a \textbf{moderately significant} or a \textbf{slightly significant} impact on financial statements.
Interestingly, however, as also shown in Panel A of Table 5, the percentage of subjects indicating that the use of asset overstatement or understatement of liabilities, costs or expenses in misstating financial statements has at least a greatly significant impact on financial statement misstatement does not precisely coincide with their perceptions about the frequency of the use of those methods. Although more respondents perceive asset overstatement more prevalent than understatement of liabilities, costs or expenses, more respondents (i.e., 21.8%) perceive at least a greatly significant impact of understatement of liabilities, costs or expenses and fewer respondents (i.e., 10.5%) perceive at least a greatly significant impact of asset overstatement.

As shown in Table 5 (Panel B), when considering the cumulative percentage of respondents indicating that the impact of the various methods of misstatement on financial statement misstatements was at least significant, the results are unchanged from the results discussed above. That is, revenue recognition practices are first (with 80.3% of respondents indicating that they have at least a significant impact on financial statement misstatements), followed by improper accounting estimates (62.4%), asset overstatement (59.4%), understatement of liabilities, costs or expenses (51.1%), and improper accounting for business combinations and restructuring (22.2%).

Interestingly, when considering the cumulative percentage of respondents indicating that the impact of the various methods of misstatement on financial statement misstatements was at least moderately significant, the results for revenue recognition (judged by 91.2% of respondents to have at least a moderately significant impact on financial statement misstatements) and improper accounting for business combinations and restructuring (judged by 52.5% of respondents to have at least a moderately significant impact on financial
statements) remain unchanged in order at first and last, respectively. However, as shown in Table 5 (Panel B), the middle three categories re-order a bit. Some 86.0% of respondents indicated that the impact on financial statement misstatements of asset overstatement is at least moderately significant, followed by improper accounting estimates (with 80.7% of respondents indicating the impact is at least moderately significant), and understatement of liabilities, costs or expenses (with 76.0% of respondents indicating the impact is at least moderately significant).

The differences in findings for the frequency of the methods of misstating financial statements as observed in the pre-SOX period and perceived in the post-SOX period are summarized in Table 6. When reviewed together, it is clear that subjects believe misstatements resulting from revenue recognition are the most material and those resulting from improper accounting for business combinations and restructuring the least material. Among the other three methods (i.e., improper accounting estimates, asset overstatement, and understatement of liabilities, costs or expenses), there is less agreement. Nonetheless, the trend, as borne out in Table 6, is for the materiality of improper accounting estimates, asset overstatement and understatement of liabilities, costs or expenses to coincide with their perceived frequencies at second, third and fourth, respectively.

**Table 6 about here.**

**SUPPLEMENTAL DATA ANALYSIS**

Our main purpose was to see if there were changes in auditors’ perceptions about the causes and materiality of financial statement misrepresentation in the post-SOX era. We also collected data to gain insight into auditors’ perceptions about whether they believed SOX
would reduce the number of financial statement misstatements. As shown in Table 7a, 41.9% indicated “yes” (coded as 1), that they believed SOX would reduce the number of financial statement misstatements; 4.4% were “undecided” (coded as 2) about the effect of SOX; and 53.7% indicated “no” (coded as 3), that they did not believe SOX would reduce the number of financial statement misstatements. However, the data for our overall sample obscures interesting differences in the perceptions of the efficacy of SOX according to experience level (Table 7b), degree of education (Table 7c), and age of respondent (Table 7d).

Tables 7a-7d about here.

As shown in Table 7b, those under 25 years of age were much more likely than those over 25 years of age to indicate that they believed, “yes” that SOX would reduce the number of financial statement misstatements. Similarly, as shown in Table 7c, those at the associate level were more likely than those at higher levels of experience to indicate that they believed, “yes” that SOX would reduce the number of financial statement misstatements. Finally, as shown in Table 7d, those holding only bachelors degrees were more likely than those holding bachelors and advanced degrees to indicate that they believed, “yes” that SOX would reduce the number of financial statement misstatements. The data in Tables 7b-7d suggest that differences in maturity affect auditors’ skepticism about the efficacy of SOX. In particular, more mature professionals (i.e., those professional who are older, more experienced and more highly educated) are more skeptical than less mature professionals of the legislation’s ability to reduce financial statement misstatements.
DISCUSSION AND CONCLUSION

