
Insurer vs. Insurance Fraud: Characteristics and Detection

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Abstract: Despite the tremendous concern in the insurance industry over insurance fraud by customers, the federal Insurance Fraud Prevention Act primarily targets internal fraud, or insurer fraud, in which criminal acts such as embezzlement could trigger an insurer's insolvency, rather than fraud perpetrated by policyholders such as filing false or inflated claims—insurance fraud. Fraud committed against insurers by executives and employees is potentially one of the costliest issues facing the industry and attracts increasing attention from regulators, legislators, and the industry. One book includes reports on some 140 insurance executives convicted of major fraud in recent years.

This study investigates whether insurers' weapons against insurance fraud are also used effectively to combat insurer fraud. Several variables are tested—characteristics of perpetrators, schemes employed, and types of detection and investigation techniques utilized—to compare the characteristics of insurer fraud with those of insurance fraud and also with those in non-insurance industries. A detailed survey of 8,000 members of the Association of Certified Fraud Examiners provides the database; chi-square statistics, the Median (Brown-Mood) test, and the Kruskal-Wallis test were used to measure for significant differences. Most of the authors' expectations were supported by the analysis, but some surprises were found, such as the relative ineffectiveness of insurer internal control systems at identifying employee fraud. Internal whistleblowing also was not as prevalent in the insurance industry as in other organizations. Insurers were more likely to prosecute their employees for fraud than were other industries, however.

INTRODUCTION

Fraud is a much discussed, much studied, very troubling and costly concern of the insurance industry. While estimates of the extent of such

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fraud are difficult to make and are not included in the Insurance Information Institute's annual data, a 1995 study by Conning & Company, a research and investment firm that specializes in the insurance industry, suggests that insurance fraud may have cost the industry a total of \$120 billion in 1995 (Insurance Information Institute, 1996). Fraud in this (and in most studies) refers primarily, if not exclusively, to fraudulent claims and other forms of consumer fraud against insurers. The literature on this type of fraud, hereafter referred to as insurance fraud, is extensive. Much less has been written about fraud perpetrated internally by executives and other employees against insurers, hereafter called insurer fraud.¹

Yet it is fraud against insurers—insurer fraud—that was the target of two federal laws in the 1990s: the Insurance Fraud Prevention Act of 1994 and the Violent Crime Control and Law Enforcement Act, also of 1994. These two laws make insurer fraud a crime if it involves interstate commerce. Specifically, they prohibit three basic types of activities: (1) presenting materially false financial reports about an insurer to either regulatory officials or business associates, (2) misappropriating funds that belong to an insurer, and (3) permitting a person convicted of a felony involving dishonesty to participate in the insurance business. Thus, employees of insurance companies now face potential federal criminal charges for fraud against their employers.

Through the employment of claims experts and other measures, the insurance industry has focused great concern and increasing attention to identifying and reducing insurance fraud. Four very visible methods of combating insurance fraud are the development of claims special investigation units (SIUs), the investment in numerous computerized claim databases, the creation of many fraud-fighting associations such as the National Insurance Crime Bureau and the Coalition Against Insurance Fraud, and the passage of an increasing number of state anti-fraud laws (Carris and Colin, 1997). As a result of these efforts to curb fraud by customers and others outside the company, it is likely that insurers also have developed an organizational consciousness that enables them to be more diligent than companies in other industries in detecting and preventing fraud committed by their own employees. Quite possibly, some of the techniques used to control insurance fraud perpetrated by customers and other outsiders have been employed to reduce insurer fraud by insiders.

Three issues are examined in this study. First, are there indeed significant differences between the characteristics of insurer fraud and insurance fraud in terms of such variables as the characteristics of perpetrators, characteristics of fraud schemes employed, and types of detection and investigation techniques utilized? Second, do insurer frauds display different characteristics than similar frauds perpetrated by employees against

companies in other industries? Finally, are insurers better detectors of such frauds? These questions form the foundation for the current research.

LITERATURE REVIEW

Practically all of the literature regarding insurer fraud is in the insurance trade press. There are no significant data or formal studies on the subject and virtually nothing has been published in either academic or professional insurance journals in the past 14 years. All attention has focused on insurance fraud by consumers. In addition to the previously referenced study by Carris and Colin (1997) published in the *CPCU Journal*, a paper by Daniel Abbott in the same journal describes the techniques used by the insurance industry to combat insurance (consumer) fraud (Abbott, 1996). Frederic Kakis (1992) argues that risk managers should recognize that, with their ability to apply an arsenal of sophisticated tools such as DNA fingerprinting to computer analysis and simulation, forensic specialists can prove invaluable in the fight against insurance fraud.

