

Is occupational fraud “typical” white-collar crime? A comparison of individual and organizational characteristics

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Abstract

Controversy over the appropriate unit of analysis plagued the white-collar crime literature. This state of affairs was a product, at least in part, of the continued development of two distinct research traditions. Researchers interested in “occupational crime” focused on individuals, whereas “corporate crime” researchers studied organizations. As a result, assumptions persisted about the “typical” offender and organizational setting for white-collar crime. Using a sample of 1,142 occupational fraud cases, the present study addressed voids in the literature by comparing differences in individual offender characteristics (i.e., age, gender, education, and position in the organization) and organizational victim characteristics (i.e., size, type, existing control mechanisms, and revenue) for three types of occupational fraud: asset misappropriation, corruption, and fraudulent statements. The analysis revealed that individuals who committed fraudulent statements conformed to the literature’s “high status” image, while those involved in asset misappropriation or corruption more closely resembled D. Weisburd, S. Wheeler, E. Waring, and N. Bode’s (1991) “middle-class” offenders. Moreover, organizations victimized by corruption were similar to the literature’s depiction of the large, profit-making company setting for white-collar crime, while the other two types of occupational fraud occurred in distinctly different settings. Implications for future research and fraud prevention are provided.

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Introduction

For over a half-century, offenses in the workplace were of interest to criminologists. The contributions of Sutherland (1949) broke new theoretical ground, but also created conceptual ambiguity over the appropriate unit of analysis for white-collar crime research: the individual or the organization? Although Sutherland’s (1949, p. 2) own, well-known definition emphasized the characteristics of individuals (e.g., high status, respectability) as key components in white-collar crime, his study actually focused on sanctions levied against the seventy largest

U.S. corporations. Research conducted after Sutherland’s seminal work developed under two distinct traditions: corporate crime, committed with the support of the organization, and occupational crime, committed on behalf of the individual offender (Clinard & Quinney, 1967). Although the distinction between these two forms of white-collar crime was widely accepted, scholars such as Friedrichs (2002, 2004) charged that subsequent attempts to divide these concepts into various sub-types (e.g., see Green’s (1990) categories of occupational crime) impeded theoretical development and white-collar crime policy initiatives.

Previous critiques of the corporate crime literature centered around the notion that the majority of research suffered from a business firm bias due to an emphasis on large, profit-making organizations as settings for white-

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collar crime (Tonry & Reiss, 1993; Vaughan, 1992). In this tradition, most corporate crime studies were based on data from a single organization, and portrayed the organization as an offender, rather than a victim. Similarly, the occupational crime literature often concentrated on individuals who were situated in high status occupations (e.g., CEOs) as criminals. Many occupational crime studies relied on official records of individuals convicted in federal courts, resulting in inferences that might be unrepresentative of the larger population of white-collar offenders (Daly, 1989; Weisburd, Waring, & Chayet, 1990, 1995). An additional shortcoming common in both corporate and occupational crime studies was the use of observations restricted to a single time period or judicial district. As a result of these limitations, little was known about how white-collar crime varied across organizational settings, or how differences in individual characteristics contributed to distinct types of victimization against organizations.

A potential solution is to bridge the micro-macro connection in white-collar crime research by studying both individuals and organizations, a challenging task given the difficulties associated with obtaining access to data from multiple organizations (Coleman, 1987, 1992; Piquero & Piquero, 2001; Vaughan, 1992, 2001). Building upon past research, the present study used data from victim organizations varying in size (i.e., from less than 100 employees to more than 10,000 employees) and type (i.e., government agencies, nonprofit agencies, private businesses, and public corporations) from two time periods. Offender characteristics included age, gender, education, and employee position. To identify whether key organizational and individual factors in this sample supported prior conceptualizations of white-collar crime, this study sought to determine whether individual offender and organizational victim characteristics differed for three distinct types of fraud victimization: asset misappropriation, corruption, and fraudulent statements.

The case for fraud research in organizations

Recent statistics indicated that “white-collar” offenses resulted in annual losses to victims in excess of \$250 billion, compared to estimates of \$17.6 billion for losses accrued due to personal and household crimes (Rosoff, Pontell, & Tillman, 2002, p. 26). While these differences had long persisted, the focus of criminal justice authorities and many criminologists was on explaining, preventing, and responding to personal and household crimes. Critics noted that public perception and fear of violent crime in the streets had disproportionately fueled the attention of researchers and criminal justice agencies (Cullen, Link, & Polazi, 1982; Vaughan, 1980). Nonetheless, ongoing scandals in corporations, such as Enron and WorldCom, raised public awareness of the economic, societal, and personal

harm resulting from “crime in the suites” (O’Donnell & Willing, 2003).

There is general agreement that many cases of white-collar crime occurred in organizations either by individuals for personal gain, or by individuals on behalf of organizations (Friedrichs, 2002). Apart from the research on fraud in the savings and loan industry (see Calavita & Pontell, 1990a, 1990b; Calavita, Pontell, & Tillman, 1997; Tillman & Pontell, 1985), little is known about how fraud varies in distinct organizational settings. The characteristics of individuals who perpetrated the frauds in the savings and loan scandals tended to conform to prior conceptualizations of white-collar offenders: they were high-level bank executives. No research examined how the frauds committed by lower-level employees might differ from the frauds of executives. To extend understanding of occupational fraud, a form of white-collar crime consistent with Friedrichs’ (2002) conceptualization of occupational crime, the present research considered both individual perpetrators and organizational victims. Occupational fraud is defined as “the use of one’s occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization’s resources or assets” (Association of Certified Fraud Examiners, 2002, p. 2). Occupational fraud contains three mutually exclusive categories: asset misappropriation, corruption, and fraudulent statements. Each separate category of occupational fraud is unique, but has four elements in common: it is clandestine, violates the perpetrator’s fiduciary duties to the organization, is committed for the purpose of direct or indirect financial benefit to the perpetrator, and costs the employing organization assets, revenues, or reserves. In conceptualizing occupational fraud as a violation of trust, this definition permitted a comparison of individual and organizational characteristics for each offense type (Shapiro, 1990). The review of research that follows demonstrates the importance of a micro-macro framework for comparing types of occupational fraud.

