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# Biopsychosocial Factors That Discriminate Between White Collar Offenders and Business Professionals

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# Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Susan Zukowski

has been found to be complete and satisfactory in all respects,  
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Walden University  
2015

Abstract

Biopsychosocial Factors That Discriminate Between White Collar Offenders  
and Business Professionals

by

Susan Lynn Zukowski

MBA, Lakeland College, 2005

BA, University of Wisconsin Eau Claire, 2003

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

General Psychology

Walden University

April 2015

## Abstract

White collar crime is pervasive with a larger financial impact to society than violent or street crime, yet it has been understudied. Violent and street offender research has moved beyond the examination of motive and opportunity to study personality, demographics, sociological influences, and psychological influences on development and criminal behavior; however, the bulk of white collar offender research has focused on greed as a motivator and organizational opportunity. Legislative efforts have attempted to curtail white collar crime, but incidents of crime continue to rise, resulting in a continued need to understand white collar offenders and the influences on offender behavior. The purpose of this quantitative study was to examine the multivariate difference between white collar offenders ( $n = 62$ ) and business professionals ( $n = 121$ ). Theoretically guided by the biopsychosocial model and prior empirical findings, 36 variables were univariately tested for group differences; 10 were significant and used in discriminant function analysis. White collar offenders tended to be female, have high neuroticism and alcohol abuse scores, and have low scores on narcissism and attribution. Drug use was positively correlated with the white collar offender profile, while income, openness, hostility, and anger were inversely related. The profile and correlates provide a deeper understanding of those who choose to cross legal and ethical lines. Positive social change could be realized through targeted collegiate business training programs to address risk characteristics and promote protective factors of ethics, integrity, and leadership.

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## Dedication

This work is dedicated to my loving husband Todd and wonderful daughter Ashley who have been my biggest supporters throughout this journey. They have been my rock, my motivation, and my stress relievers throughout this process, and I cannot thank them enough for their ongoing love, support, and commitment as I work towards achieving my dreams. They have endured countless discussions on the topic of white collar crime and probably learned more about this subject than they could have ever dreamed. I thank you for your patience, your love, your tolerance, your support, your laughter, and your ability to recognize when I need a break!

## Acknowledgments

Completing a dissertation is a journey of the greatest magnitude but it is not a journey taken alone. Thank you to Dr. Tom Diebold who saw in me the ability to go beyond basic statistics to more complex analysis that makes testing the research questions possible and more meaningful; your encouragement, guidance, and pointed questions helped strengthen the direction of this project. Thank you to Dr. Scott Duncan for stepping in as a committee member mid dissertation to help provide support in completing this process. Thank you to Dr. Susie Myers who served as my initial committee chair and guided me through the early steps of the process before leaving Walden University. Thank you to Dr. Susan Marcus for your critique, feedback, and comments to help strengthen this study. Thank you all for seeing the vision for this project and providing guidance to make it manageable yet meaningful.

Thank you again to my loving husband Todd and wonderful daughter Ashley for your ongoing love and support, as well as my parents, my brothers, my sister, and my mother-in-law who have been there supporting me throughout this process, and understanding when I would say “sorry I’m working on my dissertation.”

Last, but not least, I would like to thank my Spring 2013 Leadership, Ethics, and Decision Making students who unbeknownst to them, gave me the final inspiration and solidified my thinking on this topic through our class discussions on ethics, business crime, and personality traits. Thank you to Nicole Anderson, Kristina Bungartz, Chip Eckes, Michelle Lieberg, Ricky Lueck, Kayla McLeod, Cindy Noyes, Cindy Ruffi, and Lara Sather for a great semester that gave me the turning point for this research.

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## Chapter 1: Introduction to the Study

### **Introduction**

White collar crime is a nonviolent crime committed for financial gain by means of deception to obtain money, services, property, avoid the loss of money, avoid making payments, gain competitive advantage, or gain a personal advantage (Blickle, Schlegel, Fassbender, & Klein, 2006; Collins & Schmidt, 1993; Elliott, 2010; Perri, 2011). Bucy, Formby, Raspanti, and Rooney (2008) identified greed and opportunity as the most cited reason why leaders engage in white collar crime, yet greed and opportunity do not go below the surface to examine why some business professionals commit crimes and others do not.

Examination of the differences between white collar offenders and nonoffenders through the biopsychosocial perspective provides a deeper understanding of white collar offenders and how they differ from their nonoffending business professional counterparts. This approach employs personality traits that have individually been linked to white collar crime as well as biological and sociological factors that influence behavior to examine a multivariate model of the influences of white collar crime. This approach helps clearly identify the traits that are likely to be tied to white collar offenders and how the different traits interact to influence behavior. By understanding the differences between white collar offenders and business professionals, training programs can be developed to identify and help at risk professionals while also helping business professionals better understand the risk factors associated with certain characteristics.

