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A STUDY IN THE BEHAVIOR OF LAW

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RESPONSES TO OCCUPATIONAL FRAUD:
A STUDY IN THE BEHAVIOR OF LAW

By
Kristy Holtfreter

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ABSTRACT

RESPONSES TO OCCUPATIONAL FRAUD:

A STUDY IN THE BEHAVIOR OF LAW

By Kristy Holtfreter

The research was designed to improve understanding of the individual and organizational characteristics connected to different types of occupational fraud, and to explain the decisions of victim organizations to refer fraud cases for civil and criminal processing. A key hypothesis was that the characteristics of individuals who commit asset misappropriation, corruption, and fraudulent statements will differ; a related hypothesis was that the characteristics of organizations victimized by asset misappropriation, corruption, and fraudulent statements will differ. To examine the likelihood of criminal and civil referrals, additional hypotheses based on Donald Black's (1976) theory and conflict theory were examined.

The analyses included secondary data from surveys of 1,142 Certified Fraud Examiners at two time periods: 1997-98 and 2001-02. Two sets of analyses were performed. The first analysis compared individual and organizational

characteristics for cases of asset misappropriation, corruption, and fraudulent statements. The second analysis examined the likelihood of receiving a criminal or civil referral, compared to no referral, given a series of independent variables suggested by Black's (1976) theory, conflict theory, and with the addition of control variables suggested by critiques of Black's theory.

The results for the first analysis support the hypotheses that several individual characteristics differ for the types of fraud, as do several organizational characteristics. Some individual characteristics of the sample, namely the average age of offenders, are similar to previous findings in the white-collar crime literature; and in particular, one type of fraud, corruption, was more likely in organizations that were similar to the corporate crime literature's portrayal of setting for white-collar crime. The results for the second analysis produced mixed support for Black's theory and conflict theory. At both time periods, the best fitting models were those that included control variables, supporting prior critiques of Black's theory. Differences in the frequencies of referrals between time periods suggested that attitudes toward punishment of fraud offenders have become more punitive following recent corporate scandals.

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Dedicated to my parents, Bob and Judy Holtfreter, whose many accomplishments inspired my own achievements. At an early age, you taught me the value of higher education, and the numerous advantages of University life and community.

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CHAPTER ONE: INTRODUCTION

The primary goal of the research undertaken in this dissertation is to improve understanding of the multi-level characteristics (individual and organizational) connected to different types of occupational fraud (i.e., asset misappropriation, corruption, and fraudulent statements) in organizations. A second goal is to describe and explain the legal responses (e.g., civil referral, criminal referral, or no referral) to occupational fraud in organizations by integrating Black's (1976) theory of the behavior of law and conflict theory. The study includes organizations that differ in size (i.e., ranging from less than 100 to more than 10,000 employees) and function (i.e., government agencies, non-profit organizations, private corporations, and publicly traded companies).

By focusing on fraud victimization in organizations, this study addresses prior research neglect of this type of behavior. Recognition of the need to study fraud and other acts described as "white-collar crime" can be traced back to Sutherland (1949; 1940), whose original interest in the topic was rooted in addressing biases associated with official crime statistics, which he rightly argued did not

capture the offenses committed by high status, respectable individuals in the course of their legitimate occupations. Sutherland proposed that existing criminological theories emphasizing structural conditions such as poverty (e.g., social disorganization theory) were incapable of explaining the crimes of the upper class. The topic of white-collar crime was and still is quite novel in that it seems counterintuitive that accomplished individuals who are otherwise law-abiding would commit criminal offenses in the course of their occupational roles. While factors such as poverty clearly provide plausible motives for the crimes of the unemployed, it is more difficult to conceive of reasons for crimes committed by those holding legitimate occupations. Individual greed may be a potential motive for many crimes. As one fictional corporate raider matter-of-factly stated:

"Greed, for lack of a better word, is good. Greed is right. Greed works." ---Gordon Gecko, in the film *Wall Street* (1987).

Although individual greed undoubtedly contributes to some cases of occupational fraud, it is likely that the

motivations and explanations for such behavior are much more complex, and differ based on the type of fraud that is committed. Inferring causality about the individual's decision to commit fraud is beyond the scope of the present study. However, it is possible to determine whether the various characteristics of individuals differ for distinct types of fraud victimization.

Researchers' abilities to measure crime have improved dramatically since Sutherland's time, and recent statistics indicate that offenses collectively referred to as "white-collar crime" result 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, and Tillman, 2002). While these differences have long persisted, the primary focus of criminal justice authorities and many criminologists has been on explaining, preventing and responding to personal and household crimes. Public perception and fear of violent "crime in the streets" has also fueled the attention of researchers and criminal justice agencies. Recently, however, current and ongoing scandals in various corporations, such as Enron and WorldCom, have raised

public awareness of the economic, social, and personal harm resulting from "crime in the suites."

The literature on white-collar crime has grown considerably since Sutherland's initial work, but this body of research is quite fragmented due to disagreements over conceptual and operational definitions of relevant variables. For example, one tradition argues that researchers should adhere to a variant of Sutherland's original "offender-based" definition by focusing on characteristics of individual perpetrators (e.g., status, gender, age) believed to promote white-collar crime. The opposing viewpoint emphasizes the importance of employing an "offense-based" definition, geared toward inclusion of cases based on characteristics of the acts themselves (e.g., typically, crimes considered to violate trust). More recent research suggests that characteristics of both offenders and offenses should be included in an operational definition of white-collar crime. The aforementioned perspectives are reviewed and critiqued in subsequent chapters of this dissertation, which demonstrates the benefits of using an offense-based definition for purposes of the present study.

In addition to being plagued by definitional disagreements, the literature on white-collar crime also suffers from a lack of attention to victims. Research in the general area of criminal victimization has increased dramatically in recent years (see Davis, Lurigio, and Skogan, 1997), resulting in improved understanding about victims of violent crime. Moreover, heightened policy interest in crime victims has resulted in the expansion of victim assistance programs and services. Yet, despite the research and policy attention to victims of violent crime, studies of white-collar crime, with the exception of fraud in the savings and loan industry, have neglected victims. Why have victims of white-collar crime been ignored? Perhaps the answer to this question lies in the ongoing definitional issues, or the neglect may be due to the limited access to reliable data available to white-collar crime researchers. A more likely reason, discussed in additional chapters of this dissertation, relates to the complex details of the offenses themselves. Put simply, unlike victims of violent crimes, victims of white-collar offenses may not even realize they have been victimized (Benson and Moore, 1992). This issue also presents difficulties when it comes to white-collar crime

prosecution. As Jesilow, Klempner and Chiao (1992:150) explained, "...the hidden nature of many white-collar misdeeds prevents victims from uncovering the offenses and entering the complaint process." By focusing on known victims of white-collar crime, the present study contributes to an area of research that has been largely neglected.

As Vaughan (1980:96) observed, "traditional victimology has inhibited understanding of crimes against organizations, and should be broadened to include the study of organizations as victims." Despite the fact that this statement was made nearly a quarter of a century ago, relatively little research on organizations as victims has been conducted. Within the white-collar crime framework, the present study focuses specifically on occupational fraud that victimizes organizations.

According to Wells (1997:4) "fraud can encompass any crime for gain which uses deception as its principle modus operandi." It is important to note, however, that all deceptions are not frauds. Under common law, some form of damage (e.g., monetary) must occur to meet the legal definition of fraud. Common law also specifies four elements that must be present for fraud to exist: (1) a

material false statement, (2) knowledge that the statement was false when it was made, (3) reliance on the false statement by the victim, and (4) damages as a result. The legal definition is the same regardless of whether the offense is civil or criminal; the difference is that criminal cases must withstand a greater burden of proof (Wells, 1997).

The following definition of occupational fraud is used in this dissertation: "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: 2).¹ This offense-based definition clearly identifies organizations as victims, encompasses a wide range of misconduct by employees, managers, and executives, and acknowledges that occupational fraud schemes can be as simple as pilferage of company supplies or as complex as financial statement fraud. The types of fraud vary, and will be described further in subsequent chapters. Although variation exists, each case of occupational fraud has four elements in common: (1) it is clandestine; (2) it violates

¹ This is an operational definition used to classify cases, not a legal definition of "fraud". Cases that are identified as "fraud" in the present study may or may not be defined as crimes and/or torts according to legal definitions. For additional information on legal definitions of fraud, see Henry Campbell Black, 1979.

the perpetrator's fiduciary duties to the victim organization; (3) it is committed for the purpose of direct or indirect financial benefit to the perpetrator; and (4) it costs the employing organization assets, revenues, or reserves. As Shapiro (1990) argues, much conceptual ambiguity can be avoided if researchers work to "collar the crime," by focusing on specific offenses, rather than the characteristics of offenders. The use of an offense-based definition eliminates conceptual ambiguity and allows for an examination of the connection of individual and organizational characteristics to different types of occupational fraud.

White-Collar Crime and Organizations

Despite the criminological debate surrounding the operationalization and definition of white-collar crime, there is general agreement in the field that many offenses are committed in organizations, either by individuals for personal gain, or by individuals or groups on behalf of their employers. Given this acknowledgement, researchers studying crime in organizations have emphasized the need to consider individual-level and organizational-level

influences on the type of crime that occurs. The resulting sociological conceptualization of "organizational crime" stresses the importance of structural factors in determining individual behavior, and has been recognized as the paradigm by which white-collar crime theory is most likely to advance (Biderman and Reiss, 1968; Braithwaite, 2001; Reiss and Tonry, 1993). It is therefore crucial that white-collar crime studies be informed by research on organizations. A large amount of research on crime in organizations has been conducted outside the field of criminology. Integrating studies from related areas (e.g., business ethics, organizational psychology) will greatly improve criminologists' understanding of white-collar crime. The focus in the present study bridges the micro-macro connection in white-collar crime theory by including individual-level and organizational-level variables.

The recognized value of multi-level influences notwithstanding, the gap in research on crime in organizations is still considerable. A crucial issue in the literature is the fact that most studies that have been conducted on white-collar crime have tended to focus on organizations as perpetrators, but not victims, of fraud. As noted previously, this limitation is due in part to the

difficulty of obtaining information (e.g., the lack of available data and sampling problems). The present study addresses this void in the literature by examining organizations that have been victimized by individual employees.

Much of the extant literature on crime in organizations also suffers from what is known as the business firm bias, which is characterized by a research emphasis on large, profit-making organizations (Vaughan, 1992). The stereotype of large firms in financial trouble committing offenses prevails in the literature, and the related amoral calculator model suggests that executives are driven by profits and thus make rational decisions to commit crimes as a means of maximizing financial gain (Kagan and Scholz, 1984). While this perspective indeed seems plausible when applied to large, profit-making organizations, it is less applicable in other settings, such as government, non-profit, or private agencies. The tendency to focus on large business firms as offenders has resulted in little knowledge of how organizations varying in size and function are victimized (Reiss and Tonry, 1993). The present study partially corrects this bias by including victim organizations that differ in size as well

as function. Examining these types of organizational variation makes it possible to address the still unanswered question of which kinds of organizations generate greater amounts and different types of white-collar crime.

The Behavior of Law and Conflict Theory

In his study of employee theft, Robin (1970:137) stated:

"Perhaps more than any other civil individual, the employer or his corporate representatives are in a position where they must decide whether or not to report a known, apprehended offender to the law enforcement officials, a responsibility and power which has been largely ignored in the sociology of law."

The organization's decision whether or not to refer individual employees' crimes for formal legal processing remains neglected by criminologists, in spite of the fact that Donald Black's (1976) theory of the behavior of law provides a valuable framework for explaining such decisions. In addition to its potential for explaining the

initial decision to refer an occupational fraud case, Black's theory can also be applied to subsequent decisions in the legal process (e.g., the range of punishment and sanction options). The theory states that law, like other institutions, "behaves." In other words, it acts in certain patterns, and is not random in its existence or application. Black outlines an explanatory model that can be used to analyze the behavior of law by its relation to five dimensions of social life: stratification, morphology, culture, organization, and social control. According to Black, law is one form of social control, governmental social control. The theory states that law is a quantitative variable that increases or decreases across social settings. Black also describes law as a qualitative variable, arguing that it varies by style and includes four styles: penal, compensatory, therapeutic and conciliatory.

Black's theory of the behavior of law has received a great deal of attention in the field of criminology, and has been subject to many empirical tests, the results of which can generally be described as providing mixed support. Some studies have fully supported the theory, some have supported a limited number of its propositions, and others have contradicted the theory. Previous tests of

Black's theory are discussed in more detail in Chapter Two, Literature Review.

Conflict theory also provides an explanation for the legal responses to crime (Vold, Bernard, and Snipes, 1998). According to this perspective, law is not representative of the general public's interests, but is based on the values of powerful groups. Conflict theory suggests that those individuals with less power would be more likely to be referred for criminal processing. In criminology, conflict theory has been applied in a number of different ways. For example, it has been used to explain crime itself as a reaction by minority power groups to the dominant social order, and also to explain the passing of legislation as reflective of powerful groups' values.

Differential Application of Law

Several studies not directly testing Black's theory have addressed the issue of differential application of law for white-collar offenders. These studies indirectly support the theory of the behavior of law, as well as conflict theory. Past research focused specifically on white-collar crime has examined the effect of socioeconomic status (SES) on choice of sanctions. Work by Wheeler,

Weisburd, and Bode (1982) for example, examined the effect of social class on sentencing for eight federal offenses designated as "white-collar crime." Results of this study indicated that there were no significant class differences in sentencing, which counters findings from research on differential application of law based on offender status (Jesilow, Pontell, and Geis, 1986).

The work of Wheeler and colleagues is limited by the fact that their sample of defendants appearing in federal court may not represent the larger distribution of white-collar offenders; namely, those whose status and position may prevent criminal or civil sanctioning in the first place. Given data limitations (i.e., primarily samples obtained from court records), and the contradictory findings of existing studies, a closer examination of the relationship of perpetrator and organizational characteristics, to legal responses is warranted. Black's (1976) theory suggests that a greater quantity of law (e.g., harsher sanctions) is expected for lower class and lower-ranking employees, but this proposition has not yet been tested. To address these issues, the present study will directly test Black's theory. Availability of a unique data set that includes case outcomes (e.g., the

decision to refer a perpetrator for additional criminal or civil processing) makes it possible to increase understanding of differential application of sanctions.

An additional limitation of previous research is the inclination toward treating violations of administrative regulations as violations of criminal law. Failure to distinguish between these two targets of social control translates into treating all violators in organizations as "white-collar criminals" and all violations in organizations as "white-collar crime."

This tendency has resulted in a conflation of criminal law and administrative regulations, which is problematic for the consideration of social control strategies. While regulatory agencies use compliance mechanisms, the criminal justice system tends to rely on principles of deterrence (Ayres and Braithwaite, 1992; Braithwaite, 1993). What is more, strategies vary by industry, suggesting that it is crucial to consider the type of organization when drawing conclusions about the justness and effectiveness of various approaches. The present study improves upon past research by clearly distinguishing between different responses (i.e., civil, criminal, and no referral).

The mere existence of white-collar crime in organizations reflects the failure of existing mechanisms of control and undermines public trust in governmental institutions assigned to enforce corporate behavior. Speaking about the scandals associated with energy giant Enron, *Business Week* reporter Bruce Nussbaum recently wrote:

"There are business scandals that are so vast and so penetrating that they profoundly shock our most deeply held beliefs about the honesty and integrity of our corporate culture" (Jan 28, 2002).

Despite the enormous economic and societal losses due to such offenses, the most effective sanctioning strategies are yet to be discovered. New legislation is promising, but like much research, focuses on profit-oriented firms and top executives. A uniform response to fraud, such as the recent passing of the Public Company Accounting Reform and Investor Protection Act of 2002, targets large, publicly traded companies, but offers limited provisions for smaller, non-public corporations or those operating in

alternative capacities. A comparison of existing sanctions is needed to suggest ways in which current policies should be adapted, or as Grabosky (1997) proposed, combined with other regulatory strategies.

Research Objectives

This dissertation will provide a theoretically informed understanding of the individual perpetrators and organizational processes that are associated with different types of occupational fraud, and of the legal responses to these offenses. After determining what types of occupational fraud are most prevalent, this study will discuss the effectiveness of existing procedures, such as employee background checks, anonymous reporting systems, internal and external audits) in preventing and detecting certain forms of fraud in different types of organizations. Specifically, this research reveals the types of fraud that occur regardless of the internal controls that are in place, the consistency of sanctions in response to particular types of offenses, and the degree to which sanctions are influenced by stratification, morphology, culture, organization, and social control (Black, 1976).

The present study contributes to theory, policy, and practice by accomplishing the following objectives: (1) providing a comprehensive description of perpetrators of occupational fraud who victimize organizations; (2) comparing offender characteristics (i.e., age, gender, education, position in organization, criminal history) and organizational characteristics (i.e., size, type, existing internal controls, revenue) for each type of fraud; (3) specifying and testing multinomial logistic regression models predicting the organization's decision to refer fraud cases based on the five dimensions of social life identified by Black; and (4) describing fraud investigators' perceptions of the response to specific types of detected fraud. Findings will be disseminated to criminal justice researchers and practitioners. Recommendations for future research and suggestions for preventative techniques and sanctioning approaches will be provided. No previous studies have simultaneously included victim organizations of varying size and type, comprehensive perpetrator information, legal responses, perceptions of fraud investigators, and data from two time periods. Additionally, Black's theory has never been tested across multiple organizations.

Organization of Dissertation

This dissertation is divided into five chapters. Chapter Two, "Literature Review," presents the conceptual framework for this study, and provides an overview of previous research on individual characteristics, organizational characteristics, and the behavior of law. In this review, the strengths and limitations of the previous research are discussed at length. The chapter also demonstrates how the propositions of conflict theory can be incorporated within the theory of the behavior of law using up-and-down theoretical integration. Chapter Three, "Data and Methods," introduces the research propositions, describes the research design and procedures, and justifies operationalization of the independent and dependent variables. Chapter Four, "Results," describes the major research findings from all analyses. Finally, Chapter Five, "Discussion," revisits the issues introduced in the previous chapters, and examines the implications of this study for theory, policy, and practice.

CHAPTER TWO: LITERATURE REVIEW

This literature review is arranged in the following manner: First, the origins of white-collar crime research, beginning with Edwin Sutherland's (1939) well-known introduction of the concept and his interest in differential implementation of law, is reviewed. Next, Sutherland's legacy, including the applicability of his differential association theory to white-collar crime, is traced through the research of Cressey (1953); Geis (1992; 1967; 1962); Clinard and Yeager (1979) and Quinney (1964) among other scholars.

Following this overview, more recent developments in white-collar crime research are presented. In this section, conceptual issues related to the distinction between offender-based and offense-based definitions are discussed. Next, an organizational framework is presented, to suggest how white-collar crime research should incorporate individual and organizational characteristics. This section of the chapter includes a discussion of integrated perspectives, such as the work of Vaughan (1996, 1992, 1983); the section also highlights the value of including multi-level influences (i.e., individual

characteristics and organizational processes) in studies of occupational fraud itself and of legal responses to white-collar crime.

To justify the inclusion of individual and organizational characteristics in the present study, the next section reviews prior research on both types of characteristics. No studies of occupational fraud have included multi-level influences, so the discussion in this section is somewhat exploratory in nature. This section demonstrates the importance of examining individual and organizational characteristics that are related to distinct types of occupational fraud.

In the second major section of this literature review, the theoretical perspectives that guide the present study's explanation of legal responses to occupational fraud are presented. The strategy of up-and-down integration (Liska, Krohn, and Messner, 1998) is outlined to show how key parts of conflict theory can be accommodated within the structure of Black's (1976) theory of the behavior of law for a more complete, theoretically informed understanding of legal responses to types of occupational fraud in organizations. Previous research testing Black's theory is reviewed to justify the measurement and inclusion of the behavior of

law variables used in the present study. When appropriate, previous research supporting conflict theory is also discussed within the context of the five dimensions of social life identified by Black. This chapter concludes with a brief summary of the sections described above.

The Origins of White-Collar Crime Research

White-collar crime has been the focus of a great deal of research spanning the past 65 years. The term "white-collar crime" was first introduced by Sutherland in his 1939 presidential address to the American Sociological Society, the precursor to the modern day American Sociological Association, and then later refined in his 1949 publication White Collar Crime. Specifically, Sutherland defined white-collar crime as "a crime committed by a person of respectability and high social status in the course of his occupation" (Sutherland, 1949: 2).

Although this definition can be labeled "offender-based," because it calls attention to the characteristics of individuals (i.e., respectability, high social status), it also includes characteristics of the offense itself. Sutherland argued that white-collar crimes involved

violations of trust. In addition to financial costs of white-collar crime, Sutherland acknowledged that the damage to what he termed "social relations" represented a much greater cost. Specifically, he stated: "white-collar crimes violate trust and therefore create distrust; this lowers social morale and produces social disorganization" (1949:13).

In studying white-collar crime, Sutherland had two distinct interests. His first interest was to critique the scope of existing criminological theories, which focused on poverty and related structural conditions (e.g., inequality) as causal variables in all forms of crime. As Sutherland noted, these factors could not explain the criminal behavior of affluent, educated individuals working in organizations or other legitimate settings. This focus of Sutherland's spawned a great deal of controversy in the field of criminology because it contributed to the first debates on the scope and applicability of general theories. Sutherland wanted to improve criminological theory by emphasizing factors that could explain the crimes of all classes, as opposed to just crimes of the poor, criminology's main concentration at the time. Sutherland sought to develop a general theory that would apply to

offenders from all social strata---to explain "crime in the suites" while equally explaining crime in the streets.

Sutherland's meta-explanation for crimes of both the upper and lower classes was his differential association theory, which posited that criminal or deviant behaviors are learned through one's association with others who define criminal activity favorably. This perspective suggests that for white-collar offenders, the process of differential association occurs in the workplace setting. Behavior that is deviant or criminal is not negatively defined by the offender when it is accepted by others in the organization and is learned on the job in the same way that non-criminal behavior and norms are learned. Because it is a general, social process theory, Sutherland argued that differential association could explain the crimes of upper and lower class offenders equally well. Differential association theory has been widely accepted in criminology, and has been tested and supported in studies of many diverse populations, such as juvenile delinquents, gangs, and adult offenders. Ironically, Michael Gottfredson and Travis Hirschi, whose own general theory of crime (1990) sparked heated debates, are perhaps the strongest critics of the need for specialized studies of white-collar crime.

In researching white-collar crime, Sutherland's second related but distinct interest dealt with the failure of crime statistics and official sources of criminal justice data (e.g., the Uniform Crime Reports). Much like the prevailing theories of the time, official sources did not capture the crimes of the upper class, which Sutherland argued was due to the fact that the criminal justice system treated high status offenders differently. Many such acts were not criminal, but were civil or regulatory violations. This discrepancy still concerns today's criminologists. Unlike street crime, white-collar crimes rarely involve stigmatizing, official criminal procedures such as arrest. White-collar offenders are not subjected to the same correctional filter (i.e., steps in the criminal justice system beginning with arrest and ending with imposition of the correctional sanction) as their less affluent counterparts because many of their offenses are not considered criminal. Alternatively, they are dealt with through administrative procedures, civil court, and lenient sanctions such as monetary fines imposed on their employing organizations.

As Reichman (1992:245) noted, the "cultural authority" of many profitable, well-known organizations allows the

public to view them, and their employees, as respectable in society. Citizens of high socioeconomic status have the ability to effectively lobby to have their offenses treated as non-crimes, an action that is not available for use with lower class, street offenders. This difference in handling and processing of offenders based on class and power was referred to by Sutherland as differential implementation of the law. Since Sutherland initially called attention to the issue, it has continued to be a topic of interest for criminologists, and has been particularly important in the area of disparate sentencing studies (Nagel and Hagen, 1981-82; Radelet, 1989). Differential implementation of law is also a primary focus of the present study, and is addressed in more detail in subsequent chapter sections.

Although Sutherland defined white-collar crime based on the characteristics of individual offenders (i.e., high status and respectability), it is important to recognize that his landmark study actually focused on offenses committed on behalf of organizations, leading subsequent scholars to disagree over the appropriate units of analysis for white-collar crime research. In this study, Sutherland (1949) examined civil, criminal, and administrative legal decisions against the 70 largest United States

manufacturing, mining, and mercantile corporations. Results demonstrated that although firms frequently violated laws and regulations, they and the responsible employees within them were seldom prosecuted. This study represented the first empirical research on white-collar crime, and suggested that the damage to society---financial and otherwise---from these offenders far exceeded that produced by the actions of common or street criminals.

While Sutherland's contributions are now widely recognized and highly respected in the field of criminology, his scholarship at the time was criticized for two main reasons. First, it exemplified the discrepancy between the appropriate units of analysis (i.e., individuals or organizations) for white-collar crime research. This problem remains a lingering issue in criminology, and has led some scholars to argue for the specification of various subtypes of white-collar crime: corporate crime, referring to acts by or on behalf of the organization, and occupational crime, referring to acts committed by individuals for their own personal gain. Cressey (1988) has criticized the term corporate crime stating the idea that a corporation commits a crime is a legal fiction, since it is individuals within an

organization who act.