Review of the literature

Individual characteristics

The white-collar crime literature contained assumptions about the image of the “typical” offender, which conformed to Sutherland’s (1949) original description. This perpetrator was often portrayed as a highly educated male in the upper ranks of his organization, who commits a one-time criminal act. The work of Weisburd et al., (1991) demonstrated that white-collar offenders might be better characterized as “middle-class.” As no prior research empirically examined differences in offender characteristics for occupational fraud, this study determined whether the “high status” image of the white-collar offender was reflected in the individual characteristics of

employees who committed asset misappropriation, corruption, and fraudulent statements.

Age

The age-crime distribution is positively skewed, with rates of offending that peak between the “crime prone” ages of eighteen to twenty-five, and then decline over time—an aging out effect (Hirschi & Gottfredson, 1983). While the age distribution appears to hold for aggregated crime rates, it varies when white-collar and street offenses are compared separately, suggesting that differences in age may also be revealed when distinct types of fraud are compared (Benson & Moore, 1992). The age distribution for white-collar crime differs from more traditional crimes, mainly because many conceptual definitions specify that legitimate employment is a condition for the crime to occur. Legitimate employment opportunities are often restricted by age requirements, so white-collar offenders are likely to be, on average, older than common offenders. Based on their sample of convicted offenders, Wheeler, Weisburd, Waring, and Bode (1988) found that the “typical white-collar offender” was a White male, aged forty on average. Alternatively, the image of the common, street offender was a Black male, aged thirty. The literature suggested that the average age of offenders who commit all three forms of occupational fraud would be similar to previous findings based on white-collar offenders.

Gender

Many studies of gender and crime relied on official statistics (e.g., Uniform Crime Reports) for a comparison of male and female involvement in various offenses. For offenses commonly labeled white-collar or economic crime (i.e., embezzlement, forgery, and fraud), arrests of males outnumbered those of females. A closer examination of arrest trends suggested that for some economic offenses, the gender gap narrowed in recent decades (Heimer, 2000; Steffensmeier, 1993). The increases in female arrests might be related to policy changes resulting in greater likelihood of enforcement, and did not necessarily reflect a corresponding increase in women’s actual white-collar offending.

Much of the white-collar crime research failed to consider gender differences. This discrepancy was due, at least in part, to sample and data restriction issues. For instance, Cressey’s (1953) interviews of convicted embezzlers took place within a male prison, making it impossible to include both genders.¹ Other early studies used sanctions against entire organizations as the primary unit of analysis, so the gender of individual employees was excluded from consideration as an explanatory or comparative factor (Sutherland, 1949). One exception was Daly’s (1989) reanalysis of Wheeler, Weisburd, and Bode’s (1982) data from pre-sentence investigation (PSI) reports for male and female offenders convicted of eight federal, “white-

collar” offenses. Daly’s (1989) analysis showed that the sample as a whole did not fit the stereotypical conceptualization of a high status white-collar offender. Daly (1989) found that women were more likely to have lower status occupations (e.g., clerical), while men were more likely to be employed as managers or administrators. Compared to their male counterparts, the women in the sample also had lower levels of education and income. Daly’s results implied that gender contributed to opportunities for certain types of occupational fraud, but not others.

Education

Many previous studies examined how the educational levels of offenders related to distinct types of crime. The research showed that the lower an individual’s level of education, the more likely one was to participate in criminal activity (Loeber & Dishion, 1983; Thornberry, Lizotte, Krohn, & Jang, 1991). Initial employment opportunities might be limited by minimum educational requirements, and “low status” jobs might require limited education. Within an organization, an occupation such as auditor traditionally included specialized training and education before obtaining a position, while a clerical worker’s skills could largely be learned on the job (Albrecht, 2003).

The typical white-collar offender was assumed to be highly educated, and prior research contrasting white-collar and common offenders supported the assertion that white-collar offenders had higher levels of education (Benson & Moore, 1992). For example, comparing white-collar offenders to common offenders and the general public, Wheeler et al. (1988) found that white-collar offenders had the highest levels of educational attainment. If all three categories of occupational fraud considered in the present study were similar to previously studied forms of white-collar crime, there should be no significant educational differences between those offenders who commit asset misappropriation, corruption, and fraudulent statements.

Position

Prior studies of white-collar crime using definitions consistent with the present study’s conceptualization of occupational fraud (e.g., embezzlement) showed that the offender’s position in the victim organization played a part in the type of fraud committed. Cressey’s (1953) study of convicted embezzlers indicated that specific knowledge, often obtained within the context of one’s fiduciary duties to the organization, was a necessary condition for offenses to take place. All of the embezzlers interviewed by Cressey occupied positions of trust by their victim employers, and the level of trust an employer had in an individual was likely determined by one’s position in the organization. Within organizations, one’s position in the hierarchy likely limits the types of occupational fraud that might be committed. For

example, those in managerial or executive positions might have access to greater opportunities, and might be viewed as “trusted,” while those lower on the organizational totem pole might only have the opportunity to commit less serious forms of fraud (Friedrichs, 2004). In sum, an individual’s position in an organization can influence his or her opportunities, resulting in distinct types of offenses committed by employees at different organizational levels (Piquero & Piquero, 2001; Vaughan, 1983, 2001).