All the above papers address insurance (external) fraud, however, with no reference to insurer (internal) fraud. Only in the trade press can one find stories detailing various types of insurer fraud and describing specific legal cases. For example, author Douglas McLeod reports on two similar cases of fraud by insurance company executives in *Business Insurance* (McLeod, 1993, 1995). A Ponzi scheme was created in one case by an insurer in the Turks & Caicos Islands; the second case involved a Bermuda-based insurer capitalized with phony assets.

A single book offers insights into this area by providing details of one author's study of insurance executives convicted of fraud. David Vaughn, former president of Anglo American Insurance Company, wrote a detailed account of his commission of insurer fraud. The subsequent investigation, leading to his arrest, prosecution, and conviction, is described as well (reported as Anonymous, 1994). The book also contains reports on some 140 insurance executives convicted of major fraud in recent years, an overview of the types of fraud committed, and a description of how investigators detected and prosecuted these crimes.

A federal task force investigated some 128 insurers and individuals in Louisiana regarding possible insurer fraud in 1991 (Pursnell, 1991). John Covalesski (1994) suggested that this fight against white-collar crime in Louisiana sensitized both insurers and investigators to the fact that insurer fraud is potentially one of the costliest issues facing the industry today. Sameera Kahn (1994) noted that the Insurance Fraud Prevention Act was passed, partly in response to these investigations. Furthermore, Marian

Freedman (1991) reported that the Racketeer Influenced and Corrupt Organizations Act (RICO) was designed not only to prosecute organized crime, but also to counter white-collar crime, such as insurer fraud.

Within the accounting literature, inappropriate management attitudes (particularly toward internal controls) have frequently been linked to fraud and its detection (Vinten, 1992; Irvine and Lindsay, 1994; Hooks et al., 1994). For instance, the report issued by the Committee of Sponsoring Organizations of the Treadway Commission (1992) states that management concerns for effective internal control must "permeate the organization." Controllers responding to a survey (Irvine and Lindsay, 1994) agreed that ethically oriented behavior in an organization is a broad-based management responsibility and that as part of a management team, controllers themselves had to model such behavior. On the basis of a comprehensive review of the literature, Hooks et al. (1994) suggested that codes of conduct have little impact if not enforced. Thompson (1993, p. 64) noted that when top management displays "willful ignorance, [it] sends a powerful message that it will tolerate [wrongdoing]." Cressey (1953) noted that frauds will occur in an organization when the perpetrator, who lacks the moral strength to resist temptation, is offered an opportunity to commit an offense. Entities that display lax attitudes toward controls offer such opportunities.

Barnard (1938) suggested that top management is responsible for encouraging cooperation in achieving a moral purpose through moral behavior (see also Graham, 1995). A strong corporate awareness of the danger of fraud should encourage support of tight internal accounting controls and create a greater sensitivity to the risk factors commonly associated with the commitment of fraud. Additionally, these dynamics should discourage unethical activity and encourage the reporting of such illicit activities when they do occur. In contrast, organizations that display less awareness to the danger of fraud will provide inadequate support for internal controls. Such an environment might allow, or even encourage, unethical activity by some and discourage the reporting of suspicious activities by others. In sum, positive or strong ethical attitudes modeled by management encourage employee conscientiousness, while lax attitudes cause reduced employee conscientiousness. The London Stock Exchange recognizes the importance of controls and requires directors to make statements in company annual reports assuring that their companies have effective internal controls established to prevent fraud (Howard, 1996).

One would expect insurers to be highly expert in regard to dealing with insurer fraud because of their concern for insurance fraud. Covaleski (1994, p. 36) noted that "most companies have rigorous internal audit systems. Insurers are known for so many internal checks and balances,

there won't be more." Controversy does exist, however. In the same article, Covaleski repeated a warning voiced by Louisiana's Insurance Commissioner Brown: "[I]nsurers often overlook the potential for internal wrongdoing.... [T]here is a tendency not to play up company fraud" (ibid.). Covaleski (1994, p. 39) also noted that David Vaughn reported in his book, *Prosecution, Sentencing, and Defense of Insurance Executives*, that a direct link exists between insurer insolvency and insurer fraud. Further, perpetrators face an increased risk of prosecution for insurer fraud (Covaleski, 1994). Increased efforts by the National Association of Insurance Commissioners, coupled with the natural emphasis of insurers on curtailing fraudulent claims activities, should make it easy to postulate significant differences between both the nature and detection of employee fraud schemes uncovered in the insurance arena and similar frauds perpetrated in other industries.

RESEARCH HYPOTHESES

The above discussion suggests that opportunities to engage in unethical behavior within an organization will differ as a result of industry characteristics (AICPA, 1988).

This conclusion led to the development of the three hypotheses tested in this study. Each hypothesis is stated in the null form.

H1₀ There are no significant differences in the characteristics of insurer fraud and insurance fraud in terms of demographics of the perpetrators, characteristics of the schemes employed, modes of detection, and investigation techniques utilized.