COSO (2010) reported the cumulative fraud-induced financial loss from 347 public corporations from 1998 to 2007 was \$120 billion. Additionally, the Federal Bureau of Investigations (FBI, 2011) reported 726 corporate fraud cases for the fiscal year 2011, some with an individual economic loss of over \$1 billion. Ford (2007) critiqued the Sixth Circuit's ruling in *U.S. v. Davis*, noting that white collar crime undermines the economy, exacerbates poverty, erodes trust, and deprives individuals of time and resources. Furthermore, Cullen, Link, and Polazi (1982) examined the perception of crime finding that while white collar crime has increased in being viewed as serious, it was still viewed as a lesser crime than other forms of crime. White collar crime impacts the individual, the organization, and society at large, resulting in a ripple effect that downplays the impact on the individual (Croall, 2007). Economic crimes are often viewed as victimless crimes, although there is an economic impact (Croall, 2007). While they may be viewed as less serious and victimless crimes compared to violent and street offender counterparts, the impact to society at large through the economy, individuals who are harmed, and organizations necessitates a need to gain a deeper understanding of white collar offenders.

By developing a deeper knowledge of the characteristics of white collar offenders, psychologists, researchers, and business professionals can begin to address white collar crime from a behavioral change perspective and promote changes in organizational culture through training in ethics, integrity, and leadership that incorporates biopsychosocial characteristics associated with at risk behavior.

## **Background of the Study**

Research on white collar crime has focused primarily on the organization or the situation leading to the offense, starting with the early work of Sutherland (as cited in Alalehto, 2003). In 1939, Sutherland noted that personality did not play a role in white collar crime; rather it was the organization and/or the situation that drove the individual to commit an economic crime. In 1949, Sutherland noted that white collar criminals were deliberate, highly educated, and required specialized knowledge or training, yet his work specifically negated the need for personality or trait analysis, setting the stage for decades of research that avoided the subject of personality (Blickle et al., 2006).

Following Sutherland's lead, Heath (2008) used a literature analysis approach to examine common theories used to explain white collar offender behavior, proposing the use of the criminological perspective of neutralization theory as an alternative to understand behavior and choices of white collar offenders. Heath suggested seven neutralization techniques including denial of responsibility, denial of injury, denial of the victim, condemnation of the condemners, appeal to higher loyalties, the sense that everyone else is doing it, and claim to entitlement. While Heath focused on neutralization, Engdahl (2009) focused his research on identifying organizational barriers that make an environment ripe for offending and obstruct detection of criminal activity including financial self-interest, low priority of control, and interpretative primacy. Moreover, Bucy et al. (2008) identified money, greed, financial gain, opportunity, entitlement, arrogance, and competitiveness as the most common motivators for white



collar offending, with money and greed playing the most significant role outside situational, organizational, and environmental factors.

While understanding how criminal activity goes undetected and how offenders rationalize or neutralize their behavior is important, it does not help psychologists, researchers, or business professionals identify potential offenders or understand how offenders differ from nonoffenders. Research focused on neutralization, rationalization, greed, and organizational situation aids in understanding justification, opportunity, and motivation but fails to address how individual's personality differences may influence the choices they make when facing the same opportunity and motivation.

As early as 1987 researchers such as Coleman (1987) were calling the work of Sutherland outdated and calling for a need to look at white collar crime research from a broader perspective. Coleman indicated that while society has a tendency to see criminals as abnormal, the perspective of white collar offenders as abnormal had not been readily adopted. Coleman recognized the role of broader perspectives such as organization subculture, world views, family relationships, peer relationships, and financial status on formation of behavior and white collar crime but concluded that motivation and opportunity appeared to play a larger role. Coleman believed that without motivation and opportunity there would be no crime. While Coleman's conclusion may be accurate, he does little to explain or assess the role other variables have to help understand why not all individuals who have motivation and opportunity turn to white collar offending.

Research has begun to shift to the evaluation of individual characteristics that may distinguish white collar offenders from nonoffender business professionals. Individual personality describes patterns of characteristics that explain how individuals interact with their environment (Elliott, 2010) and are influenced by biology, cognition, social interactions, and environment (Alalehto, 2003). Research on violent and street crime offenders established the need to understand the role of personality on behavior as well as the need to view personality through a multidimensional approach to understand how factors interact with one another to drive behavior (Perri, 2011; Ragatz et al., 2012; Walters, 2009). Research on white collar crime has begun to address personality traits but has been slower to adopt a multidimensional approach. Researchers on violent and street offenders identified a number of personality traits common among offenders that separate them from the general population including psychopathy, antisocial behavior, impulsivity, and alcohol/drug abuse (Blickle et al., 2006; Perri, 2011; Ragatz et al., 2012; Walters, 2009).