Organizational characteristics

Since very few studies examined the relationship of organizational level characteristics and specific types of fraud committed by individuals, most of the research focused on corporate crime. Much of this literature contained assumptions about organizations: namely, that large, profit-making companies were associated with white-collar crime (Tonry & Reiss, 1993). Using a number of characteristics, the present study considered the extent to which the popularly perceived image of the organization as a setting for white-collar crime was supported in this sample.

Type of organization

Most prior studies were limited to a single organization, or single types of organizations, resulting in little knowledge about how variation in the organizational setting might contribute to the varieties of fraud committed (Vaughan, 1992, 2001). Broader research on public perception of crime provided some guidance as to how fraud against different types of organizations might be perceived. An early survey conducted by Smigel (1956) asked citizen participants to rate hypothetical situations in which victim organizations differed in type and size. Results showed that there was a positive relationship between the size and level of bureaucracy of the organization and the willingness to approve of stealing from that organization. Smigel and Ross (1970) hypothesized that the reasons employees, suppliers, customers, and clients steal from organizations can be found in public attitudes toward bureaucracies. They argued that the public fails to stigmatize crimes against bureaucracies, which results not just in increased crime against organizations, but also in limited public sympathy toward organizational victims (Smigel & Ross, 1970, p. 5). The literature suggested that crime in general might be more likely in certain types of organizations (e.g., bureaucracies), but failed to identify whether certain types of crime were more common in specific organizational settings that were not profit-oriented, such as charities or religious institutions (Fleckenstein & Bowes, 2000). Considering organizations that differed in function and purpose made it possible to determine whether types of fraud varied across unique settings.

Size of organization

Sutherland’s (1949) research on large corporations first called attention to organizational size as an important explanatory factor in white-collar crime research. The finding that larger organizations were associated with greater amounts of crime was consistently supported (Baucus, 1989; Dalton & Kesner, 1988; Gricar, 1983; Kesner, Victor, & Lamont, 1988; Staw & Swajkoski, 1975). Clinard and Yeager (1980) found that diversification in large companies was a determinant of offending. Hill, Kelley, Agle, Hitt, and Hoskisson (1992) found that factors such as decentralization, span of control, and incentive systems, which varied with organizational size, predicted crime, suggesting that the relationship between size and crime was not strictly linear.

Revenue

Prior studies considered financial performance, or revenue, as a determining influence on corporate crime (Kagan & Scholz, 1984). The lack of empirical research in this area, however, made hypotheses about the relationship between organizational revenue and the types of occupational fraud somewhat speculative. Recent media accounts showed that firms in financial trouble were associated with the crimes of their individual employees (Krantz, 2003). It is possible, however, that the crimes of employees are simply discovered in times of financial strain. If an organization is experiencing poor financial performance, auditors and accountants may complete extensive evaluations to determine whether changes in practices (e.g., “cutting corners”) may improve the company’s situation. It is under these circumstances that ongoing fraud may be discovered. Alternatively, when organizations are performing well, there may be no need to evaluate current practices, so existing frauds may remain undetected (Pearce, 2001).

Internal controls

Unlike street or common crime, which is traditionally handled by the police, organizations that are victimized by their employees may rely on alternative mechanisms of control and enforcement (Simpson, 2002; Stone, 1975; Trevino & Victor, 1992; Walsh & Seward, 1990). Before fraud cases are referred to outside authorities, organizations can use various internal processes to deal with offending employees. Such processes may be in place as a means of screening potential workers at the pre-employment stage, or in preventing and detecting different types of fraud by current employees. Examples of internal controls include background checks, anonymous reporting systems, and audits.

Existing studies considered internal controls within the context of general deterrence theory, as well as rational choice to suggest that employees who contemplate committing fraud will first weigh perceived costs and

benefits (Clark & Hollinger, 1980; Hollinger & Clark, 1983). Internal controls that are highly visible can serve as general deterrents. If it is known that an organization regularly conducts reliable, internal audits of all departments, and fires those employees who are caught committing fraud, deterrence theory would suggest that the potential offender will decide that the risks of fraud (i.e., detection by the audit and subsequently fired) outweigh the perceived benefits (e.g., financial gain for the offender). All of the cases included in the present study involved detected frauds, suggesting a failure of internal controls in preventing crime. It was important, however, to determine whether certain internal controls were associated with all types of fraud, or were only related to specific offenses.

Research objectives

The goal of this research was twofold: (1) to examine differences in individual offender characteristics; and (2) organizational victim characteristics for cases of asset misappropriation, corruption, and fraudulent statements. These exploratory comparisons revealed the extent to which previous portrayals of offenders and organizations were reflected in a sample of occupational fraud cases. Comparing real-world observations to existing white-collar crime conceptualizations determined whether the theoretical concepts required further refinement.

Data and methods

Sample

This study used data originally collected by the Association of Certified Fraud Examiners (ACFE). The ACFE is a professional organization focused on the prevention of white-collar crime, specifically fraud, through education, training, and research. The ACFE incorporates information from four distinct areas: criminology and ethics, financial transactions, fraud investigation, and legal elements of fraud to assist a population of more than 30,000 members worldwide. The ACFE administers an exam that members must pass to earn the Certified Fraud Examiner (CFE) designation. The ACFE also regularly conducts surveys of its membership.