A second, early critique proposed that Sutherland's research excessively attacked the business world's integrity by including samples of individuals who had not been convicted of crimes (Tappan, 1947). Sutherland's response, however, quickly quelled this criticism. As Geis (1992: 36) summarized:

"Sutherland got much the better of this debate by arguing that it was what the person actually had done in terms of the mandate of the criminal law, not how the criminal justice system responded to what they had done, that was essential to whether they should be regarded as criminal offenders."

Although many criminologists then and now agree with Sutherland's position, Tappan's suggestion that violations of trade and other regulations should not be called "crimes" is important to consider. This issue is also related to differential implementation of law, and the behavior of law itself, which would suggest that powerful corporations have high enough status to prevent their harmful acts from being labeled "criminal". This issue is

supported by the propositions of conflict theory, as well as Black's theory, and is addressed further in the final section of this chapter.

Sutherland's Legacy: Early Studies in White-Collar Crime

Following Sutherland, a small number of specialized empirical studies emerged, resulting in a wide variety of interpretations of white-collar crime and related concepts. For example, Clinard (1952) focused on black market offenses during World War II, and the personality characteristics of individual offenders. Clinard suggested that these characteristics did an equally impressive job in accounting for offenses, compared to Sutherland's differential association theory. Clinard's study also attempted to address the conceptual and definitional problems in white-collar crime research by pondering whether such black market offenses should really be considered "white-collar" crimes.

A second, early contribution to the white-collar crime literature was Cressey's (1953) study of incarcerated embezzlers. Cressey's in-depth, qualitative interviews uncovered similar themes across individuals, such as the fact that embezzling was learned on the job, suggesting

support for Sutherland's differential association theory. Also confirming Sutherland's ideas, Cressey found that embezzlers typically occupied positions of trust from their employers. In examining the various motivations for embezzling, Cressey found that the majority of offenders experienced a "non-shareable financial problem," such as gambling debts. In addition to this pre-existing condition, Cressey suggested that two other conditions must be present for embezzlement to occur: (1) necessary knowledge to commit the offense, and (2) offenders' rationalization to adjust the contradiction between their own actions and the existing normative, societal standards.

The condition of a non-shareable financial problem has received some limited support from researchers studying occupational fraud, most notably Albrecht (2003), who found that financial problems were associated with vices such as prostitution, illegal drugs and gambling, leading offenders to "borrow" money from their employers as a means of paying their debts. The condition that one must have necessary knowledge to commit the offense is fairly obvious, and has been somewhat of a universally accepted finding in subsequent embezzlement and fraud studies. Perhaps Cressey's most important and lasting contribution

to white-collar crime research and broader criminological research was his interest in the process of rationalization used by white-collar offenders.

An important point with regard to offender rationalizations was Cressey's idea that these adjustments were not simply made after the offense, but were "...psychologically present before the crime was committed and were a major part of the original motivation for the act" (Coleman, 1992:57). In broader criminological studies, this early notion led to the formulation of Sykes and Matza's (1957) "techniques of neutralization," an influential concept in criminology in general, and specifically applied to white-collar crime research. The process of neutralization assumes individual thought and motivation, which puts it beyond the scope of the present study. However, it is a safe assumption that individuals who victimize their employers by committing fraud use some type of neutralization technique in the process. Research on the behavior of law also supports this idea. For example, in a study that involved participants' ranking of hypothetical situations between various offender-victim dyads, Hembroff (1987) found that ratings were more supportive when the victim was described as a "large,

powerful organization" and the offender was described as poor. The present study uses general findings to speculate about individual processes such as offender motivation and neutralization.

Also following the post-World War II years of white-collar crime research, several distinct, industry specific studies emerged, influenced by the muckraking journalistic traditions of the time (Geis, Meier, and Salinger, 1995). Generally speaking, this research focused on features of specific industries (e.g., market factors) that explained the offenses committed in various firms. One such study was Hartung's (1950) research on wartime violations within the Detroit meatpacking industry. Although the offenses considered in this study were regulatory, as opposed to criminal, violations, Hartung argued that they should still be thought of as white-collar crime; this position did little to resolve the definitional disputes.

Slightly later, Newman (1958) attempted to address the definitional problem in a manner consistent with the Sutherland tradition by suggesting that an offense constitutes "white-collar crime" if it takes place within the offender's occupational role. In other words, the use of one's occupation to commit offenses should be the

defining characteristic of white-collar crime, rather than a focus on the specific criminal or regulatory statutes that may be violated as a result. Newman acknowledged that the blurring of regulatory and criminal statutes was a problem, however, and should be addressed in future white-collar crime studies. Other white-collar crime scholars have typically minimized regulatory violations, which Schlegel (1990:4) argued has tended to "...distort the seriousness and extent of illegal corporate behavior." This issue is related to the substance of law itself, and whether law really represents a normative consensus on what behaviors should be considered "crimes."

In an attempt to call attention to definitional controversy, Quinney (1964) suggested that violations committed in the course of all occupations---not simply high status jobs---should be studied as white-collar crime. Although his goal was achieving clarification, Quinney's argument merely muddled the conceptual waters, given the difficulties associated with determining what exactly constitutes an "occupational act." For example, if a retired individual does not file an income tax return, would that be an occupational act and therefore considered white-collar crime? Although Quinney's ideas have been

criticized for broadening the focus of white-collar and occupational crime, his important point should not be overlooked: namely, that constraining the status of offenders to "upper class" would result in little knowledge of issues related to differential implementation of law. A sample of employed offenders varying in status, on the other hand, would allow researchers to develop a better understanding of the offenses themselves and of the variation in responses by the criminal justice system. Quinney's (1964) early view foreshadowed his (1970) theory of the social reality of crime, a general conflict perspective that applies to the present research.

An additional, well-known contribution to the white-collar crime literature was Geis' (1967) study of price fixing in the heavy electrical industry. Geis found theoretical support for Sutherland's differential association theory. His findings also supported Cressey's ideas about the process of rationalization used by white-collar offenders. However, after Geis' (1967) study was published, research interest in white-collar crime dwindled somewhat, but later resurged in the 1970s (Coleman, 1992).

In spite of the many studies conducted since Sutherland's time, the failure to distinguish between

crimes committed by organizations as a whole versus those of their individual employees has remained a controversial issue in the literature. Perhaps the most well-known attempt to address this concern was by Clinard and Quinney (1967), who, building upon Quinney's (1964) earlier work, divided white-collar crime into two distinct categories. The first, termed occupational crime, refers to those offenses committed solely for individuals' own benefits, in the context of their legitimate occupations. According to this distinction, occupational crimes victimize the host organizations of the employees who commit them. The second category, corporate crime, describes acts that are also committed by individuals; however, the employing organization is not the victim, but instead is the primary beneficiary.

This typological distinction has been broadly accepted, along with acknowledgement that "white-collar crime" contains a wide range of acts that can only be analyzed and discussed in a practical manner when broken down into types. Within criminology in general, the value of such typologies has generally been well received. In the next section of this chapter, more recent developments in white-collar crime theory and research will be briefly

discussed. Next, the offender-based and offense-based definitions of white-collar crime will be presented to show how an offense-based definition of white-collar crime contributes to enhanced understanding of differential implementation of law.

White-Collar Crime Today:

Developments in Theory and Research

In Sutherland's time, and still today, very few criminologists study white-collar crime. In fact, while the American Society of Criminology annually honors a scholar with the "Sutherland Award," they have yet to establish a specialized division on white-collar crime, but sponsor several more traditional research interests (e.g., Division on Corrections and Sentencing). The small group of researchers who have focused on white-collar crime are generally viewed as critical criminologists, or at a minimum, leftist or liberal in political orientation (Black, 1998). In studying white-collar crime as well as other types of crime, many researchers have focused on differential implementation of law, and have proposed numerous explanations for why some offenders or specific

offenses are treated more leniently by the criminal justice system. The present study incorporates this focus by examining how distinct types of occupational fraud may be punished based on characteristics of offenders, characteristics of organizational victims, and dimensions of social life as identified by Black (1976).

Historically, studies of white-collar crime, perhaps more so than other areas of criminological research, have been significantly affected by the social forces of the time. For instance, research interest in white-collar crime waned somewhat during the 1950s and 1960s, but resurged in the wake of historic events. Scandals such as Watergate, questionable foreign payments by U.S. corporations, and the consumer movement advanced by Ralph Nader all increased both public and research attention to white-collar crime (Clinard and Yeager, 1980). Recently, the wave of corporate scandals has encouraged new interests in white-collar crime, specifically on the different type of fraud that may be committed in the organizational setting (Albrecht, 2003).

One of the most significant white-collar crime research contributions in recent years is the studies of fraud in the savings and loan industry (Calavita, Pontell,

and Tillman, 1997; Calavita and Pontell, 1995; Pontell and Calavita, 1993; 1992; Tillman and Pontell, 1991; Will, Pontell, and Cheung, 1998). This research broke theoretical ground by identifying a new, hybrid, type of white-collar crime: crime against the corporation, on behalf of the corporation. This represents the most well-known study of organizations as victims of white-collar crime, specifically fraud. The major finding of these studies was that deregulation, coupled with unlawful risk taking, contributed to the large scale frauds.

In addition to recognizing the causal factors that lead to distinct types of savings and loan fraud (i.e., looting, collective embezzlement, and covering up), the research also contributed to understanding of the legal responses to fraud. Calavita and her colleagues interviewed federal prosecutors and other regulatory officials, used media accounts and government documents, and were able to identify a number of reasons for limited enforcement in the savings and loan industry. One reason uncovered by the researchers was a "system capacity problem," whereby prosecutorial staff simply did not have the resources needed to investigate complex cases of fraud involving several years of evidence and multiple

jurisdictions. Additionally, the researchers attributed the lack of enforcement to macro level factors such as the structure of finance capitalism itself, which promotes profit maximization. The study of fraud in the savings and loan industry remains the most comprehensive research endeavor to date on fraud victimization of organizations. The present study contributes to this literature by adding to understanding of the types of fraud victimization in different organizational settings.

Organizational Crime

Despite the disagreements over the definition of white-collar crime, scholars generally agree that many such offenses occur in organizations (Reiss and Tonry, 1993). Given this acknowledgement, it has been suggested that theoretical progress is most likely through organization theory paradigms. Within this perspective, it is possible to abide by previous distinctions between corporate/organizational crime and individual/occupational crime (Clinard and Yeager, 1980).

Some researchers have chosen to focus on deviance (as opposed to crime) in organizations, using such terms as "corporate deviance," "elite deviance" and "occupational

deviance," in their research. However, such distinctions have been viewed as flawed because of their subjective nature. Research on cross-cultural perceptions also shows that deviance is viewed differently by distinct groups (Lynch, Nalla, and Miller, 1989). As Coleman (1987) notes, there are many inherent difficulties in identifying what sort of organizational practices are actually "deviant," since a vast number of groups with unique norms define what is and is not deviant in various contexts. For example, what may be viewed as deviant in one organization might simply be considered just a risky business practice in another setting. Additionally, unlike acts that are defined as criminal violations of law, there are no clearly formulated public standards for elite behavior, resulting in a deviance approach that is characterized by the use of researchers' values and prejudices. In the study of organizational victims, narrower conceptualizations of occupational and corporate crime can avoid such problems.

Within the organizational framework, recent advancements in the study of white-collar crime can be found in the work of Diane Vaughan (1998; 1996; 1993; 1992; 1983), who focuses on the importance of what she calls the "micro-macro connection" in white-collar crime theory.

Vaughan's qualitative case studies have demonstrated the importance of a multi-level perspective that includes both individual and organizational factors. Vaughan (1992: 134) outlines the process of theory elaboration, which "...is not to test (in the positivist, deductive tradition) the theoretical notion or notions of interest, but to specify more carefully the circumstances in which the theory, model or concept under consideration does or does not offer potential for explanation."

Vaughan suggests that the process of theory elaboration can be accomplished by avoiding the business firm bias in white-collar crime research. This involves moving beyond traditional study of large, profit making organizations as settings for white-collar crime, and expanding research to include other organizational settings, such as smaller firms, non-profit groups, and government agencies. Vaughan stipulates that the process of theory elaboration can be accomplished through in-depth, qualitative case studies of organizations that vary in size, complexity, and function. By using data from multiple types of organizations, the present study partially corrects for the business firm bias. It is possible to determine whether certain types of fraud occur

more often in specific types of organizations, and if the types of fraud are associated with various individual characteristics. Additionally, it is also possible to examine and predict differences in the range of legal responses to the types of fraud.

Conceptual Issues: Offender and Offense-Based Definitions

Although research that can be classified under the general heading of white-collar crime has grown considerably since Sutherland's work, the debate surrounding the operationalization and definition of this concept still persists in the field of criminology (Meier, 2001). Some researchers have chosen to focus on characteristics of criminal offenders (e.g., class, position) to define white-collar crime. This tradition dates back to Sutherland's original conceptualization of white-collar crime. As previous critiques have demonstrated, defining white-collar crime based on offender characteristics results in "an unfortunate mixing of definition and explanation" (Braithwaite, 1985:3). Such a restriction leads to confusion over what types of acts actually are white-collar crimes, and also makes it impossible to study class variation in offenders who commit

white-collar crime, which is contrary to Sutherland's concern with differential implementation of law.

An alternative approach to defining white-collar crime, the offense-based definition, specifies that researchers restrict white-collar crime to precise acts in violation of the criminal code. Researchers who support this approach have typically included a set number of "white-collar offenses" in their studies (See for example, Wheeler et al. 1982). Although an offense-based approach makes it possible to empirically examine the relationships between social class, other offender characteristics, and crime, this view also is not without criticism. For example, Gottfredson and Hirschi's (1990) offense-based definition of white-collar crime as "fraud, forgery and embezzlement" has been denounced for being more consistent with "common crime," and for not taking into account the context or setting (e.g., the workplace) in which white-collar crime occurs.

Other offender-based conceptualizations have been discounted for being too restrictive, and have lead some researchers to broaden their definitions, making them more applicable to multiple settings. Shapiro (1990) argues that all white-collar crimes represent violations of trust,

and all offenders can therefore be thought of as trust-violators. This approach supports Cressey's (1953) original findings on embezzlers, and is also consistent with Sutherland's (1940: 3) statement that "these varied types of white-collar crimes in business and the professions consist principally of violation of delegated or implied trust." Shapiro suggests that researchers should "collar the crime, not the criminal" for a greater understanding of trust violations. This approach makes it possible to compare characteristics of offenders who commit similar types of trust violations, and permits empirical study of differential implementation of law.

The definitional debate notwithstanding, the present research uses an offense-based definition of white-collar crime, specifically occupational fraud, which is superior for a number of reasons. First and foremost, it is apparent that crimes occurring within the context of one's legitimate occupation by nature are violations of trust. Regardless of the type of occupational fraud that is examined, all acts considered in the present study involve employees who manipulate their victim organizations for personal benefit. When all acts under study share similar characteristics, the most logical definition is one that is

offense-based. Additionally, an offense-based definition of occupational fraud is superior to an offender-based definition because it is not restricted to certain levels or types of employees (e.g., high-level administrators or CEOs). It is quite possible that certain kinds of fraud may only be committed by employees who hold high-level positions, while other frauds may be common at multiple levels within an organizational hierarchy (Mitchell, Daniels, Hopper, George-Falvy, and Ferris, 1996). An offense-based definition lets the characteristics of offenders (e.g., age, education, gender, and position) vary, so it is possible to determine whether differences in offenders exist based on types of fraud, as well as on the type of legal response that occurs. If an offender-based definition of white-collar crime is used, researchers would be left with no understanding of the types of fraud that occur at multiple levels of an organization. Perhaps even more importantly, if all offenders in a sample were categorized as "high class" or "respectable," we would have no knowledge of whether differential implementation of law occurs. The offense-based definition and operationalization of white-collar crime, specifically occupational fraud that is used in the current study is revisited in Chapter Three.

Individual and Organizational Differences Related to Types of Occupational Fraud

A key research question is whether particular types of occupational fraud are committed most often by certain types of people, or in certain types of organizations. The answer to this question can provide insight into the type of people and the type of settings that are most conducive to a particular form of fraud. Given the paucity of previous research on occupational fraud, these subsequent analyses are largely exploratory.

The review and formulation of theory that follows demonstrates that individual characteristics and variables such as the type of organization, revenue, and existing control mechanisms may all influence the form of occupational fraud that occurs. The research on corporate crime indicates that is important to consider characteristics of organizations when studying the behavior of individuals within them. This body of literature demonstrates that variables such as the type of organization, size of organization, revenue, and existing internal control mechanisms may all vary based on the type of occupational fraud that occurs. Taken together, the

research on individual characteristics and organizational characteristics presented below provides a micro-macro framework for examining the occurrence of distinct types of occupational fraud.

Individual Characteristics

The general body of criminological literature as well as more specific studies of crime by employees, previous research on age, gender, education, position, and criminal history is presented. There is much less literature on likely variation between offenders and settings for different kinds of fraud. The study uses prior research on individual characteristics associated with white-collar crime to determine whether such factors are related to all three types of occupational fraud, or whether individual characteristics differ based on the distinct fraud types.

Age

According to Hirschi and Gottfredson (1983: 552) "One of the few facts agreed on in criminology is the age distribution of crime." Compared to other characteristics of individual offenders, age is easy to study, because it is regularly recorded in many official sources of criminal

justice data (e.g., Uniform Crime Reports). With regard to the overall crime rate, the age distribution is positively skewed, suggesting that rates of offending peak between "crime prone" ages of 18-25, and then decline over time---an "aging out of crime" effect. Hirschi and Gottfredson, among others, have used the age distribution to support their arguments against the need for longitudinal research designs in the study of criminal careers. This perspective has been refuted in studies examining desistance from crime, which have generally established that the relationship between age and crime is much more complex. For example, Shover and Thompson (1992) found that differential expectations about success at legitimate and criminal occupations, as well as level of education, vary based on age, and influence the offender's decision to engage in crime. Others have found that, while the age distribution appears to hold for the overall crime rate, it differs when offenses are compared separately (Benson and Moore, 1992). Clearly, while age indeed may be simple for criminologists to study, the contrary findings in the literature indicate that other variables influence the relationship between age and crime. Given the influence of age on the occurrence of crime, the literature suggests

that differences in age may be revealed when distinct types of fraud are compared.

In studies of the types of white-collar crime committed by individuals, age has been a frequently included variable (Piquero and Piquero, 2001). Research shows that the age distribution for white-collar crime differs considerably from more traditional crimes, mainly because most definitions of these offenses specify that legitimate employment is a condition for the crime to occur. Legitimate employment opportunities are restricted by age requirements (e.g., a minimum age of 16 years is often specified as a condition of employment). Therefore, white-collar offenders by nature are likely to be older on average, than "common" offenders. Describing the "typical white-collar criminal," based on their sample of convicted offenders, Wheeler, Weisburd, Bode and Waring (1988) found that this individual was a white male, aged 40 on average. In the same study, this statistic for common offenders revealed a black male, aged 30, as the "typical" offender. In studies of all crime, the relationship to offenders' age should be carefully examined along with other predictor variables. The more general white-collar crime literature suggests that the average age of offenders who commit all

forms of occupational fraud will be similar to white-collar offenders as a whole. The present study of occupational fraud determines whether age differs based on the type of fraud.

Gender

Many studies of gender and crime have relied on official statistics (e.g., Uniform Crime Reports) for a comparison of male and female involvement in various offenses. Generally, when arrest rates are compared in this manner, data show that males commit a higher proportion of crime in general. Known as the gender-gap in crime, this fact is widely accepted in the criminological literature (Heimer, 2000). For offenses commonly labeled white-collar or economic crime (i.e., embezzlement, forgery, and fraud), arrests of males have historically outnumbered those of females. A closer examination of arrest trends, however, has suggested that for some economic offenses, the gender-gap has narrowed in recent decades (Heimer, 2000; Steffensmeier, 1993). Researchers have used a number of explanations to account for the convergence in male and female arrest rates and for the specific increases in female economic crimes. These include

women's increased labor force participation (Simon, 1975) and occupational marginality (Daly, 1989).

Most of the early studies of white-collar crime have failed to consider the effects of gender on the types of fraud committed. This discrepancy is likely due to sample and data restriction issues. For instance, Cressey's (1953) interviews took place within a male prison, making it impossible to examine both genders. Other early examples used sanctions against entire organizations as the primary unit of analysis, resulting in the failure to consider the gender of individual employees as an explanatory or comparative factor (Sutherland, 1949).

More recent white-collar crime research has included samples of both males and females, but gender has typically been used as a control variable. One notable exemption is Daly's (1989) reanalysis of the Wheeler et al. (1982) data from pre-sentence investigation (PSI) reports for offenders convicted of eight federal, white-collar offenses. Daly's analysis showed that the sample as a whole did not fit the stereotypical conceptualization of a high-status white-collar offender. Daly also 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. Men were more likely to commit offenses in groups, while women tended to act alone. Additionally, compared to their male counterparts, the women in the sample had lower levels of education and income.

The primary limitation of this study, as Daly acknowledged, is the fact that all offenders were convicted and sentenced, which limits the generalizability of the findings. An earlier study including both male and female employees who stole from department stores addressed this issue and stated:

"Because the distribution of prosecuted offenders was radically different from that of all apprehended trust violators, and since many of the most significant variables connected with department store employee theft varied, any analysis of this phenomenon based upon an official sample of prosecuted cases would have been completely unrepresentative of the universe." (Robin, 1970: 127)

As Robin and others have noted, the U.S. justice system represents a series of discretionary decisions

(e.g., from referral to sanctioning) so those offenders who are convicted in federal courts may differ considerably from those whose crimes are never made public. Alone or in combination with other individual characteristics (e.g., criminal history), gender may influence how offenders are handled and processed. Additionally, gender, in concert with factors such as employee position, may contribute to opportunities for certain types of occupational fraud but not others. For example, a woman in a lower level occupational position may never be granted access to an organization's accounting system, resulting in no skills or opportunities to be involved in fraudulent financial transactions on a large scale. However, a female offender who is situated in a lower status occupational role may have access to petty cash, resulting in less serious fraud (e.g., more minor forms of asset misappropriation).

This study addresses the limitations of previous research on gender and types of crime by including a nearly equal percentage of males and female offenders in the sample, and by including individuals who did not appear before civil or criminal courts. Daly's work shows that gender, along with other individual characteristics, is related to the type of crime that is committed. This

finding suggests that gender, either alone or combined with additional individual characteristics, may also influence the type of occupational fraud that occurs.

Education

Previous research demonstrates that education is correlated with crime. Many studies in criminology have examined how the educational levels of offenders relate to distinct types of crime. To summarize, the research indicates that the relationship between education and crime is inverse---that the lower an individual's level of education, the more likely he or she is to participate in criminal activity. Much like the study of age, however, the association between education and crime is more intricate. Education is related to many additional characteristics of individuals that are considered in the this study, including age, gender, position, and criminal history. For example, consider that an individual's access to educational opportunities is determined by conditions related to social class (e.g., parents' income). In terms of organizational position, one's initial employment possibilities may be limited by the minimum education level that is required for a particular job. Jobs that are

considered "low status" may require limited or even no formal education. Within an organization, an occupation such as auditor typically must have specialized training and education prior to obtaining a position, while a clerical worker's skills can largely be learned on the job.

Similar to the study of age, the level of education of white-collar offenders has been frequently examined, and the research suggests that education may be associated with the types of fraud committed in organizations. Prior research incorporating education in analyses contrasting white-collar and common offenders has supported the widely believed assertion that white-collar offenders have higher levels of education. For example, in 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. The present study determines whether there are educational differences between offenders who commit different types of occupational fraud, and whether such differences are related to individual or organizational characteristics.

Position

Prior research shows that the offender's position in

the victim organization is a key factor in the type of fraud that is committed. Recall that Cressey's (1953) initial 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. Additionally, all of the embezzlers interviewed by Cressey shared the characteristic of occupying positions of trust by their victim employers, and the level of trust an employer has in an individual is undoubtedly determined by one's position in the organization.

Within organizations, one's position in the hierarchical structure limits the types of occupational fraud that may be committed. For example, those holding managerial or executive positions may have access to greater opportunities, and may be viewed as "trusted," while those lower on the organizational totem pole may only have the opportunity to commit less serious forms of fraud (Weisburd et al. 1991). In summary, an individual's position in the organization can influence the opportunities that are unavailable to all employees, resulting in distinct types of offenses committed by people at different organizational levels (Vaughan, 1983).

Criminal History

Previous studies focusing on white-collar offenses exclusively have found that certain types of offenses (i.e., mail fraud) are more likely to be committed by individuals with prior criminal records. These findings have been limited by the samples used, and also by the definitions of white-collar crime. For instance, it can be argued that the finding of no difference between criminal histories of white-collar and common offenders exhibited in Weisburd et al.'s (1990) study reflects the fact that the offenses included in this research more closely resembled common or street crime. When offenses more consistent with white-collar crime, specifically occupational fraud, are studied, the general consensus is that prior official criminal records are rare among these individuals (Albrecht, 2003; Robin, 1970). However, this finding could be due to the fact that their previous offenses against employers have been dealt with internally (e.g., dismissal, resignation) rather than referring the case to outside authorities.