As pointed out above, findings of the study suggest that in the post-SOX period, practitioners perceive revenue recognition practices (business combination and restructuring practices) as the most common (fifth most common) method of financial statement misstatement. These findings are unchanged from the reported data for the pre-SOX period. We also find that of the five most commonly reported methods of perpetuating financial statement misstatement, revenue recognition practices (business combination and restructuring practices) are perceived as having at least a moderately significant impact on financial statement misstatements by the greatest (smallest) proportion of respondents. These findings suggest that in their preliminary consideration of fraud pursuant to the brainstorming session now required by SAS No. 99, auditors should most definitely be concerned about the possibility of financial statement misstatement due to revenue recognition practices (e.g., early recognition of revenue, overestimation of percentage of completion, recording of bogus sales). Financial statement misstatements due to improper accounting for business combinations and restructurings appear to be less of a threat in terms of the frequency and magnitude of the misstatements, but this may be because not all companies have business combinations or restructurings every year.

Our findings for practitioners’ perception about the second, third and fourth most common methods of financial statement misstatement differ from those reported in the pre-SOX period. It is possible that the differences are due to our limiting subject choice to one method of financial statement misstatement, while the pre-SOX data allowed for multiple responses (e.g., reporting an incidence of financial statement misstatement due to both revenue recognition practices and asset overstatement). Future research is needed to clarify
the reason for the difference between the results from the pre-SOX period and our results for
the post-SOX period.

Nonetheless, when the perceived frequencies of the methods of financial statement
misstatement are considered with the perceived materiality of the methods, it becomes clear
Further, in the post-SOX period, auditors should be concerned about improper accounting
estimates, as a second to revenue recognition, in their preliminary consideration of fraud.
Moreover, because SAS No. 99 (AICPA, 2003a) specifically includes procedures for
reviewing accounting estimates for biases that could result in material misstatement due to
fraud, auditors have further cause to pay close attention to the possibility of misstatement
resulting form improper accounting estimates.

The third spot, held by asset overstatement, is only slightly ahead of understatement of
liabilities, costs or expenses. Accordingly, in auditors’ consideration of financial statement
misrepresentation on their audits, both of these areas deserve auditor consideration as well.

In general, auditors have long had a responsibility to uphold the public interest, putting
their responsibilities to the public ahead of those to clients and employers (e.g., AICPA 2005
at ET 53). In the past, audit clients were considered ethical and auditors were not specifically
required to assess the likelihood of fraud on their audits. Over time, a number of audit failures
have occurred, including some of the more notable ones, which are outlined in Table 8.

Table 8 about here.

More recently, and in response to audit failures, including the notable ones included in
Table 8 (and, especially Enron), the public has sought for auditors to improve the usefulness
of audited financial statements by assuring them of the lack of fraud. The Congress’ response
SOX has resulted in, arguably, the most sweeping legislation to affect the audit profession since the Securities and Exchange Acts of 1933 and 1934.

Certainly, in the post-SOX world, the audit landscape is different than it was in the pre-SOX era. The “coziness” auditors once enjoyed with clients – such as by providing both audit and consulting services to clients or by serving as auditor for an extended period of time – is now legally forbidden. As a result, in the name of upholding the public interest, auditors have been called upon to view their clients skeptically.

But, are they better equipped to do so? Our results find a shift from the pre- to post-SOX era in auditors’ perception of the causes of financial statement misrepresentation, suggesting a change in auditors’ ethical perception in the post-SOX era. However, it is particularly telling that, as compared to less seasoned professionals, more seasoned professionals (i.e., those who are older, have more experience or more education) have significantly greater doubts about the ability of SOX to reduce the number of financial statement misstatements. Sadly, our results suggest that mature professionals concur with Young (2005). That is, they, too, doubt that “quick fixes”, such as the legislation promulgated in SOX, can adequately address the problems underlying financial statement misrepresentation.

Thus, while professionals’ ethical perception differs in the post-SOX era, the efficacy of the legislation continues to be a concern. Young (2005) suggests that before undertaking a “shot gun” approach to reform, different questions need to be asked to assess the root causes of corporate scandals. Likewise, evidence from more seasoned professionals in our study suggests there is much merit in Young’s (2005) argument.
As a survey, our results are prone to all of usual associated weaknesses. For example, our data captures information just at one point in time and fails to provide evidence indicative of causality. Because our data were drawn from convenience samples (with a concentration in the New York Metropolitan area), we cannot ensure that our findings are completely representative of a national cross-section of practitioners. To extend our results, future research might consider conducting a similar study using a national cross-section of practitioners drawn at random. Finally, we could not and thus did not assess the degree to which audit professionals’ perceptions in 2005 about the causes and materiality of financial statement misrepresentation correspond to actual financial statement misrepresentation uncovered in the future. Accordingly, future research should be undertaken to investigate the accuracy of auditors’ perceptions of the causes and materiality of financial statement misrepresentation.
References