The sample consisted of 1,142 CFEs who responded to surveys at two time periods: 1997–98 and 2001–02. Both of these surveys were an extension of ACFE's original, exploratory study on occupational fraud and abuse, which was conducted in 1995–96 and designed to establish baseline measures of the frequency and types of fraud investigated in different kinds of organizations. The

initial study was used to develop an extensive classification system for identifying different types of occupational fraud. Although all respondents were CFEs, they were employed in three main industries: government, business, and public accounting.²

Procedures

Data collection for the first survey began in late 1997 and ended in 1998. The ACFE distributed a six-page questionnaire by mail to 1,000 randomly selected CFEs. Although ACFE had members in over one hundred countries, the sample was limited to the U.S. to control for the types of legal responses to fraud (e.g., civil, criminal). A total of 587 CFEs responded to the survey. Of this number, 479 provided detailed information on actual fraud cases.³ Although participation in the study was completely voluntary, CFEs were offered two hours of Continuing Professional Education (CPE) credit for their participation.⁴ Each respondent was asked to thoroughly report on the most recent single, completed fraud investigation. This restriction was made to avoid the possibility that CFEs would reply based on their most interesting, well-known or “celebrated” case, which would likely result in highly skewed distributions of the variables of interest. Data collection for the second survey began in April 2001 and ran through February 2002. Survey procedures were nearly identical to those used in data collection for the first survey. To ensure that the same CFEs were not represented in the second survey, the 1997–98 respondents were excluded from the sampling frame. A total of 971 CFEs provided usable survey responses, and, of these, 663 cases involved occupational fraud.⁵

The cases chosen by CFEs had to meet the following qualifications: (1) the CFE's investigation was finished; (2) the perpetrator was identified; and (3) all legal proceedings resulting from the case, if any, had concluded.⁶ Participants were asked to first provide a narrative explanation of how the fraud was committed. This information was used by ACFE to classify cases based on their original occupational fraud classification system. Participants were then asked for detailed information about the organizational victims and individual perpetrators in the case, and resulting legal proceedings. To limit potential biases associated with CFE self-reports, collateral sources (e.g., organizational records and official criminal justice agency data) were consulted by ACFE as needed to verify respondents' reported data.

Description of variables

Type of fraud

The type of occupational fraud was a nominal variable with three mutually exclusive outcomes.⁷ *Asset misappropriation*, the first category, involved theft or misuse of an organization's assets (coded = 1). *Corruption*, the second ca-

tegrity, involved employees wrongfully using their influence in business transactions to obtain benefits for themselves that were contrary to duties to their employer (coded = 2). The third category, *fraudulent statements*, involved falsification of an organization's records or documents (coded = 3).⁸

Individual characteristics

Age was the perpetrator's age at the time of the offense, and was measured in years. *Gender* was dummy coded (1 = male; 0 = female). *Education* was an ordinal variable reflecting the perpetrator's highest formal degree: 0 = high school diploma; 1 = bachelor's degree; 2 = graduate degree. *Position* in the organization was coded as follows: (1 = executive or manager; 0 = employee).

Organizational characteristics

Type of organization indicated whether the organization was a *publicly traded company* (1 = yes; 0 = no), *privately held company* (1 = yes; 0 = no), *government agency* (1 = yes; 0 = no), or *non-profit agency* (1 = yes; 0 = no). *Size of organization* reflected the number of employees and was coded as an ordinal variable: 1 = 1–99; 2 = 100–999; 3 = 1,000–9999; 4 = 10,000 or more.⁹ *Revenue*, available only for publicly traded companies, reflected the organization's gross income measured in dollars, for the year before the fraud victimization. Due to extreme values, the square root transformation was used to reduce skewing. *Existing internal control mechanisms* included whether the organization used any of the following practices at the time of the offense: *background checks* (1 = yes; 0 = no), *anonymous*

Table 1
Descriptive statistics

	1997–1998 Survey % (n)	2001–2002 Survey % (n)	Pooled sample % (n)
<i>Type of occupational fraud</i>			
Asset misappropriation	81.8 (392)	85.5 (567)	84.0 (959)
Corruption	12.7 (61)	5.7 (38)	8.7 (99)
Fraudulent statements	5.4 (26)	8.7 (58)	7.4 (84)
<i>Individual characteristics</i>			
Mean age in years	40.7 (479)	41.1 (587)	40.9 (1,066)
Gender			
Male	52.8 (253)	53.5 (321)	53.2 (574)
Female	47.2 (226)	46.5 (279)	46.8 (505)
Education			
High school or less	54.9 (263)	56.9 (377)	56.0 (640)
Bachelor's degree	35.3 (169)	32.7 (217)	33.8 (386)
Graduate degree	9.8 (47)	10.4 (69)	10.2 (116)
Position			
Employee	62.0 (297)	59.0 (391)	60.2 (688)
Manager or executive	38.0 (182)	41.0 (272)	39.8 (454)
<i>Organizational characteristics</i>			
Size			
1–99 employees	34.0 (163)	39.1 (214)	36.7 (377)
100–999 employees	19.6 (94)	20.8 (114)	20.3 (208)
1,000–9,999 employees	28.4 (136)	23.5 (129)	25.8 (265)
10,000+ employees	18.0 (86)	16.6 (91)	17.2 (177)
Type			
Government agency	25.3 (121)	24.4 (162)	24.8 (283)
Non-profit agency	8.1 (39)	13.4 (89)	11.2 (128)
Privately held company	33.2 (159)	31.4 (208)	32.1 (367)
Publicly traded company	33.4 (160)	29.0 (192)	30.8 (352)
Existing control mechanisms			
Anonymous reporting (% yes)*	–	35.6 (202)	35.6 (202)
Background checks (% yes)	71.4 (342)	48.5 (245)	59.7 (587)
External audits (% yes)	25.3 (121)	72.3 (407)	50.7 (528)
Internal audits (% yes)	68.9 (330)	57.0 (331)	62.4 (661)
Mean revenue (square root)**	39,913.8 (160)	24,814.1 (192)	29,847.4 (352)