Criminal history has been examined as an independent variable to predict an offender's current offense. In studies of criminal careers, the issue of crime

specialization has been studied to determine whether offenders vary in their participation in different types of crime, or tend to commit similar offenses throughout the lifespan (Weisburd, Waring and Chayet, 1990).

Compared to common offenders, the research generally shows that white-collar offenders are less likely to have an official criminal record (Albrecht, 2003). While the criminal backgrounds of common offenders are believed to be fairly extensive, white-collar offenders are often portrayed as "one-shot" criminals, with no prior involvement in criminal activity. In research investigating these comparisons, some conflicting findings have emerged, however, showing that few differences in criminal history may really exist. One such comparison examined this issue and found that each of the eight offense categories considered "white-collar" included individuals with at least one prior arrest (Weisburd et al. 1990). For the full sample, 43% had been previously arrested for any crime. With regard to the issue of specialization, 34% of this sample had known arrests for a prior white-collar crime. These findings should be interpreted with caution, however, given the fact that the sample contained all convicted offenders.

This study's use of criminal history variables improves upon existing research. The findings have implications for organizational practices that occur at the pre-employment stage (e.g., criminal background checks). If some types of fraud are more likely to be committed by employees with prior criminal backgrounds, organizations can make changes in hiring policies.

Organizational Characteristics

In this section, previous research on organizational characteristics will be reviewed. Since very few studies have examined the relationship of organizational characteristics and types of fraud, most of the literature presented is from studies of corporate crime. Because it is individuals, not organizations, who actually commit the offenses, the prior corporate crime research still applies to the study of occupational fraud. The research shows that differences in type, size, revenue, and internal controls should all be included in the analyses comparing types of occupational fraud. The main interest is in whether characteristics of the organizations differ based on the type of fraud that occurs.

Type of Organization

Most white-collar crime studies have been limited to single organizations, or single types of organizations, resulting in little knowledge about how variation in the type of organization may contribute to the types of fraud committed (Vaughan, 1992). However, the broader research literature on public perception of crime provides some guidance as to how fraud in different types of organizations is perceived. For instance, 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, the larger and more bureaucratic the organization, the greater 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 further argued (1970:5) that the public has failed to stigmatize crimes against bureaucracies, which results not just in increased crime against organizations, but also in limited public sympathy toward organizational victims.

While the literature on public perception of crime

suggests that citizens and offenders themselves may find it easier to neutralize bureaucratic organizations as victims of fraud, little is known about other types of organizations (Fleckenstein and Bowes, 2000). The existing literature merely states that crime in general may be more likely in certain types of organizations (i.e., bureaucracies) but does not identify whether certain types of occupational fraud are more common in specific organizational settings. Including organizations that differ in type makes it possible to determine whether types of fraud vary across unique settings. For instance, it is likely that fraudulent financial statement fraud, which can involve overstating an organization's revenue, may be more common in public organizations as opposed to private, non-profit, or government agencies. However, corruption, a different type of occupational fraud, may occur more often in a government setting. The findings from the present research will contribute to the literature on occupational fraud, and will also be valuable for organizational practitioners.

Size

Like the type of organization, few studies in white-

collar crime have compared organizations that vary in size, so little is known about how the size of an organization may influence the type of fraud. This is likely due to the fact that data from multiple organizations are not always available to researchers. The literature on corporate crime provides some suggestions about how the size of an organization may be related to the type of criminal or regulatory violation that occurs within it.

Sutherland's early research on the 70 largest U.S. businesses called attention to organizational size as a factor in white-collar crime research. When organizational size has been included in subsequent studies of corporate crime, the finding that larger organizations are associated with greater amounts of crime has been consistently supported (Baucus, 1989; Cochran and Nigh, 1987; Dalton and Kesner, 1988; Gricar, 1983). In spite of the fact that this finding has been replicated, challenges to this research have proposed that the relationship between size and behavior is much more complex (Clinard and Yeager, 1980). For example, Staw and Swajkoski (1975) found that environments of large organizations influenced crime.

Additional research indicates that a related variable, diversification, may also influence the likelihood of

offenses as a whole, or just certain types of offenses. Cochran and Nigh (1987) found a greater chance of offending in large, highly diversified organizations than in large, less diversified organizations. Hill et al. (1992) found that factors such as decentralization, span of control, and incentive systems, which varied with organizational size, also predicted crime, suggesting that the relationship between size and crime is not strictly linear. For example, smaller organizations may have less sophisticated accounting systems, suggesting that petty theft, a kind of asset misappropriation, may go undiscovered. Specialized, small businesses relying on one employee to perform billing functions may also encourage certain types of fraud (Tillman and Indergaard, 1999). One of the few studies focusing on small business crime revealed that collusion with members outside the organization was a common offense (Barlow, 2001). However, a larger scale fraud in a small organization might be easily noticed due to factors such as a smaller budget.

The present study improves upon past research by including organizations varying in size, and by examining whether differences in organizational size are related to the type of occupational fraud.

Revenue

Much like studies that have included type and/or size of the organization, revenue has been studied in corporate crime research. In this body of literature, revenue is usually defined not in absolute terms, but as a relative measure (e.g., compared to other organizations in the same industry). Existing indexes such as the ranked list of Fortune 500 Companies may also be used to indicate an organization's revenue. The lack of criminological theory in this area makes hypotheses about the relationships between organizational revenue and the types of occupational fraud purely speculative. Since so few studies of occupational fraud have ever been conducted, the corporate crime literature can be consulted to provide suggestions on expected relationships in the present study.

Recent media accounts like the coverage of the case of energy giant, Enron, have shown that firms in financial trouble are associated with the crimes of individuals within them (Nussbaum, 2002). This may be a spurious finding, because it is possible that the crimes of employees are simply discovered in times of financial strain. For example, if an organization is experiencing poor financial performance, auditors and accountants may

complete extensive evaluations to determine whether changes in existing 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; Vaughan, 2001). In the present study, data on revenues were available for public companies. Because all cases of fraud in the sample have been detected, differences in revenue are compared for the types of fraud.

Internal Controls

Unlike street or common crime, which is dealt with by the police, organizations that are victimized by their employees may rely on alternative mechanisms of enforcement (Walsh and Seward, 1990). Legal approaches may include civil, criminal and administrative actions. Before fraud cases are referred to the appropriate authority, organizations may use various internal processes to handle employees (Stone, 1975). Additionally, these processes may be in place in organizations as a means of screening potential workers at the pre-employment stage, or for

purposes of preventing and/or detecting different types of fraud by current employees. Internal controls may include background checks as well as anonymous reporting systems and audits.

In criminology, existing studies have considered internal controls within the context of general deterrence theory and/or rational choice (Hollinger and Clark, 1983). This suggests that employees who are thinking about committing fraud will first weigh perceived costs and benefits. For example, 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., getting caught by the audit and subsequently fired) outweigh the perceived benefits (e.g., financial gain for the offender). Outside the field of criminology, one study found that the social context of the organization contributes to reporting of unethical activities (Trevino and Victor, 1992).

Due to the fact that the present study includes a sample of offenders whose acts of fraud have all been detected, it is not possible to make inferences about the

value of deterrence as measured by internal controls. However, determining the relationship between organizations' internal controls (background checks, anonymous hotlines, and audits) and the types of detected fraud, as well as the ways in which individual characteristics are related, still provides valuable information for fraud prevention practitioners, such as whether certain types of fraud occur in the absence of or in spite of various internal control measures.

An Integrated Framework: The Behavior of Law and Conflict Theory

Up-and-Down Integration

Integration refers to the process of bringing parts together in a unified whole. In the field of criminology, several strategies for bring together various theories or parts of theories have been developed (Liska et al. 1998). The strategy used in this study is "up-and-down" integration and is also referred to as "deductive" integration. It is the appropriate technique when key parts of one theory can be accommodated within the structure of another theory. In this study, key

propositions of conflict theory can be accommodated within the structure of Black's theory of the behavior of law, which will result in enhanced understanding of variation in legal responses to fraud. Following an overview of each theory, the process of up-and-down integration is accomplished through the presentation of relevant literature.

The Behavior of Law

Black's (1976) theory of the behavior of law is a general theory that outlines the variable dimensions of social life, including stratification, morphology, culture, organization and social control. The theory states that each of these dimensions increases and decreases from one location to another, which means that the variable dimensions can be used to develop propositions to predict and explain both the quantity and quality of law.

Black (1976:2) defines law as one form of social control, "governmental social control," and further conceptualizes law as both a quantitative and a qualitative variable. Measured in quantity, law includes the number of formal regulations, as well as the extent to which a given legal response is initiated or applied. For example, the

act of reporting a crime to the police is more law than not reporting a crime (which would be no law). Measured in quality, law varies with respect to style. The four styles of law Black identifies are penal, compensatory, therapeutic and conciliatory (arranged in an order that represents the highest to lowest quantities of law).

Black's theory has generated a great deal of discussion in sociology and the related, interdisciplinary field of criminology. One of the primary strengths of the theory is that it specifies a series of propositions regarding the way law behaves, which can be transformed into hypotheses for empirical testing by social scientists. Black also suggests potential measures as indicators of the five dimensions of social life, which makes it possible to construct variables consistent with Black's original recommendations. Following the overview of conflict theory, previous research that specifically tests Black's theory, as well as other studies that generally support Black's theory or parts of the theory, specifically conflict theory, is discussed. This approach conforms to the up-and-down integration strategy (Liska et al. 1998).

Conflict Theory

In the field of criminology, the conflict perspective emerged as an alternative to the consensus perspective (Vold, Bernard and Snipes, 1998). While the consensus perspective views society, and therefore its legal system, as reflective of public agreement on what constitutes "crime," the conflict perspective suggests that the organized state does not represent the values and interests of the larger public, but instead is based on the judgments of those groups who possess significant power. This view is related to differential implementation of law, because it suggests that there is an inverse relationship between power and crime whereby individuals with less power are more likely to be identified and processed as criminals. Alternatively, the conflict perspective would explain why those "high status, respectable" offenders originally studied by Sutherland would be officially dealt with through less demeaning procedures (e.g., administrative or civil violations). Researchers have used conflict theory to explain crime itself as a reaction by minority power groups (Vold, 1958), and have also focused studies of conflict theory on the legislative process to show how powerful groups' opinions are reflected in the passing of

laws (Chambliss and Seidman, 1971).

What is common in all of the existing conflict perspectives is the idea of power relations, and the consistent finding that those with less power (as identified by factors such as income, race, class, and gender) have less influence on defining and changing laws, and are also much more likely to be processed as criminal (Eitle, 2002; Hagan and Nagel, 1982). Applied to white-collar crime and its specific subtypes, conflict theory could explain corporate crime, and the lack of legal response to it, as a result of the power attributed to corporations. Conflict theory could also explain the behavior of individuals against their employing organizations (i.e., occupational crime) as reactive in nature: a response by individuals with less power to the constraints imposed by their employers. With regard to the legal processing of individuals who victimize their employing organizations, conflict theory suggests that their actions would be treated as criminal, and that punishment imposed by the organization and/or the appropriate legal system would be more severe than that experienced by corporate criminals (i.e., sanctions levied at entire organizations as opposed to individuals).

The ideas expressed in conflict theory are consistent with some of Black's (1976) propositions about the behavior of law, but differ in that they imply individual and/or structural motivation behind both crime and legal responses. Black's theory is much more general in that all of the relationships considered are not based on power. Still, both theories make predictions about the ways in which more powerful actors (organizations) use law to their advantage against less powerful actors (individual employees). Given the similarities, and the strengths of both theories, integration of the two perspectives provides a greater understanding of variation in legal responses to types of occupational fraud. Because up-and-down integration specifies that the propositions of one theory (conflict) must be contained within the broader structure of another theory (the behavior of law), the findings from previous research are organized based on Black's five dimensions of social life to integrate the perspectives.

Previous Research: The Behavior of Law and Conflict Theory

Black's theory of the behavior of law has been subject to several empirical tests, the results of which can be

summarized as mixed. While some studies have revealed no support (Dannefer, 1984; Doyle and Luckenbill, 1991; Gottfredson and Hindelang, 1979; Mooney, 1986), others have found partial support (Copes, Kerley, Mason, and Van Wyk, 2001; Hembroff, 1987; Lessan and Sheley, 1982; Mastrofski, Reisig, and McCluskey, 2002; Meyers, 1980; or full support (Kruttschnitt, 1982; 1980). The mixed findings can be attributed to differences in measurement. For example, while Mooney (1986) included age as an indicator of culture, Black himself suggests that age is a measure of stratification. A problem related to measurement and operationalization is the fact that Black does not assign relative weights to any of his independent variables, which may make modeling of the relationships difficult for researchers attempting to test the theory.

As noted previously, Black argues that law is a quantitative variable, suggesting that there can be more law at some times and places and less law at other times and places. In other words, various societal situations may call for an increased number of statutes defining what is and is not a violation of law at a certain point in time. For example, during times of war, additional rules or statutes may be implemented to define acts as criminal

(e.g., rationing violations) that would not be necessary during peace times. Additional examples are discussed in Black (1976). Black identifies five dimensions of social life and forms specific hypotheses about the behavior of law within each separate dimension. These dimensions, and the variables used to indicate the dimensions in the present study, are discussed below. Where appropriate, propositions from conflict theory are integrated into the discussion.

Stratification

According to Black, (1976: 17) stratification is the "vertical aspect of social life," and exists when material goods are distributed unequally among societal members. Black argues that the quantity of law varies directly with social rank: those of higher rank will use more law than those of lower rank. Additionally, Black specifies the direction of law as downward: if a crime is committed by an offender of lower rank against a victim of higher rank, more law will be used than if the crime occurs in the opposite direction. In the case of occupational fraud, an organization has higher rank than an individual. However, individuals vary in the differential between the rank of

the organization and their own rank. Black suggests several indicators of stratification, including age, and gender. Since these variables represent differences in power, they are also suggested by conflict theory.

Age

Previous studies have also found a connection between age and the behavior of law. In this area of research, age is considered as a measure of stratification in society. The relationship between age and stratification is positive---as age increases, so does status. Regarding law, those individuals who are older would be expected to use the law to their advantage. In prior tests of Black's theory, age has been used mainly as a characteristic of individual victims, to show that older victims are expected to use law more often (e.g., by reporting crime to the police) (Copes et al. 2001). As offenders, those who are older would be expected to have greater knowledge of law, and the legal response to their actions would not be as severe as the response to occupational fraud committed by younger offenders. One test of Black's theory, which examined common, as opposed to white-collar crime, revealed contradictory results. This study (Myers, 1980) found that

prosecution charges were more serious when the offender was older. Using age as a measure of stratification, the present study examines the quantity and quality of law that is used against all offenders.

Gender

Several previous test of Black's theory have incorporated gender as a measure of stratification. Like other measures of stratification (e.g., age), gender has typically been used as a characteristic of crime victims. As an indicator of stratification for crime victims, gender has been used to determine the likelihood of calling the police and/or reporting a crime based on Black's theory. For example, Copes et al. (2001) hypothesized that males, who are higher in the stratification system as defined by Black, would be more likely to use the law by reporting victimization than females. They did not find significant gender differences, however, indicating little support for this measure of stratification.

Other tests of Black's theory have included the gender of offenders, but in interaction with related characteristics, such as social status. Using age, economic rank, and employment status as measures of

stratification, Kruttschnitt (1980) examined the influence of these characteristics on social control responses. Her initial study demonstrated that the social characteristics of women predicted the severity of their subsequent sentences. In a later study, Kruttschnitt (1982) tested Black's proposition that law varies inversely with social control. The economic dependency of women offenders, measured by marriage or government dependency (i.e., welfare) was used as a measure of social control. Kruttschnitt found that dependent women were less likely to receive harsh sentences than non-dependent women, supporting Black's contention that law varies inversely with other forms of social control. These findings are consistent with the propositions of conflict theory because they would suggest that unmarried, independent women who do not conform to the dominant society's expectations are treated more severely by powerful groups (in this case, the criminal justice system).

Clearly, as a measure of stratification, Black's theory suggests that gender is related to the quantity and quality of law used against employees who commit occupational fraud. However, as the research of Kruttschnitt and others has demonstrated, gender is related

to a number of other factors, such as age, education, and position in the organization. These potential interrelationships are also considered. The present study improves upon past tests of Black's theory by using a sample that includes both male and female offenders.

Morphology

Morphology refers to the horizontal relationships in social life. As Black (1976: 37) notes, this covers "the distribution of people in relation to one another, including their division of labor, networks of interaction, intimacy and integration." The workplace therefore provides an ideal setting for the measurement of morphology, since the division of labor is easily identified by one's position in the organization. One's position in the organization is likely to be related to the type of fraud that may be committed, and is also expected to be related to the legal response to the fraud case. As is the case with stratification, conflict theory is consistent with Black's propositions about morphology by suggesting that those occupying higher positions in organizations will be subject to less law than their lower ranking counterparts.

Position

Because there have been no previous tests of Black's theory across organizations, there are no existing findings on how position, the indicator of morphology, is related to law. However, Black specifically (1976: 37) identifies the division of labor as a measure of morphology and further states that it is consistent with differentiation, or relational distance. In an organizational setting, those of higher positions (e.g., managers) are closer in relational distance to the top of the organization. Additionally, if and when higher position offenders' cases are brought to court, the relationship between the offender and the judge is closer in terms of relational distance, which Black says would indicate leniency. Both conflict theory and the theory of the behavior of law suggest that differential implementation of law will occur based on one's position in the organization.

Culture

Black (1976:61) defines culture as "the symbolic aspect of social life, including expressions of what is true, good and beautiful." Black further stipulates that

the quantity of law varies directly with culture: where there is less culture, there is less law; where there is more culture, there is more law. In previous tests of Black's theory, individuals' culture has been measured by the extent of culture they have experienced, such as through their levels of literacy and education (Avakame, Fyfe and McCoy, 1999; Copes et al. 2001). Those who are more educated are believed to be more aware of their rights in society, which indicates that they would be more likely to use the law in their favor. With regard to offenders who commit different types of occupational fraud, Black's theory suggests that those with more culture (as measured by higher levels of education) would be subject to less law. Since education is determined by factors such as social class, conflict theory could also apply, but the conflict perspective is less apparent in culture compared to its applicability to both stratification and morphology.

Education

Previous research demonstrates that, in addition to being related to crime itself, education is also related to the legal response to crime. Education is a significant factor in determining the appropriate legal responses

(i.e., the quantity of law) to occupational fraud within organizations. When a lower-level (and hence, lower educated) employee is caught defrauding an organization, the response may be more severe since the vertical distance between the fraud offender and victim organization is greater. Although Black suggests that education is a measure of culture, and therefore distinct from the dimensions of stratification and morphology, the relationships between all of these dimensions should not be overlooked. For example, position, a measure of morphology, is likely to be determined by education, a measure of culture. Additionally, age and gender may also be related to both position and education. There may be less law applied to higher-level, more educated employees, whose skills may be viewed as more valuable to the organization. Alternatively, and contrary to Black's hypotheses about culture, lower level employees, because of their lack of education, may be viewed as easily replaceable, resulting in a dismissal/firing of the employee as opposed to the cost of legal processing. High-level employees, however, whose offenses may even be more serious in terms of dollar loss to the organization, may be treated differently. Because the author knows of

no previous tests of Black's theory across organizations, these ideas are speculative.

Organization

Black (1976: 85) defines organization as "the capacity for collective action, the corporate aspect of social life." In all cases used in the present study, corporations (victims) are more organized than individuals (offenders). In discussing possible dyads of victims and offenders, Black (1976:97) states that: "deviant behavior by an individual against an organization is the most serious." Black's theory makes several statements about how both the type and size of firm can be used to indicate a degree of organization. The theory suggests that centralized companies (e.g., government agencies) are more organized, as are larger companies. Consistent with Black's suggestions, this study uses type of firm and size of firm as indicators of organization.

Type of Firm

Black discusses the organization of firms based on their type, and says that his theory of law would predict that an offense against a more highly organized firm (e.g.,

a government agency) would be considered a more serious crime than a crime against a less organized firm (e.g., a private business). The present study includes four types of firms that can be ranked in descending order according to their levels of organization: government agencies, public corporations, private agencies, and non-profit firms.

Size of Firm

According to Black, (1976: 95) "organization increases with size. The more members a group has, the more organized it is." Further, Black specifically addresses how crimes against businesses of varying size may be viewed based on the theory of the behavior of law. For example, "a crime against a large supermarket is more serious than a crime against a small grocery store" because the former is more organized than the latter. This proposition is contradictory to the research by Smigel and Ross (1970) that revealed the public was more supportive of thefts from bureaucracies (which were portrayed as larger) than thefts from small businesses. To test Black's theory, the size of victim firms is included as an indicator of organization.

Social Control

Social control is described by Black as the normative aspect of social life. It should be noted that law is one measure of social control; specifically, governmental social control. Many other forms of social control exist, including ethics and bureaucracy (Stone, 1975). Black specifies an inverse relationship between law and other (i.e., non-legal) forms of social control: in settings where there is a greater availability of non-legal social control, there will be less law; and the opposite would also be true.

Non-Legal Social Control

According to Black, law varies inversely with other forms of social control. Previous research testing Black's theory has primarily focused on individual crime victims, and has used measures such as the availability of neighborhood watch groups to represent non-legal social control. The organizational setting provides an ideal location to test Black's propositions about the relationship between law (governmental social control) and other forms of non-legal social control. Organizations may already have several such mechanisms in place, including

background checks, internal and external audits, and anonymous fraud reporting systems, all of which will be included in the present study. Consistent with Black's theory, it is expected that organizations with greater availability of non-legal social control will use less law against their offending employees.

Supplementary and Control Variables

Time

According to Black, the theory of the behavior of law is so general that it can apply to all places at all times. Black suggests that an ideal test of his theory should include multiple time periods. Given these statements, there should be no difference in how law is applied in the 1997-98 occupational fraud cases as compared to the 2001-02 occupational fraud cases. Further consideration the time period is discussed in Chapter 3, Data and Methods.

Type of Fraud and Crime Seriousness

To reiterate, three broad categories of occupational fraud, asset misappropriation, corruption, and fraudulent statements, will be considered in the present study. According to Black, the type of offense should not matter

with regard to the theory of law---it is instead the five dimensions of social life that predict the quantity and quality of law. Previous challenges to Black's research have called attention to the fact that the theory's major shortcoming is its failure to address the issue of crime seriousness. Crime seriousness has been an important explanatory variable in numerous criminological studies, many of which were not specifically testing Black's theory. Several years before Black's (1976) theory was published, Robin's (1970) research on employee theft in department stores revealed that the dollar amount of the theft was by far the strongest predictor of the sanction received, controlling for variables such as gender, age, position in the store, and years of service on the job. In what has been the most comprehensive test of Black's theory to date, Gottfredson and Hindelang (1979) used victimization data and found little support for Black's theory regarding invocation of the law. They argued that what was missing from the theory was an emphasis on perceived seriousness of crime, which is fundamental to understanding use of law. Gottfredson and Hindelang (1979) emphasized that crime seriousness affects the initial decision of victims to call the police, as well as subsequent legal outcomes.

Crime seriousness is also relevant to the conflict perspective. If law is a representation of the values of dominant, powerful groups, it follows that certain crimes would be viewed as more serious and subject to more law, (e.g., ranging from police handling of encounters with suspects to the form of stricter criminal penalties). Additionally, the vast body of literature on fear of crime supports conflict theory by suggesting that the general public is more fearful of violent crime, and more likely to support harsher sanctions for violent and/or repeat offenders (Levi, 1987). Public opinion on white-collar crime, however, has differed considerably (Cullen, Mathers, Clark, and Cullen, 1983; Kahan and Posner, 1999).

The concept of crime seriousness has long been a concern of researchers studying white-collar crime, and consistent with conflict theory, white-collar crime researchers have suggested that the public does not support strict sanctions for white-collar offenders (Cullen, Link, and Polanzi, 1982). With recent fraud scandals, however, public opinion may have changed, suggesting that sanctions could become more severe in the future (O'Donnell, 2003; Krantaz, 2003; O'Donnell and Willing, 2003). In the present study, the type of occupational fraud is used as a

control variable in the analyses testing Black's theory. However, because variation in the type of fraud exists, and past research contradicts Black's theory by showing that crime seriousness does matter, the dollar amount of the different types of fraud will be used as an indicator of crime seriousness. It will therefore be possible to determine whether, as Gottfredson and Hindelang (1979) suggested, the theory of the behavior of law could be strengthened by a consideration of crime seriousness.

Summary

This chapter provided an overview of prior research on white-collar crime, beginning with Sutherland's initial research focusing on occupational fraud and differential implementation of law. This review included a discussion of early studies in white-collar crime, more recent developments in the field, and a comparison of offender-based and offense-based definitions.

The literature review addressed the importance of including individual and organizational characteristics in studies of white-collar crime in organizations. While this need has been previously recognized, very few studies have actually been able to include multi-level characteristics.

This void is due to factors such as the lack of available data on white-collar crime, as well as limited access to information about both offenders and victims of fraudulent acts. For the same reasons, few studies on the legal response to white-collar crime, specifically occupational fraud, have been conducted. Many of the samples that have been used have been drawn from official criminal justice records, resulting in research conclusions based on convicted offenders. Restricted samples have failed to take into account the considerable screening process that takes place both within organizations (through internal social control) and outside organizations (through governmental social control as measured by criminal and civil justice system responses). As a result, we know very little about differential implementation of law, which severely limits the generalizability of past research.