As personality research developed, in general and associated with criminal offenders, researchers began to question if personality and individual intentions mattered in explaining behavior related to economic crimes (Alalehto, 2003; Coleman, 1987). Therefore, researchers have begun to explore the role of personality in white collar crime, examining personality to understand the factors that separate white collar offenders from nonoffenders and offender groups. Alalehto (2003) found individuals who have one of the big five personality types of extrovert, disagreeable, or neurotic have a greater tendency to be white collar offenders. Furthermore, Blickle, Schlegel, Fassbender, and

Klein (2006) demonstrated a correlation between narcissism, hedonism, self-control, conscientiousness, and white collar crime. Moreover, Collins and Schmidt (1993) identified conscientiousness as a personality trait that separated white collar offenders from their nonoffender business counterparts, with white collar offenders having a tendency to have a lower level of conscientiousness than their nonoffender business counterparts. Listwan, Piquero, and Van Voorhis (2010) extended personality research on white collar offenders to recidivism of white collar offenders, finding personality significantly related to the probability to reoffend. Demographic variables such as race, employment, and socioeconomic status were important to predicting recidivism, as were a number of personality traits including neurotic personality, low levels of conscientiousness, negative emotions, and insensitivity to others (Listwan, Piquero, and Van Voorhis, 2010).

Additional personality traits have been identified in research as having a connection to white collar offending including self-control (Langton, Piquero, & Hollinger, 2006); Type A/B personality (Carducci & Wong, 1998; Elliott, 2010); narcissism, self-confidence, and integrity (Naso, 2012); and psychopathy (Stevens, Deuling, & Armenakis, 2012). While personality traits have been individually examined and found connected to white collar offending and a tendency toward economic crime, a profile that examines the influence these traits have when combined has not yet been established. Personality factors may interact with one another as well as with biological and sociological characteristics to influence behavior, necessitating the need to look at the totality of individuals to understand the drivers of behavior and the combination of

factors that separate white collar offenders from their business professional counterparts. Prior research has focused on individual characteristics, which tell only a piece of the story as to why some individuals choose the path of white collar crime. Assessment through a multidimensional approach and the development of a profile could provide more depth to current research on white collar crime.

### **Problem Statement**

Violent and street crime research has focused on understanding the multifaceted influences of crime from a biopsychosocial perspective, recognizing that biology, psychology, sociology, and environment all play a role in driving criminal behavior (Paris, 1993). However, research on white collar crime has not been examined as extensively. Although white collar offenders make up a relatively small proportion of offenders in the United States each year (FBI, 2011), the financial impact of crime against organizations is greater than the financial impact of violent and street crime (Heath, 2008; Perri, 2011). Little attention has been paid to understanding the behavioral influences of white collar offending (Blickle et al., 2006). Despite legislative efforts to curtail unethical and illegal business practices, white collar crime continues to rise (FBI, 2011), resulting in an ongoing need to understand the differences between white collar offenders and business professionals in order to aid in future crime reduction.

Many disciplines have begun to expand the body of research on white collar offenders, using a variety of lenses and theories including economic rational choice, individualism from sociology, psychiatry's narcissism, and behavioral self-control in criminology (Alalehto, 2003; Blickle et al., 2006). These theories begin to cross into

personality research identifying individual personality characteristics that may influence white collar offender behavior.

Research on white collar crime continues to evolve but has left a meaningful gap in trying to understand how white collar offenders differ from business professionals. The question remains why, when the opportunity exists, some business professionals make the choice to cross legal and ethical lines while others do not. Researchers have identified a variety of variables that appear commonly in white collar offenders but have failed to examine the interactions between biological, psychological, and sociological factors that together may play a greater role in influencing white collar crime than they do individually, aiding researchers in developing greater depth in understanding and explaining the differences between white collar offenders and business professionals.

### **Purpose of the Study**

The purpose of this quantitative study was to examine multivariate differences of white collar offenders and business professionals. Using biological, psychological, and sociological factors that influence personality development as independent variables, I used discriminant analysis to examine the differences between white collar offenders and business professionals, the dependent variable. By including the biological, psychological, and sociological variables, the research adds to the body of knowledge regarding the differences between white collar offenders or nonoffenders. This study provides researchers, psychologists, law enforcement, and business professionals with a composite of the variables that describe white collar offenders as distinguished from nonoffenders.

### **Research Question**

The following research question originated from a review of existing literature on white collar crime, criminal offending, and personality. This study was designed to answer the following research question: What is the discriminant profile of white collar offenders and business professionals on a set of demographic, biological, psychological, and sociological variables?

### **Hypothesis**

The following hypotheses were tested to examine the differences between white collar offenders and nonoffender business professionals:

$H_0$ 1: The discriminant profile of white collar offenders is not different than the discriminant profile of business professionals.

$H_a$ 1: The discriminant profile of white collar offenders is different than the discriminant profile of business professionals.

### **Theoretical Framework**

The theoretical framework on which this study's research question and hypotheses were based is the biopsychosocial model and will be discussed in greater detail in Chapter 2. The biopsychosocial model was initially proposed by Grinker in 1954 and was popularized by Engel in 1977 as a new way to view research, teaching, and treatment of patients in the medical field (Adler, 2009; Borrell-Carrió, Suchman, & Epstein, 2004; Ghaemi, 2009). Engel proposed a challenge to the traditional biomedical approach, calling for the incorporation of the individual and environment into patient treatment (as cited in Adler, 2009; Ghaemi, 2009).

