# Evaluating a trend analysis of fraud factors

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**ABSTRACT**

The Sarbanes-Oxley Act of 2002 was established primarily as an attempt to combat an increasing level of corporate fraud and to hold executives accountable. However, the level of fraud and the cost of fraud continue to increase. This paper provides a trend analysis of fraud factors in an attempt to evaluate the factors that are most prevalent so as to assist in the identification of fraudsters and the reduction of fraud occurrences.

Keywords: Fraud, Fraud Trends, ACFE Survey

## INTRODUCTION

A 2003 survey by KPMG indicated that organizations are working hard to combat fraud and believe they have made great strides on the problem. It is generally understood that the key to effective fraud detection and prevention is first understanding the early signs of fraud and second, establishing effective compliance programs. Seventy-five percent of the organizations surveyed had evaluated their compliance programs within the past 12 months. These organizations also planned to implement new programs or procedures to help combat fraud and misconduct specifically as a response to the Sarbanes-Oxley Act of 2002 (SOX). As a result of these reviews, more than one-third of the organizations believed that fraud would decline in the next few years, while almost two-thirds of the organizations believed fraud levels would stay the same. History has shown that the latter group was more correct, but actually underestimated the increasing severity of fraud, post-SOX. (KPMG, 2003)

## A DEFINITION OF FRAUD

Fraud can be defined as “all multifarious means which human ingenuity can devise, and which are resorted to by one individual to get an advantage over another by false suggestions or suppression of the truth. It includes all surprises, tricks, cunning or dissembling, and any unfair way which another is cheated” (Black’s Law Dictionary). Fraud is defined in the Statement on Auditing Standards (SAS) 99 as "an intentional act by one or more individuals among management, those charged with governance, employees or third parties, involving the use of deception to obtain an unjust or illegal advantage."

Unintentional fraud does not exist. What separates error from fraud is intent, the accidental from the intentional (Peterson, 2004). Assume a company’s financial statements contain material false statements. An auditor must determine if they were caused by error or fraud. The difficulty with proving intent is that it requires determining a person’s state of mind. As a result, intent is usually proven via circumstantial evidence, supported by the discovery of motive, opportunity, repetitive acts, witness statements, and concealment (Lawrence and Wells, 2004).

What causes managers of successful businesses to manipulate their financial statements? How can investors, auditors, accountants, managers and regulators detect manipulations? Dealing with these questions when they occur is critical to maintaining organizational integrity. For a business owner or investor it can lead to improved returns; for an auditor it can mean avoiding costly litigation; for an accountant it can mean avoiding a blemished reputation; and for a regulator it can lead to enhanced investor protection and fewer investment catastrophes, like those we’ve observed in recent years. The primary focus of this article is to provide an analysis of fraud factors and events over the past twelve years and to examine fraud trends for the purpose of better understanding today’s world, and to better prepare organizations to recognize the propensity towards fraud and thus identify areas in which stronger controls are necessary.

A 2007 survey by Price Waterhouse Coopers reveals that fraud remains one of the most problematic issues for businesses worldwide, with no abatement regardless of the organization’s country of operation, industry sector, or size. In 2007, over 43 percent of businesses reported suffering one or more significant economic crimes during the previous two years. This is very similar to the results in 2005 and an increase of six percentage points over 2003. Considering the significant investment many businesses have made in fraud controls over the previous two years,

it is often questioned why levels of economic crime seem only to have stabilized in that time rather than shown a dramatic decrease. This may, in part, be due to a fraud controls paradox. This is the idea that when controls are implemented in an organization, the number of frauds detected increases almost immediately. However, their deterrent effect takes time to become visible. Potential fraudsters need to see that there is a greater likelihood of detection and that those in breach of a business's ethical, regulatory, and legal guidelines will be consistently subject to sanctions that fit the offence (PriceWaterhouseCoopers, 2007).

There may be other explanations for these consistently high figures. Certainly, over recent years there has been an increase in corporate transparency and a greater willingness by businesses to admit that fraud has been uncovered, but there is also a feeling among some executives that the self-report and remediate program encouraged by many regulators may subject them to a high and unfair cost burden relative to businesses that take an alternative approach to dealing with fraud. The threat remains problematic regardless of the size of the business.