The chapter also provided an overview of the individual and organizational characteristics that may differ for distinct types of occupational fraud. As this assessment demonstrated, these relationships are often complex, and it is probably more likely than not that individual characteristics work together to influence the initial offense and the resulting justice system response.

For example, individuals holding high-level positions in an organization may by nature be older males who are more educated, and have no prior criminal history. All of these factors in turn would suggest that an individual who simultaneously possesses these characteristics may have the opportunity to commit more complex frauds (i.e., fraudulent financial statements). Consistent with the theory of the behavior of law and conflict theory, such an individual may also be treated more leniently by the justice system.

As the literature review demonstrated, Black's theory of the behavior of law can be used to explain variation in legal responses to occupational fraud. While the theory has generated a great deal of interest in the field of criminology, very few empirical tests of the theory have been performed. Of those that do exist, many suffer from measurement problems, such as: variables that are inconsistent with Black's original formulations, or incomplete tests of the theory (i.e., including less than the known five dimensions of social life). Due to these issues, support for the theory remains mixed. Prior tests that address victimization have focused on individuals, not organizations, as victims (Copes et al. 2001). No tests have applied the theory to occupational fraud across

different types of organizations. What is more, very few studies have measured law as Black suggests: in both quantitative and qualitative terms. Finally, although many of the propositions of conflict theory are consistent with Black's theory of the behavior of law, integration of the two theories, and a subsequent test of the integrated theory, has not been applied in studies of the legal response to occupational fraud.

This study addresses several unresolved issues relevant to white-collar crime, specifically occupational fraud, and the behavior of law. First, although many researchers have advocated for a micro-macro perspective, most studies continue to focus on either the individual or the organization as the lone contributor to acts of white-collar crime. The few that have incorporated both levels have used data from a single organization. The present study improves upon past research by including data on both individual offender characteristics and organizational victim characteristics. Additionally, data from multiple organizations that vary in size and function increase the study's generalizability. Most white-collar crime research has been limited to a single time period. In the present study, data from two time periods will determine whether

types of occupational fraud based on individual and organizational characteristics have changed over time. These advantages provide a more comprehensive understanding of the multiple influences on different types of occupational fraud. This information will be valuable for researchers, as well as practitioners working to detect and prevent future fraud cases in organizations.

Second, with the exception of studies in the savings and loan industry, the victims of white-collar crime have been virtually ignored in the literature. Much of the research that has included organizations in different industries has focused on corporate crime, which is committed on behalf of, not against, the host organization. Little is known about the types of fraud committed by employees against their organizations, or the ways in which victimization may differ based on the type or size of the organization. The present study contributes to understanding of these relationships by studying organizations that differ in both type and size, as well as in other important characteristics.

Third, the study also contributes to the literature on the behavior of law by conducting a more complete test of Black's theory, while taking into account the ways in which

many of the theory's propositions are supported by conflict theory. Unlike many previous tests of the theory, the variables used in the present study were coded and constructed in a manner consistent with Black's original formulations and suggested measures. Law is measured in both quantity and quality, which has not been accomplished in prior tests of the theory. Prior tests have measured law dichotomously, (e.g., to reflect whether or not individual crime victims call police). Others have included data on victim-offender dyads, in which all offenders have been convicted. In critiques of Black's theory, crime seriousness has been proposed as a "missing link." In the present study, crime seriousness is considered to determine whether, in the case of occupational fraud, the dollar loss due to the fraud influences the behavior of law. Data from the two time periods also makes it possible to determine whether law behaves in the same manner at distinct time periods. All of the above advantages will make a much more comprehensive test of the theory possible.

Fourth, little is known about the perspectives of those who work in the field---fraud examiners. The present study used data obtained from fraud investigators'

completed cases. In addition to including characteristics of individual offenders and victim organizations, fraud examiners also provided supplementary, opinion data on the dispositions of the cases they investigated, which are used to supplement the multivariate findings.

The next chapter, Data and Methods, presents research objectives for the first set of analyses examining differences in individual and organizational characteristics for the types of occupational fraud. Based on the literature reviewed in the present chapter, a set of hypotheses using integration of the theory of the behavior of law and conflict theory is presented. Chapter Three then outlines the methodology used to complete the study.

CHAPTER THREE: DATA AND METHODS

Based upon the review of the literature on white-collar crime in organizations, and Black's (1976) theory of the behavior of law, the following research objectives were addressed in this study:

1) Provide a comprehensive description of perpetrators of occupational fraud who victimize organizations, and the types of fraud at two time periods.

2) Compare differences in offender characteristics and organizational characteristics for the three types of occupational fraud. This objective includes the following research hypotheses:

H1: The mean characteristics of individuals who commit asset misappropriation, corruption, or fraudulent statements will differ.

H2: The mean characteristics of organizations who are victimized by asset misappropriation, corruption, or fraudulent statements will differ.

3) Specify a series of multinomial logistic regression models predicting the quantity of law (i.e., criminal referral, civil referral, no referral) and quality of law (i.e., penal, compensatory, no referral) given the context of the five dimensions of social life identified in Black's (1976) theory of the behavior of law, also consistent with conflict theory. This objective includes the following specific hypotheses:

H1_b: The quantity and quality of law will vary directly with stratification (measured by age and gender of perpetrators).

H2_b: The quantity and quality of law will vary directly with morphology (measured by offenders' hierarchical rank in the organization).

H3_b: The quantity and quality of law will vary directly with culture (measured by offenders' level of education to indicate greater awareness of rights, social positions, and options).

H4_b: The quantity and quality of law will vary directly with social organization (measured by the type of firm and size of firm).

H5_b: The quantity and quality of law will vary directly with social control (measured by existing, internal mechanisms available to organizations).

Data

This study used secondary data originally collected by the Association of Certified Fraud Examiners (ACFE). The ACFE is an organization dedicated to the prevention of white-collar crime and fraud. The ACFE uses information from four distinct areas: criminology and ethics, financial transactions, fraud investigation, and legal elements of fraud to provide training and assistance to a population of more than 30,000 members throughout the world. The data used in these analyses were obtained from two surveys conducted by ACFE.

Sample

The sample consisted of 1,142 Certified Fraud Examiners (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, 1995-96 exploratory study on occupational fraud and abuse, which was designed to establish baseline measures of the frequency and types of fraud being investigated in different types of organizations. The initial study also was used to develop a classification system for different types of occupational fraud and abuse. The data used in this dissertation extend beyond ACFE's initial exploratory studies by considering legal and non-legal responses to fraud.

ACFE Survey One 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 approximately 10,000 randomly selected CFEs in the United States. Although ACFE has members in over 100 countries, the sample was limited to the United States to control for the types of legal response 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. 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 108 responses were not used in the first analysis. Participation in the study was completely voluntary. However, CFEs were offered 2 hours of Continuing Professional Education (CPE) credit for their participation.² Each respondent was asked to provide detailed information on the most recent single, completed fraud case he or she had investigated. This restriction was placed on respondents 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.

The cases chosen by CFEs had to meet the following qualifications: 1) the CFE's investigation was finished; 2) the perpetrator or perpetrators had been identified; and 3) all legal proceedings resulting from the case, if any, had concluded. Participants were asked to first provide a narrative explanation of how the scheme worked. This

² CPE credit contributes to the current status of a CFE's professional license. Typical opportunities for credit include attendance at workshops or training seminars sponsored by ACFE.

information was used by ACFE to classify cases based on the original occupational fraud and abuse classification system.³ Participants were then asked for detailed information about the victims and perpetrators in the case, and resulting legal proceedings. Finally, the last section of the survey asked respondents to speculate on how fraud affects the economy, and on suggested improvements in detection and prevention of fraud. These qualitative responses were also made available to the researcher.

ACFE Survey Two Procedures

Data collection for the second survey began in April 2001 and ran through February 2002. Because survey procedures were nearly identical to those used in the first survey data collection discussed above, they are not restated in this section. A total of 971 CFEs provided usable survey responses, and, of these, 663 cases actually

³ Due to confidentiality issues associated with participants' identities, the narrative data were not made available for use in this dissertation. However, this information was not necessary for purposes of the present study, as ACFE had previously classified responses based on the type of fraud that occurred.

involved occupational fraud and abuse.⁴ The other 308 cases will not be used in the present analysis since they were committed by non-employees.

Study Variables

Introduction

This study first compared the characteristics of individual offenders and characteristics of their employing organizations based on the type of occupational fraud that occurs. The second set of analyses in this study investigated the expected relationships between the five dimensions of social life and the quantity and quality of law as specified by Black's (1976) theory. Table 1 provides a list of the variable names, definitions, and coding used in the first set of analyses, and Table 2 provides a similar list for the second set of analyses.

⁴ In addition to the questionnaires that were distributed by mail, the second survey was also made available on the ACFE's website to test the feasibility of conducting online surveys and with hopes of increasing the response rate. A total of 78 CFEs filled in online surveys, but only 9 responses were deemed usable for inclusion in the sample.

Analysis 1: Individual and Organizational Differences in Types of Occupational Fraud

Variables

Previous research on white-collar crime in organizations suggests many characteristics of individuals and organizations should be compared for the types of fraud. The variables described below, also included in Table 1, were used in a series of one-way Analysis of Variance (ANOVA) models comparing means on these characteristics for each type of fraud.

Individual Characteristics

Age is the perpetrator's age at the time of the offense, and is measured in years. Participants' gender is coded dichotomously (1 = male; 0 = female). Education is an ordinal variable reflecting the perpetrator's highest formal degree: 1 = high school diploma; 2 = bachelor's degree; 3 = graduate degree. Position is the employee's position in the organization: (executive or manager = 1; employee = 0). Criminal history indicates whether the perpetrator has any prior fraud charges or convictions (1 = yes; 0 = no).

Organizational Characteristics

Several characteristics of the organization were also compared. Type of organization indicates whether the organization is a publicly traded company (1 = yes; 0 = no); privately held company (1 = yes; 0 = no); government agency (1 = yes; 0 = no); or non-profit group (1 = yes; 0 = no). Size of organization is measured by the number of employees and is coded as an ordinal variable: 4 = 10,000 or more; 3 = 1000-9999; 2 = 100-999; 1 = 1-99. Revenue, available for publicly traded companies, reflects the organization's gross sales measured in dollars, for the year prior to the fraud victimization. Due to extreme values, the square root transformation of revenue was used. Existing internal social control mechanisms include whether the organization had any of the following in place at the time of the offense: background checks (1 = yes; 0 = no); anonymous fraud reporting⁵ (1 = yes; 0 = no); internal audits (1 = yes; 0 = no) or external audits (1 = yes; 0 = no).

⁵ This is a rather new technique in the field, and is only available for the second time period (2001-02).

Type of Fraud

The type of occupational fraud was used as a grouping variable in the analyses comparing individual and organizational characteristics.⁶ ACFE (2002:2) defines occupational fraud broadly as: "The use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets." In this study, occupational fraud contains three, mutually exclusive categories: asset misappropriation, corruption, and fraudulent financial statements. Each case 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.

Asset misappropriation, the first category, involves theft or misuse of an organization's assets (coded = 1). Corruption, the second category, involves employees

⁶The typical 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 and Paternoster, 1997), suggesting it is the most effective way to examine whether individual and organizational characteristics significantly differ for the three types of occupational fraud.

wrongfully using their influence in business transactions to obtain benefits for themselves that are contrary to duties to their employer (coded = 2). The third and final fraud category, fraudulent statements, involves falsification of an organization's financial statements (coded = 3).

Table 1: Description of Variables for Comparing Types of Fraud

Variable Name	Variable Definition	Variable Coding
<i>Individual Characteristics</i>		
<i>Age</i>	Perpetrator's age	Years
<i>Gender</i>	Perpetrator's gender	0 = female 1 = male
<i>Education</i>	Perpetrator's highest level of education	1 = high school diploma 2 = bachelor's degree 3 = postgraduate degree
<i>Position</i>	Perpetrator's position in the organization	Executive or Manager = 1; Employee = 0
<i>Criminal History</i>	Perpetrator's criminal history	Prior Fraud Charges or convictions: 1 = yes; 0 = no
<i>Organizational Characteristics</i>		
<i>Type</i>	Type of organization	Publicly Traded Company: 1 = yes; 0 = no Privately Held Company: 1 = yes; 0 = no Government Agency: 1 = yes; 0 = no Non-Profit Group: 1 = yes; 0 = no
<i>Size</i>	Total number of employees in the organization	1 = 1-99; 2 = 100-999; 3 = 1000-9999; 4 = 10,000 or more
<i>Revenue</i>	Annual proceeds of the organization	Square root transformation
<i>Internal Controls</i>	Existing prevention mechanisms	Background Checks: 1 = yes; 0 = no; Anonymous Reporting: 1 = yes; 0 = no; Internal Audits: 1 = yes; 0 = no; External Audits: 1 = yes; 0 = no
<i>Grouping Variable</i>		
<i>Fraud Type</i>	Classification of occupational fraud	Asset misappropriation = 1; Corruption = 2; Fraudulent Statements = 3
<i>Supplementary Variables</i>		
<i>Time</i>	Survey Time Period	1 = 1997-1998 2 = 2001-2002

Analysis 2: The Behavior of Law

Dependent Variables

One dependent variable was used to model the organizational victim's response to fraud. The legal response (reflecting both quantity and quality of law) is a nominal variable with three categories: criminal referral/penal law = 2; civil referral/compensatory law = 1; no referral/no law = 0.

Independent Variables

The independent variables used in the second set of analyses testing the behavior of law represent the five aspects of social life according to Black's (1976) theory. The measures used here were similar to those recommended by Black (1976) and are also consistent with previous empirical tests of the theory. To precisely test the theory, the variables were constructed to reflect Black's five theoretical categories.

Stratification

According to Black, (1976:17), stratification is

described as "the vertical aspect of social life," and thus exists when the material things in life are unevenly distributed. Stratification is measured with the variables age and gender. Age is the perpetrator's age at the time of the offense, and is measured in years. Participants' gender is coded dichotomously (1 = male; 0 = female). It is expected that more law will be used against younger employees and against female employees.

Morphology

Morphology refers to the horizontal relationships in social life, and is described by Black (1976: 37) as "the distribution of people in relation to one another, including their division of labor." Morphology is measured by the perpetrator's position in the organizational hierarchy, and is a dummy variable reflecting whether the perpetrator is an executive or manager (coded = 1); or an employee (coded = 0). It is expected that more law will be used against employees than managers or executives.

Culture

Black (1976:61) defines culture as "the symbolic aspect of social life, including expressions of what is

true, good, and beautiful." Individuals' culture reflects the extent of culture in their lives as evidenced by factors such as literacy and education. Those individuals with more culture (i.e., those possessing higher educational levels) are assumed to be more aware of their rights and options, and are therefore more likely to be successful in influencing legal outcomes (Avakame, Fyfe and McCoy, 1999). Consistent with Black's ideas, culture is measured by the perpetrator's level of education, and is an ordinal variable reflecting the perpetrator's highest formal degree: 1 = high school diploma or less; 2 = bachelor's degree; 3 = graduate degree. It is expected that more law will be used against less cultured (lower education)employees.

Organization

Organization, according to Black (1976:85), represents the capacity for collective action, and is defined as "the corporate aspect of social life." With regard to corporations, those companies that have more employees or those that can be characterized as centralized, such as government agencies, would be considered more organized. Additionally, Black (1976:95) states that "organization

increases with size...the more members a group has, the more organized it is." Black (1976: 97) further argues that "deviant behavior by an individual against an organization is the most serious." Black also specifically addresses the organization of different types of businesses, and notes the theory of law predicts that a crime against a government agency (which is highly organized) would be considered more serious than a crime against a private business (which is less organized). Black notes that a crime against a "large supermarket" (more organized) is more serious than a crime against a "small grocery store" (less organized).

Consistent with Black's formulations, organization is measured by two variables: type of firm and size of firm. Type of firm indicates whether the organization is a government agency (= 4); publicly traded company (= 3); privately held company (= 2); or non-profit agency (= 1). Size of organization indicates the number of employees and is coded as an ordinal variable: 4 = 10,000 or more; 3 = 1000-9999; 2 = 100-999; 1 = 1-99. It is expected that more law will be used against employees who victimize centralized organizations (government) than less centralized organizations. It is expected that more law

(quantity and quality) will be used against employees who victimize large organizations than small organizations..

Social Control

According to Black (1976), social control represents the normative aspect of social life. Several forms of social control exist, and law is merely one form (Black, 1976). Other forms include bureaucracy, custom, and ethics. The more often one form of social control is used, the less often other forms will be used. In the present study, social control is measured by the existing non-legal forms of social control that are available to organizations. Existing internal social control mechanisms (background checks (1 = yes; 0 = no); anonymous fraud reporting (1 = yes; 0 = no); internal audits (1 = yes; 0 = no) or external audits (1 = yes; 0 = no)) were summed to indicate the degree of existing social control, with the new variable ranging from 0-4. It is expected that more law will be used in organizations with fewer available mechanisms of social control.

Table 2: Description of Variables, Behavior of Law

Variable Name	Variable Definition	Variable Coding
<i>Dependent Variable</i>		
<i>Quantity and Quality of Law</i>	Type of initial legal response by the victim organization	Criminal Referral/Penal law = 2 Civil Referral/Compensatory law = 1 No referral/No law = 0
<i>Independent Variables</i>		
<i>Stratification</i>	Vertical aspect of social life	Perpetrator's Age: years Perpetrator's Gender: 1 = male; 0 = female
<i>Morphology</i>	Horizontal relationships in social life	Perpetrator's Position in Organization: 1 = Executive or Manager; 0 = employee
<i>Culture</i>	Symbolic aspect of social life	Perpetrator's Education: 1 = high school diploma 2 = bachelor's degree 3 = postgraduate degree
<i>Organization</i>	Corporate aspect of social life	Type of Firm: Government agency 4; publicly traded company = 3; private company = 2; non-profit agency = 1 Size of Firm: 1 = 1-99; 2 = 100-999; 3 = 1000-9999; 4 = 10,000 or more
<i>Social Control</i>	Normative aspect of social life	Sum of Existing Social Control Mechanisms: Background checks + Anonymous reporting + internal audits + external audits
<i>Supplementary Variables</i>		
<i>Time</i>	Time Period of Survey Data	1 = 1997-1998; 2 = 2001-2002
<i>Crime Seriousness</i>	Loss due to fraud case	Dollar loss (sq root)
<i>Type of Fraud</i>	Classification of occupational fraud	Asset misappropriation = 1; Corruption = 2; Fraudulent statements = 3

Control and Supplementary Variables

Several other variables not used in the primary analyses were considered as control or supplementary variables. The first of these was time, and reflects whether the case occurred in 1997-98 (coded 1) or 2001-2002 (coded 2). The additional supplementary variables included crime seriousness (measured as the dollar loss due to the fraud case) and the type of fraud (asset misappropriation, corruption, or fraudulent statements). These variables were selected because Black argues that his theory is so general it can apply at all times, and that the type of crime or harm caused by the crime does not determine the behavior of law.

Data Analyses

To examine the research questions presented in the beginning of this chapter, several statistical procedures were warranted. These included descriptive statistics, bivariate associations, analysis of variance, and multinomial logistic regression.

Descriptive Statistics

The first step in the analyses was a generation of descriptive statistics for all variables of interest. This step was performed for each time period, and for the full sample containing data from both time periods.

Bivariate Associations

After examining the distributions of all variables and comparing the two time periods, the second data analytic step consisted of an assessment of bivariate relationships (e.g., correlations) between perpetrator and organizational characteristics to types of fraud for both time periods, following by a similar assessment to legal responses. The directions of the relationships were examined, and the appropriate measure of strength of association (e.g., chi-square, gamma, t-test) was used.

Analysis of Variance

Following initial statistical techniques, the first analysis included a comparison of individual and organizational characteristics for the three mutually exclusive types of occupational fraud. Since all of the

cases ($n = 1142$) were classified as one of the distinct types of fraud, this variable was used to group the cases for the comparisons of individual and organizational characteristics. The purpose of analysis of variance (ANOVA) is to test for significant differences between two or more means (Tabachnick and Fidell, 2001). This procedure is widely used in the social sciences, and provided the most appropriate way of examining the relationships for the study's first set of exploratory analyses.

There are several assumptions that generally must be met before using ANOVA. These include: independence, normality, and equality of variance. The F -test is remarkably robust to deviations from normality, (Bachman and Paternoster, 1997; Lindman, 1992) so the effect of violating the assumptions was not a serious concern in this study. Additionally, the large sample size offset many of the issues associated with violating these assumptions.

Under the null hypothesis in ANOVA, there are no significant mean differences. The alternative, or research hypotheses, states that there are significant differences between means. ANOVA partitions the total variance into the component that is due to true random error (i.e.,

within groups sums of squares) and the components that are due to differences between means. The two estimates of variance are then compared with the *F*-test, which tests whether the ratio of the two variance estimates is significantly greater than 1.

If the *F*-test is significant for an overall ANOVA model, one can conclude that significant mean differences exist. When the means on certain characteristics of multiple groups are examined, such as the three types of occupational fraud used in the present study, more detailed comparisons can determine exactly where the significant differences occur. This can be accomplished using a post hoc test. For example, the age of individuals who commit asset misappropriation may be significantly different than those who commit corruption, but not fraudulent statements. Following the series of one-way ANOVAs, more detailed comparisons were addressed by using the Bonferroni multiple comparison test.

Although Multivariate Analysis of Variance (MANOVA) could also be used to compare means when there are several dependent variables, this procedure assumes that the dependent variables are highly and significantly correlated. In the present study, this was not the case.

Additionally, MANOVA has been discussed as a more powerful statistical technique than a series of separately performed ANOVAs, because it controls for intercorrelations between dependent measures (Bray and Maxwell, 1985). However, in the present study, the sample size ($n = 1142$) was sufficiently large, so conservation of power was not a concern.

Overview of Maximum Likelihood Techniques

The multivariate techniques used to examine the relationships hypothesized based on Black's (1976) theory of the behavior of law were based on Maximum Likelihood Estimation (MLE). Because previous tests of the theory have used different approaches, modeling techniques used here were performed in manner that allowed comparisons to prior findings. The primary technique utilized was multinomial logistic regression.

Unlike traditional multiple regression models, which rely on least squares estimation procedures, logistic regression (including multinomial logistic) procedures use an MLE procedure (Long, 1997; Menard, 1995). MLE approaches try to find estimates of parameters that make the data actually observed "most likely." MLE begins by

assuming the general form of the distribution. Next, the initial values of the estimated parameters are used and the likelihood that the sample came from a population with those parameters is computed. Finally, the values of the estimated parameters are adjusted iteratively until the maximum likelihood value for the estimated parameters is obtained (Long, 1997).

Logistic Regression

Many previous studies testing Black's theory have measured law as a dichotomous dependent variable whereby 1/yes = some form of law occurred and 0/no = no law. As a result, the most appropriate and common approach to modeling the data in prior tests has been logistic regression (see Copes et al., 2001). In this dissertation, several possible choices to model law existed: as a yes/no conceptualization indicating whether fraud cases were referred (including both civil and criminal referrals) or not (no referrals); as an ordinal variable whereby criminal referrals represented the most law, followed by civil referrals, and then no referrals; and finally, as a reflective of law's qualitative dimension, with three categories that are not ordered sequentially. Based on

these choices, multinomial logistic regression represented the most appropriate technique.

Logistic regression makes it possible to predict a discrete outcome from a group of variables that may be continuous, discrete, dichotomous, or a combination (Tabachnick and Fidell, 2001). For the analyses of the behavior of law, law was operationalized as a nominal variable to indicate whether cases were referred for either civil or criminal processing, compared to cases that were not referred. Since the outcomes were not continuous or normally distributed, other techniques commonly used in the social sciences, such as simple linear regression, would have been inappropriate.

Similar to previous tests of Black's theory, a form of logistic regression provided the opportunity to examine the effects of several independent variables (i.e., measures of the five dimensions of social life identified by Black) on a nominal dependent variable. The multinomial logistic regression model required the following assumptions: (1) the model is correctly specified (i.e., the true conditional probabilities are a logistic function of the independent variables), no important variables are omitted, no extraneous variables are included and the independent

variables are measured without error; (2) the observations are independent; (3) the independent variables are not linear combinations of each other, since perfect multicollinearity makes estimation impossible, while strong multicollinearity renders estimates imprecise (Aldrich and Nelson, 1984).