The biopsychosocial model emerged as a model used to explain why individuals exposed to the same stimuli behave differently (Adler, 2009). Engel believed in order to affect healing, practitioners needed to address the biological, psychological, and sociological needs of the patient (as cited in Borrell-Carrió et al., 2004).

The biopsychosocial model has been applied to the study of behavior in a number of areas, including criminal offending due to the complex nature of trying to understand why some individuals commit crimes and others do not (Pallone & Hennessy, 1996; Schaefer & Hennessy, 2001). Researchers have identified biological (Listwan et al., 2010; Ragatz et al., 2012; Schaefer & Hennessy, 2001), psychological (Salekin, Debus, & Barber, 2010; Salekin, Leistico, Trobst, Schrum, & Lochman, 2005; Schaefer & Hennessy, 2001) and sociological (Listwan et al., 2010; Ragatz et al., 2012; Schaefer & Hennessy, 2001) factors linked to criminal offending. Researchers on violent and street offenders have used biological, psychological, and sociological factors to identify profiles of offenders and describe differences between offender and nonoffender groups (Perri, 2011; Ragatz et al., 2012; Walters, 2009). This approach aids researchers in seeing the interactions between variables or traits that influence behavior to better understand why individuals exposed to the same stimuli respond or behave differently.

The biopsychosocial model has been applied to the study of violent and street offending but not in research on white collar offending. Research on white collar crime has focused on individual traits rather than multivariate factors that may influence offender behavior. Using biological, psychological, and sociological factors identified by

prior research as linked to white collar offenders, in this study, I examined the ability of these factors to discriminate between the two groups.

### **Nature of the Study**

According to Pallone and Hennessy (1996), criminal behavior is influenced by the interaction between biological, psychological, and sociological factors. The biopsychosocial model was selected due to the complex nature of understanding criminal behavior (Schaefer & Hennessy, 2001). A nonexperimental survey research design was conducted in order to study the research question. A quantitative approach allowed for testing of specific hypothesis with the identified variables (Creswell, 2009). Examining how white collar offenders and business professionals are different using a multivariate approach was preferred rather than exploring perceptions or experiences of group members, making quantitative analysis the preferred method (Creswell, 2009).

Biological factors include factors related to neurological and neuropsychological dysfunction (Pallone & Hennessy, 1996). Drug and alcohol use/abuse were selected as the only biological factor for the present study and were used as an independent variable. Pallone and Hennessy (1996) identified drugs and alcohol as biological factors as they influence neurological functioning. Alcohol use was measured with the Alcohol Use Disorder Inventory Test (AUDIT) and drug use measured by the Drug Use Disorder Questionnaire (DUD).

Psychological factors include cognitive capacity, personality traits, past learning history, and psychopathy (Pallone & Hennessy, 1996). The Big Five Inventory (BFI) measured extraversion, agreeableness, conscientiousness, neuroticism, and openness.



The Short Dark Triad (SD3) measured psychopathy, narcissism, and Machiavellianism. The Marlow-Crowne Social Desirability Scale (MC-SDS) measured social desirability. The Multidimensional Type A Behaviour Scale (MTABS) measured Type A personality, hostility, impatience-irritability, achievement striving, anger, and competitiveness. Machiavellianism, hostility, impatience-irritability, achievement striving, and anger are only included as variables in the current study because of their inclusion as factors in the instruments selected to measure other variables identified as potential influencers of white collar criminal behavior. Ethical scenarios were used to assess integrity and ethical behavior, in order to examine if there is a difference in integrity between groups. Ethical scenarios were adopted from Stevens, Deuling, and Armenakis (2012) to measure moral disengagement and unethical decision-making as independent variables

Sociocultural factors include demographics and aspects of social learning, vicarious conditioning, habitation of subcultures, and availability of targets of criminal behavior (Pallone & Hennessy, 1996). For this study, select demographics and sociological factors were selected to serve as independent variables and include age, race, gender, marital status, education, income, social class, parental history of drug/alcohol abuse, parenting style, and parental history of crime.

A nonrandom sample selected from white collar offenders incarcerated within the Federal Bureau of Prisons (BOP) and business professionals drawn from my professional contacts through Facebook, LinkedIn, and email were invited to participate in this study. The data were examined using Discriminant Function Analysis (DFA) in order to create a linear combination of variables that best discriminate between two or more naturally

occurring groups. The grouping variable is the dependent variable, and the potential discriminators are the independent variables (Creswell, 2009). DFA also generated a classification model based on the linear combination of variables (Burns & Burns, 2009).

### **Definition of Terms**

*Biological factors: Genetic factors, factors that influence the neurological functioning, or neuropsychological functions* (Pallone & Hennessy, 1996): In general, these include dysfunctions that affect the capacity to weigh the risks, costs, and benefits of behavior; mood-altering chemical substances that stimulate or accelerate neurological processing; and offense-specific characteristics such as heightened physical abilities (Pallone & Hennessy, 1996). For the purposes of this study, drug and alcohol use are classified as biological factors.