Seventy-five percent of businesses surveyed report they experienced an instance of fraud which is an increase of 13 percentage points more than in 1998. While employee fraud is the most prevalent type of fraud experienced by organizations, financial reporting fraud and medical or insurance fraud are the most costly. In fact, financial reporting fraud more than doubled its rate of occurrence since 1996. The greatest percentage point increases since 1998 are in theft of assets and expense account abuse (KPMG, 2003).

A vast majority (eighty-nine percent) of the fraudsters were employees committing fraudulent acts against their own employer, whereas 20 percent involved complicity with an external fraudster, resulting in the conclusion that in only eleven percent of all profiles the businesses were attacked purely by externals. Members of senior management and board members represent 60 percent of all fraudsters. Over 25 percent of profiled fraudsters involve management level employees, bringing the total to over 85 percent of the profiled fraudsters are at some level of management. This result highlights a risk that every business faces: executives are entrusted with sensitive business information and yet are also often in a position to override internal controls. In 36 percent of profiles the fraudster worked for their business for two to five years before committing fraud. In 22 percent of profiles the fraudulent employees registered more than 10 years of service at the victim's organization. In just 13 percent of profiles the fraudster was with the business for less than 2 years prior to committing fraudulent acts. The internal fraudster most often works in the finance department followed by operations and sales or as the CEO (KPMG International, 2007).

Misappropriation of money was the most common type of fraud. In 83 percent of those profiled, the fraudsters acted against an organization within their own country. Over 90 percent of fraudsters committed more than one fraudulent transaction, over one third of the fraudsters in this survey acted more than 50 times. These fraudulent acts were prevalent in Europe, South Africa, India and the Middle East. In 24 percent of fraudsters profiled the frequency of fraudulent acts by the same fraudster was less than one year. In sixty-seven percent of the profiled fraudsters, the fraud acts occurred within a one to five year period until they were exposed or ceased their fraudulent activities. (KPMG International, 2007)

Fraud can be considered an indefinable enemy. As quickly as a trap can be built to catch a particular fraudster, they will find new methods to commit fraud (Bruno-Britz, 2009; Hamilton, 2004). Some business owners may feel that they cannot effectively defend themselves from fraudsters, particularly those fraudsters who employ and exploit technology in their fraud

attempts. However, that same technology can be used to help combat the fraudsters and their tactics (Trembly, 2008). Business owners and managers must understand that technology alone will not stop fraud; it only offers a means to better detecting it. Technology should be combined with the appropriate knowledge and other techniques to create an optimal solution to detecting fraud in organizations (Gogtas and Pollner, 2007; Woehr, 2006).

The laws of most countries prohibit most types of fraud including theft, corruption and financial statement misstatements (Akin, 2004). Globally, governments have enacted rules and regulations which penalize and prosecute businesses and individuals who participate in fraud methods at the corporate level, and civil settlements brought by shareholders of public businesses who loose enormous wealth by the actions of a few dishonest fraudsters.

## A TREND ANALYSIS OF FRAUD FACTORS

The American Certified Fraud Examiners (ACFE) publishes what is now a biannual Report to the Nation on Occupational Fraud and Abuse, published by the American Certified Fraud Examiners (ACFE). Starting in 1996, with continuing reassessments in 2002, 2004, 2006, and 2008, the ACFE presents a compilation of surveys pertaining to the elements and factors associated with fraud.

Each Report is based on approximately one thousand cases of occupational fraud over a two year or longer period which have been investigated by a Certified Fraud Examiner (CFE) (AFCE, 2008). The goals of these reports are to summarize the opinions of experts, examine the characteristics of the fraudsters, determine the types of organizations being victimized, and categorize the ways serious fraud occurs. These reports combine the methods that are used to commit fraud into three categories. Those categories are asset misappropriation, corruption, and financial statement fraud, and are important when creating a profile for a fraudster.

There are additional statistics in each report which may help to detect current fraud and deter future fraud. One important factor in detecting fraud is to know the length of time that the fraud scheme lasts. These reports take a look at the average time it takes for fraud to be detected. Detection methods are also included in the reports. These methods range from internal audits, external audits, and employee hotlines. These methods are examined to determine which method is more effective for detecting fraud (ACFE, 2006).

Creating a profile for the fraudster is another goal of the Report to the Nation on Occupational Fraud and Abuse. There are several characteristics that are discovered in each fraud investigation that help to create a profile of the fraudster. Some of those characteristics are gender, age, education level, and length of service in current position. These characteristics not only help investigators in creating a profile for the fraudster, but also serve as precursors for the total cost of the fraud that is committed.