H2₀ There are no significant differences in the characteristics of employee fraud schemes committed against insurance companies, other financial organizations, and non-financial organizations.

H3₀ There are no significant differences between insurance companies, other financial companies, and non-financial organizations in the methods of fraud detection, the subsequent investigation, and treatment of the perpetrator after discovery.

METHODOLOGY AND LIMITATIONS

Survey

A four-page questionnaire was distributed via mail to the 8,000 active members of the Association of Certified Fraud Examiners (ACFE). The membership of the ACFE comes from varied occupations, consisting of external auditors, persons involved in law enforcement, and internal

accountants and auditors, employed in a wide range of industries and government entities. All ACFE members, however, have been trained in the prevention, detection, and control of white-collar crime. Each member was asked to describe one instance of fraud with which (s)he had knowledge.² Six dimensions were covered in-depth within the instrument: the victim of the fraud scheme, perpetrator demographics, characteristics of the scheme itself, methods of detection, subsequent investigation techniques, and outcomes of the fraud investigation.³

Sample Selection

A total of 2,475 usable instruments were returned, representing a 30.9% response rate. Of these cases, 264 (10.7%) involved insurance or insurer fraud. The insurance companies victimized in these cases ranged in size from very small (2 to 5 employees) to organizations with over 100,000 employees. A variety of perpetrators, as shown in Table 1, implemented the frauds. Elimination of perpetrators other than employees and customers reduced the number of usable cases to 182. Cases involving victim entities with less than 300 and more than 50,000 employees were also removed to mitigate potential size effects when comparing the employee cases of insurance firms with similar fraud cases instituted against other financial and non-financial organizations. After this second filter, 100 fraud cases involving insurance companies remained, of which 61 were employee frauds and 39 were customer frauds. These 100 cases were used to compare insurer fraud (61 cases) and insurance fraud (39 cases) characteristics.⁴

A similar size filter was employed to determine which financial and non-financial employee fraud cases would be utilized in the inter-industry comparison. This filter yielded 1,036 cases used to compare employee frauds in insurance companies (61 cases) to those perpetrated against other financial companies (124 cases) and against non-financial firms (812 cases).

Data Analysis

Ratio scale data obtained from the questionnaires tended to be highly skewed and were tested using nonparametric means. The Median (Brown-Mood) test was used to measure significant differences among the medians for dollar assets, dollar sales, number of employees, and dollar losses. The Kruskal-Wallis test was utilized to test whether significant differences existed in respondents' perceptions of the various schemes. Contingency tables were constructed to calculate chi-square statistics to test the significance among the other, nominal scale, data.

Table 1. Breakout of Fraud Cases
by Type of Perpetrator

Type of perpetrator	Number of cases
Employees of insurance firm	96
Customers	86
Agents	39
Others (e.g., vendors, other corporations, owners of small companies)	43

Limitations

As a result of the size-effect issue discussed earlier, the final case base contained only 100 instances of insurance industry fraud—61 cases of insurer fraud and 39 cases of insurance fraud. The reduction of cases from the total set most likely affected our ability to detect significant differences between insurer and insurance fraud. However, if small companies were left in the data set, the disparity in factors such as internal and external audit oversight between large and small firms could adversely affect findings and conclusions.

The 39 insurance (customer) cases contained in the research sample provided a good representation of the different types of insurance frauds. Ten cases involved various types of provider frauds including false claim schemes and inflated service schemes. Twelve cases constituted false medical and disability claims by individuals. Eight customer cases involved false property damage, theft, and/or arson claims. The remaining eight cases included real estate schemes, premium fraud schemes, staged accident rings, and one bizarre case involving an individual who helped terminally ill individuals obtain life insurance and then shared the payoffs with the beneficiaries. The losses reported in the cases ranged from a few thousand dollars for simple individual claim schemes to a provider scheme in which the total loss was estimated to be \$100 million.

As expected, the largest group of insurer (employee) frauds (26 cases) involved various types of claims fraud. In some instances, the perpetrators created fictitious claimants; in other cases, they manipulated or added to real claims. The second-largest grouping (13 cases) involved theft of incoming or outgoing checks from the companies. Creation of dummy service schemes accounted for 11 cases. The remaining 11 employee cases involved a variety of fraud activities including theft of dividends from policyholder accounts, manipulating bonuses, counterfeiting corporate checks, and selling or renting out corporate assets.