* 2001–02 sample only (n = 663).

** Publicly traded companies only (n = 352).

fraud reporting (1 = yes; 0 = no), *internal audits* (1 = yes; 0 = no), or *external audits* (1 = yes; 0 = no).

Table 1 presents descriptive statistics for the type of occupational fraud as well as individual and organizational characteristics for the 1997–98 survey, the 2001–02 survey, and the pooled sample. As the table shows, the frequencies for types of occupational fraud, individual characteristics, and organizational characteristics were very similar for both surveys. One exception was anonymous reporting, which was not asked in 1997–98, and therefore was only asked for 2001–02. Another notable difference was mean revenue (square root) for publicly traded companies, which actually decreased between 1997–98 and 2001–02. The explanation for this difference can be found by examining the status of the overall economy: in 1997 alone, combined revenues of the twenty-five largest U.S. corporations equaled the budget of the U.S. federal government. Comparatively, the U.S. economy was in a recession for most of 2001, and did not begin to recover until early 2002 (Bureau of Economic Analysis, 2003). The difference in revenues for each time period was expected. To determine whether it was appropriate to combine data from the two surveys into a single analysis file, independent sample t-tests were performed with all variables of interest. The results demonstrated no statistically significant differences between the two time periods ($p < .05$), suggesting it was appropriate to merge these data into a pooled sample.

Results

The bivariate relationships between individual characteristics and organizational characteristics are included in Appendix A. Two one-way ANOVA models by the three types of occupational fraud (i.e., asset misappropriation, corruption, and fraudulent statements) were estimated for individual characteristics and organizational characteristics.¹⁰ The null hypothesis for ANOVA stated that there would be no statistically significant differences between means on the individual characteristics and organizational characteristics for each type of fraud. In each one-way ANOVA model, if the overall F -test was significant, the null hypothesis could be rejected and one might conclude that significant mean differences existed. To determine which specific means differed significantly from each other, Bonferroni multiple comparison tests were used ($p < .05$). The test allowed for direct comparisons between groups of unequal sample sizes (Mason, Gunst, & Hess, 1989).

Individual characteristics

Table 2 presents the results of the one-way ANOVA models comparing occupational fraud type by age, gender,

Table 2

Occupational fraud type by individual characteristics (n = 1,142)

	Asset misappropriation	Corruption	Fraudulent statements	F -ratio
Age	40.36	43.09	44.38	8.12*
Gender	.52	.55	.69	4.73*
Education	.50	.76	.74	10.57*
Position	.37	.43	.73	22.17*

* $p < .05$.

education, and position. The F -ratios indicated that at least one of the means on these characteristics differed significantly for asset misappropriation, corruption, and fraudulent statements. The Bonferroni multiple comparison test revealed that individuals who committed asset misappropriation were younger than those who committed either corruption (mean difference = -2.73 ; $p < .05$) or fraudulent statements (mean difference = -4.03 ; $p < .05$). The age differences between those who committed corruption and fraudulent statements, however, were not significant. Turning to gender, those who committed asset misappropriation were significantly less likely to be male than those who committed fraudulent statements (mean difference = $-.18$), but there were no gender differences when comparisons were made between asset misappropriation and corruption, or corruption and fraudulent statements. This differed from Daly's (1989) finding that men were more likely to commit crimes in groups, as is the case with corruption, which involved more than one offender.¹¹

For education, those who committed asset misappropriation had significantly lower levels of education than those who committed either corruption (mean difference = $-.26$; $p < .05$) or fraudulent statements (mean difference = $-.24$; $p < .05$), but such differences were not detected in the comparison between corruption and fraudulent statements. Finally, the post hoc comparisons for position showed that those who committed asset misappropriation were also less likely to be managers or executives than those who committed fraudulent statements (mean difference = $-.36$; $p < .05$). Those who were involved in corruption also held significantly lower positions in the organization compared to those who committed fraudulent statements (mean difference = $.29$; $p < .05$). In sum, the results suggested that occupational fraud was not a form of white-collar crime perpetrated by individuals who shared distinct sets of characteristics. On the contrary, the characteristics of perpetrators varied based on the specific type of occupational fraud committed. For example, the results suggested that the crime of asset misappropriation did not require any advanced knowledge or skills that might be solely possessed by managers or executives. Corruption was similarly unrestricted, but fraudulent statements appeared to be closely linked to high-level positions.