Using reports from 1996, 2002, 2004, 2006, and 2008, I will summarize the data from each report and illustrate the trends over the past twelve years. These trends will show what affects SOX has on the profile of the fraudster as well as what, if any, impact SOX had on the propensity to commit fraud. The data gathered from these reports will be used to make assumptions as to the profile of the fraudster and the level of fraud that each type of fraudster may commit. These assumptions will aid the reader in identifying potential fraudsters within an organization as well as gaps in internal controls which will help deter fraud in organizations.

The annual cost of fraud has grown steadily over the past twelve years. As Figure 1 shows, the cost of fraud in the United States has increased from $400 billion in 1996, remained

relatively stable between $600-$660 billion between 2002 and 2006, but rose to over $990 billion in 2008. This represents an increase of over 148 percent over the past twelve years.

(insert Figure 1 about here)

In this same time period, businesses have spent billions in compliance systems and fraud prevention, which has seemed to have little effect on the tendencies towards lowering the cost of fraud to businesses. Simply looking at the total annual cost of fraud, these results could be interpreted in several ways. First, it may be that as the techniques of fraud improve, there are not necessarily more fraudsters, but larger payouts for the same number of fraudsters. Another perspective on these results might lead one to believe that technology has given potential fraudsters the ability to participate in fraudulent activity at a greater rate than in previous years.

Another interesting trend from the review of the Report to the Nation on Occupational Fraud and Abuse over the past decade is the stunning difference in gender of fraudsters. Figure 2 shows that in all years reviewed, men commit fraud more often than women, and this trend appears to be widening.

(insert Figure 2 about here)

There are several potential explanations for the differences in gender as it relates to fraudulent activity. The most obvious is the glass ceiling effect. Since there are relatively fewer women in higher positions within organizations, the propensity to commit fraud is automatically lower based on position within the business. There are also relatively fewer women in the workforce, which may explain the difference in gender of fraudsters.

In addition to men committing the majority of fraud, they also cost the businesses more when they do commit the fraud, indicated in Figure 3. This again may be explained by the difference in gender based on the position within the business. There are fewer women senior and middle managers, making the opportunity to commit a large dollar fraud less likely.

(insert Figure 3 about here)

The impact relating to the role of an individual within the organization has changed slightly over the past twelve years, as shown in Figure 4. In 1996, 12 percent of the fraudsters were owners. 2002 data was reported with owners and managers combined, however the relative percentage of owners committing fraud has steadily increased over the period studied. In 2008, that percentage had grown to 23 percent. While the percentage of managers committing fraud has remained steady over the past twelve years, fraud committed by non-managers, or the typical rank and file employees, have declined considerably. Internal controls have had an obvious impact on the non-manager role, but these controls need to be improved to reduce overrides by managers and owners.

(insert Figure 4 about here)

Figure 5 indicates that the cost of fraud by owners far exceeds the cost of managers and non-managers. The cost of fraud committed by owners has remained considerably higher than managers and non-managers over the past twelve years (2002 was not reported separately).

(insert Figure 5 about here)

The difference in cost is likely related to the level of authority and responsibility that fraudsters have within the organization. For example, a standard control is that large invoices must have two signatures for approval, as would checks which exceed a specified amount. These internal controls may make it difficult for managers and non-managers to commit large dollar fraud without collusion. This is a clear instance where SOX is the solution for certain roles within an organization, but not a solution for all roles.

The education level of the fraudster is also an important factor to consider when identifying the fraudster. Since 2002, the majority of fraudsters have a high school education, with possibly some college, but no college degree (see Figure 6). The percentages of each education level have remained relatively consistent over the past six years.

(insert Figure 6 about here)

The cost of fraud for each education level varies greatly. The greatest cost results from a fraudster with a post graduate degree, both in terms of frequency of fraud occurrences and with respect to the average loss (see Figure 7). The variances in fraud cost by education level may be directly attributable to their role within the business. Most fraudsters with post graduate educations will likely have a role as a manager or owner of the business. This cost of fraud for fraudsters in these roles almost directly corresponds to the fraudsters within the higher education levels.