The results reported in this paper examine the characteristics of fraud along several dimensions. Because the database used in this research was compiled from descriptions of actual known cases of fraud, the study cannot draw conclusions regarding frauds that have not been discovered in the organization. Therefore, this study cannot address whether industry structure variables, as evidenced by greater awareness of the dangers of fraud and strong support of internal controls, can actually help prevent fraud. This study can, however, provide valuable insight regarding differences in the nature and characteristics of reported fraud. It offers a set of potential alarms to managers for insurance-industry fraud in the areas of difficulty of detection, complexity, mechanisms used to perpetrate and conceal an ongoing fraud, and inability of traditional methodologies to detect the fraud. Additionally, the comparison of insurance-company frauds to those in other financial organizations, as well as those in non-financial industries, offers some insight into certain areas where insurance companies may better handle fraud.

RESULTS

Hypothesis 1

H1₀: There are no significant differences in the characteristics of insurer fraud and insurance fraud in terms of the demographics of the perpetrators, characteristics of the schemes employed, modes of detection, and investigation techniques utilized.

While the literature suggests tremendous concern with both insurer fraud and insurance fraud, the similarities and differences in types of perpetrators, schemes involved, detection methods, and other characteristics are not explored. If there are important differences or similarities, however, knowledge of those differences or similarities could be extremely helpful to insurer-fraud prevention and detection units in accomplishing their missions. Regarding characteristics of schemes, we would expect employees to develop, through their daily activities, an understanding of company internal controls and to become familiar with any weaknesses inherent in their execution.

Internal controls are policies and procedures designed to protect assets from damage or theft and to prevent concealment of fraudulent activity through modification of the information system that tracks assets and transactions. Examples of good control mechanisms would include separation of duties so that one employee cannot both have custody of cash and authorize its removal from the company; protection of documents from

alteration or destruction so that the validity of transactions can be ascertained; and periodically taking an inventory of both assets and the documents that vouch for transactions to make sure neither has been removed during the period to conceal a fraud.

Employees, through their knowledge and ongoing relationship with the company, would tend to be in a position to use multiple schemes to perpetrate a fraud. In contrast, multiple schemes should be somewhat less prevalent where fraud-detection processes are in greatest use—e.g., insurance fraud. Finally, regarding methods of detection and investigation, we would expect claims examinations to be the major vehicle whereby insurance fraud is detected and investigated, because this form of fraudulent activity is considered the primary target for insurers. Consequently, employee fraud most likely will be detected and investigated by alternative methods. The findings regarding research question 1 are contained in Tables 2 through 5.

Table 2 contrasts the companies victimized by insurer (employee) and insurance (customer) frauds. Some significant differences exist between the two groups of victims. Insurers experiencing employee fraud tended to be larger in both sales and employees than those experiencing customer fraud. Although all victims employed internal auditors, insurers victimized by employees exhibited significantly more internal control weaknesses than did entities victimized by customers. Specifically, employees who engaged in fraudulent activities took advantage of an inadequate separation of the duties regarding (1) physical use of the organization's assets, (2) authorization of transactions and asset usage, and (3) maintaining company records for assets and transactions. Separation of these three functions prevents one person from combining activities that would facilitate the misuse or misappropriation of assets. Inadequate separation of duties allows one person to derive improper benefits from organization activities. A weak internal control system offers potential perpetrators greater opportunities not only to commit but also to conceal fraudulent activities.

The demographics contained in Table 3 suggest that the typical employee or customer who defrauded an insurer was a middle-aged (employees = 38.2 years; customers = 44.3 years), married (employees = 61%; customers = 63%), male (59% and 60%, respectively.) Only one significant demographic difference existed between the two groups of perpetrators. Employee perpetrators were less well educated than customer perpetrators. This finding may reflect population differences. On average, holders of private insurance may be better educated than the general work force.

Table 4 contains a brief description of the fraud schemes. Though not statistically different, employee frauds resulted in smaller losses (median

Table 2. Insurer Characteristics

	Employees	Customers
Number	61	39
\$ assets (median, in millions)	3,600	1,000
\$ sales (median, in millions)	1,450	500 **
# employees (median)	4,000	1,900 ***
Publicly traded (%)	46.9	44
Internal audit department (%)	100	100
External auditor (%)	92	59 ***
Internal control weaknesses (%)	89	57 ***
Ranking of internal control weaknesses (1 = most important, 7 = least important):		
Separation of duties	2.35	5.50 ***
Proper authorization	2.80	4.00
Competent personnel	4.09	3.08
Assets safeguarded	4.11	3.75
Proper documentation	2.73	2.62
Periodic checks	3.10	3.44
Lax attitude	3.00	3.27

** significant at < .05

*** significant at < .01

= \$72,000) than did customer frauds (median = \$127,000). Additionally, mean duration of the fraud schemes did not differ significantly between employee schemes (24.2 months) and customer schemes (22.4 months). Nevertheless, the analysis in Table 4 of the methods used by perpetrators indicates that insurer frauds are more complex and wide-ranging than insurance frauds.