Although there were significant, individual mean differences between the three types of occupational fraud, characteristics of this sample as a whole were comparable to prior conceptualizations of the typical white-collar offender. In terms of demographics, recall Wheeler et al.'s (1988, p. 347) description of the average white-collar offender as "a White male, with an average age of 40." Consistent with this finding, the average age of the present sample was nearly forty-one years. Racial and ethnic backgrounds of the offenders were not recorded in ACFE's surveys, so no comparisons to the literature on this variable could be made. The averages for other characteristics, however, did not support previous findings. For example, a nearly equal percentage of men and women committed fraud, the majority were employees rather than managers or executives, and over half possessed a high school diploma, while the remaining 44 percent had four-year or graduate degrees. What can be said about these differences? Bear in mind that many previous studies supporting the common white-collar criminal image used samples from official records of convicted offenders; moreover, these studies did not examine organizational settings. Individuals who reach the conviction and sentencing stages of the criminal justice system may be different than those who are filtered out at earlier stages, and unrepresentative of the larger population of offenders (Zatz, 1987). Studies of white-collar offenders limited to one unit of analysis (i.e., the individual) and/or restricted to convicted samples might serve to perpetuate potential biases in sentencing and related criminal justice policies, and might inhibit theoretical development.

Organizational characteristics

Table 3 presents the results of the one-way ANOVA models comparing occupational fraud type by organizational characteristics. Overall, the *F*-ratios indicated that at least one of the means differed significantly on the characteristics of organizational size, type of company (publicly traded or privately held company), and whether they had anonymous reporting or conducted internal audits. There were no significant, between-group differences for non-profit agencies, amount of revenue, and whether organizations conducted background checks or external audits. These results partially confirmed that characteristics of organizations victimized by distinct types of occupational fraud differed.

For the organizational characteristics that achieved statistical significance, the Bonferroni multiple comparison tests revealed more detailed differences between types of fraud. Organizations victimized by asset misappropriation were smaller than organizations victimized by corruption (mean difference = $-.42$; $p < .05$). Additionally, organizations victimized by corruption were larger than organizations victimized by fraudulent statements

Table 3

Occupational fraud type by organizational characteristics (n = 1,142)¹

	Asset misappropriation	Corruption	Fraudulent statements	<i>F</i> -ratio
Size	2.20	2.62	2.16	6.01*
Government agency	.52	.31	.27	1.13
Non-profit agency	.13	.03	.02	7.97*
Publicly traded company	.29	.45	.33	5.81*
Privately held company	.33	.21	.33	2.97*
Anonymous reporting	.33	.72	.44	11.14*
Background checks	.58	.69	.64	2.21
External audits	.51	.43	.56	1.51
Internal audits	.61	.75	.58	3.82*
Revenue (square root)	29,147.63	49,353.42	13,258.62	2.85

* $p < .05$.

¹ For revenue, n = 352; for anonymous reporting, n = 663.

(mean difference = $.46$; $p < .05$). Publicly traded companies had significantly more corruption than asset misappropriation (mean difference = $.16$; $p < .05$). Turning to privately held companies, there was also a greater amount of asset misappropriation than corruption (mean difference = $.12$; $p < .05$). Non-profit agencies experienced more asset misappropriation than either corruption (mean difference = $.10$; $p < .05$) or fraudulent statements (mean difference = $.11$; $p < .05$). These findings suggested that the most common form of occupational fraud, asset misappropriation, needs to be addressed more closely in organizations, particularly those that are smaller and not publicly traded.

When the separate, existing control mechanisms were compared for the three types of occupational fraud, results showed that organizations with anonymous reporting systems in place were more likely to become aware of corruption than either asset misappropriation (mean difference = $.39$; $p < .06$) or fraudulent statements (mean difference = $.28$; $p < .05$). This suggested that anonymous reporting systems might provide security for those individuals who "rat" on fellow employees, by eliminating potential negative consequences and the stigma of whistleblowing. The only other type of internal control mechanism to produce significant results was internal audits. Organizations who conducted internal audits were more likely to find corruption than asset misappropriation (mean difference = $-.14$; $p < .05$). Corruption by nature involved collusion with outsiders, so it might be more noticeable than asset misappropriation, which was committed alone. In other words, employees who were involved in corruption might have left behind more evidence of their

offenses, while asset misappropriation might have been more easily concealed.

How do these results compare to the literature's image of the large, publicly traded company as a frequent setting for white-collar crime? Organizations victimized by corruption were significantly larger, and more likely to be publicly traded, compared to organizations that fell victim to asset misappropriation and fraudulent statements. Corruption was rare in both non-profit agencies and privately held companies; this could be because these types of organizations were also smaller, and collusion with outsiders might be unlikely given potentially close associations between employees. This particular form of fraud took place in a setting that was consistent with previous studies of corporate crime. On a related note, the corporate crime literature identified profit maximization as a key motivating factor in white-collar crime. Although inferring individual offender motivation was beyond the scope of the present study, the findings reported here showed that annual revenue of publicly traded companies was not related to any form of occupational fraud. This result highlighted key differences between occupational crime, committed against the organization, and corporate crime, committed on behalf of the organization, supporting [Clinard and Quinney's \(1967\)](#) typological distinction.

Discussion

This study established the extent to which a sample of individuals within organizations reflected previous conceptualizations of white-collar offenders. The analyses revealed that the characteristics of individuals who committed asset misappropriation, corruption, and fraudulent statements differed, as did many of the organizational characteristics associated with these three types of occupational fraud. These findings contributed to the literature by enhancing understanding of the organizational context in which white-collar crime, specifically fraud, occurred. The results also underscored the need for establishing conceptual clarity among definitions of white-collar and occupational crime. As [Friedrichs \(2002\)](#) argued, it was critical that conceptualizations of occupational crime were not conflated with the inclusion of contradictory workplace activities more closely aligned with conventional crime (e.g., sexual harassment).