*Business professional: Individual working in managerial role within any size organization who has not been convicted of a white collar crime* (Alalehto, 2003).

*Conscientiousness: Personality trait included in the BFI characterized by achievement orientation, dependability, orderliness, self-control, need for achievement, order and persistence, and can be used as a predictor of employee attendance and retention* (Judge, Higgins, Thoresen, & Barrick 1999).

*Dark triad: Psychopathy, narcissism, and Machiavellianism* (Stevens et al., 2012)

*Disagreeableness: Related to the big five characteristic of agreeableness, with disagreeableness characterized by uncooperative and unlikeable behavior* (Judge et al., 1999). The disagreeable business person is said to lack social competency, be suspicious, envious, bitter, hold contempt toward others that may turn aggressive or quarrelsome, be

stubborn, inflexible, cunning, and act with deliberation, deceit, and dishonesty when the opportunity presents itself (Alalehto, 2003).

*Extraversion:* Personality trait included in the BFI characterized by sociability (Judge et al., 1999). Extroverts tend to be more active, more impulsive, less introspective, more self-preoccupied, and more likely to take on leadership roles than introverts (Judge et al., 1999).

*Integrity:* An individual's personal code of conduct including ethics, morals, and honesty (Bucy, Formby, Raspanti, & Rooney, 2008).

*Machiavellianism:* Personality trait that describes an individual with a reputation for immoral dealings with others and manipulation of others to accomplish his or her own personal objectives (Rayburn & Rayburn, 1996).

*Moral disengagement:* Ability to selectively disengage their moral standards by use any of the following categories of justification: the act or behavior, the role of the actor, or cognitive restructuring of the victims of unethical behavior (Stevens et al., 2012).

*Narcissism:* Personality trait viewed as a pervasive pattern of grandiosity or believing one is better than others (Perri, 2011). Narcissists often believe that they are the "chosen one" and have inflated views of their accomplishments and abilities (Perri, 2011).

*Neuroticism:* Personality trait included in the BFI and refers to a general lack of positive psychological and emotional stability (Judge et al., 1999). An individual with neurotic personality tends to be more competent, dependable, submissive, has a

willingness to follow the lead of others, has high levels of anxiety, is quick to take offense and turn anger outwards (Alalehto, 2003; Judge et al., 1999).

*Openness:* Personality trait included in the BFI and refers to an individual's intellect and unconventionality (Judge et al., 1999).

*Psychological factors:* Cognitive capacity, personality traits, and psychopathology disorders (Pallone & Hennessy, 1996; Paris, 1993; Rao, 2002; Schaefer & Hennessy, 2001).

*Psychopathy:* Personality trait that encompasses a cluster of variables and behaviors involving charisma, lack of empathy, manipulative behavior, and tendency to violate social norms (Stevens et al., 2012).

*Sociological factors:* Demographics and social influences that impact personality development including social learning, family structure, family relations, culture, environment, and educational attainment (Dodge & Pettit, 2003; Rao, 2002).

*Type A personality:* Personality trait characterized by a pattern of behavior associated with a tendency to maximize achievement in pursuit of intellectual and physical gain, with a willingness to take personal risks to achieve personal gain (Carducci & Wong, 1998).

*White collar crime:* A nonviolent crime committed for financial gain by means of deception to obtain money, services, property, avoid making payments, gain a competitive advantage, or to gain a personal advantage (Blickle et al., 2006; Collins & Schmidt, 1993; Elliott, 2010; Perri, 2011). White collar crime includes antitrust violations, securities fraud, corporate fraud, commodities fraud, occupational fraud,

financial institution fraud, insurance fraud, mortgage fraud, money laundering, bribery/kickbacks, extortion, and mass marketing fraud (FBI, 2011; Perri, 2011).

*White collar offender:* Offender convicted of a white collar crime (FBI, 2011; Perri, 2011).

### **Assumptions**

White collar crime impacts society in economic ways greater than other types of crime yet has been relatively neglected from a research perspective (Heath, 2008; Perri, 2011). The concerns addressed in this study stem from the assumption that individuals exposed to biological, psychological, and sociological risk factors have an increased likelihood to develop personality traits that lead them to unethical and illegal workplace behavior resulting in white collar crime. It is further assumed that the presence of an increased number of biological, psychological, and sociological risk factors may lead to deviant work place behavior resulting in white collar crime. These assumptions stem from past research identifying biological, psychological, and sociological influences on white collar offending and research on violent and street level offending that acknowledge the role the interaction of variables play (Boutwell & Beaver, 2008; Cellini, 2002; Dodge & Pettit, 2002; Engdahl, 2009; Mischel, 2009; Perri, 2011; Ragatz et al, 2012; Schaefer & Hennessy, 2001; Terpstra, Rozell, & Robinson, 1993; Walters, 2009).