Employee frauds involved more instances of multiple-scheme mechanisms than customer frauds. Five of the 11 types of fraud schemes described were used by employees significantly more often than by customers. Employees (1) exploited lax organizational attitudes, (2) overrode existing internal control safeguards, (3) took advantage of employers' lack of appropriate separation of duties, (4) instituted unsanctioned activities without being deterred by persons normally tasked with approving the transactions, and (5) exploited employers' failure to periodically verify the existence and proper use of assets more often than did customers. In contrast, customers colluded with other parties significantly more often than did employees—36% compared to 28% for employees. This finding

Table 3. Characteristics of Perpetrators

	Employees	Customers
Number	61	39
Demographics (% of details provided):		
Gender		
Male (%)	59	60
Female (%)	41	44
Marital status		
Married (%)	61	63
Unmarried (%)	39	37
Education level **		
High school (%)	51	36
College (%)	49	64
Perpetrator age (mean in years)	38.2	44.3

** significant at $< .05$

may indicate that without the aid of another dishonest person to vouch for the validity of their claims, customers were less successful in defrauding the company.

There were several significant differences in the areas of detection, investigation, and outcome. The data analysis for these findings is presented in Table 5. Regarding initial detection, the victim's internal audit team identified 82% of the customer frauds. This results supports the position that insurers invest significant effort in detecting customer fraud. This vigilance apparently does not extend to uncovering fraud committed by employees, however. The initial detection of employee fraud was primarily based on suspicions or complaints from both inside and outside the organization. It should be noted that not a single instance of fraud was detected by the insurers' own external auditors. This is not surprising from an accounting standpoint; the inability of external auditors to detect frauds has become a continuous concern within that community.

Significant differences were observed in the composition of the fraud investigation team. As expected, customer fraud against insurers was more likely to be investigated by special fraud units created for just this purpose, while many of the frauds committed by employees were investigated by the internal audit staff. Even though investigative techniques were some-

Table 4. Characteristics of Schemes

	Employees	Customers
Number	61	39
\$ amount of loss (median, in 000's)	72	127
Methods used in scheme (% of cases):		
Commit collusion	27.9	35.9 **
Exploit computer technology	12.9	12.8
Alter computer records	19.4	15.4
Exploit lax organizational attitudes	50.8	28.2 **
Override existing controls	42.6	17.9 ***
Exploit lack of separation of duties	42.6	15.4 ***
Authorize unsanctioned activity	49.2	20.5 ***
Exploit untrained personnel	37.7	30.8
Exploit lack of asset safeguards	31.2	20.5
Manipulate documentation	49.2	41.0
Exploit failure to conduct periodic checks	50.8	23.1 **
Duration of scheme (mean in months)	24.2	22.4

** significant at < .05

*** significant at < .01

what similar, resolution of employee fraud cases was swifter (<5 months) than customer fraud cases (>11 months). The fact that about one-third of all cases were resolved without prosecution was surprising. Punishment can only have a deterrent effect if it is perceived by the perpetrator to be costly.

Hypothesis 2

H2₀: There are no significant differences in the characteristics of employee fraud schemes committed against insurance companies, other financial organizations, and non-financial organizations.

This second null hypothesis addresses whether internal fraud cases of insurers are similar to cases reported in other industries, with special emphasis on fraud at other financial institutions. Differences are expected between the insurance industry and other industries because of the postulated higher level of fraud awareness and support for strong control systems in insurance organizations. Where management displays lax attitudes toward internal controls, it is postulated that employee allegiance

Table 5. Detection and Confirmation of Fraud Schemes

	Employees	Customers
Number	61	39
Initial detection by (%):		
Internal audit	32.8	82.0 ***
External audit	0	0
Suspicious/complaints		
Inside organization	27.9	2.6 ***
Outside organization	36.1	10.3 ***
Number of red flags raised (mean)	2.6	2.0 **
Percentage of cases:		
Lifestyle changes	13.1	7.7
Financial anomalies	9.8	12.8
Investigated by:		
Internal auditors	67.2	23.1 ***
External auditors	3.3	2.6
Security	16.4	5.1
Law enforcement	3.3	2.6
Other outsiders	21.3	28.2
Other insiders	9.8	25.6 ***
Resolution (mean, in months)	4.7	11.2 **
Outcome for perpetrator		
Terminated	86.9	30.7 ***
Settled	6.6	18.0 **
Criminal prosecution	65.6	69.2

**significant at < .05

***significant at < .01

will be reduced, resulting in fraud schemes enacted by multiple perpetrators that are both more pervasive and varied in type. In contrast, frauds committed in environments that display active management support of internal controls are expected to involve a single perpetrator enacting a simple scheme.