How did employees who commit occupational fraud differ from the average white-collar offender represented in previous studies? Not all offenders conformed to a "high status" image. The results painted a clear picture of employees who committed fraudulent statements: they were more likely to be older, educated males who held managerial or executive positions in their victim organizations. This profile resembled that of past research, and

suggested that previous findings based on official record samples of convicted offenders were generalizable to broader settings. The other two types of occupational fraud, asset misappropriation and corruption, were committed by individuals who shared characteristics that were less representative of the white-collar crime prototype. In fact, they were similar to [Weisburd et al.'s \(1991\)](#) "middle-class" offenders. These individuals were younger on average, equally likely to be male or female, and did not differ significantly from each other in their levels of education. These findings provided partial support for [Daly's \(1989\)](#) study, which also showed distinct differences in the white-collar crimes of males and females, due in part to characteristics such as occupational roles and education. While asset misappropriation and corruption were equally likely to be committed by males and females, fraudulent statements were distinctly linked to being male, and were also tied to higher positions in organizations. Additional research on gender differences in motivation for white-collar offending would shed light on this discrepancy.

How did organizations that were victimized by occupational fraud compare to the image of the large, profit-making organization frequently described in the literature? The results showed that the three types of fraud also differed with regard to organizational characteristics. Asset misappropriation was committed significantly more often in smaller organizations. Corruption took place in larger organizations, and in particular, publicly traded companies. More corruption was discovered in organizations with anonymous reporting systems, and was also more likely to be revealed when organizations performed internal audits. Finally, fraudulent statements also victimized smaller organizations, as well as privately held companies, and did not appear to affect non-profit agencies, which was expected given that this particular form of fraud often involved misrepresentation of a company's financial performance. Perhaps what was most interesting about these findings was that they would not even be revealed if, like prior corporate crime research, only the large, publicly traded companies were sampled. Future studies of occupational fraud should continue to examine multiple types of organizations. More detailed comparisons, such as between industries, could also contribute to better understanding of the ways in which macro-level factors (e.g., competition) lend themselves to fraud in some settings, but not others.

This study contributed to the white-collar crime literature in several ways. First, it provided further insight on organizations as victims of fraud, rather than offenders. The inclusion of both individual and organizational characteristics responded to previous calls for research advocating the need for a micro-macro connection and hierarchical understanding in studies of white-collar crime ([Coleman, 1992](#); [Piquero & Piquero, 2001](#); [Vaughan, 1992](#)). On a related front, this study corrected

for the common, business firm bias in corporate crime research by comparing organizations that differed in size as well as function. The results also provided important implications for the practical side of white-collar crime prevention. Specifically, organizations that made anonymous reporting mechanisms (e.g., fraud hotlines) available to their employees increased the likelihood that fraud was detected. Procedures such as internal audits were also valuable tools for discovering fraud from within.

An unexpected finding in the analyses of organizational characteristics was the fact that, although background checks were in place in organizations, there were no significant effects. Albrecht (2003, p. 43) referred to this problem as a non-control factor. In other words, it was not a *lack* of control mechanisms that allowed frauds to be perpetrated, but the fact that existing controls were either overridden or ignored. They might be in place in organizations, but were not consistently followed. This was somewhat surprising given the bureaucratic, documented rule orientation that often characterizes government agencies and large organizations (Weber, 1922/1946). Additionally, Albrecht (2003) proposed that background checks might not be successful due to another non-control factor, the failure to discipline fraud perpetrators.

The results of this study should be interpreted with caution given the limitations of the sample. As noted in the methods section, participants were asked to report on their most recent, completed fraud case. There was no guarantee that this suggestion was actually followed, which raised the concern that the responses might be unrepresentative of the larger population of occupational fraud cases. Alternative data sources, such as pre-sentence investigations, suffered from more serious biases. The lack of significant differences between the two time periods suggested potential biases due to respondents' characteristics were not a detrimental concern, increasing confidence in the pooled sample analyses.

Despite the possible limitations, the sample used in the present study improved on previous research for several reasons. Much of what criminologists assumed to be fact about the "typical" white-collar offender was based on official record samples of convicted individuals. Perhaps even more importantly, because past samples did not include data from organizations, knowledge of the organizational context of white-collar crime was limited. Like prior studies, this sample was restricted to perpetrators whose offenses were detected; however, additional data from victim organizations and the large sample size strengthened the analyses.

Recommendations for research and practice

Future studies should continue to compare the characteristics of individuals and organizations not just

for the types of fraud considered here, but also for other forms of white-collar crime. The differences between these results and earlier research may be due to the restrictions of the particular offense-based, conceptual definitions of white-collar and occupational crime. Comparisons based on similar definitions of white-collar crime would contribute to convergent validity across existing and future research.

Data used in this study were obtained from investigators, rather than perpetrators. As a result, it was not possible to speculate on the reasons individuals might have for becoming involved in asset misappropriation, corruption, and fraudulent statements. More research on offenders' motivations needs to be conducted to determine what additional factors influence the decision to commit fraud. It is likely that existing organizational practices, organizational culture, and life situations unique to individual employees, may contribute to victimization against organizations. For example, feelings of perceived inequity or unfair treatment by employers may promote individuals' belief that occupational fraud is justified (Greenberg, 1990, 1993). Due to the difficulties associated with conducting white-collar crime research, a greater and theoretically informed understanding of this phenomenon can only be accomplished through continued cooperation with organizations. In particular, qualitative accounts from offenders and fraud investigators would be extremely beneficial in the generation of additional hypotheses and the development of grounded theories of motivation for white-collar offending in various organizational contexts.