(insert Figure 7 about here)

## CONCLUSION

The lack of governance of internal controls by owners, upper management and board of directors is one of the main contributors to fraud (AFCE, 2008). This is evident from the trends in the survey results from the Reports to the Nation on Occupational Fraud and Abuse. Sarbanes-Oxley was implemented in 2002 with the specific purpose of addressing instances of fraud. However, as this study has shown, the level of fraud has continued to increase.

Detection through education is an important factor to help reduce the occurrences of fraud. Colleges and universities must include more detailed fraud and auditing courses in the general accounting programs in both undergraduate and graduate level programs. As technology becomes more embedded into businesses, it will become imperative for the internal technology experts to have knowledge of detecting and preventing fraud using technology. Accountants with experience in technology will become more and more valuable to fraud prevention as fraudsters become more technology savvy.

Developing a strong ethics and fraud policy is one important step to prevent fraudsters from committing acts of fraud within an organization. Internal auditors should also conduct a risk assessment to determine the risks and vulnerabilities of the internal and external controls that are in place. Examining fraud variables and factors as presented in this paper will help with this assessment.

Fraud will likely never be eradicated in its entirety. The information provided in this paper and other sources should help promote an understanding as to who fraudsters are and why they commit fraudulent acts, which will hopefully help to detect, deter, and prevent these acts.

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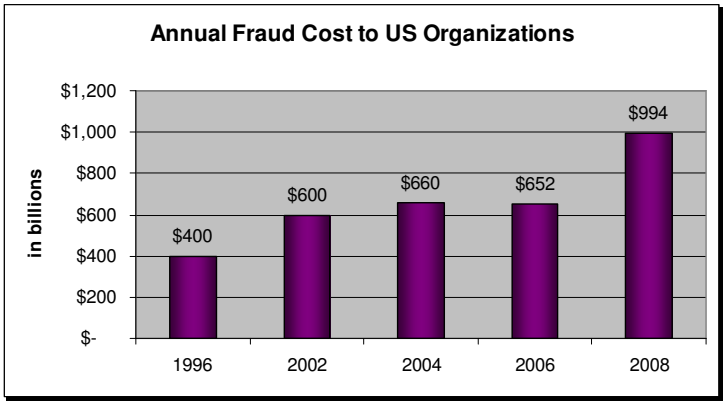


Figure 1 Annual Fraud Cost to US Organizations
(Report to the Nation on Occupational Fraud and Abuse, 1996, 2002, 2004, 2006, 2008)

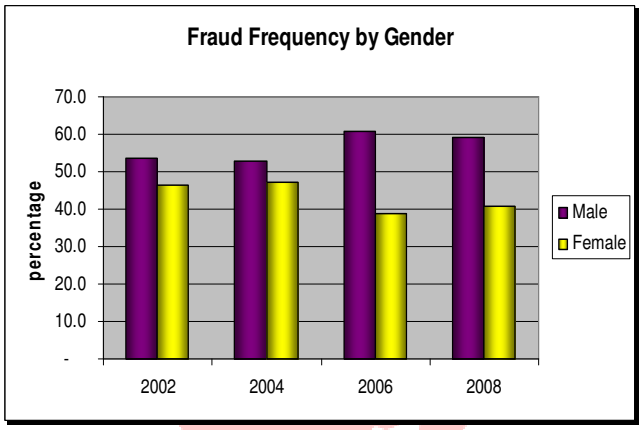


Figure 2 Fraud Frequency by Gender
(Report to the Nation on Occupational Fraud and Abuse, 1996, 2002, 2004, 2006, 2008)

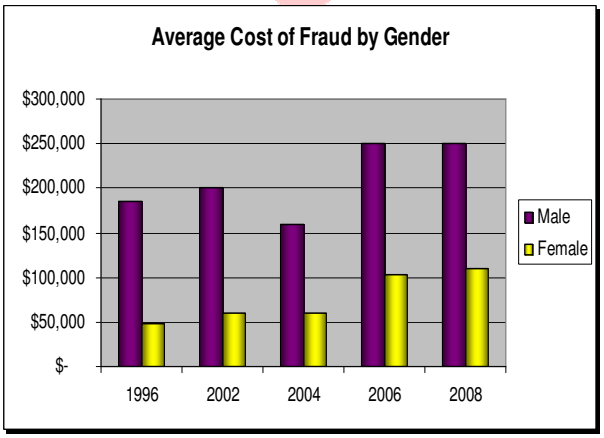


Figure 3 Average Cost of Fraud by Gender
(Report to the Nation on Occupational Fraud and Abuse, 1996, 2002, 2004, 2006, 2008)