### **Limitations**

This study was limited to white collar offenders who have been detected and convicted of a white collar crime and business professionals who have not been convicted of a white collar crime. An undetected offender within the business professional sample

has the potential to limit the study results. Ethics scenarios were introduced in the study to see if integrity could identify differences within business professionals who make the undetected business professional more closely represent the white collar offender. The background experiences of participants have the potential to influence differences between groups; select sociocultural variables were selected as covariates to minimize the impact to internal validity. A final limitation of this study comes from the research design. Conducting research in the Federal BOP has limitations on data collection beyond my control. Inmates do not have access to computers or the Internet, requiring researchers to conduct research through paper surveys or face-to-face interviews. Paper surveys were used for data collection for the inmate population while online surveys were used for business professionals.

### **Delimitations**

This study was limited to white collar offenders incarcerated at a Federal BOP correctional facility and business professionals contacted via Facebook, LinkedIn, and email. The study excludes business professionals who were previously convicted of a white collar crime and white collar offenders incarcerated at a state level facility. Business professionals who have been convicted of a white collar offense have been excluded in order to help clearly define offender and nonoffender groups. The offender population has been limited in scope to offenders incarcerated in Federal BOP facilities. Business professionals have been limited to those who currently or previously have served in a managerial role, following prior research showing most white collar offenders

are older, have a higher socioeconomic status, and have served in managerial roles (Barnett, 2006; Blickle et al., 2006)

This study is limited to examining the psychological differences between white collar offenders and business professionals and select biological and sociological factors. Select biological and sociological factors were selected through identification of variables identified in the literature as common in white collar offenders. An extensive examination of neurological variables was excluded from this study due to limited prior research linking neurological traits with white collar offending.

This research study is not intended to measure the role of the lack of organizational barriers to prevent or detect white collar crime. In addition, past research has noted differences between white collar offenders and other offender groups (Blickle et al., 2006; Perri, 2011; Ragatz et al., 2012) and was not examined as part of this study.

The sample for this study was a convenience sample and not randomly drawn from the populations being studied, limiting the ability to generalize the results to the population at large and limiting external validity. Population distributions were examined for each group and every effort was made to obtain a diverse and representative sample.

### **Significance of the Study**

While researchers have identified some similarities and some differences between the characteristics of these groups, research has not addressed a biopsychosocial assessment using a multivariate model to distinguish white collar offenders and business professionals. Understanding how white collar offenders are different from business

professionals addressed the gap in research, providing a multivariate examination of the differences. A multivariate approach provides researchers and organizations with a deeper understanding of the differences between groups and greater depth in understanding why, when faced with similar situations, some choose to cross legal and ethical lines and others do not. The ability to detect characteristics linked to at-risk behavior can aid in the development of training programs that can be incorporated into youth and collegiate business training programs and corporate ethics, integrity, and leadership training to help shape personality and help engage professionals in identifying at risk characteristics.

### **Summary**

Greed and opportunity play a role in white collar offending but fail to explain why some individuals choose to cross legal and ethical lines while others do not when exposed to the same or similar situations. Examination of differences between white collar offenders and business professionals helps fill this gap and better explain why some choose white collar offending and others do not. A multivariate approach using the biopsychosocial model incorporates the multiple etiological influences on behavior to provide a better explanation of the differences between groups. Explanations of the differences between groups at a more in-depth level can aid researchers and businesses to understand, detect, and prevent white collar crime, thereby reducing future criminal offending.

In Chapter 2, I discuss a review of existing literature on white collar crime and personality. The chapter addresses the personality traits that have been linked to white



collar offenders as well as other biological, psychological, and sociological factors that influence personality development and offender behavior.

Chapter 3 provides a description of the methodology used to address the identified research question. This chapter will show the use of a correlational research design using descriptive analysis and DFA to analyze differences between groups. In Chapter 3, I also provide a description of the design of the study, the population sample, instrumentation and procedures, data analysis, and ethical considerations.

## Chapter 2: Literature Review

White collar crime is a nonviolent crime committed for financial gain by means of deception to obtain money, services, property, avoid the loss of money, avoid making payments, gain competitive advantage, or to gain a personal advantage (Blickle et al., 2006; Collins & Schmidt, 1993; Elliott, 2010; Perri, 2011). White collar crime includes antitrust violations, securities fraud, corporate fraud, commodities fraud, occupational fraud, financial institution fraud, insurance fraud, mortgage fraud, money laundering, bribery/kickbacks, extortion, and mass marketing fraud (FBI, 2011; Perri, 2011).