The results reported here also suggested that changes in organizational policies, particularly those dealing with the response to fraud, are needed. Rather than investing in what may be a costly prosecution, and coping with fallout from negative publicity, many organizations currently deal with their criminal employees through dismissal. This strategy is problematic, because it makes it possible for offending employees to build an impressive work history that is not marred by a criminal record, contributing to additional, more financially devastating frauds at each new job. If these offenders really do have the most to lose, as specific deterrence theory suggests, organizations would clearly benefit from implementing a policy of prosecuting fraud cases to the highest possible extent that the law allows.

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Appendix A. Correlation matrix of individual and organizational characteristics

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	–													
2. Gender	.18**	–												
3. Education	.22*	.15**	–											
4. Position	.33**	.12**	.31	–										
5. Size	–.10**	–.05	–.07*	–.07*	–									
6. Government agency	.10**	.02	–.07*	–.07*	.05	–								
7. Publicly traded company	–.04	.03	.03	.03	.38**	–.38**	–							
8. Privately held company	–.09**	–.02	–.02	.06	–.33**	–.39**	–.46**	–						
9. Non-profit agency	.07*	–.04	.04	–.03	–.14**	–.20**	–.24*	–.24**	–					
10. Anonymous reporting	–.04	.03	.03	–.07	.48**	.16**	.22**	–.25**	–.15**	–				
11. Background checks	–.04	.03	.04	–.03	.12**	.05	.07*	–.09**	–.03	.38**	–			
12. Internal audits	–.11**	.02	–.01	–.11**	.44**	.13**	.23**	–.30**	–.09**	.56**	.24**	–		
13. External audits	–.01	–.01	.03	.02	.03	.01	.02	–.06	.06	.18**	.01	.01	–	
14. Revenue (square root)	–.01	–.01	.03	–.03	.38**	–.03	.25*	–.22**	–.07	.13*	.01	.28**	.02	–

* $p < .05$ (two-tailed).

** $p < .01$ (two-tailed).

Notes

1. Since Cressey's (1953) study was conducted at a time when women comprised a very small percentage of the workforce, very few opportunities for women to embezzle from their employers existed.

2. Respondents' primary occupations included: auditor (37 percent), investigator (27 percent), accountant (23 percent), and law enforcement (13 percent). Due to the confidentiality agreement between the author and the ACFE, as well as the original consent procedure agreed to by participants, additional personal details about respondents (e.g., age, gender, and work experience) were not made available for analyses. Although it was possible that such characteristics could influence participants' responses, several safeguards were put into place to reduce potential biases. These included random sampling and the restriction of case selection to the CFE's most recent, completed case. Additionally, it was confirmed that the characteristics of respondents who participated were representative of the larger population of United States ACFE membership.

3. The remaining 108 respondents only answered survey questions pertaining to their opinions about sanctioning and fraud levels. Therefore, due to the large amount of missing data on all relevant variables, these responses were not included.

4. CPE credit contributes to the current status of a CFE's professional license. Typical opportunities for credit include advanced education, or attendance at workshops and training seminars sponsored by ACFE.

5. The excluded 308 cases also victimized organizations, but were committed by non-employees (e.g., vendors and customers) so they did not meet the study's definition of occupational fraud.

6. For cases in which civil suits were filed against the perpetrator, a case was considered concluded when a judgment was rendered (i.e., for the perpetrator or the victim). Across both surveys, civil suits were filed in 10.5 percent of cases. For cases in which criminal charges were filed (approximately 63 percent of the pooled sample), a case was considered concluded at the sentencing stage (e.g., conviction, acquittal, plea bargain). Approximately 67 percent of those whose cases were criminally referred were convicted, while less than 2 percent of this group was acquitted. Similar to previous samples, the sample used in this research included many convicted

white-collar offenders. This sample improved upon past research, however, by examining the individual offenders within the organizational setting where their crimes occurred. For a discussion of the need for greater hierarchical understanding in white-collar crime research, see Piquero and Piquero (2001, pp. 337–338).

7. A common application of ANOVA is in experimental design whereby random group assignment (i.e., to treatment and control groups) constitutes the independent variable and continuous scores on one or more measures of interest (e.g., the test, treatment, or other manipulation) are the dependent variables. In criminal justice, ANOVA is often used to assess differences in offenders based on a particular crime type (Bachman & Paternoster, 1997, p. 385), suggesting it is the most effective way to explore whether individual and organizational characteristics differ significantly for the three types of occupational fraud.

8. Examples of asset misappropriation include theft of cash and theft of other inventory. Examples of corruption include bribery, conflicts of interests, and illegal gratuities. Examples of fraudulent statements include financial (e.g., manipulating revenue) and nonfinancial (i.e., manipulating credentials or documents).

9. The decision to code organization size as an interval, rather than continuous variable, was made by the ACFE.

10. Although MANOVA may be used to compare means on several outcome variables, this procedure assumes that the outcome variables are highly correlated. As Appendix A shows, this was not the case here. Another advantage of MANOVA over ANOVA is its statistical power since it controls for intercorrelations between measures (Bray & Maxwell, 1985). In the present study, conservation of power was not a concern due to the sufficiently large sample size ($n = 1,142$).

11. Although corruption involves collaboration with others, offender data from corruption cases were restricted to the characteristics of the primary offender who was employed by the victim organization.

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