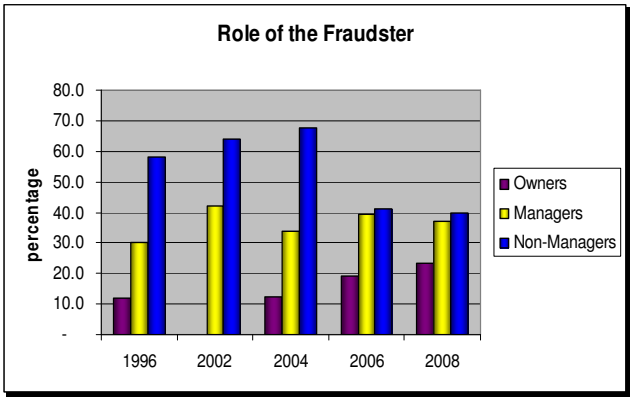


Figure 4 Role of the Fraudster
(Report to the Nation on Occupational Fraud and Abuse, 1996, 2002, 2004, 2006, 2008)

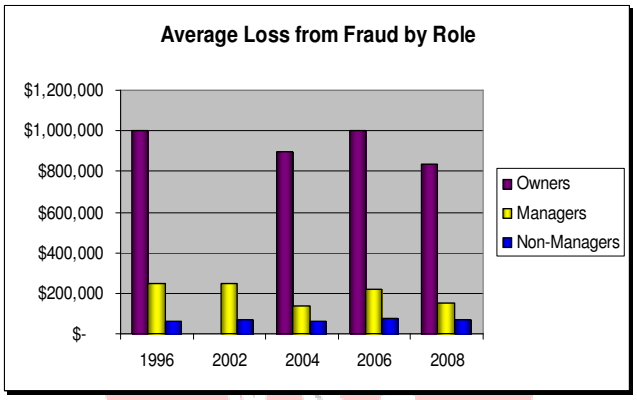


Figure 5 Average Loss from Fraud by Role
(Report to the Nation on Occupational Fraud and Abuse, 1996, 2002, 2004, 2006, 2008)

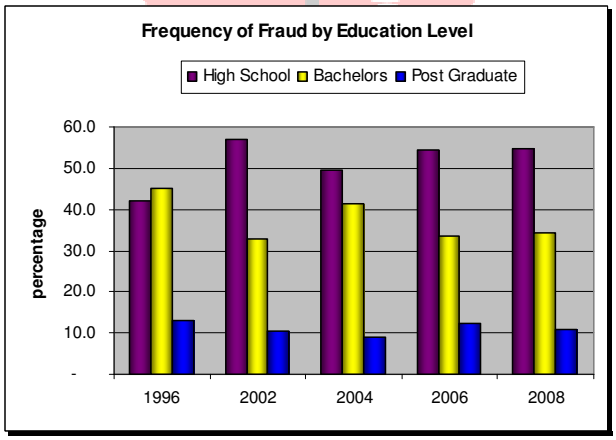


Figure 6 Frequency of Fraud by Education Level
(Report to the Nation on Occupational Fraud and Abuse, 2002, 2004, 2006, 2008)

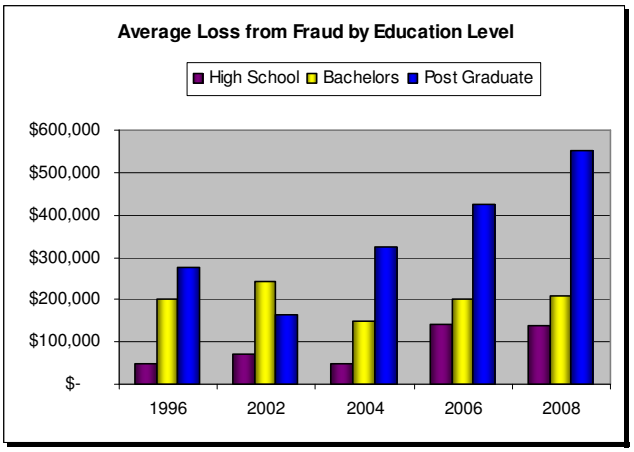


Figure 7 Average Loss from Fraud by Education Level
(Report to the Nation on Occupational Fraud and Abuse, 2002, 2004, 2006, 2008)