Logistic regression produces information about the odds of an outcome event occurring, which is expressed as an odds ratio associated with each predictor value. The odds of an event are calculated by dividing the probability of the outcome event occurring by the probability of the event not occurring. The odds ratio for a predictor variable indicates the relative amount by which the odds of the outcome increase (odds ratio greater than 1.0) or decrease (odds ratio less than 1.0) when the value of the predictor value is increased by a one-unit change (Hosmer and Lemeshow, 1989). The outcome variable, $\hat{Y}_i$ is the probability of producing one outcome or another based on a nonlinear function of the best linear combination of predictors, with two outcomes:

$$\hat{Y}_i = \frac{e^u}{1 + e^u}$$

where $\hat{Y}_i$ is the estimated probability that the i th case ($I = 1, \dots, n$) is in one of the categories and u is the usual linear regression equation:

$$U = A + B_1X_1 + B_2X_2 + \dots B_kX_k + e$$

with constant A , coefficients B_j , and predictors, X_j for k predictors ($j = 1, 2, \dots, k$). The linear regression equation produces the logit or log of the odds:

$$\ln \frac{\hat{Y}}{1-\hat{Y}} = A + B_j X_{ij} + e$$

The significance of the estimated coefficients in logistic models can be examined to consider the individual effects of each predictor variable on the dependent variable. There are several possible models in multinomial logistic regression: a constant (intercept) only model that includes no predictors, an incomplete model that includes the constant plus some predictors, a full model that includes the constant plus all predictors (which might also contain some interactions and power terms) and a hypothetical model that would provide an exact fit of

expected frequencies to observed frequencies if the correct set of predictors were measured. Given the variety of available models, there are several potential comparisons: between the constant-only model and the full model, between two incomplete models, between a chosen model and the hypothetical model, or a variety of other potential contrasts.

Each proposed model may be critiqued individually based on goodness-of-fit statistics. Additionally, the potential, separate models can be compared in this manner to determine which model provides the best fit to the data. A number of measures may be used to assess goodness-of-fit, and are available in SPSS 11.0, the statistical software program that was used in all analyses. The first of these is a classification table, which will show how many of the observations have been predicted correctly after a given cut-off value, c , (usually .5) has been chosen. For each observation in the sample, the outcome variable (e.g., asset misappropriation) is predicted as "1" (i.e., yes) if the fitted probability of committing this type of occupational fraud is greater than c , otherwise it is predicted as 0 (i.e., no). The table produces the number of correct predictions, which can be expressed as a

percentage. A higher overall percentage of correct predictions will indicate a better fitting model. However, a problem with this basic goodness-of-fit measure is that there is no formal test to determine whether a certain percentage of correct predictions is sufficient. Additionally, it is also possible to create a situation where the specified logistic model is the correct model and therefore will fit the data, but the classification will be poor.

In addition to the classification table, SPSS will also produce two statistics that are roughly equivalent to the R^2 in linear regression (Tabachnick and Fidell, 2001). These are the Cox and Snell R^2 and the Nagelkerke R^2 (also known as adjusted R^2). The Cox and Snell R^2 has the disadvantage that for discrete models such as logistic regression, it may not achieve the maximum value of 1.0, even when the model predicts all of the outcomes perfectly. The Nagelkerke R^2 is an improvement over the Cox and Snell R^2 in that it can attain a value of one when the model predicts the data perfectly. The Likelihood Ratio (LR) Test is an option that may be used to formally test whether a variable is significant in explaining some of the variability in the response. This test is appropriate when

two models are being evaluated as follows:

$$\text{Model 1: } \text{logit}(\pi) = B_0 + B_1X_1 + e$$

$$\text{Model 2: } \text{logit}(\pi) = B_0 + B_1X_1 + B_2X_2 + e$$

In this situation, Model 1 is nested within Model 2, since all of the independent variables contained in Model 1 are also included in Model 2. The comparison will indicate whether the additional variables included in the second model are necessary for explanation, or whether the simpler model fits the data as well as the full model. SPSS will produce the -2 Log Likelihood statistic as a measure of discrepancy between each models observed and fitted values. The value of this statistic for the simpler model will be greater than for the full model. The LR test statistic is the difference in the value of the -2 Log Likelihood between Model 1 and Model 2.

An alternative to the LR Test is the Wald Test, which is also produced in SPSS. In most cases, this statistic would lead to the same conclusions as the LR Test, but the LR test is considered more robust because, unlike the Wald Test, it is not affected by large standard errors (Menard, 1995).

The Hosmer-Lemeshow Goodness-of-Fit Test may also be used to examine model fit (Hosmer and Lemeshow, 1989). With this test, cases are divided into a number of approximately equal groups based on their predicted probabilities of an event occurring (e.g., the "yes" or "1" outcome). The predicted probabilities are then summed to calculate the differences between observed and expected values. This test is also fairly robust, but does have the requirement that there should be a large sample size so expected numbers in the groups will be greater than five and none of the groups will have expected values that are less than one.

All of the aforementioned goodness-of-fit statistics have a Chi-Square distribution: they compare observed and expected outcome values. As such, the Chi-Square values produced with each statistical test can be compared to the Chi-Square distribution to determine whether the values are significant, or in the case of model fit and comparison, not significantly different from each other.

Multinomial Logistic Regression

The Multinomial Logistic Regression Model is equivalent to running a series of binary logits. The MNLM uses maximum likelihood to derive parameter estimates. Long (1997: 151) suggests that the MNLM is superior to a series of binary logits because: "...all of the logits are estimated simultaneously, which enforces the logical relationship among parameters and uses the data more efficiently." Following the initial data analysis steps outlined in this chapter (i.e., generation of all descriptive statistics and examination of bivariate associations) for the second set of hypotheses, the multivariate analyses were performed using MNLM. Results were compared to determine whether previous conceptualizations of law (i.e., as a dichotomous variable) were confirmed to be appropriate, or whether alternative approaches (i.e., as qualitative) provide a better fit to these data. This approach was advantageous given the possibilities of multiple comparisons (i.e., civil and criminal referrals each compared to no referrals, and civil and criminal referrals compared to each other).

Conceptual Models

The following two figures provide a graphical depiction of the proposed conceptual relationships among the variables used in this study. In Figure One, the comparison of individual and organizational characteristics for the types of occupational fraud are examined. The second set of analyses examines the relationships between the five dimensions of social life and the behavior of law.

Figure 1: Conceptual Model Linking Individual and Organizational Characteristics to Types of Fraud

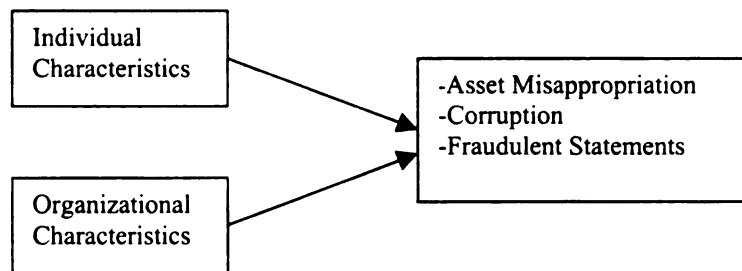
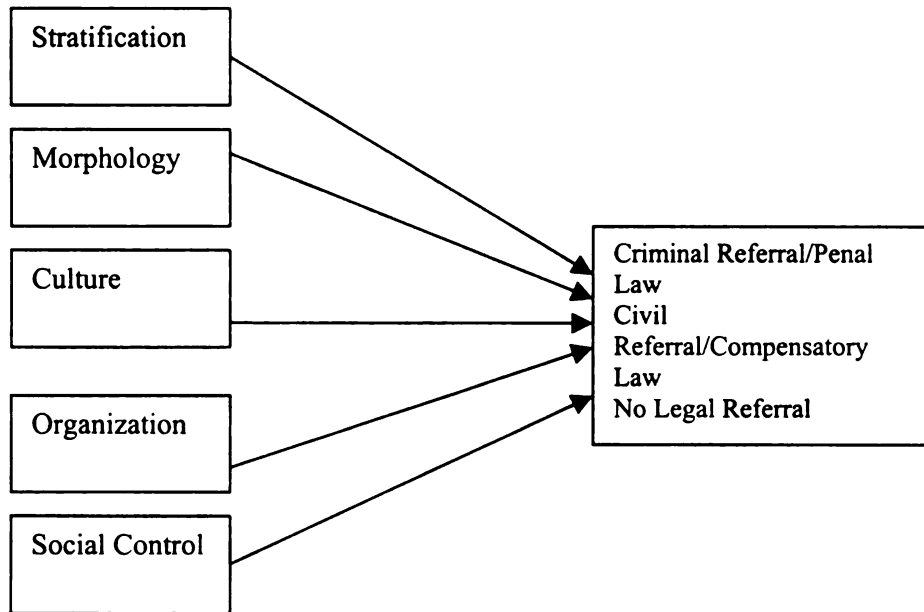


Figure Two depicts the conceptual relationships between the five dimensions of social life and the quantity and quality of law as described by Black (1976). The second set of analyses consisted of a series of multinomial logistic regression models, in which each group of independent variables (stratification, morphology, culture, organization and social control) were used to predict each type of legal response. Consistent with previous research (Copes et al., 2001), relationships were first assessed for each separate dimension of social life, and then combined in four models: a reduced model including only Black's theoretical categories; a reduced model adding only the type of fraud; a reduced model adding only the dollar loss of fraud (crime seriousness); and a full model including all of the theoretical predictors and both control variables. Models were specified for the comparison between civil and criminal referrals to no referrals, and comparing civil to criminal referrals only. All of the above models were estimated at each time period, and for the full sample. The goodness-of-fit of each respective model was examined and associated statistical significance tests (e.g., chi square) were compared to determine which type of model provided the best fit to the data.

Figure 2: Conceptual Model Linking Dimensions of Social Life to the Behavior of Law



Data Considerations

Limitations

Generalizability

A potential limitation of these data, common in much of criminal justice research, particularly studies of white-collar crime, is that the cases used in the analyses contained information on individual employees who were caught for committing fraud. The study design specified that CFEs supply information on completed fraud

investigations in their employing organizations. As a result, the sample is restricted to those offenders whose criminal activities were detected. Generalizability to the larger, unknown population of offenders who may commit fraud against their employing organizations is therefore a concern. This limitation makes it impossible to fully determine the deterrent effects of existing internal and external mechanisms of social control. Researchers in criminal justice have long recognized that it is impossible to measure the effects of general deterrence, but samples of detected offenders do allow for speculation about the efficacy of specific deterrence for those offenders (Clear and Cole, 2003). For example, if offenders in the sample have previous fraud convictions, this may suggest that prior punishments were insufficient in deterring the current fraud act.

Sample Selection Bias

A concern related to generalizability is that of sample selection bias, which is a common limitation in criminal justice research that considers more than one stage of legal processing. In the present study, sample selection bias is not a concern at the point of the initial

decision made by the victim organization. This is because all cases in the sample have a known probability of being either referred for criminal processing, civil processing, or not referred. When subsequent analyses predicting legal responses beyond initial referral are performed, sample selection bias occurs because data for each additional stage (e.g., conviction, sentencing, sentence length) is contingent upon whether cases were initially referred for legal processing. This issue can lead to biased inferences about social processes (Winship and Mare, 1992).

To account for the sample selection bias, Heckman's (1979) correction can be used in any additional models that incorporate additional legal processing stages. The correction uses the following two step process: 1) logistic regression is used to estimate the likelihood of an offender progressing to the subsequent stage of legal processing. For each case in this model, the predicted probability of being excluded from subsequent stages, referred to as the hazard rate, is calculated. 2) The hazard rate is then used as an independent variable into additional regression models predicting the subsequent stage of processing. For example, to examine the likelihood of a fraud conviction occurring, sample

selection bias would be addressed by using the two steps outlined by Heckman. The procedure would control for the probability of each case not receiving a fraud conviction. At the time of any subsequent data analyses, Heckman's correction will be incorporated as needed, based upon the final specification of multivariate models.

Measurement

An additional potential limitation is that the measurement of occupational fraud is also based on those offenders who have been detected. This issue has persisted in the literature on white-collar crime, resulting in researchers wondering whether we are simply studying the behavior of the most unlucky criminals. Like the broader concern of generalizability, the imperfect measure of white-collar crime has also been accepted. Given that the behavior being studied is illegal, it is unlikely that any superior method of obtaining information could be developed. For several reasons, the data used in the present study are superior to measures such as self-report surveys, which have also been used to measure crime and deviance in organizations (Greenberg, 1993; 1990). For example, unless employees who respond to a self-report

survey have also had involvement with the criminal justice system (e.g., arrests, conviction), there would be no way for researchers to validate the survey information. For a related reason, a self-report survey also would not make it possible to study the range of legal responses to types of fraud, which is a goal of the present research. As the previous literature review demonstrated, the majority of existing studies on white-collar crime in general and fraud in particular can be critiqued based on their research designs and related methodological issues.

Secondary Data Analysis

A final potential limitation is the fact that these data were not obtained directly by the researcher, but were originally collected by an outside source. Although this issue should be acknowledged, it should also be noted that this is unlikely to be a serious concern. Unlike traditional sources of secondary data, (e.g., the National Archive on Criminal Justice Data), the researcher was in contact with the ACFE throughout the dissertation study period, and this communication provided detailed information about the survey design and subsequent data collection issues.

Despite the potential limitations, the nature of these data allow for a variety of advanced comparisons that have not been considered in previous research. The following section discusses the study's strengths, which greatly outweigh the aforementioned potential limitations.

Strengths

Although the sample may be restricted to those perpetrators whose offenses were detected, there are still many advantages associated with these data. For example, the sample size is larger than many previous studies, and data were obtained at two different time periods. Additionally, the information provided by CFEs was obtained from several sources, including the perpetrators themselves, organizational files, and various criminal justice agencies (e.g., courts, police, and criminal records). What is more, multiple units of analysis are available, which is atypical in studies of white-collar crime in organizations (Vaughan, 1992). As prominent general systems theorists have stressed through the use of a biological metaphor to describe organizations, "the whole is greater than the sum of its parts." In the study of organizations, particularly those whose employees are

involved in crime and/or deviance, it is unlikely that such phenomenon will be fully understood without considering individual and organizational factors. Failing to consider factors at both of these levels limits comprehension of the multiple causal factors that may influence different types of fraud (Reed and Yeager, 1996). When white-collar crime and the legal response to different types of crime are only explained in terms of perpetrator characteristics, such as low self-control (Gottfredson and Hirschi, 1990) conclusions can be reductionist. The present study addresses this disadvantage by examining characteristics of individuals as well as organizations. The inclusion of multiple level factors improves on previous studies, and will contribute to research, policy, and practice on white-collar crime in organizations.

As the literature review demonstrated, studies of organizations as victims are extremely rare. No previous studies of white-collar crime in organizations, specifically fraud, have concurrently included victim organizations varying in size and function, perpetrator characteristics, legal responses to fraud, perceptions of CFEs, and data from two time periods. Additionally, studies testing Black's (1976) theory of the behavior of

law have not been conducted on multiple organizations as victims at two different time periods. Also, no previous empirical tests of the theory of the behavior of law have operationalized legal responses in terms of quantity and quality.

Policy Implications

Many cases of "white-collar crime" in organizations reflect the failure of existing forms of internal controls (Vaughan, 1992). Despite the enormous economic and societal losses due to different forms of fraud, the most effective sanctioning strategies are yet to be discovered. The present study will compare legal responses to different types of occupational fraud, and will determine whether differential implementation of law, by offender characteristics, such as age and employee position, occurs. Recent anti-fraud legislation is promising, but, like much existing research, focuses on large, profit-making organizations and their top executives who may engage in corporate, not occupational, white-collar crime. Policy implications to be discussed in this dissertation include the value and apparent justice of deterrence and compliance strategies for different types of fraud against

organizations of varying size and function. Based upon the multivariate analyses as well as the perceptual, qualitative data obtained from CFEs, suggestions for changes in existing regulations and sanctions will be made.

Practice Implications

After determining what types of occupational fraud are most prevalent at each time period, and whether the characteristics of perpetrators and organizations differ based on the type of fraud, this study will discuss the effectiveness of existing processes (i.e., background checks, anonymous reporting systems, internal and external audits) in preventing and detecting specific types of fraud in different types of organizations. The initial analyses will compare individual and organizational characteristics by the types of fraud, and will show whether any predictable patterns occur. This analysis will determine whether certain organizations are more vulnerable to certain types of fraud, which will contribute to improvements in prevention and detection of future fraud cases. Specifically, this study will reveal the types of fraud that occur regardless of internal control approaches that are in place in organizations, the consistency of

civil and criminal sanctions in response to particular types of offenses, and the degree to which sanctions are driven by organizational and perpetrator characteristics. Recommendations for changes in current organizational systems will be provided, along with suggestions for additional measures (e.g., employee hotlines, training, and education). Perceptual information provided by CFEs will be used to supplement the multivariate findings and to speculate about the effectiveness of existing sanctions. To disseminate knowledge to practitioners in the field of fraud prevention, a detailed summary of the research findings from this dissertation will be made available to the 30,000+ ACFE members.

Conclusion

To summarize, this chapter outlined the research questions of the study, discussed the data and sample, and operationalized the dependent, independent, and control variables that were used in the analyses. An overview of the statistical techniques employed was also provided. The chapter concluded with a discussion of the study's potential limitations, and benefits. In the next chapter of this dissertation, Results, the findings from all

statistical analyses are presented and interpreted. This dissertation will conclude with a discussion of the results and their implications for criminological theory and future research, as well as for the practice side of fraud prevention in organizations.

CHAPTER FOUR: RESULTS

As described in Chapter 1, the purposes of the research were to: 1) examine differences in individual and organizational characteristics for the three types of occupational fraud and 2) describe and explain the legal responses to occupational fraud cases using Black's theory of the behavior of law and conflict theory. The analysis of data addressed these objectives using several statistical techniques: descriptive statistics, bivariate analysis, analysis of variance, and multinomial logistic regression. This chapter presents the results of these analyses.

Analysis One:

Individual and Organizational Characteristics

Related to Specific Types of Fraud

Descriptive Statistics

A total of 1,142 offenders from the two surveys comprised the full sample. Table 3 provides the descriptive statistics for the overall sample as well as for the individual time periods, and demonstrates that

pooling the two datasets is an appropriate technique. The statistics are presented for the full sample. When notable time differences occur, they are also discussed. For the type of occupational fraud, the overwhelming majority of the sample (84% or $n = 959$) committed asset misappropriation, while 8.7% ($n = 99$) committed corruption and the remaining 7.4% ($n = 84$) were involved in fraudulent statements.

Turning to individual characteristics, the average age of the sample was 40.9 years. Approximately 53.2% ($n = 574$) were males while 46.8% ($n = 505$) were females. The majority of the sample (56% or $n = 640$) had a high school or less education, while around one-third (33.8% or $n = 386$) had bachelor's degrees and 10.2% ($n = 116$) had graduate degrees. Over half of the offenders (60.2% or $n = 688$) held lower level, employee positions and the remaining 39.8% ($n = 454$) were managers or executives.

For organizational characteristics, the greatest percentage of organizations (36.2% or $n = 377$) had 1-99 employees, followed by 25.8% ($n = 265$) with 1000-9999 employees, 20.3% or $n = 208$) with 100-999 employees, and 17.2% ($n = 177$) with 10,000 or more employees. The types of organizations represented in the sample included 32.1%

(n = 367) that were privately held, 30.8% (n = 352) that were publicly traded, 24.8% (n = 283) that were government agencies, and 11.2% (n = 128) that were non-profit agencies. For the four existing control mechanisms, one point to be noted is that anonymous reporting was a fairly new technique, and was not asked about during the 1997-98 survey. The data for this variable represent 2001-02 only, and show that 35.6% (n = 202) of organizations had anonymous reporting in place in the year before the fraud case. Over half of the organizations (59.7% or n = 587) used background checks, while 50.7% (n = 528) practiced external audits and 62.4% (n = 661) conducted internal audits. The final organizational characteristic, mean revenue (square root transformation)⁷, was relevant only to publicly traded companies. For the pooled sample, the mean revenue was \$29,874.40. However, a notable difference between the two time periods is that mean revenue of \$39,913.80 in 1997-98 was greater than the mean revenue of \$24,814.10 during 2001-02. The explanation for this difference can be attributed to the status of the overall

⁷ Due to extreme values, the square root transformation was used.

United States economy. In 1997 alone, combined revenues of the 25 largest U.S. corporations equaled the revenue 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 (Associated Press, 2003). The difference in revenues for each time period was expected.

Table 3. Descriptive Statistics, Analysis One

	<u>1997-1998 Survey</u> % (n)	<u>2001-2002 Survey</u> % (n)	<u>Pooled Sample</u> % (n)
<u>Type of Occupational Fraud</u>			
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)
<u>Individual Characteristics</u>			
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)
<u>Organizational Characteristics</u>			
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)
1000-9999 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)

Bivariate Relationships

The strength and direction of relationships between study variables were examined with bivariate correlations. Table 4 reports the correlations between the individual and organizational characteristics used in Analysis One. Although some of the correlations between the individual characteristics are statistically significant, most are weak. There were weak, positive correlations between age and gender ($r = .18$; $p \leq .01$); age and education ($r = .22$; $p \leq .01$); as well as age and position ($r = .18$; $p \leq .01$). The correlations were also weak and positive for gender and education ($r = .15$; $p \leq .01$) and for gender and position ($r = .12$; $p \leq .01$.) These relationships were in the expected direction. Somewhat unexpectedly, the correlation between education and position was also weak ($r = .31$; $p \leq .01$) but still statistically significant and in the expected direction.

Age was also related to several organizational characteristics. The correlation between age and size of organization, although statistically significant, was negative and weak ($r = -.10$; $p \leq .01$). Age was positively and weakly correlated with working in a government agency ($r = .10$; $p \leq .01$) as well as working in a non-profit agency

($r = .07$; $p \leq .01$). Age was also negatively and weakly correlated with working in a privately held company ($r = -.09$; $p \leq .01$) and working in an organization that conducted internal audits ($r = -.11$; $p \leq .01$). Age was not significantly correlated with any of the additional organizational characteristics. Gender was not significantly correlated with any of the organizational characteristics. The correlations between education and the organizational characteristics were very weak, with only two such relationships achieving statistical significance. These included education and size of organization ($r = -.07$; $p \leq .01$) as well as education and working in a government agency ($r = -.07$; $p \leq .01$). Similar relationships were revealed for position. Being a manager or executive was weakly correlated with size of organization ($r = -.07$; $p \leq .05$); working in a government agency ($r = -.07$; $p \leq .05$); and working in an organization that conducted internal audits ($r = -.11$; $p \leq .05$).

There were several statistically significant correlations among the organizational characteristics. Larger organizations were more likely to be publicly traded companies ($r = .38$; $p \leq .01$), less likely to be government agencies ($r = -.33$; $p \leq .01$), and less likely to be non-

profit agencies ($r = -.14$; $p \leq .01$). Larger organizations were also significantly more likely to have anonymous reporting systems ($r = .48$; $p \leq .01$); background checks ($r = .12$; $p \leq .01$) and internal audits ($r = .44$; $p \leq .01$). As expected, size of organization was also positively related to its annual revenue ($r = .38$; $p \leq .01$). The type of organization was correlated with several other organizational characteristics. Being a government agency was negatively correlated with being a publicly traded company ($r = -.38$; $p \leq .01$); with being a privately held company ($r = -.39$; $p \leq .01$); and with being a non-profit agency ($r = -.20$; $p \leq .01$). Government agencies were more likely to use two of the internal control mechanisms: anonymous reporting ($r = .16$; $p \leq .01$); and internal audits ($r = .13$; $p \leq .01$). It was surprising and unexpected that the correlation between government agencies and background checks was extremely weak and not statistically significant. This suggests that the government agencies where the frauds occurred and/or where the certified fraud examiners worked may not be representative of the larger population of government agencies that typically require background checks as a prerequisite for employment.

For the most part, the relationships between publicly

traded companies and existing control mechanisms were positive and statistically significant. Publicly traded companies more often used anonymous reporting ($r = .22$; $p \leq .01$); background checks ($r = .07$; $p \leq .05$); and internal audits ($r = .23$; $p \leq .01$). As expected, publicly traded companies were also positively correlated with annual revenue ($r = .25$; $p \leq .01$).

There were several significant correlations between privately held companies and other organizational characteristics. Privately held companies less often used anonymous reporting ($r = -.25$; $p \leq .01$); background checks ($r = -.09$; $p \leq .01$); internal audits ($r = -.30$; $p \leq .01$); and had lower revenues ($r = -.22$; $p \leq .01$). The relationships with the existing control mechanisms all suggest that privately held companies, which were also smaller, may not have the needed resources to implement control mechanisms. Similarly, the resources of non-profit agencies may also be limited. Non-profit agencies were negatively correlated with anonymous reporting ($r = -.15$; $p \leq .01$); as well as internal audits ($r = -.09$; $p \leq .01$).

Several variables were significantly related to the use of internal control mechanisms. Anonymous reporting was positively correlated with background checks ($r = .38$; p

$\leq .01$); internal audits ($r = .56$; $p \leq .01$); external audits ($r = .18$; $p \leq .01$); and revenue ($r = .13$; $p \leq .01$). The correlation between background checks and internal audits was also positive ($r = .24$; $p \leq .01$), as was the correlation between internal audits and revenue ($r = .28$; $p \leq .01$). These findings imply that organizations with at least one mechanism of internal control are more likely to have additional control mechanisms in place.

The bivariate relationships between these variables only provide a partial picture. For Analysis One, more detailed analyses, reported next, will reveal whether there are significant differences in individuals who commit asset misappropriation, corruption, and fraudulent statements, and in organizations that are victimized by the three types of occupational fraud.