The findings regarding hypothesis 2 are addressed in Tables 6–9. Table 6 reflects characteristics of the victim companies. As would be expected, insurers are significantly larger than the other victim companies in terms of both total assets and sales. These financial size differences were not

Table 6. Characteristics of Victims

	Insurance co.	Financial co.	Other co.
Number	61	124	812
\$ assets (median, in millions)	3,600	1,372	800 ***
\$ sales (median, in millions)	1,450	289 **	500 ***
# employees (median)	4,000	5,000	3912
Publicly traded (%)	46.9	90.8 ***	69.9 ***
Internal audit department (%)	100	100	88.7 ***
External auditor (%)	92	91	81.5 ***
Internal control weaknesses (%)	89	85	88
Ranking of internal control weaknesses (1 = most important, 7 = least important):			
Separation of duties	2.35	2.59	2.57
Proper authorization	2.80	3.22	3.09
Competent personnel	4.09	5.37 **	4.64
Assets safeguarded	4.11	4.67	4.24
Proper documentation	2.73	3.62	3.18 ***
Periodic checks	3.10	3.87	4.02 **
Lax attitude	3.00	3.52	2.91

**significant at < .05

*** significant at < .01

considered critical for this study because the companies were statistically equivalent in the number of employees. A smaller percentage of insurers were publicly traded, but most (92%) were audited by external parties, and all maintained internal audit departments. These results lend credence to the view that insurers and other financial institutions display strong support for internal control systems. The sheer volume of cash transactions that occur in these arenas may explain this emphasis.

On average, respondents from all three groups agreed that an improper separation of duties was the most important contributor and incompetent personnel and inadequate safeguarding of assets were the least important contributors to fraudulent activities by employees. One significant difference was observed among the three groups regarding specific internal controls. Proper documentation was viewed as a significantly more important internal control within the insurance industry than elsewhere. This finding suggests that workers may be using tactics similar

Table 7. Characteristics of Perpetrators

	Insurance Co.	Financial Co.	Other Co.
Number	61	124	812
Demographics (% of details provided):			
Gender			
Male (%)	59.3	58.2	75.3 ***
Female (%)	40.7	41.8	24.7 ***
Marital status			
Married (%)	61.4	72.4	75.7 **
Unmarried (%)	38.6	27.6	24.2 **
Education level			
High school (%)	51.2	52.0	44.4
College (%)	48.8	48.0	55.6
Perpetrator age (mean, in years)	38.2	36.7	41.1 ***
Perpetrator role (% of cases):			
Employee			
Management	22.9	29.0	40.4 ***
Nonmanagement	77.1	73.4	62.7 ***

** significant at < .05

*** significant at < .01

to those employed by customers—fraudulent claims. However, employees may have devised ways to bypass the claims-review system.

Table 7 illustrates that perpetrators of employee fraud in insurance companies and other financial institutions were quite similar. However, fraud perpetrators in other industries differed significantly in every category except level of education. In the insurance and financial industries, greater numbers of younger, single, female, nonmanagement employees committed fraudulent activities than was observed in other industries. Crimes of a financial nature are typically committed in areas where the perpetrator possesses knowledge garnered from his or her unique work environment. Given the demographic differences noted above, one would anticipate that frauds perpetrated outside the insurance and financial industries might result in larger losses because of the greater involvement of management personnel.

The data in Table 8 support the proposition that stronger internal control procedures limited the pervasiveness of the frauds and differentiated the insurance industry from the other sectors studied. Insurer fraud schemes tended to be simpler, involving fewer accounts than frauds committed in other industries, and to be of a shorter duration before discovery. Insurance frauds lasted an average of 24 months, as compared to financial frauds (30 months) and other industry frauds (27 months). Congruent with the length of the scheme, the median amount of loss reported by insurers (\$72,000) was less than that experienced by financial companies (\$182,000) or other industries (\$100,000).

Differences in the methods used to perpetrate the frauds (Table 8) also support the proposition that better internal controls may have limited the pervasiveness of frauds in the insurance sector. Four specific internal control weaknesses (lax organizational attitudes, inadequate separation of duties, insufficient asset safeguards, and failure to perform periodic checks) were used less often against the insurance group than against the other two categories. This indicates that schemes in the insurance cases involved fewer mechanisms, presumably because better enforcement of controls prevents multiple methodologies from being available to the perpetrator.

Numerous industry differences could be noted in the accounts used in committing the frauds. Insurance employees targeted cash and made little effort to conceal the illicit activities through manipulation of other accounts. Receivables, investments, and other unspecified assets were commonly used (along with cash) to perpetrate financial company frauds. In contrast, employees defrauding other industries used a wide array of accounts to hide their activities, including cash (46%), receivables (16%), inventories (23%), payables (19%), purchases of supplies (27%) and services (22%), and travel/entertainment (16%).

Hypothesis 3

H3_o: There are no significant differences between insurance companies, other financial companies, and non-financial organizations in the methods of fraud detection, subsequent investigation, and treatment of the perpetrator after discovery.