<table>
<thead>
<tr>
<th>Method of Financial Statement Misstatement</th>
<th>% of Misstatements in Which Method Is Used*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Recognition</td>
<td>55%</td>
</tr>
<tr>
<td>Asset Overstatement</td>
<td>40%</td>
</tr>
<tr>
<td>Understatement of Liabilities, Costs or Expenses</td>
<td>17%</td>
</tr>
<tr>
<td>Improper Accounting Estimates</td>
<td>15%</td>
</tr>
<tr>
<td>Improper Acctg for Bus’n Combinations or Restructuring</td>
<td>16%</td>
</tr>
</tbody>
</table>

*Source: PricewaterhouseCoopers review of securities litigation and regulatory enforcement data for the period 1995-1999 (Hacker, 2002). Percentages do not sum to 100% because multiple responses were possible.
Table 2
Demographic Characteristics of Sample Responses – Big Four, National and Total Samples

<table>
<thead>
<tr>
<th>Professional Level</th>
<th>Number (%) Of Responses: Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner/Principal</td>
<td>38 (16.6%)</td>
</tr>
<tr>
<td>Manager/Director</td>
<td>49 (21.4%)</td>
</tr>
<tr>
<td>Supervisor/Senior</td>
<td>62 (27.1%)</td>
</tr>
<tr>
<td>Associate</td>
<td>80 (34.9%)</td>
</tr>
<tr>
<td>Total</td>
<td>229 (100.0%)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Area of Specialty</th>
<th>Number (%) Of Responses: Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit/Assurance</td>
<td>143 (62.4%)</td>
</tr>
<tr>
<td>Tax</td>
<td>42 (18.3%)</td>
</tr>
<tr>
<td>Non-audit/Non-tax</td>
<td>44 (19.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>229 (100.0%)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number (%) Of Responses: Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>102 (44.5%)</td>
</tr>
<tr>
<td>Males</td>
<td>127 (55.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>229 (100.0%)</td>
</tr>
<tr>
<td>Method of Financial Statement Misstatement</td>
<td>Number (%) Of Responses</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Revenue Recognition</td>
<td>88 (38.4%)</td>
</tr>
<tr>
<td>Improper Accounting Estimates</td>
<td>78 (34.1%)</td>
</tr>
<tr>
<td>Asset Overstatement</td>
<td>32 (14.0%)</td>
</tr>
<tr>
<td>Understatement of Liabilities, Costs or Expenses</td>
<td>22 (9.6%)</td>
</tr>
<tr>
<td>Improper Accounting for Business Combinations or Restructuring</td>
<td>9 (3.9%)</td>
</tr>
<tr>
<td>Total</td>
<td>229 (100.0%)</td>
</tr>
</tbody>
</table>
Table 4
Perceived Frequency of Methods of Financial Statement Misstatement:
Pre- vs. Post-SOX Periods

<table>
<thead>
<tr>
<th>Method of Financial Statement Misstatement</th>
<th>Pre-SOX Frequency*</th>
<th>Post-SOX Frequency*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Recognition</td>
<td>1</td>
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<tr>
<td>Improper Accounting Estimates</td>
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<td>Asset Overstatement</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Understatement of Liabilities, Costs or Expenses</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Improper Accounting for Business Combinations or Restructuring</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

*1=Most frequent; 5=Least frequent
<table>
<thead>
<tr>
<th>Method of Financial Statement Misstatement</th>
<th># (%) Indicating &gt;10% (Greatly Significant Impact)</th>
<th># (%) Indicating &gt;5&lt;10% (Significant Impact)</th>
<th># (%) Indicating &gt;3&lt;5% (Moderately Significant Impact)</th>
<th># (%) Indicating &gt;1&lt;3% (Slightly Significant Impact)</th>
<th># (%) Indicating &lt;1% (Insignificant Impact)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Recognition</td>
<td>94 (41.0%)</td>
<td>90 (39.3%)</td>
<td>25 (10.9%)</td>
<td>18 (7.9%)</td>
<td>2 (0.9%)</td>
</tr>
<tr>
<td>Improper Accounting Estimates</td>
<td>80 (34.9%)</td>
<td>63 (27.5%)</td>
<td>42 (18.3%)</td>
<td>32 (14.0%)</td>
<td>12 (5.2%)</td>
</tr>
<tr>
<td>Asset Overstatement</td>
<td>24 (10.5%)</td>
<td>112 (48.9%)</td>
<td>61 (26.6%)</td>
<td>29 (12.7%)</td>
<td>3 (1.3%)</td>
</tr>
<tr>
<td>Understatement of Liability, Costs or Exps</td>
<td>50 (21.8%)</td>
<td>67 (29.3%)</td>
<td>57 (24.9%)</td>
<td>45 (19.7%)</td>
<td>10 (4.4%)</td>
</tr>
<tr>
<td>Improper Acctg for Bus’n Combos &amp; Restructuring</td>
<td>9 (3.9%)</td>
<td>42 (18.3%)</td>
<td>67 (29.3%)</td>
<td>67 (29.3%)</td>
<td>44 (18.2%)</td>
</tr>
</tbody>
</table>