Table 4. 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 co.	-.04	.03	.03	.03	.38**	-.38**	---							
8. Privately held co.	-.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 (sq. ft)	-.01	-.01	.03	-.03	.38**	-.03	.25*	-.22**	-.07	.13*	.01	.28**	.02	---

* $p < .05$ (two-tailed); ** $p < .01$ (two-tailed).

Analysis of Variance

A series of one-way ANOVA models comparing the three types of occupational fraud (i.e., asset misappropriation, corruption, and fraudulent statements) were estimated for individual characteristics and organizational characteristics. The null hypothesis for ANOVA states that there will 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 is significant, the null hypothesis can be rejected and one may conclude that significant mean differences exist. However, to determine which specific means differ significantly from each other, the Bonferroni multiple comparison test is used ($p < .05$). The test allows for direct comparisons between groups of unequal sample sizes (Mason, Gunst, & Hess, 1989).

Individual Characteristics

Table 5 presents the results of the one-way ANOVA models comparing occupational fraud types by individual

characteristics. For age, gender, education, and position, the *F*-ratios indicated significant variation between asset misappropriation, corruption, and fraudulent statements, which indicates that at least one of the means is significantly different. The Bonferonni multiple comparison test revealed that individuals who commit asset misappropriation are significantly younger than those who commit both corruption (mean difference = -2.73; $p < .05$) and fraudulent statements (mean difference = -4.03; $p < .05$). However, the age differences between those who commit corruption and fraudulent statements are not statistically significant. Where gender is concerned, those who commit asset misappropriation are significantly less likely to be male than those who commit fraudulent statements (mean difference = -.18), but there are no significant gender differences when comparisons are made between asset misappropriation and corruption, or corruption and fraudulent statements. This result differs from Daly's (1989) finding that men were more likely to commit crimes in groups, which is consistent with corruption.

For education, those who commit asset misappropriation have significantly lower levels of education than those who commit both corruption (mean difference = $-.26$; $p < .05$) and fraudulent statements (mean difference = $-.24$; $p < .05$), but significant educational differences were not detected in the comparison between corruption and fraudulent statements. The final post hoc comparisons for position show that those who commit asset misappropriation are significantly less likely to be managers or executives than those who commit fraudulent statements (mean difference = $-.36$; $p < .05$). People who are involved in corruption also hold significantly lower positions in the organization compared to those who make fraudulent statements (mean difference = $.29$; $p < .05$). In sum, the findings support the hypothesis that all of the characteristics of individuals who commit the three forms of occupational fraud (asset misappropriation, corruption, or fraudulent statements) differ significantly.²

² *Criminal history*, operationalized as whether the perpetrator has any prior fraud charges or convictions (1 = yes; 0 = no), was originally considered as a fifth characteristic, but was only available for the 2001-02 data. Less than 5% of the sample had any known criminal history, consistent with prior studies. Preliminary analyses indicated that there were no significant mean differences in the criminal histories of individuals who committed asset misappropriation, corruption, or fraudulent statements, so this variable was dropped.

These results suggest that occupational fraud is not a blanket form of white-collar crime perpetrated by individuals who share distinct characteristics such as those commonly assumed in the literature. On the contrary, the characteristics of perpetrators vary based on the specific type of occupational fraud committed. For example, the results suggest that the crime of asset misappropriation does not require any advanced knowledge or skills that would likely be associated with more education and higher-ranking positions.

Although there are significant, individual mean differences between the three types of occupational fraud, it is crucial to note that the some of characteristics of this sample as a whole are at least somewhat comparable to the literature's depiction of the typical white-collar offender. In terms of demographics, recall Wheeler et al.s' (1988) description of the average white-collar offender as "a white male, age 40." Consistent with this finding, the average age of the present sample is 40.9. Racial composition of the offenders was not recorded in this study's surveys, so no comparisons to the literature on this variable can be made.

The averages for other characteristics did not support previous findings. For example, a nearly equal percentage of men and women committed fraud, the majority were lower level employees rather than managers or executives, and over half possessed a high school diploma while the remaining 44% had four-year or graduate degrees. What can be said about these notable differences? Bear in mind that many previous studies supporting the popular white-collar criminal image were based on samples of convicted offenders. The lack of comparability to the present study suggests what many have long recognized: that those offenders who reach the sentencing stage of the criminal justice system are distinctly different than those who are filtered out at earlier stages, and are therefore unrepresentative of the larger population of offenders (Zatz, 1987). Portrayals of typical white-collar offenders that are based on such limited samples may serve to only perpetuate potential biases in sentencing and related criminal justice policies.

Table 5. Occupational Fraud Type by Individual Characteristics

	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*

* $p < .05$

Organizational Characteristics

Table 6 presents the results of the one-way ANOVA models comparing occupational fraud type by organizational characteristics. Overall, the *F*-ratios for size of organization, publicly traded company, privately held company, anonymous reporting, and internal audits all show significant variation between asset misappropriation, corruption, and fraudulent statements. However, the *F*-ratios for non-profit agency, background checks, external audits, and revenue, do not differ significantly for the three types of occupational fraud. These results partially confirm the hypothesis that the characteristics of organizations victimized by different types of fraud would differ.

For the organizational characteristics that were statistically significant overall, the Bonferroni multiple comparison tests reveal more detailed differences between types of fraud. Organizations victimized by asset misappropriation are significantly smaller than organizations victimized by corruption (mean difference = -.42; $p < .05$). Additionally, organizations victimized by corruption are significantly larger than organizations

victimized by fraudulent statements (mean difference = .46; $p < .05$). When they are victimized, publicly traded companies have significantly more corruption than asset misappropriation (mean difference = .16; $p < .05$). In the victimized privately held companies, there is significantly more asset misappropriation than corruption (mean difference = .12; $p < .05$). For non-profit agencies, there is significantly more asset misappropriation than corruption (mean difference = .10; $p < .05$) as well as significantly more asset misappropriation than fraudulent statements (mean difference = .11; $p < .05$).

When the separate, existing control mechanisms are compared for organizations that experienced the cases of occupational fraud, results show that victimized organizations with anonymous reporting systems are significantly more likely to find corruption than either asset misappropriation (mean difference = .39; $p < .06$) or fraudulent statements (mean difference = .28; $p < .05$). This suggests that anonymous reporting systems may provide security for those individuals who "rat" on fellow employees, by eliminating potential negative consequences and stigma of whistleblowing. The only other type of control mechanism to attain statistical significance is

internal audits. Organizations that conduct internal audits are more likely to find corruption than asset misappropriation (mean difference = $-.14$; $p < .05$).

How do these results compare to the literature's image of the large, publicly traded company as a frequent setting for white-collar crime? Compared to organizations that fall victim to asset misappropriation and fraudulent statements, organizations victimized by corruption are significantly larger, and more likely to be publicly traded. In this sample of victimized organizations, corruption is rare in both non-profit agencies and privately held companies; this may be due to the fact that these types of organizations are also smaller, and collusion with outsiders may be nearly impossible given potentially close associations between employees. Although corruption victimizes the organization rather than benefits it, this particular form of fraud tends to take places in a setting that is consistent with previous studies of corporate crime. On a related note, the corporate crime literature identifies profit maximization as a key motivating factor in white-collar crime. Although individual offender motivation is beyond the scope of the present study, the findings reported here show that annual

revenue of publicly traded companies is not related to any form of occupational fraud. This result highlights key differences between occupational crime, committed against the organization, and corporate crime, committed on behalf of the organization, supporting this typological distinction (Clinard & Yeager, 1980).

Table 6. Occupational Fraud Type by Organizational Characteristics

	Asset Misappropriation	Corruption	Fraudulent Statements	F-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

* $p < .05$

Analysis Two:

The Behavior of Law and Conflict Theory

Descriptive Statistics

The sample (n = 1,142) used in Analysis One was also used in Analysis Two. The characteristics of the sample, arranged by Black's conceptual categories for each time period and the pooled data, are presented in Table 7. For stratification, two measures were included: age and gender. The average age of the sample was 40.9 years. Approximately 53.2% (n = 574) were males while 46.8% (n = 505) were females.

Education is the indicator of culture as defined by Black (1976) and in this dissertation. For this variable, the majority of the sample (56% or n = 640) had high school or less educations, while around one-third (33.8% or n = 386) had bachelor's degrees and 10.2% (n = 116) had graduate degrees. Morphology was measured using one variable, position in the organization. As the table shows, over half of the offenders (60.2% or n = 688) held lower level, employee positions and the remaining 39.8% (n = 454) were managers or executives.

To reflect Black's (1976) theoretical category of organization, two variables were used: size of organization, and type of organization. The greatest percentage of organizations (36.2% or n = 377) had 1-99 employees, followed by 25.8% (n = 265) with 1000-9999 employees, 20.3% or n = 208) with 100-999 employees, and 17.2% (n = 177) with 10,000 or more employees. The types of organizations included 32.1% (n = 367) that were privately held, 30.8% (n = 352) that were publicly traded, 24.8% (n = 283) that were government agencies, and 11.2% (n = 128) that were non-profit agencies.

Social control was measured using the degree of existing, non-legal controls available in organizations. This variable ranged from 0 (no mechanisms) to 4 (all four mechanisms present). Just over 200 organizations (207; 18.1%) reported that they did not have any existing control mechanisms in the year prior to the current fraud case. Nearly one quarter (279 organizations or 24.1%) had one mechanism in place, while a slight majority (372 or 32.6%) had two mechanisms in place. Very few organizations reported having three mechanisms (181 or 15.8%), and an even smaller number had all four mechanisms of non-legal social control (103 or 9%).

Table 7. Descriptive Statistics, Dimensions of Social Life, Analysis Two

	<u>1997-1998 Survey</u> % (n)	<u>2001-2002 Survey</u> % (n)	<u>Pooled Sample</u> % (n)
<u>Dimension of Social Life</u>			
<u>Stratification</u>			
Mean age in years	40.7 (479)	41.1 (587)	40.9 (1,066)
<u>Gender</u>			
Male	52.8 (253)	53.5 (321)	53.2 (574)
Female	47.2 (226)	46.5 (279)	46.8 (505)
<u>Morphology</u>			
<u>Position</u>			
Employee	62.0 (297)	59.0 (391)	60.2 (688)
Manager or executive	38.0 (182)	41.0 (272)	39.8 (454)
<u>Culture</u>			
<u>Education</u>			
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)
<u>Organization</u>			
<u>Size</u>			
1-99 employees	34.0 (163)	39.1 (214)	36.7 (377)
100-999 employees	19.6 (94)	20.8 (114)	20.3 (208)
1000-9999 employees	28.4 (136)	23.5 (129)	25.8 (265)
10,000+ employees	18.0 (86)	16.6 (91)	17.2 (177)
<u>Type</u>			
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)
<u>Social Control</u>			
<u>Existing control mechanisms</u>			
0 controls	7.1% (34)	26.1% (173)	18.1 (207)
1 control	30.1% (144)	20.4% (135)	24.4 (279)
2 controls	53.0% (254)	17.8% (118)	32.6 (372)
3 controls	9.8% (47)	20.2% (134)	15.8 (181)
4 controls*	---	15.5% (103)	9.0 (107)

*Not possible for 1997-98 survey.

For the dependent variables, the descriptive statistics for the three possible outcomes are presented in Table 8. The responses reflecting quantity and quality of law are presented simultaneously because, for purposes of frequencies, they are capturing the same outcome (i.e., criminal referral is the same as penal law and civil referral is the same as compensatory law). The frequencies were similar at both time periods. During 1997-98, a total of 124 cases (25.9%) were not referred; 275 (57.4%) were referred for criminal processing and 80 (16.7%) were referred for civil processing. During 2001-02, a total of 177 cases (26.2%) were not referred, similar to the percentage referred in 1997-98. A total of 466 (67.3%) were referred for criminal processing, up slightly from the 1997-98 survey, and the remaining 40 cases (6%) were referred for civil processing, a lower percentage than in 1997-98.

Table 8. Descriptive Statistics, Behavior of Law, Analysis Two

	<u>1997-1998 Survey</u> % (n)	<u>2001-2002 Survey</u> % (n)	<u>Pooled Sample</u> % (n)
<u>Action Taken</u>			
No Referral	25.9 (124)	26.7 (177)	26.1 (301)
Criminal Referral/Penal	57.4 (275)	67.3 (446)	63.1 (721)
Civil Referral/Compensatory	16.7 (80)	6.0% (40)	10.5 (120)

Bivariate Relationships

Table 9 presents a correlation matrix of the bivariate relationships between the dimensions of social life and the resulting legal outcomes. For stratification, age was significantly correlated with gender ($r = .18$; $p \leq .01$), the second indicator of stratification. Age was also significantly correlated with position, the indicator of morphology ($r = .33$; $p \leq .01$); education, the indicator of culture ($r = .22$; $p \leq .01$); size, an indicator of organization ($r = -.10$; $p \leq .01$); and social control ($r = -.09$; $p \leq .01$). Gender, the other indicator of stratification, was weakly and significantly correlated with morphology ($r = .12$; $p \leq .01$) and with culture ($r = .15$; $p \leq .01$). Neither stratification indicator was correlated with quality and quantity of the legal response.

For morphology, which was measured using position in the organization, there were several significant correlations. In addition to its relationship with both stratification indicators, morphology was also moderately and significantly correlated with culture ($r = .31$; $p \leq .01$). Weak, negative but significant correlations were found between morphology and size of organization, one indicator of organization ($r = -.07$; $p \leq .05$); also with social control ($r = -.06$; $p \leq .01$). Morphology was not correlated with the legal response.

Culture, measured with one indicator, education, was weakly but significantly correlated with size, an indicator of organization ($r = -.07$; $p \leq .05$). With the exception of the aforementioned bivariate relationships with age, gender, and morphology, culture was not significantly correlated with any additional dimensions of social life, nor was it correlated with legal outcomes.

Organization was measured using two indicators: size and type. Recall that size of organization was correlated with age, morphology, and culture. Type of organization was significantly correlated with social control ($r = .36$; $p \leq .01$). The two indicators of organization were significantly correlated with each other ($r = .28$; $p \leq$

.01). Neither indicator was correlated with the legal responses.

The last dimension of social life examined in the bivariate analysis was social control, measured with one indicator reflecting the degree of existing control mechanisms in the organization. As discussed previously, social control was significantly correlated with age, morphology, size of organization, and type of organization. Social control was not correlated with the legal responses.

The correlation between age and gender was expected given that Black (1976) states that they are both measures of stratification. Because they provide separate indicators of the construct, stratification, it is not likely for age and gender to be correlated. This was also expected for the two indicators of organization: type and size. However, the correlations between different dimensions of social life are inconsistent with the theory of the behavior of law, but are consistent with criticisms of that theory that claim that the five dimensions are not as conceptually distinct as Black argues. The multivariate analyses will further untangle these relationships, to determine whether the hypotheses about the behavior of law can be supported for these cases of occupational fraud.

Table 9. Correlation Matrix of Dimensions of Social Life and the Behavior of Law

Variable	1	2	3	4	5	6	7	8	9
1. Stratification (Age)	---								
2. Stratification (Gender)	.18**	---							
3. Morphology	.33**	.12**	---						
4. Culture	.22**	.15**	.31**	---					
5. Organization (Size)	-.10**	-.05	-.07*	-.07*	---				
6. Organization (Type)	.05	.05	-.04	-.02	.28**	---			
7. Social Control	-.09**	-.08	-.06*	-.10	.20**	.36**	---		
8. Quantity of Law	-.01	-.06	.03	-.01	.01	.05	.05	---	
9. Quality of Law	-.01	-.06	.03	-.01	.01	.05	.05	---	---

* $p < .05$ (two-tailed); ** $p < .01$ (two-tailed).

Multivariate Analyses for Behavior of Law

Recall from Chapter Three that there were several possible approaches to modeling the data for the multivariate analyses of the behavior of law variables. The available options were based on previous tests of the theory, the majority of which have used a single, dichotomous variable to measure law (i.e., Did you call the police?; 1 = yes; 0 = no). Previous studies predicting calls to police as well as referrals have used logistic regression, which has generally been the most appropriate technique given the fact that available data rarely include both civil and criminal referrals.

In the present study, the majority of cases were referred (73.6%), with 63.1% referred for criminal processing and the remaining 10.5% referred for civil processing. Given these distributions, the choice to combine the two referrals and compare all referrals against cases that were not referred was an option. However, Black's theory itself clearly specifies that there are important differences in civil and criminal responses. Thus, combining the two referrals into one category could obscure distinctions between civil and criminal responses. A regression model that can incorporate these differences

is the most appropriate choice.

In the interest of specifying the most parsimonious models that best fit these data, the choice of regression models was determined using steps outlined by Long (1997: 162-164). Specifically, the test of whether two outcome variables (i.e., civil and criminal referrals) could be combined was performed. First, cases with civil and criminal referrals were selected. A binary logit was then estimated on this sample (n = 841 cases). Independent variables representing the dimensions of social life were included in the model. The Likelihood Ratio (LR) was used to test whether all of the slope coefficients in the binary logit are simultaneously zero. Although this is essentially a hypothesis test, it can provide support for using a particular approach to model the data. If the null hypothesis were accepted, the independent variables would not differentiate between civil and criminal referrals, so logistic regression would be the appropriate choice. However, if at least one of the slope coefficients differed, support for an alternative technique (e.g., multinomial logit) would be demonstrated.

Results from this preliminary test indicated that as a group overall, the parameters were not significantly

different from zero ($-2 \text{ Log Likelihood} = 575.910$; $\text{sig} = .219$). In this situation, Long (1997: 164) stresses the importance of examining the significance of each individual parameter before deciding to revise the model, as one of the independent variables may still have an important effect differentiating between the outcome categories. Following this recommendation, an examination of the individual parameters in the model indicated that one independent variable, culture (measured by level of education) had a significant effect ($-2 \text{ Log Likelihood} = 583.625$; $\text{sig} = .021$). Since the results of this test provided partial support for both choices of models, the research questions were carefully considered. Given the theory's emphasis on differences in civil and criminal responses, the most appropriate model is the multinomial logistic regression model. This is essentially equivalent to running three binary logistic regressions, but the simultaneous model is more efficient (Long, 1997). This choice resulted in three types of comparisons: civil referrals vs. no referrals, criminal referrals vs. no referrals, and civil referrals vs. criminal referrals.

The Behavior of Law: Multinomial Logistic Regression Models

To examine the relationships between dimensions of social life and the behavior of law, several multinomial and binary logistic regression models were specified. The initial relationships predicted by Black's theory were examined using the three categories of law for the dependent variable. Following Copes et al., 2001, a series of models were estimated separately (with each dimension of social life as the predictor) and then simultaneously, with all of the five dimensions of social life, and finally, with the addition of the control variables.

The following dimensions of social life (with their indicators listed) were used as independent variables: Stratification (measured by age and gender); Morphology (measured by position in the organization); Culture (measured by level of education); Organization (measured by size and type of business) and Social Control (measured by the degree of existing internal control mechanisms present in the organization). Given the existing critiques of Black's theory, control variables were also considered. For example, Black argues that the type of crime should not matter, because the relationships with the dimensions of

social life are more important in determining the behavior of law. Similarly, traditional indicators of the seriousness of a crime (e.g., dollar loss) should not matter. It is in these two areas that many critics have challenged Black; specifically beginning with Gottfredson and Hindelang (1979), who found that the seriousness and type of crime were significant predictors of the legal response. To determine whether these criticisms hold in the present study, additional multinomial logistic regression models were estimated with the inclusion of the type of fraud as well as the dollar loss (square root transformation) due to fraud as an indicator of crime seriousness.³ According to Black, the theory of the behavior of law applies equally at all times. To examine this statement, separate models were estimated for the 1997-98 sample, the 2001-02 sample, and the full sample, for each of the previously described relationships.

The results of the initial multinomial logistic and regression models predicting the behavior of law based on the separate, five dimensions of social life for the full

³ The square root transformation was used to reduce skewing.

sample and each sub-sample are presented in Table 10. This comparison uses *no referral* as the reference category.

Multinomial Logistic Regression Models: Separate Dimensions of Social Life

Table 10 presents the series of five separate multinomial logistic regressions examining the dimensions of social life at both time periods and for the full sample. For all three samples, Model 1 assesses the relationship between the stratification variables and the log odds of receiving a civil referral vs. no referral and a criminal referral vs. no referral, respectively. In 1997-98, the model chi-square (8.87; df = 4) is significant, indicating the presence of a statistically significant relationship between the combination of age and gender and the corresponding legal response. For criminal vs. no referral, the relationship between age and the legal response is significant using the criterion of $p \leq .10$, indicating that for each additional one year increase in age, there is a significant decrease in the probability of a criminal referral, which is consistent with Black's theory as well as conflict theory. However, the relationship does not hold at more stringent levels of

significance. Additionally the odds ratio of .98 is close to 1.0, reflecting that the odds of receiving a criminal referral are nearly equal to the odds of no referral. For gender, there is a significant relationship between one's gender and the probability of receiving a civil referral vs. no referral. The odds ratio of 1.75 shows that compared to males, females are approximately 75% more likely to receive a civil referral ($p \leq .10$), also consistent with both Black's theory and conflict theory. There are no gender differences between criminal referrals and no referrals.

In Model 1 for the 2001-02 sample, the model chi-square is large and statistically significant at $p \leq .01$, indicating a relationship between the stratification variables and the outcome. For each one year increase in age, the probability of a case receiving a civil referral increases significantly, but only by 6%. This is in the opposite direction predicted by Black's theory and conflict theory. There are no age differences for criminal referrals. For gender, there are no differences for civil referrals, but the probability of receiving a criminal referral increases by 55% for females, supporting the theory of the behavior of law as well as conflict theory.

In the full sample, the model chi-square of 8.20 shows a statistically significant relationship between the stratification variables and the outcome. However, the only significant relationship between the individual parameters and the outcome is for gender, which indicates the odds of a criminal referral are increased by 28% for females ($p \leq .10$), again consistent with Black's theory and conflict theory.

Model Two shows the relationship between morphology and the legal outcome. There are no significant relationships in the 1997-98 sample, indicating no support for this dimension of Black's theory. For 2001-02, the model chi-square of 8.22 is statistically significant at ($p \leq .05$), showing a relationship between one's position in the organization and the likelihood of a case being referred. The individual parameters indicate that this relationship exists only for the comparison between civil and no referrals. Compared to managers and executives, the odds ratio of .42 shows that the odds of receiving a civil referral decrease by 58% for employees, which is in the opposite direction predicted by the theory. Neither the model nor the individual parameters are statistically significant for the full sample, leading to the conclusion

that there is no support for Black's theory on this dimension of social life.

Model Three examines the relationship between culture and the likelihood of receiving a referral. In 1997-98, the model is not significant. In 2001-02, the model chi-square of 15.33 is statistically significant at ($p \leq .01$), indicating that there is a strong relationship between education and the outcome variable. The relationship does not hold for the civil vs. no referral comparisons, but shows that an increase in education corresponds with a 32% decrease in the likelihood of receiving a criminal referral, which is in the direction predicted by Black's theory and conflict theory. Similar findings are revealed for the full sample: no differences in the comparison of civil vs. no referral, but a statistically significant decrease of 20% in the odds of receiving a criminal referral. Also, the model chi-square of 9.36 for 2001-02 is statistically significant at ($p \leq .05$), but smaller than the chi-square in the 2001-02 sample.

Model Four examines the relationship between the organization variables (size and type) and the corresponding legal response. For 1997-98, the model chi-square of 8.41 is small but statistically significant at p

$\leq .10$, indicating a relationship between the combination of size and type of organization to the legal outcome. The individual parameters for this model indicate no differences in civil vs. no referrals for either size or type. However, both variables exert a significant influence on the likelihood of receiving a criminal referral. Specifically, as the size of a business increases, the odds of receiving a criminal referral increase by 25%, which is what Black's theory predicts. For type, lower levels of organization correspond with a 20% decrease in the likelihood of a case receiving a criminal referral, which is in the opposite direction than predicted by the theory.

At 2001-02, the model chi-square of 15.93 is also statistically significant, and larger than in 1997-98. However, there are no significant findings for the individual parameters of size. For type, the only significant relationship is in the criminal vs. no referral comparison, which shows that, as a business' level of organization increases, there is a 37% increase in the likelihood of a case receiving a criminal referral, which is consistent with the theory. When these relationships are

examined for the full sample, neither the full model nor either individual parameter is statistically significant.

Model Five examines the relationship between social control and the outcome. In 1997-98, the model chi-square of 5.17 is statistically significant ($p \leq .10$). There is not a relationship between degree of social control and the likelihood of receiving a civil referral; however, there is a relationship for criminal referrals. Specifically, for each one unit increase in the degree of internal social control, there is a 23% decrease in the likelihood of a case receiving a criminal referral. This finding is consistent with Black's theory.

In 2001-02, opposite findings emerge, but the findings also fail to support the theory. The model chi-square of 22.10 is large and statistically significant ($p \leq .01$). The odds ratio indicates that, for every one-unit increase in the amount of internal social control available to a business, the likelihood of receiving a criminal referral increases by 31%. There is a similar relationship in the full sample. The model chi-square of 11.65 is again statistically significant ($p \leq .01$). However, like in 2001-02, for the full sample, increased internal social

control results in a 21% increase in the likelihood of receiving a criminal referral.