It is postulated that insurance company managers and employees should have a higher awareness of fraud, and therefore a higher percentage of complaints (tips) of possible fraudulent activity would come from internal rather than external sources. In contrast, in industries with less awareness of the dangers of fraud, a higher percentage of complaints should come from external rather than internal sources. Additionally, a

Table 8. Characteristics of Schemes—
Employee Fraud

	Insurance Co.	Financial Co.	Other Co.
Number	61	124	812
\$ amount of loss (median, 000's)	72	182 ***	100
Loss reflected in (% of cases):			
Assets			
Cash	50.8	43.6	45.8
Accounts receivable	6.6	20.2 ***	15.9
Inventory	3.3	7.3	23.4 ***
Fixed assets	3.3	1.6	7.0
Investments	3.3	10.5	1.2 **
Other assets	13.1	30.7 ***	6.2 **
Liabilities			
Accounts payable	8.2	8.9	19.1
Other liabilities	16.4	17.7	2.6 ***
Revenues			
Sales revenues	6.6	8.1	15.3
Services revenues	3.3	4.8	4.4
Other revenues	6.6	13.7	9.4
Expenses			
Purchases of supplies	3.3	7.3	26.9 ***
Purchases of services	13.1	8.9	22.0
Wages	4.9	1.6	10.6
Travel and entertainment	3.3	4.0	15.9 ***
Other expenses	19.7	5.6 ***	9.2 **
# Accounts involved (mean)	1.7	2.0	2.4 ***
Methods used in scheme (% of cases):			
Commit collusion	27.9	20.2	31.2
Exploit computer technology	9.8	17.7	13.1
Exploit lax organizational attitudes	50.8	55.7	62.5 ***
Override existing controls	42.6	52.4	50.0
Exploit lack of separation of duties	42.6	55.7	62.5 ***
Authorize unsanctioned activity	49.2	51.6	59.7
Exploit untrained personnel	37.7	41.1	50.4
Exploit lack of asset safeguards	31.2	43.6	50.5 ***
Manipulate documentation	49.2	48.4	55.4
Exploit failure to conduct periodic checks	50.8	57.3	68.1 **
Duration of scheme (mean in months)	24.2	30.3	26.9

**significant at < .05

*** significant at < .01

higher number of warning signals, such as noticeable lifestyle changes or financial anomalies associated with the perpetrator(s), are expected to be observed in non-insurance organizations. Individuals defrauding insurance companies will likely recognize the need to conceal signs of their activities from fellow employees, who have been sensitized to various signals suggesting fraud. Finally, because of the special emphasis placed by the insurance industry on fraud deterrence, it is expected that insurance management would be more likely to seek prosecution of the perpetrators. In other industries, a higher percentage of cases would be expected to be resolved by terminating relationships or transferring the perpetrators to different work assignments.

Table 9 provides data relevant to hypothesis 3. The discussion concerning hypothesis 1 noted that audit processes in place within the victim entities detected more insurance frauds than insurer frauds. Interestingly, however, the insurers' internal audit function was still better than that of financial companies and significantly better than that of other industries at detecting employee fraud. This finding adds further support to the proposition that the insurance industry has better enforcement of internal controls than other industries.

"Whistle-blowing" by company employees was significantly greater in other industries (54%) than it was in the insurance arena (28%). This result was contrary to our expectations that insurance company employees would be more diligent in reporting suspicions when they observed signals of fraud, such as sudden unexplained wealth or changes in the work behavior of their fellow employees. Whistle-blowing may be a complex issue. This finding may reflect the frustrations of honest employees when they are confronted with flagrant violations of the internal controls systems without management intervention. Conversely, this difference also may have been influenced by the fact that insurer internal auditors were, in one-third of the cases, flagging the crimes before employee frustrations or suspicions occurred. Possibly, the employees of insurers may have a higher degree of faith in their corporate internal control systems and may discount any red flags they observe. Significantly more insurer frauds (36%) than non-financial company frauds (17.2%) were uncovered when external parties raised suspicions. This may reflect the control mechanisms insurers have in place to receive outside complaints.