White collar crime is a pervasive phenomenon that has a greater financial cost than street crime (Heath, 2008; Perri, 2011). Although white collar offenders make up a relatively small proportion of offenders in the United States each year (FBI, 2011), the financial impact of crime against organizations is greater than the financial impact of violent and street crime (Heath, 2008; Perri, 2011), yet little attention has been paid to understand the influences of white collar offending (Blickle et al., 2006). Despite legislative efforts to curtail unethical and illegal business practices, white collar crime continues to rise (FBI, 2011). In 1939, Sutherland argued that personality had no role or relevance in understanding economic crime arguing that white collar offending is learned through interactions and associations with others (as cited in Alalehto, 2003; Elliott, 2010). Sutherland's early work set the framework for decades of research focused on the organization and the internal/external environments rather than on the biological and psychological characteristics that may contribute to the shaping of personality and behaviors that include criminal offending (Alalehto, 2003; Elliott, 2010). Research

efforts have focused on organizational situations (Alalehto, 2003), organizational barriers that create an environment ripe for offending (Engdahl, 2009), greed and/or money as a primary influence for offending (Brottman, 2009; Bucy et al., 2008), and neutralization or rationalization techniques used by offenders to justify their behavior (Brottman, 2009; Heath, 2008).

While money and greed may motivate individuals to cross legal and ethical lines (Bucy et al., 2008) and the lack of organizational barriers may make it easier for offending to occur (Engdahl, 2009), these approaches fail to make a distinction between business professionals who choose to cross legal and ethical lines and those who do not when placed in similar situations. Not all business professionals who are money motivated commit crimes (Alalehto, 2003; Elliott, 2010), leaving the question of what separates the offenders from the nonoffenders unanswered. White collar offenders may justify their behavior and convince themselves their behavior is acceptable (Heath, 2008) but this does not explain why they offend. Justification, rationalization, and neutralization show the cunning, manipulative behavior that may be prominent in personality traits linked to offenders (Perri, 2011).

Research on violent and street crime has shown the importance of looking at criminal behavior from a multidimensional perspective to understand all factors that can influence personality and behavioral development that contribute to criminal offending. Prior research on white collar offenders leaves a gap to approach understanding white collar crime from a multidimensional perspective using the biopsychosocial model to understand the biological, psychological, and sociological drivers of behavior. Focusing

research on personality discriminant profile through a biopsychosocial perspective moves beyond organization, greed, rationalization, and neutralization to help assess what separates offenders from nonoffenders, answering the question of why some when given the opportunity to offend choose to offend and others do not.

### **Literature Search Strategy**

The databases used to search for current literature were resources provided by the Walden University online library, including databases such as EBSCOhost, Academic Search Complete/Premier, ERIC, SocINDEX with Full Text, ProQuest, PsycINFO, PsycARTICLES, PsycTESTS, and Mental Measurements Yearbook. In conjunction with searching single databases, Thoreau was used to search multiple databases in the Walden University library that cross disciplines. In addition to using the Walden University library, Internet searches using Google Scholar were conducted to identify articles and journals not readily available within the Walden University library, identifying additional scholarly work to be incorporated into the study. These sources were used to conduct searches to identify sources on the subject matter with the scope of research limited to 5 years for the bulk of the study.

Key words used to generate searches for sources included *personality, biopsychosocial, white collar crime, white collar offender, ethics, integrity, narcissism, Type A personality, antisocial behavior, Big Five, need for achievement, need for power, charismatic leader, rationalization, power, and greed.*

## **Biopsychosocial Model**

### **Overview**

The biopsychosocial model is a multidimensional perspective that recognizes the importance of biological, psychological, and sociological influences on personality development and the interactions of multiple etiological influences on criminal behavior (Paris, 1993; Rao, 2002; Tansey, 2010). This perspective takes into consideration the multiple risk factors and various etiological influences on the formation of personality linked to behavior (Paris, 1993; Tansey, 2010). Over time, personality development is influenced by biological, psychological, and sociological factors, a process that is reciprocal (Dodge & Pettit, 2003), making it challenging and complex to identify single, direct causal links between risk factors and personality. Under this model, personality is a function of biological factors that interact with psychological and sociological factors that together influence criminal offending (Rao, 2002). Paris (1993) identified the biopsychosocial model as a more robust and comprehensive explanation of personality and subsequent behavior due to the incorporation of multiple etiological influences (biological, psychological, and social factors). The biopsychosocial model recognizes that the etiology of personality stems from a variety of sources including biological, psychological, and social interactions (Paris, 1993; Tansey, 2010).

Under the biopsychosocial model, biological, psychological, and sociological factors are used to describe phenomena. Biological influences include genetics, neurological, and neuropsychological functioning; psychological influences include cognitive capacity, personality traits, and psychopathology; and social influences include

social learning, culture, environment, alcohol and drug abuse, and educational attainment (Pallone & Hennessy, 1996; Rao, 2002). In the case of personality formation and development, there is an influence of biological, psychological, and sociological factors on the personality traits of an individual. Each of these factors plays a role in shaping personality with sociological and psychological factors mediating the effects of biology (Dodge & Pettit, 2003).