Note: Most prevalent response for each method of financial statement misstatement **bolded**.
Table 5
Panel B: Perceived Materiality (on a Cumulative Basis) for Methods of Financial Statement Misstatement

<table>
<thead>
<tr>
<th>Method of Financial Statement Misstatement</th>
<th>Cumulative % Indicating &gt;10% Impact of Misstatement (At Least Greatly Significant Impact)</th>
<th>Cumulative % Indicating &gt;5% Impact of Misstatement (At Least A Significant Impact)</th>
<th>Cumulative % Indicating &gt;3% Impact of Misstatement (At Least Moderately Significant Impact)</th>
<th>Cumulative % Indicating &gt;1% Impact of Misstatement (At Least Slightly Significant Impact)</th>
<th>Cumulative % Indicating &gt;0% Impact of Misstatement (At Least An Insignificant Impact)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Recognition</td>
<td>41.0%</td>
<td>80.3%</td>
<td>91.2%</td>
<td>99.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Improper Accounting Estimates</td>
<td>34.9%</td>
<td>62.4%</td>
<td>80.7%</td>
<td>94.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Asset Overstatement</td>
<td>10.5%</td>
<td>59.4%</td>
<td>86.0%</td>
<td>98.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Understatement of Liabilities, Costs or Exps</td>
<td>21.8%</td>
<td>51.1%</td>
<td>76.0%</td>
<td>95.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Improper Acctg for Bus’n Combos &amp; Restructuring</td>
<td>3.9%</td>
<td>22.2%</td>
<td>52.5%</td>
<td>81.8%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: Cumulative responses for at least a significant impact (i.e., >5% misstatement) have been **bolded**.
Table 6
Perceived Materiality of Methods of Financial Statement Misstatement:
Pre- vs. Post-SOX Periods

<table>
<thead>
<tr>
<th>Method of Financial Statement Misstatement</th>
<th>Rank by most prevalent response regarding materiality*</th>
<th>Rank by % indicating at least a greatly significant impact*</th>
<th>Rank by % indicating at least a significant impact*</th>
<th>Rank by % indicating at least a moderately significant impact*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Recognition</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Improper Acctg Estimates</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Asset Overstatement</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Understatement of Liabs, Costs or Exps</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Improper Acctg for Bus’n Combos or Restructuring</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

*1=Most material; 5=Least material
Table 7
Perception of Whether SOX Will Reduce the Number of Financial Statement Misstatements

<table>
<thead>
<tr>
<th>Responses to query: <em>In your perception to you believe that SOX will reduce the number of financial statement misstatements?</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel</td>
</tr>
<tr>
<td>A  (Overall Sample)</td>
</tr>
<tr>
<td>B  (Age)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>C  (Experience Level)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>D  (Education – Highest Degree)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Note: Most prevalent response for each sub-sample **bolded.**
Table 8
Well-Known Ethical Scandals*