Interesting differences in the formal fraud investigations that ensued also were noted. Financial and other industries tended to rely more on their own security organizations to investigate employee fraud than did insurers. When investigating the suspected frauds, insurers tended to rely on confirmation of transactions and amounts from outsiders and examination of the bank records of the perpetrators. Financial and other industries, on

Table 9. Detection and Confirmation of Fraud Schemes
Employee Frauds

	Insurance co.	Financial co.	Other co.
Number	61	124	812
Initial detection by (%):			
Internal audit	32.8	21.8	18.6 **
External audit	0.0	2.4	4.4
Suspicious/Complaints			
Inside organization	27.9	40.3	54.2 **
Outside organization	36.1	29.8	17.2 **
Number of red flags raised (mean)	2.6	3.0	2.7
Percentage of cases:			
Lifestyle changes	13.1	20.2	17.7
Financial anomalies	9.8	30.1 ***	20.6
Investigated by:			
Internal auditors	67.2	72.6	65.6
External auditors	3.3	7.3	13.3 **
Security	16.4	44.4 ***	31.0 ***
Law enforcement	3.3	9.7	8.2
Other outsiders	21.3	15.3	15.3
Other insiders	9.8	1.6 ***	3.3 **
Investigative methods:			
Analytical procedures	55.7	60.5	58.7
Vouch transactions	29.5	47.6 ***	49.3 ***
Send confirmations	44.3	33.9	23.5 ***
Examine bank statements	42.6	41.9	27.0 **
Examine broker statements	3.3	6.5	3.6
Examine invoices	8.2	4.8	15.6
Conduct interviews with:			
Perpetrator	88.5	83.1	75.6
Co-workers	63.9	75.8 **	74.5 **
Business associates	26.2	30.7	31.3
Resolution (mean, in months)	4.7	7.0	6.1
Outcome for perpetrator			
Terminated	86.9	86.3	78.3
Settled	6.6	10.5	12.7
Criminal prosecution	65.6	72.6	48.3 ***

**significant at < .05

***significant at < .01

the other hand, focused more on examining internal documentation (vouching) to validate transactions and were more likely to involve the employee's co-workers in the investigation. These steps may reflect the wider-ranging fraud schemes in financial and other industries, in terms of both losses incurred and methods involved.

The findings regarding the outcome for the perpetrator were generally as expected. Both insurance (66%) and financial (73%) companies sought criminal prosecution of their employees significantly more often than did companies in other industries (48%). Perhaps, in some instances, corporate management elected to avoid the negative publicity associated with criminal prosecution. In other cases, the evidence may not have been sufficient to legally justify termination or prosecution.

CONCLUSIONS

The findings support some, but not all, of the proposed assumptions about fraud occurring in the insurance industry. The internal audit function of the company was the primary method utilized for detecting insurance fraud. In contrast, only one-third of the insurer frauds were detected by the internal audit function. The fact that insurer fraud was more complex and involved more violations of internal control mechanisms than insurance fraud may explain some of these differences.

According to Friedman (1993), insurer fraud could emulate the famous financial institutions scandal of the late 1980s because "there is an even greater possibility of fraud with insurers than with S&Ls." Friedman expressed concern about customers (risk managers) being defrauded by dishonest insurance executives through fraudulent accounting statements. This study suggests that fraud involving actual fund defalcations by employees against insurers may represent an equal problem.

There was substantial evidence in the data analysis that the insurance industry is more diligent than other industries in supporting internal control systems to limit the effects of fraud. The schemes used by insurer fraud perpetrators were simpler, affecting fewer accounts and involving fewer violations of internal control mechanisms, than those of other industries. Though the internal audit function uncovered fewer frauds among employees than among customers, the insurer detection rate was significantly better than the internal audit performance reported in other industries. Insurers were also more likely to prosecute their employees for fraud than were other industries.

Other findings were not as positive. The fact that only one-third of all insurer fraud was first detected by internal audit suggests that control

systems are not very effective in identifying employee fraud. The ineffectiveness of the controls systems is of special concern because these frauds endured for an average of two years, which undoubtedly contributed to the size of the loss. Detection of employee fraud relied heavily on outside tips. Internal whistle-blowing was not as prevalent in the insurance industry as it was in other organizations, but this may reflect the greater effectiveness of insurance organizations' internal audit function.

NOTES

¹A ten-year search of five of the major academic and professional risk and insurance journals yielded not one article relating to internal frauds perpetrated by employees against insurers.

²To test for response bias, comparisons were made between the first 200 and the last 200 responses. We also compared the 100 earliest frauds committed (based on the date the fraud commenced) to the 100 latest frauds. No significant differences existed in either comparison. Additionally, non-response bias is somewhat mitigated by the large response rate obtained from this population.

³The respondents were trained by the ACFE in the legal definition of fraud. The survey instrument did not restrict the type of fraud reported. All insurance-industry frauds described resulted in monetary gain of some nature to the perpetrator. No cases entailed financial statement fraud. Additionally, the surveys requested a narrative description of the fraud. When such descriptions were provided, the narratives were compared against the survey data to ensure that the fraud schemes were categorized correctly.

⁴Fourteen insurance frauds and 17 insurer frauds involved some form of collusion. In cases in which a customer (insurance fraud) colluded with an employee (insurer fraud), the case was categorized as an insurer fraud. The reasoning was that without the cooperation of the employee, the fraud could not have occurred. No cases were double-counted.

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