Thus far, the separate multinomial regression analyses provide mixed support for the theory. This is consistent with the findings of Copes et al., (2001), who found limited support when the dimensions of social life were assessed separately.

Table 10. Multinomial Logistic Regression Models of Behavior of Law for Dimensions of Social Life (No Referral vs. Civil & Criminal Referrals)

Model	1997-98			2001-02			Full Sample		
	Civil	Criminal	χ^2 (df)	Civil	Criminal	χ^2 (df)	Civil	Criminal	χ^2 (df)
<i>1. Stratification</i>									
Age	-.02 (.01) [.98]	-.02* (.01) [.98]	8.87* (4)	.06***(.02) [1.06]	.00 (.01) [1.00]	21.00*** (4)	.01 (.01) [1.01]	-.01 (.01) [.99]	8.20* (4)
Gender	.56* (.29) [1.75]	.02 (.22) [1.02]		-.21 (.41) [.81]	.44** (.20) [1.55]		.35 (.23) [1.42]	.25* (.15) [1.28]	
<i>2. Morphology</i>									
Position	-.07 (.30) [.93]	-.31 (.23) [.80]	1.16 (4)	-.87** (.36) [.42]	.09 (.18) [1.10]	8.22** (4)	-.27 (.22) [.77]	-.04 (.14) [.97]	1.59 (4)
<i>3. Culture</i>									
Education	.12 (.21) [1.13]	.75 (.16) [1.03]	.35 (4)	.33 (.24) [1.40]	-.39** (.13) [.68]	15.93*** (4)	.14 (.15) [1.15]	-.22** (.10) [.80]	9.36** (4)
<i>4. Organization</i>									
Size	.02 (.14) [1.02]	.22** (.37) [1.25]	8.41* (4)	-.13 (.19) [.88]	.03 (.10) [1.03]	10.82** (4)	-.04 (.11) [.97]	.10 (.07) [1.11]	6.04 (4)
Type	-.23 (.16) [.80]	-.23* (.12) [.80]		.07 (.22) [1.08]	.31** (.11) [1.37]		-.02 (.12) [.99]	.08 (.08) [1.07]	
<i>5. Social Control</i>									
Degree of Control	.05 (.20) [1.05]	-.26* (.15) [.77]	5.17* (4)	-.05 (.13) [.95]	.27*** (.07) [1.31]	22.10*** (4)	.05 (.09) [1.05]	.19*** (.06) [1.21]	11.65*** (4)

NOTE: Entries are unstandardized coefficients, standard errors in parentheses, and odds ratios in brackets.

* $p \leq .10$; ** $p \leq .05$ *** $p \leq .01$

Separate Dimensions of Social Life, Criminal vs. Civil

Table 11 presents the results of five multinomial logistic regression models examining the relationships between the five dimensions of social life and the behavior of law. In this table, the comparisons are between criminal and civil referrals only. This permits both the quantitative and qualitative comparisons suggested by the theory: civil and criminal referrals represent two distinct styles of law (compensatory and penal, respectively) but also represent a quantitative distinction in that the theory suggests that a criminal referral is "more law" than a civil referral. Note that, as the model chi-squares represent overall model fit, the chi-square values in Table 11 are the same as those in Table 10, and thus have already been presented. The main interest is in the differences in the odds for the two types of referrals.

In Model One for 1997-98, turning to the individual stratification variables, there are no differences for age, but the likelihood of receiving a criminal referral decreases by 42% for females, which is inconsistent with both Black's theory and conflict theory. For 2001-02, for every one-year decrease in age, there is a 6% decrease in the odds of receiving a criminal referral, which is

inconsistent with Black's theory and conflict theory. For gender, the likelihood of receiving a criminal referral increases by 92% for females, which is in the direction that both Black's theory and conflict theory predict. In the full sample, only age is significant ($p \leq .01$), but the relationship is weak and does not hold at more stringent levels of significance. Moreover, the odds ratio is close to 1.0, indicating almost no difference in the odds of a criminal or civil referral for a one year decrease in age.

Model Two examines the relationships between morphology and the likelihood of a criminal referral vs. a civil referral. There are no significant findings in 1997-98. For 2001-02, employees are significantly more likely than managers or executives to receive a criminal referral. Specifically, the odds ratio of 2.92 shows an increase of 192%. This finding supports Black's theory, showing that those at lower levels of a hierarchy are dealt with more harshly by the legal system. The finding does not persist in the full sample, as there are no significant differences.

Model Three examines the relationship between culture and the likelihood of a criminal referral vs. a civil referral. For 1997-8, there are no significant findings.

In 2001-02, for every one-unit increase in education, there is a 51% decrease in the odds of receiving a criminal referral, which is in the direction predicted by Black's theory. Similar findings emerge for the full sample, where a one unit decrease in education corresponds to a 30% decrease in the odds of receiving a criminal referral.

Model Four examines the relationship between organization (measure by size and type) and the type of referral. In 1997-98, an increase in the size of a business is associated with a 22% increase in the odds of a criminal referral, supporting Black's theory. No significant findings for the individual parameter of type are found. In 2001-02, as well as the full sample, there are no significant findings for either measure of organization.

Model Five examines the relationship between social control and the type of referral. The findings for 1997-98 show that a one unit increase in the degree of internal social control corresponds to a 27% decrease in the likelihood of a criminal referral, which is consistent with the theory's predictions. Similarly, although the direction of the relationship differs in 2001-02, there are statistically significant but contradictory findings,

indicating that a one unit increase in the degree of internal social control results in a 37% increase in the likelihood of a criminal referral. For the full sample, the findings are comparable to 2001-02 albeit somewhat weaker, showing that a one unit increase in the degree of internal social control corresponds to a 15% increase in the likelihood of a criminal referral.

To obtain a more complete understanding of the relationships presented in Tables 10 and 11, a series of additional multinomial logistic regression models were estimated. For the full sample and for each time period, four models were estimated. Because these analyses included the addition of variables (i.e., controls) at subsequent stages, the model fit statistics can be compared to determine which model best fits the data. Additionally, the pseudo R^2 (Nagelkerke R^2) change can also be examined to show the effect of additional variables on the level of explained variance. As Long (1997) cautions, given the nominal nature of the dependent variable, the level of explained variance is not as important as the classification table in assessing model fit and accuracy of prediction. The results from the classification tables will be discussed in text, but are not presented in the

MNLM tables. In situations where the distribution of the dependent variable is skewed with the majority of cases in one category, such as in criminal referrals, it is also useful to evaluate classification of cases against the classification that would be expected by chance. In each model, the most accurate predictions would be expected for the cases with the greatest frequency for the dependent variable (i.e., criminal referrals). The benchmark standard for evaluating model classification versus by chance classification is a 25% improvement (Tabachnick and Fidell, 2001). To assess classification accuracy, the classification standard will be examined for each model. Classification by chance, and the subsequent 25% improvement over chance, will be calculated as follows:

Percentage of cases in category 1 (no referrals) squared + percentage of cases in category 2 (criminal referrals) squared + percentage of cases in category 3 (civil referrals) squared x 1.25. These results are presented below.

For the full sample: $.261^2 + .631^2 + .105^2 = .47.7\%$ by chance classification accuracy; x 1.25 = 56.9% minimum

For 2001-02: $.267^2 + .673^2 + .060^2 = 52.7\%$ by chance
classification accuracy; $\times 1.25 = 65.9\%$ minimum

For 1997-98: $.259^2 + .574^2 + .167^2 = 42.8\%$ by chance
classification accuracy; $\times 1.25 = 53.4\%$ minimum

To summarize, the minimum classification accuracy that would be expected by chance alone in the full sample is 47.7%. An improvement of 25% better than chance is found by multiplying 47.7% by 1.25, which yields a value of 56.9%. To determine whether the additional multinomial logistic regression models classify cases at a rate better than 25%, the classification accuracy rate must be greater than 56.9%.

For 2001-02, the minimum classification accuracy that would be expected by chance alone is 52.7%. An improvement of 25% better than chance is found by multiplying 52.7% by 1.25, which produces a value of 65.9%. To determine whether the additional multinomial logistic regression models classify cases at a rate better than 25%, the classification accuracy rate must be greater than 65.9%.

Finally, the calculations on the previous page showed that, for 1997-98, the minimum classification accuracy that would be expected by chance alone is 42.8%. An improvement of 25% better than chance is found by multiplying 42.8% by 1.25, which produces a value of 53.4%. To determine whether the additional multinomial logistic regression models classify cases at a rate better than 25%, the classification accuracy rate must be greater than 53.4%.

Table 11. Multinomial Logistic Regression Models of Behavior of Law for Separate Dimensions of Social Life (Criminal vs. Civil Only)

Model	1997-98		2001-02		Full Sample	
	Criminal vs. Civil	χ^2 (df)	Criminal vs. Civil	χ^2 (df)	Criminal vs. Civil	χ^2 (df)
1. Stratification						
Age	.00 (.01) [.99]		-.06*** (.02) [.94]		-.02* (.01) [.98]	
Gender	-.54* (.26) [.58]	8.87* (4)	.65* (.38) [1.92]	21.00 (4)	-.10 (.21) [.90]	8.20* (4)
2. Morphology						
Position	-.16 (.26) [.85]	1.16 (2)	.96** (.34) [2.61]	8.21** (2)	.23 (.20) [1.26]	1.59 (2)
3. Culture						
Education	-.09 (.19) [.91]	.35 (2)	-.72** (.22) [.49]	15.92*** (2)	-.36*** (.14) [.70]	9.36** (2)
4. Organization						
Size	.20* (.12) [1.22]		.16 (.58) [1.18]		.14 (.09) [1.15]	
Type	-.01 (.15) [.99]	8.41* (4)	.24 (.26) [1.26]	10.82** (4)	.08 (.11) [1.08]	6.04 (4)
5. Social Control						
Degree of Control	-.31* (.17) [.73]	5.17* (2)	.32*** (.12) [1.37]	22.10*** (2)	.14* (.08) [1.15]	11.66** (2)

NOTE: Entries are unstandardized coefficients, standard errors in parentheses, and odds ratios in brackets.

* $p \leq .10$; ** $p \leq .05$ *** $p \leq .01$

Multinomial Logistic Regression: Theoretical Models and Controls, Full Sample

Table 12 presents the results of a series of four multinomial logistic regressions for the full sample. In these models, not referred is the reference category. Model One includes all five dimensions of social life as independent variables. Although some of the individual parameters are significant, the model chi-square is small and not statistically significant, showing poor model fit for the five dimensions of social life. Moreover, the Nagelkerke R^2 indicates that a model representing Black's theoretical categories explains only 2% of the variation in the outcome. The classification table statistics show that this model has a 63.5% overall accuracy rate, which is greater than the minimum 25% improvement over chance of 59.6% that was calculated and presented on pages 182-183. The criteria for classification accuracy is satisfied in this model.

In Model Two, type of fraud, a control variable, is added to the predictive model. The addition results in a larger and statistically significant model chi-square of 28.49 ($p \leq .10$). However, Nagelkerke R^2 remains the same,

indicating no improvement in the amount of explained variance with the addition of the type of fraud. The overall classification for the model is nearly equal at 63.4% which is greater than the minimum 25% improvement over chance of 59.6%. The criteria for classification accuracy is also satisfied in this model (see pages 182-183).

Model Three includes all five dimensions of social life, but adds a different control variable: crime seriousness, measured by the dollar loss (square root transformation) due to the fraud case. Like the type of fraud, Black (1976) argues that indicators of crime seriousness should not matter in determining the behavior of law. Gender is the only individual parameter that is statistically significant, and the overall fit of model three fails to attain statistical significance. The chi-square of 22.53 is smaller than the chi-square for model two, although larger than model one. However, the Nagelkerke R^2 increases to 3% in this model. As the theory predicts, the addition of crime seriousness alone does not significantly improve the fit of the model. Compared to the previous two models, the classification of 63.8% in model

three is higher than model one and model two, and also satisfies the criteria for classification accuracy.

In Model Four, the five dimensions of social life are entered as independent variables, with both controls also included. Compared to the previous three models, the chi-square of 32.99 is the largest, and statistically significant at $p \leq .05$. Moreover, the Nagelkerke R^2 of 5% is the highest of the four models. The overall rate of classification for the full model is 63.5%, which is greater than the 59.6% standard and again, satisfies the criteria for classification accuracy. Concerning the individual parameters, stratification is the only dimension of social life to show statistical significance. One variable, gender, is statistically significant for both civil vs. no referrals and criminal vs. no referrals. Holding all other variables constant, as Black's theory specifies, the results show that the odds of receiving a criminal referral increase by 60% for females, while the odds of receiving a civil referral increase by 36% for females. These relationships are in the hypothesized direction of Black's theory, as well as conflict theory, showing that those of lower stratification ranks are dealt with more severely by the legal system. In model four, the

only other independent variables to attain statistical significance are the control variables. For type of fraud, these comparisons use fraudulent statements as the reference category, which is compared to asset misappropriation and corruption, respectively. Compared to cases of fraudulent statements, the odds ratio of 3.33 shows that corruption cases are 233% more likely to receive a civil referral. Additionally, the odds of receiving a criminal referral are 122% greater for cases of asset misappropriation compared to fraudulent statements. Crime seriousness, the second control variable, is statistically significant at the least strict criterion of $p \leq .10$ for civil vs. no referral and criminal vs. no referral; however the odds ratios indicate that the odds of either referral vs. no referral remain even.

These findings for the control variables in model four are inconsistent with Black's theory, but support previous critiques that offense specific factors such as the type of crime and the dollar loss of crime play a role in the legal response (Gottfredson and Hindelang, 1979).

Table 12. Multinomial Logistic Regression Models for Behavior of Law, Full Sample

	Model 1		Model 2		Model 3		Model 4	
	Civil	Criminal	Civil	Criminal	Civil	Criminal	Civil	Criminal
Age	-.01 [1.00]	-.01 (.01) [.99]	.01 (.01) [1.00]	-.01 (.01) [1.00]	.00 (.01) [1.00]	-.01 (.01) [.99]	.00 (.01) [1.00]	-.10 (.01) [.99]
Gender	.46* (.24) [1.59]	.24 (.16) [1.27]	.45* (.24) [1.57]	.24 (.16) [1.27]	.46* (.26) [1.60]	.30* (.17) [1.34]	.47* (.26) [1.60]	.30* (.17) [1.36]
Position	.16 (.26) [1.17]	-.01 (.17) [.99]	.13 (.26) [1.13]	-.04 (.17) [.96]	.16 (.23) [1.18]	.00 (.19) [.99]	.14 (.29) [1.14]	.03 (.19) [.98]
Education	.13 (.18) [1.15]	-.20* (.20) [1.27]	.13 (.18) [1.14]	-.17 (.12) [.84]	.16 (.19) [1.18]	-.15 (.13) [1.04]	.14 (.19) [1.15]	-.14 (.13) [.87]
Size	-.04 (.12) [.96]	.08 (.07) [1.08]	-.05 (.12) [.95]	.09 (.08) [1.10]	-.07 (.12) [.99]	-.15 (.13) [1.04]	-.09 (.13) [.92]	.04 (.08) [1.04]
Type	-.00 (.13) [1.00]	.06 (.08) [1.06]	-.01 (.13) [.99]	.08 (.08) [1.08]	-.01 (.13) [.99]	.10 (.09) [1.10]	-.02 (.14) [.98]	.11 (.09) [1.12]
Degree of Control	-.03 (.11) [.97]	.04 (.07) [1.04]	-.03 (.11) [.97]	.04 (.07) [1.04]	-.01 (.12) [1.00]	.09 (.08) [1.10]	-.00 (.12) [1.00]	.10 (.08) [1.10]
Asset Miss.	---	---	.38 (.49) [1.47]	.47 (.30) [1.60]	---	---	.80 (.56) [2.24]	.80** (.34) [2.22]
Corruption	---	---	1.20** (.63) [3.33]	.44 (.42) [1.55]	---	---	---	---
Seriousness	---	---	---	---	.00* (.00) [1.00]	.09* (.08) [1.00]	.00* (.00) [1.00]	.00** (.00) [1.00]
-2 Log Likelihood	1648.06		1654.66		1450.81		1450.35	
Model $\chi^2_{(df)}$	18.78 (14)		28.49 (18)*		22.53 (16)		32.99 (20)**	
Nagelkerke R ²	.02		.02		.03		.05	

NOTE: Entries are unstandardized coefficients, standard errors in parentheses, and odds ratios in brackets. Not referred = reference. * $p \leq .10$; ** $p \leq .05$; *** $p \leq .01$

Multinomial Logistic Regression: Theoretical Models and Controls, 1997-98

Table 13 presents the results of a series of four multinomial logistic regressions for the 1997-98 sample. In these models, not referred is the reference category. Model One includes all five dimensions of social life as independent variables. The model chi-square of 25.97 is statistically significant ($p \leq .05$), and the Nagelkerke R^2 indicates that approximately 6% of the variation in the type of legal response is explained by the combination of Black's five theoretical categories. Similar to findings for the full sample, classification for this model is 58.2%, which is greater than the 25% improvement over chance rate of 53.4%, satisfying the criteria for classification accuracy.

Turning to the individual parameters, there are noteworthy findings for both measures of stratification. For age, results show that for each one-year increase in age there is a 2% decrease in the odds of receiving a criminal referral, with all other variables in the model held constant. For gender, the results show that females have a 75% greater chance of receiving a civil referral than males. The findings for age and gender are consistent

with both Black's theory and conflict theory. In Model One, there are no significant parameters in the categories of morphology and culture. For organization, results indicate that an increase in the size of a business corresponds to a 24% increase in the odds of a criminal referral, consistent with the predictions of Black's theory. For type of business, the second measure in the organization category, an increase in the direction of more organization is associated with a 20% decrease in the odds of a criminal referral, which is inconsistent with Black's theory. Complimentary results emerge for the social control category: for each one unit increase in available internal social control, there is 23% decrease in the odds of a criminal referral.

Model Two includes the five theoretical categories, but adds type of fraud as an additional variable. The model chi-square of 29.44 ($p \leq .05$), is larger than this statistic for Model One, indicating that the addition of the type of fraud control variable significantly improves the fit of the model. Additionally, the level of explained variance increases in this model (Nagelkerke $R^2 = .07$). The overall classification of the model is 58.9%, which is almost the same as Model One's rate of 58.3% and also

greater than the 25% improvement over chance classification of 53.4% calculated on pages 182-183. Like Model One, however, the most accurate predictions of Model Two are for criminal referrals.

For stratification, the results are similar to Model One. A one-year increase in age is associated with a 2% decrease in the odds of a criminal referral. Gender continues to exert a significant influence on the likelihood of a civil referral: the odds of a civil referral increase by 80% for females, controlling for all other variables in the model. In other words, regardless of the type of fraud committed, this relationship persists, which supports Black's theory and conflict theory.

In Model Two, the categories of morphology and culture fail to achieve statistical significance. For organization, the type parameter is significant, and shows that less organized businesses correspond to a 19% decrease in the odds of a criminal referral, consistent with the theory's predictions. For social control, a one-unit increase in available internal social control is associated with a 23% decrease in the odds of a criminal referral, which is in the direction predicted by the theory. Finally, although the addition of the type of fraud

variable significantly improved the fit of the model, none of the individual parameters for this variable are statistically significant.

Model Three reports the results of the multinomial logistic regression with the addition of crime seriousness, the second control variable, to the five theoretical categories. The model chi-square of 24.40 is statistically significant, but is lower than Model One. The level of explained variance increases to 8% when crime seriousness is added to the model. The overall classification of 55.6% accuracy for this model is less than the previous two models, but still greater than the 25% improvement over chance rate of 53.4%.

In Model Three, the stratification category includes significant findings for both age and gender. Like the previous models, an increase in age is associated with a slight decrease in the odds of a criminal referral (2%). For gender, females have an 87% greater chance of receiving a civil referral than males, all other variables held constant. In this model, no other parameters are statistically significant, leading to the conclusion that Black's theory performs well for only both measures of stratification.

Model Four presents a full model that adds both control variables to the five theoretical categories. Much like the results for the full sample, this model provides the best fit to the data, with a chi-square of 31.58 ($p \leq .05$) and a Nagelkerke R^2 of .10. For the individual parameters consistent with Black's theory, stratification is the only category to include significant results. Specifically, as age increases by one year, the odds of a criminal referral increase slightly (by 2%). In this model, the parameters for gender are the strongest, showing that females have a 91% increase in the odds of a civil referral, all other variables held constant. The relationship holds regardless of the type of fraud committed or the dollar loss from the fraud.

The only other variable to achieve statistical significance in this model is type of fraud, one of the controls. Recall that the comparison group is fraudulent statements. The findings show that the odds of receiving a civil referral increase by 131% for cases of asset misappropriation, compared to cases of fraudulent statements. Additionally, for cases of corruption, there is a 110% increase in the odds of receiving a civil referral compared to cases of fraudulent statements. These

findings are inconsistent with Black's theory, which would argue that the type of crime does not influence the behavior of law.

For the full model, the overall classification rate is 57%, which is greater than the 25% improvement over chance classification accuracy of 53.4%. Like the previous three models, Model Four has the highest rate of prediction accuracy for criminal referrals, which was expected given the distribution of the dependent variable. Interestingly, this model also has the highest accuracy rates in predicting both civil referrals and no referrals (8.6% and 7.2%, respectively). This suggests that the addition of both control variables plays a role in improving the ability to predict civil referrals and no referrals.

Table 13. Multinomial Logistic Regression Models for Behavior of Law, 1997-98

	Model 1		Model 2		Model 3		Model 4	
	Civil	Criminal	Civil	Criminal	Civil	Criminal	Civil	Criminal
Age	-.02 [.98] (.02)	-.03** [.98] (.01)	-.02 [.99] (.01)	-.02** [.98] (.01)	-.02 [.98] (.02)	-.03* [.98] (.01)	-.02 [.98] (.02)	-.03* [.98] (.01)
Gender	.56* [1.75] (.30)	-.11 [.89] (.23)	.58* [1.80] (.31)	-.08 [.93] (.24)	.63* [1.87] (.34)	-.04 [.96] (.27)	.65* [1.91] (.34)	-.05 [.95] (.27)
Position	.02 [1.02] (.33)	-.35 [.71] (.25)	-.03 [.97] (.33)	-.36 [.70] (.25)	-.11 [.89] (.37)	-.41 [.66] (.30)	-.13 [.88] (.38)	-.42 [.66] (.30)
Education	.14 [1.15] (.23)	-.01 [.99] (.18)	.15 [1.16] (.23)	.01 [1.01] (.18)	.16 [1.17] (.26)	.13 [1.13] (.21)	.13 [1.15] (.26)	.12 [1.13] (.21)
Size	-.03 [.97] (.14)	.21** [1.24] (.11)	-.04 [.96] (.14)	.21 [1.24] (.11)	-.11 [.90] (.15)	.19 [1.20] (.12)	-.14 [.87] (.16)	.18 [1.20] (.12)
Type	-.19 [.83] (.16)	-.22* [.80] (.13)	-.19 [.82] (.17)	-.21* [.81] (.13)	-.22 [.81] (.18)	-.17 [.84] (.14)	-.22 [.81] (.18)	-.18 [.84] (.14)
Degree of Control	.03 [1.03] (.20)	-.27* [.77] (.15)	.00 [1.00] (.20)	-.27* [.77] (.10)	.10 [1.10] (.21)	-.17 [.85] (.17)	.07 [1.07] (.21)	-.17 [.84] (.17)
Asset Miss.	---	---	1.18 [3.28] (.81)	.38 [1.47] (.43)	---	---	2.65** [14.13] (1.34)	-.12 [.89] (.62)
Corruption	---	---	1.11 [3.03] (.88)	.08 [1.08] (.53)	---	---	2.49** [12.01] (1.34)	-.04 [.96] (.65)
Seriousness	---	---	---	---	.00 [1.00] (.00)	.00 [1.00] (.00)	.01 [1.00] (.00)	.01 [1.00] (.00)
-2 Log Likelihood	873.72		876.03		706.10		698.91	
Model χ^2 (df)	25.97 (4)	**	29.44 (4)	**	24.40 (6)	*	31.58 (20)	**
Nagelkerke R ²	.06		.07		.08		.10	

NOTE: Entries are unstandardized coefficients, standard errors in parentheses, and odds ratios in brackets. Not referred = reference. * $p \leq .10$; ** $p \leq .05$; *** $p \leq .01$

Multinomial Logistic Regression: Theoretical Models and Controls, 2001-02

Table 14 presents the results of a series of four multinomial logistic regressions for the 2001-02 sample. In these models, *not referred* is the reference category. Model One includes all five dimensions of social life as independent variables. The model chi-square of 37.19 is statistically significant ($p \leq .01$), and the Nagelkerke R^2 indicates that approximately 9% of the variation in the type of legal response is explained by the combination of Black's five theoretical categories. For this model, the overall classification accuracy is 69.3%, which is greater than the 25% improvement over chance classification accuracy rate of 65.9%.