<table>
<thead>
<tr>
<th>Year** of Discovery</th>
<th>Company</th>
<th>Primary Method(s) Used in Misstatement**</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>Computer Associates International</td>
<td>Revenue Recognition (Wrongly revenue in 1998 and 1999 fiscal years, in order to artificially inflate the stock price)</td>
</tr>
<tr>
<td>2000</td>
<td>Xerox</td>
<td>Revenue Recognition (Improper revenue recognition on leases)</td>
</tr>
<tr>
<td>2001</td>
<td>Enron</td>
<td>Understatement of Liabilities, Costs or Expenses (Misuse of special purpose entities to hide losses &amp; debt)</td>
</tr>
<tr>
<td>2001</td>
<td>Peregrine Systems</td>
<td>Revenue Recognition (Inflated revenue April 1999 to the end of 2001)</td>
</tr>
<tr>
<td>2002</td>
<td>Adelphia</td>
<td>Revenue Recognition (Improperly recognized cable television subscribers as income)</td>
</tr>
<tr>
<td>2002</td>
<td>AOL/Time Warner</td>
<td>Revenue Recognition (Improper revenue recognition on “round trip” advertising transactions) Improper Acctg for Business Combos/Restructurings (Failure to properly consolidate subsidiary)</td>
</tr>
<tr>
<td>2002</td>
<td>Bristol-Myers-Squibb</td>
<td>Revenue Recognition (Channel stuffing)</td>
</tr>
<tr>
<td>2002</td>
<td>Global Crossing</td>
<td>Revenue Recognition (Accelerated recording of revenues on long-term contracts)</td>
</tr>
<tr>
<td>2002</td>
<td>Halliburton</td>
<td>Revenue Recognition (Undisclosed, income increasing change in revenue recognition policy)</td>
</tr>
<tr>
<td>2002</td>
<td>Healthsouth</td>
<td>Improper Accounting Estimates (Understatement of Allowance for Doubtful Accounts)</td>
</tr>
<tr>
<td>2002</td>
<td>Kmart</td>
<td>Asset Overstatement (Lack of truthful disclosure about the true reason for increase in inventory – i.e., over-buying by management)</td>
</tr>
<tr>
<td>2002</td>
<td>Merck</td>
<td>Revenue Recognition (Improper revenue recognition of co-payments received by subsidiary, Medco)</td>
</tr>
<tr>
<td>2002</td>
<td>Qwest Communications</td>
<td>Revenue Recognition (Overstatement of revenue on swaps)</td>
</tr>
<tr>
<td>2002</td>
<td>Worldcom</td>
<td>Understatement of Liabilities, Costs or Expenses (Improper capitalization of expenses)</td>
</tr>
<tr>
<td>2003</td>
<td>Parmalat SPA</td>
<td>Improper Acctg for Business Combos/Restructurings (Failure to properly consolidate subsidiary in the Cayman Islands called Bonlat)</td>
</tr>
</tbody>
</table>

*The recent scandals included here are those set forth in Coyne, et al (2005).

**Data are drawn from SEC news releases where possible.
QUICK LITTLE SURVEY ~ Please Highlight or Circle Your Response

1) In your perception which of the following would you consider to be the greatest contributor to financial statement misstatements:
   a) Revenue Recognition
   b) Asset Overstatement
   c) Liability and Costs OR Expenses Understatement
   d) Improper Accounting Estimates
   e) Business Combinations and Restructuring

   Kindly respond the next five questions using the following guide:
   Insignificant = < 1%  |  Slightly Significant = >1% to < 3%
   Moderately Significant = >3% to <5%
   Significant = >5% to <10%  |  Very Significant = >10%

2) Revenue Recognition practices have a __________ impact on financial statement misstatements.
   a) Insignificant
   b) Slightly Significant
   c) Moderately Significant
   d) Significant
   e) Very Significant

3) Asset Overstatement practices have a __________  impact on financial statement misstatements.
   a) Insignificant
   b) Slightly Significant
   c) Moderately Significant
   d) Significant
   e) Very Significant

4) Liability/Costs or Expense Understatement practices have a ___________ impact on financial statement misstatements.
   a) Insignificant
   b) Slightly Significant
   c) Moderately Significant
   d) Significant
   e) Very Significant

5) Improper Accounting Estimate practices have a __________ impact on financial statement misstatements.
   a) Insignificant
   b) Slightly Significant
   c) Moderately Significant
   d) Significant
   e) Very Significant

6) Business Combination & Restructuring practices have a _________ impact on financial statement misstatements.
   a) Insignificant
   b) Slightly Significant
   c) Moderately Significant
   d) Significant
   e) Very Significant
DEMOGRAPHICS

1. Gender
   a. Male
   b. Female

2. You are a … ?
   a. Partner/Principal
   b. Manager/Director
   c. Supervisor/Senior Associate
   d. Associate
   e. College student/intern

3. You are practicing in which department?
   a. Assurance/Audit
   b. Tax
   c. Internal/Non public position
   c. Other

4. Your education level – please circle all that apply: (students should not circle any choices)
   a. BS
   b. MS
   c. MBA
   d. PhD
   e. JD
   f. LLM

5. What is your Age Group?
   a. 19 – 24
   b. 25 – 29
   c. 30 – 34
   d. 35 – 39
   e. 40 – 44
   f. 44 – 49
   g. 50 +

6. What professional certifications or licenses do you hold - please circle all that apply: (students should not circle any choices)
   a. CPA
   b. CMA
   c. CFA
   d. CIA
   e. Other(s) ___________________________________________

7. In your perception, do you believe that Sarbanes-Oxley will reduce the number of financial statement misstatements?
   a. Yes
   b. No
   c. Undecided