For the individual parameters, the stratification category shows significant relationships for age. For every one year increase in age, there is a 6% increase in the odds of a civil referral, which is opposite of the theory's predictions. Unlike the 1997-98 sample and the full sample, gender does not have a significant influence on the outcome variable in the 2001-02 sample. Neither morphology nor social control are statistically

significant. For culture, measured by education, results show that a one-unit increase in education (i.e., from a high school or less degree to a bachelor's degree or from a bachelor's degree to graduate degree) corresponds to a 31% decrease in the odds of a criminal referral. This relationship is in the direction predicted by Black's theory and conflict theory. Only one other theoretical category includes a significant parameter. Within the category of organization, the results show that as the type of business becomes more organized, there is a 33% increase in the odds of a criminal referral, which supports the theory's predictions.

Model Two adds the type of fraud to the five theoretical categories. The model chi-square of 44.50 is statistically significant and larger than this statistic for Model One, indicating that the fit of the model improves with the addition of the control variable, fraud type. Additionally, the amount of explained variance also increases, to 11%, in this model. Like the previous model, Model Two shows that age, a measure of stratification, exerts a significant influence on the outcome. For every one-year increase in age, the odds of a civil referral increase by 6%, all else constant. Culture is also

significant, indicating that a one unit increase in the level of education results in a 30% decrease in the odds of a criminal referral, consistent with Black's theory and conflict theory. For the category of organization, one measure, type, shows that an increase in the organization of a business is associated with a 36% increase in the odds of a criminal referral, which is consistent with the theory's predictions. For social control, the results show that an increase in available internal social control results in a 16% increase in the odds of a criminal referral, which is contradictory to Black's theory. Although the addition of the control variable type of fraud significantly improves the fit of the model, none of the individual parameters for this variable are statistically significant, which can be interpreted as partial support for Black's theory. The overall classification accuracy of this model is 69.5%, which is greater than the 25% improvement over chance classification accuracy rate of 65.9%.

Model Three presents the results of the multinomial logistic regression adding the second control variable, crime seriousness. The model chi-square of 45.81 ($p \leq .01$) is slightly larger compared to both previous models. The

Nagelkerke R^2 also increases to .12 in this model. Additionally, the overall correct classification of the model is 71.1%, which is greater than the 25% improvement over chance classification accuracy rate of 65.9%.

For the individual parameters, results are fairly consistent compared to previous models. A one year increase in age results in a 6% increase in the odds of a civil referral, again in the opposite direction of the theory's predictions. In this model, however, the category of morphology is significant, which differs from the two prior models. Compared to managers and executives, employees have 46% greater odds of receiving a criminal referral, which is consistent with Black's theory. In this model, the significance of culture (education) disappears. For organization, type is significant, showing that there is a 37% increase in the odds of a criminal referral if the business is more organized, which supports Black's theory. Like the previous model, the individual parameters for crime seriousness are not statistically significant although the addition of this information provides a better fit of the model to the data.

The final, full model shown in Table 14, Model Four, adds both control variables to the reduced theoretical

model. The model chi-square of 54.60 ($p \leq .01$) is larger than any previous model. Moreover, compared to the reduced theoretical model (Model One), the level of explained variance increases from 9% to 14%. The overall classification of the full model is 70.5%, slightly lower than the model adding only crime seriousness. Like all previous multinomial logistic regressions, the full model most accurately predicts criminal referrals, and poorly predicts non-referrals and civil referrals. Additionally, the overall classification accuracy is greater than the 25% improvement over chance classification accuracy rate of 65.9%.

For the individual parameters, the findings generally resemble those in the previous models. For stratification, a one year increase in age results in a 6% increase in the odds of a civil referral, and there are no gender differences. Morphology is not significant in the full model, but a one unit increase in culture (education) corresponds to a 28% decrease in the odds of a criminal referral, which is in the opposite direction predicted by Black's theory. For organization, the results show that greater organization of a business results in a 21% increase in the odds of a criminal referral, which is

consistent with Black's theory. However, for the category of social control, increased internal social control results in a 40% increase in the odds of a criminal referral, which is opposite of the theory's predictions. Finally, one other parameter in the model, asset misappropriation under type of fraud, shows that compared to cases of fraudulent statements, asset misappropriation cases have a 147% increase in the odds of a criminal referral. This finding does not support Black's theory, because the type of fraud should not make a difference in the legal response.

Table 14. Multinomial Logistic Regression Models for Behavior of Law, 2001-02

	Model 1		Model 2		Model 3		Model 4	
	Civil	Criminal	Civil	Criminal	Civil	Criminal	Civil	Criminal
Age	.06*** [1.06]	.01 (.01) [1.01]	.06*** (.02) [1.06]	.01 (.01) [1.01]	.06*** (.02) [1.06]	.00 (.01) [1.00]	.06*** (.02) [1.06]	.00 (.01) [1.00]
Gender	-.12 (.50) [.89]	.28 (.24) [1.33]	-.04 (.51) [.96]	.25 (.24) [1.28]	-.11 (.53) [.89]	.04 (.25) [1.44]	-.01 (.54) [.99]	.33 (.26) [1.40]
Position	.56 (.49) [1.76]	.34 (.25) [1.40]	.62 (.51) [1.86]	.31 (.25) [1.36]	.74 (.52) [2.08]	.35* (.18) [1.46]	.80 (.54) [2.33]	.34 (.27) [1.44]
Education	.03 (.33) [1.03]	-.38** (.17) [.69]	.01 (.33) [.99]	-.36** (.17) [.70]	.03 (.35) [1.03]	-.35 (.18) [.71]	.00 (.35) [.99]	.37* (.18) [.72]
Size	.01 (.25) [1.01]	-.08 (.12) [.92]	-.03 (.25) [.97]	-.07 (.12) [.93]	.00 (.12) [1.00]	-.10 (.13) [.90]	-.05 (.27) [.95]	-.10 (.13) [.91]
Type	.09 (.23) [1.01]	.29** (.12) [1.33]	.04 (.24) [1.04]	.31** (.12) [1.36]	.04 (.12) [1.04]	.32** (.13) [1.37]	.00 (.25) [1.00]	.33** (.13) [1.40]
Degree of Control	-.10 (.22) [.91]	.14 (.10) [1.15]	-.10 (.21) [.90]	.15* (.10) [1.16]	-.09 (.22) [.92]	-.17 (.11) [1.19]	-.11 (.22) [.90]	.19* (.11) [1.21]
Asset Miss.	---	---	-.65 (.67) [.52]	.55 (.41) [1.73]	---	---	-.21 (.78) [.81]	.91* (.47) [2.47]
Corruption	---	---	.23 (.87) [1.25]	.08 (.36) [1.08]	---	---	.67 (.98) [1.95]	.28 (.64) [1.38]
Seriousness	---	---			.00 (.00) [1.00]	.00 (.00) [1.00]	.00 (.00) [1.00]	.00 (.00) [1.00]
-2 Log Likelihood	713.94		708.02		662.30		653.40	
Model χ^2 (df)	37.19 (14) ***		44.50 (16) ***		45.81 (16) ***		54.60 (20) ***	
Nagelkerke R ²	.09		.11		.12		.14	

NOTE: Entries are unstandardized coefficients, standard errors in parentheses, and odds ratios in brackets. Not referred = reference. * $p \leq .10$; ** $p \leq .05$; *** $p \leq .01$

Conclusion

The purpose of this study was twofold: to examine differences in individual and organizational characteristics for the three types of fraud, and to describe and explain the legal responses to occupational fraud cases by integrating Black's theory of the behavior of law and conflict theory.

For Analysis One, the hypothesis that the characteristics of individuals who commit asset misappropriation, corruption, and fraudulent statements will differ was supported. Moreover, the characteristics of the sample as a whole are similar to previous findings in the white-collar crime literature: namely, the average age is comparable to many previous studies relying on official sources of data (e.g., criminal records).

The hypothesis that organizational characteristics associated with each type of occupational fraud would differ was also supported. One type of occupational fraud, corruption, tended to occur in organizations with characteristics that were similar to the corporate crime literature's portrayal of a large, publicly traded business as the common setting for white-collar crime; however, an important difference is that prior studies depict this

setting as it relates to crime that benefits the organization, not victimization against it.

For Analysis Two, the results were somewhat mixed, supporting both theories for some models, and contradicting both theories in others. Like many previous studies, the individual theoretical categories were fairly weak predictors of the behavior of law when examined separately. This general finding persisted in comparisons to non-referrals, as well as in the comparisons between civil and criminal referrals.

In the full sample, the reduced theoretical model had a poor, non-significant fit to the data. The addition of fraud type slightly improved model fit, but gender was the only variable to have a significant effect on the outcome, consistent with the theory's predictions. The addition of crime seriousness also improved model fit compared to the reduced theoretical model, although not as much as the model adding type of fraud. The significance of gender persisted in the direction predicted by the theory. For the full sample, the best fitting model was the full model adding both type of fraud and crime seriousness, which is contrary to the theory. Like the prior models, females continued to have significantly increased odds of receiving

both criminal and civil referrals, all else constant, and regardless of both control variables. In the full model, the only other variable that significantly influenced the outcome was type of fraud, one of the controls. In sum, the findings for gender support both conflict theory and the theory of the behavior of law, although none of the other theoretical categories are significant.

In 1997-98, overall model fits were improved compared to the full sample. The fit of the reduced theoretical model was significant, and, in addition to age, gender, and social control, size of business influenced the outcome in the direction predicted, although the significant findings for type of business were in the opposite directions. When fraud type was included, model fit was slightly improved, and the significance of gender persisted. Type of organization and social control were significant, but not in the expected direction. The addition of crime seriousness to the reduced theoretical model improved model fit, but not as much as the addition of only fraud type. In this model, both stratification measures were significant, but age was in the opposite direction. Only the findings for gender continued to support Black's theory and conflict theory. In 1997-98, like the full sample, the

best fitting model included the addition of both control variables. In this model, however, only age and gender supported both theories. Additionally, type of fraud was significant in the full model, contrary to theory.

In 2001-02, the best fitting models were revealed. All of the reduced and full models significantly fit the data, but the poorest fit was the reduced theoretical model. However, across all models, age was significant, but in the opposite direction predicted by the theory. In 2001-02, however, the findings for gender exhibited in the previous samples (full sample and 1997-98) did not persist. Findings for education, the measure of culture, were in the expected direction across all models. The only other category to influence the outcome in the direction predicted by Black's theory was type of business. Moreover, one of the control variables, type of fraud, specifically asset misappropriation compared to fraudulent statements, significantly influenced the outcomes, contrary to the theory's predictions.

The final chapter, Discussion, provides a short summary of the important findings. Implications for theory, policy, and future directions of research on

occupational fraud and the behavior of law are also discussed.

CHAPTER FIVE: DISCUSSION

The last chapter has several objectives. Before delving into discussion for each separate analysis, a brief overview of the study's objectives is provided. Next, the results from this study are presented and discussed for Analysis One (comparison of individual and organizational characteristics for three types of fraud) and Analysis Two, (prediction of the response to fraud) respectively. Following the coverage of results from both analyses, the limitations of the study itself and of particular findings are examined. Chapter Five concludes with a consideration of this study's implications for theory, policy, and practice.

Study Purpose

This study had two main objectives. The first goal was to improve the understanding of individual and organizational characteristics connected to the three types of occupational fraud (i.e., asset misappropriation, corruption, and fraudulent statements). A second goal of the research was to use an integration of Black's (1976)

theory of the behavior of law and conflict theory to provide a description and explanation of the legal responses to occupational fraud.

Analysis One: Key Findings

The first aim of Analysis One was to determine whether individual characteristics differ significantly for the three types of occupational fraud. The second purpose of Analysis One was to determine whether organizational characteristics differ significantly for the three types of occupational fraud. The research established the extent to which this sample of individuals within organizations reflects existing, well-known images of white-collar crime. The findings from Analysis One confirm that the characteristics of individuals who commit asset misappropriation, corruption, and fraudulent statements differ, as do many of the organizational characteristics associated with these three types of occupational fraud.

How do employees who commit occupational fraud differ from the popular portrayal of the typical white-collar offender represented in previous studies? Not all offenders conform to the popular image. The results paint

a clear picture of employees who commit fraudulent statements: they are more likely to be older, more educated males who hold managerial or executive positions in their victim organizations. This profile resembles that of past studies (Wheeler et al., 1988), and suggests that previous findings based on samples of convicted offenders are generalizable to broader settings. The other two types of occupational fraud, asset misappropriation and corruption, appear to be committed by individuals who share characteristics that are less representative of the white-collar crime prototype. These offenders are younger on average, equally likely to be male or female, and do not differ significantly from each other in their levels of education.

These findings provide 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 are equally likely to be committed by males and females, fraudulent statements are distinctly linked to being male, and are also tied to higher positions in organizations. Although

gender and position were significantly related, the correlation is weak ($r = .12$), providing only limited support for the possibility of a glass ceiling effect that keeps female employees in this sample from advancing to managerial or executive level positions. Additional research on gender differences in motivation for offending would facilitate understanding of this discrepancy. Qualitative interviews with both male and female offenders who commit occupational fraud would shed light on whether their motivations differ, as Collins and Collins (1999) found in their study of inmates serving federal prison sentences for white-collar offenses.

How do organizations that are victimized by occupational fraud compare to the image of the large, profit-making organization that is frequently described in the literature? The results showed that the three types of fraud also differed with regard to characteristics of the organizations where they most often occurred. Asset misappropriation occurs significantly more often in smaller organizations. Corruption takes place in larger organizations, and in particular, publicly traded companies. More corruption is discovered in organizations

with anonymous reporting systems, and is also more likely to be revealed when organizations perform internal audits. Finally, fraudulent statements also tend to victimize smaller organizations, as well as privately held companies, and do not appear to affect non-profit agencies, which would be expected given that this particular form of fraud often involves misrepresentation of a company's financial performance. Most remarkable about these findings is that they would not even be revealed if, consistent with prior 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, or within different cultural contexts, 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.

Analysis Two: Key Findings

The findings from the second set of analyses were consistent with prior studies that found mixed support for Black's (1979) theory of the behavior of law. In the full sample, the reduced theoretical model (without any control

variables) failed to explain the likelihood of receiving criminal or civil referrals. The best fitting model included the type of fraud and crime seriousness, the two control variables. While this contradicted Black's theory, it supported common criticisms of the theory (Gottfredson and Hindelang, 1979). For the full sample, all models revealed that females were more likely to be referred for criminal processing, and also, for civil processing, than not referred. For the full sample, this was the only finding that supported Black's theory and conflict theory, both of which suggest that females are lower in the stratification system and therefore more likely to be subjected to law.

In 1997-98, the best fitting model again was the model that included both control variables. Females had an increased likelihood of receiving a civil referral rather than a non-referral, although this finding did not hold for criminal referrals. Older offenders were less likely to receive criminal referrals, which is in the direction predicted by Black's theory and conflict theory. In the reduced theoretical model, criminal referrals were more likely in larger businesses, which supported Black's theory. Criminal referrals were also less likely in more

organized businesses, contradicting the theory. These findings persisted when type of fraud, a control variable, was added to the model, but did not persist with only the addition of crime seriousness, or with both control variables added. In 1997-98, an increase in internal social control was associated with a decrease in the likelihood of a criminal referral; this relationship was found in the reduced theoretical model and also in the model including type of fraud. These findings support the theory's propositions for the category of social control.

In 2001-02, the best fitting model again included both control variables. Across all models, older offenders had an increased likelihood of a civil referral, which is in the opposite direction predicted by Black's theory and conflict theory. However, this relationship did not hold for criminal referrals, supporting the idea that the style of law varies with age. Unlike the findings from 1997-98 and the full sample, in 2001-02 gender did not influence the likelihood of either form of referral. Another difference at this time period was that increases in education significantly decreased the likelihood of a criminal referral. This result is in the direction predicted by Black's theory as well as conflict theory.

Across all 2001-02 models, as the type of business increased in the direction of more organization, so did the likelihood of a criminal referral, which supports Black's theory. The findings for social control were in the opposite direction: in the full model, and in the model adding the type of fraud, increased amounts of internal social control increased the likelihood of a criminal referral, which may reflect a trend toward "100% prosecution policies" in organizations. Additionally, type of fraud, a control variable, significantly affected the likelihood of a criminal referral, making it more likely for asset misappropriation compared to fraudulent statements. This finding also contradicted the theory's statement that the type of offense should not influence the behavior of law.

Potential Study Limitations

The results of this study should be interpreted with caution given the limitations of the sample. As noted in Chapter Three, participants were asked to report on their most recent, completed fraud case. There is no guarantee that this suggestion was actually followed, which raises the concern that the responses may be unrepresentative of

the larger population of occupational fraud cases. However, as the descriptive statistics show, the percentages of each type of fraud are similar at each time period, as are individual and organizational characteristics. The consistency in the frequency of the variables across the two time periods suggests that potential sampling bias is not a serious concern.

Despite the possible limitations, the sample used in the present study is an improvement over samples in previous research for several reasons. Much of what criminologists assume to be fact about the typical white-collar offender is based on samples of convicted individuals, which are far less representative of working employees at multiple levels and types of organizations who may commit occupational fraud. Although the sample is restricted to perpetrators whose offenses were detected, the sample size is larger than those in many previous studies, and the information provided by CFEs was obtained from several sources; both of these factors increase its external validity.

Implications for Theory

This study contributes to the white-collar crime literature in several ways. First, it provides further insight on organizations as victims, rather than as perpetrators, of fraud. The inclusion of both individual and organizational characteristics responds to previous calls for research advocating the need for a micro-macro connection in studies of white-collar crime (Coleman, 1992; Vaughan, 1992). On a related front, this study also corrects for the common, business firm bias in corporate crime research by including organizations that differ in size as well as function.

Future studies should continue to consider 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 the present study's results for Analysis One and those from earlier research may be due to the restrictions of the particular offense-based definitions of white-collar crime that are employed. Additional comparisons based on similar, offense-based definitions of white-collar crime would contribute to convergent validity across existing and

future research. In other words, summarizing and comparing findings would be straightforward and more appropriate when similar operational definitions are employed.

A question that remains unanswered in this study is: what causes occupational fraud? Because secondary data used in the current research were obtained from investigators, rather than perpetrators, it was not possible to speculate on the reasons individuals may have for committing asset misappropriation, corruption, and fraudulent statements. The issue of causation is important in white-collar crime research, and a greater, theoretically informed understanding of potential causal factors is warranted. For example, more research on offenders' motivations needs to be conducted to determine what factors influence the decision to commit fraud. It is likely that existing organizational practices, organizational culture, and life situations unique to individual employees, contribute to victimization against organizations. For instance, feelings of perceived inequity or unfair treatment by employers may contribute to individuals' belief that occupational fraud is justified (Greenberg, 1993, 1990). Due to the difficulties

associated with conducting white-collar crime research, a fuller and theoretically informed understanding of this phenomenon can only be accomplished in 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. More joint ventures between researchers and organizations are vital for both the theoretical and practical sides of white-collar crime.

The results from this study also have implications for further tests of Black's (1976) theory of the behavior of law. Like many prior studies, this study found only partial support for the theory. However, also like outcomes from many prior tests, the results may be due to data and measurement issues. The five dimensions of social life may not be as mutually exclusive as Black argues. Additionally, the results also speak to weaknesses of the theory itself, many of which have been pointed out in previous critiques.

All of the indicators of Black's dimensions of social life were merely proxy measures, and alternative indicators may improve prediction. With regard to data and measurement

concerns, it is possible that additional, unmeasured variables may explain the findings. For example, in the category of stratification, other indicators of stratification, such as race, ethnicity, and income, were not recorded in the ACFE's surveys. As a result, it was not possible to examine whether there are significant differences for these measures. If race and ethnicity data were available, it is quite plausible that the contradictory findings for age in 2001-02 may be explained by these other variables. In 2001-02, an increase in age increased the likelihood of a referral, which is contradictory to Black's theory as well as conflict theory. It may be that the older offenders have an increased likelihood of referrals because a larger proportion of them are minorities. Given the existing research showing that minorities are processed differently by the criminal justice system (see Zatz, 1987), it is also likely that perpetrators' race and ethnicity may play a role in employers' decisions to refer a case for civil or criminal processing.

Similarly, it is also likely that offenders' incomes may play a role in the employer's decision to refer a case outside of the organization. Black's theory and conflict

theory both suggest that higher income offenders, who enjoy a higher status in the stratification system, may be protected from legal processing. To provide a more complete test of Black's theory, future studies should incorporate these additional measures of stratification.

The category of morphology only included one variable: position in the organization. Additionally, the category of culture only included one variable: level of education. Both of these categories could be improved with the inclusion of additional variables. Rather than using income as a measure of stratification, income could be used as a measure of morphology since it would provide some indicator of vertical distance (e.g., those with lower incomes would be further away from the top of the organization in distance, and more likely to be referred). Likewise, the measurement of culture could be improved by incorporating the number of years an individual has been employed by the victim organization. Black's theory would suggest that longer-term employees possess a greater amount of culture compared to shorter-term employees; as a result, longer-term employees, who are also trusted more, may be less likely to receive a referral.

The category of organization included two indicators: the size and type of the business. While these measures are consistent with the theory's formulations, additional measures may also improve prediction. In particular, knowledge of the number of years a business had been operating could provide a better measure of organization. According to Black (1976: 93), more established businesses are more organized, which suggests that a greater likelihood of referrals should occur when a business has been operating for a longer period of time.

The category of social control included one variable that reflected the degree of existing internal social control in the organizations used in this sample. However, all 1,142 organizations in this sample also had access to another form of social control given the fact that there was an investigation by a certified fraud examiner. It is therefore not possible to speculate about the behavior of law in organizations without access to this form of non-legal social control. This caveat is a limitation of the sample, rather than the theory itself, and represents a common generalizability issue in white-collar crime research.

To conduct a more complete test of Black's (1976) theory across organizations, future studies should include additional, improved measures of each theoretical category. Moreover, given the fact that the best fitting models from this study were those that added control variables, future theoretical explanations should be refined to shed light on why control variables significantly influence legal outcomes. The type of fraud made a difference in the likelihood of referrals, as did the dollar loss of the fraud. Much like the findings in studies of violent criminal victimization, the type of crime and the seriousness of the crime both matter, suggesting that the range of explanatory factors in the theory are too limited. Although this finding contradicts Black's theory, it supports many previous critiques (Braithwaite and Biles, 1980; Gottfredson and Hindelang, 1979).

With a few exceptions (e.g., Lessan and Sheley, 1992), most prior tests of Black's theory have been limited to a single time period. In the present study, two time periods were included, and the best fitting models were revealed for the 2001-02 data. A greater percentage of cases (75.1%) were referred for either type of processing in 1997-98 than in 2001-02 (67.9%). However, between 1997-98

and 2001-02, the percentage of criminal referrals increased nearly 10% (from 57.4% to 67.3% respectively) while the percentage of civil referrals between the time periods decreased by nearly the same percentage (from 16.7% to 6%). The distribution of referrals in 1997-98 are consistent with Wells' (1997) finding that organizations may be reluctant to pursue criminal processing, which has a higher burden of proof, in favor of civil processing, which may be more successful. Between the two time periods, increased publicity from scandals in corporations such as Enron and Worldcom may have influenced organizations' decisions to pursue a criminal prosecution, which would explain the changes in the distribution of referrals.

As Black (1976: 3) argues, "the quantity of law varies across the centuries, decades and years, months and days, even the hours of a day. It varies across societies, regions, communities, neighborhoods, families, and relationships of every kind." The differences in results at each time period support Black's general statements. Specifically, the quantity of law increased in the direction of criminal law, which also reflects a difference in the quality of law at the two time periods. Given these results, future tests of the theory should consider

different time periods, perhaps even from different generations, if at all possible. It would also be beneficial for researchers to incorporate a measure of public attitudes toward the punishment of white-collar crime, to place the time differences in a broader, societal context (Cullen et. al, 1983)

Implications for Policy and Practice

The results also provide important implications for the practical side of white-collar crime prevention. Specifically, organizations that make anonymous reporting mechanisms (e.g., fraud hotlines) available to their employees can increase the likelihood that fraud is detected. Other procedures, such as internal audits, are also valuable tools for discovering fraud from within. It should be noted, however, that the causal direction of these relationships could not be determined in Analysis One. In future research, it will be important to establish temporal ordering. Such a test would likely require a pre- and post-test design whereby baseline levels of fraud in an organization are established, an anonymous reporting mechanism is implemented, and a subsequent examination of fraud detection is conducted.

An unexpected finding in the analyses of organizational characteristics was the fact that, although background checks are in place in organizations, there are no significant effects.⁴ Albrecht (2003: 43) refers to this problem as a non-control factor. In other words, it is not a lack of control mechanisms that allow frauds to be perpetrated, but the fact that existing controls are either overridden or ignored. They may be in place in organizations, but are not consistently followed. This is somewhat surprising given the bureaucratic, documented rule orientation that characterizes government agencies as well as large organizations (Weber, 1946).

Additionally, Albrecht (2003) proposes that background checks may not be successful due to another non-control factor, the failure to discipline fraud perpetrators. 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

⁴ Similar to the findings for anonymous reporting mechanisms, the existence of background checks and their causal relationships with fraud could not be assessed. It may be possible that background checks are in place in response to prior cases of fraud; if they were not available, perhaps an even greater amount of fraud would occur given more lenient hiring practices. The pre- and post- test design previously described would also address the issue of causality.

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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