Biological factors are present at or near birth and are either biologically or genetically based (Dodge & Pettit, 2003). Biological factors linked to offending include impulsivity, tendency toward addiction, temperament, and deficits in attention (Pallone & Hennessy, 1996). Pallone and Hennessy (1996) defined these as biological factors due to the influence they have on neurological functioning. These factors or aspects of them may be present at birth, shortly thereafter, or developed over time, with development and transformation linked to psychological and sociological factors (Pallone & Hennessy, 1996).

Psychological factors such as mental disorders, neurological functioning, personality traits, and cognitive ability (Pallone & Hennessy, 1996; Paris, 1993; Schaefer & Hennessy, 2001) influence personality development and the behavior that is manifested while working in tandem with biological and sociological factors. Psychological factors may be precipitants to behavior rather than factors that lead to a specific diagnosis of mental defect or disorder (Paris, 1992).

Sociological factors help shape biological and psychological factors by incorporating the interactions of the individual with their environment (Pallone &

Hennessy, 1996). Sociological factors such as socioeconomic status, parenting styles, peer groups, exposure to violence, cultural values, nature of the community, occupation of parents, education of parents, parental divorce, parental conflict, and age of parents at birth of child have been identified as influencing the development of personality, aggression, and criminal behavior (Bartol & Bartol, 2011; Pallone & Hennessy, 1996).

The social environment the individual lives in shapes development and personality, resulting in vicarious learning and modeling of behavior such as violence and lack of empathy (Rao, 2002). While the social environment may help shape personality, it is but one facet of development, necessitating a need for a broader, more comprehensive approach to understand personality and how offenders differ from nonoffender groups.

Introduced by Grinker in 1954, Engel brought the biopsychosocial model to the forefront in 1977 as a challenge to the biomedicine approach used in medicine at the time establishing a framework for research and teaching (as cited in Adler, 2009; Ghaemi, 2009). The biopsychosocial model expanded upon the biomedical approach that was used in the practice of medicine and research during the 1970s, calling for the incorporation of the relationship between the individual and the environment into medical practice to better understand and interact with patients (Adler, 2009; Borrell-Carrió et al., 2004). Engel believed that in order to affect healing, practitioners needed to simultaneously focus on the biological, psychological, and sociological needs of the patient (as cited in Borrell-Carrió et al., 2004). Engel's seminal work has since

influenced many areas of general medical practice, psychology, and research, including research on personality development.

The biopsychosocial model emerged as a mechanism to explain why individuals do not behave predictably when the same stimulus is present or introduced (Adler, 2009). The incorporation of environmental and psychological factors with existing biology offered an alternative methodology that better explained the “individual reality” (Adler, 2009, p. 609). The individual reality are the differences that occur when different individuals are exposed to the same stimuli, yet respond or act differently. This approach rejected linear thinking and a linear cause-effect model to better explain phenomena, disease, mental health issues, personality, or behavior in general (Borrell-Carrió et al., 2004). Borrell-Carrió, Suchman, and Epstein (2004) noted that few conditions can be explained through a single interaction or a single variable or causality. Causality is, therefore, better explained through a unidirectional cause-effect relationship that accounts for the variety of causes, sustaining forces, and influencing events (Borrell-Carrió et al., 2004).

### **Application of Biopsychosocial Model to Understanding Criminal Behavior**

Schaefer and Hennessy (2001) noted the complexity in studying criminal behavior due to the multifaceted development of personality and influences on behavior. Research on violent and nonviolent (nonwhite collar) offenders has focused, in part, on understanding the role personality and development as well as sociological, environmental, and biological factors play in criminal offending (Perri, 2011; Ragatz et al., 2012; Walters, 2009). Researchers have identified a wide range of biological,



psychological, and sociological factors linked to criminal offending. Biological factors consistently linked to criminal offending included in this study are offender drug or alcohol use (Listwan et al., 2010; Ragatz et al., 2012; Schaefer & Hennessy, 2001). Psychological factors such as psychopathy, antisocial behavior, history of abuse or trauma (noted as psychological due to the impact on psychological wellbeing), neuroticism, disagreeableness, and conscientiousness have been linked to criminal offending (Salekin et al., 2005; Salekin et al., 2010; Schaefer & Hennessy, 2001), while sociological and demographic factors such as age, gender, race or ethnicity, socioeconomic status, education, marital status, parenting styles, and being born to single parents have also played a role in the development of personality and criminal offending (Listwan et al., 2010; Ragatz et al., 2012; Schaefer & Hennessy, 2001). Each of these factors will be discussed further in the section on factors influencing criminal behavior.

Researchers have used two levels of analysis to examine factors influencing criminal behavior, a univariate and a multivariate approach. These two levels of analysis (individual variables and a composite variable or group membership approach) aids researchers in developing a broader understanding of what separates offenders from nonoffenders (Perri, 2011; Ragatz et al., 2012; Walters, 2009). The combination of variables in a group membership or composite approach examines criminal behavior through a multivariable approach that aligns with the biopsychosocial model, providing researchers with the opportunity to see the interaction between variables.

Pallone and Hennessy (1996) were instrumental in applying the biopsychosocial model to criminal behavior, emphasizing to truly understand behavior researchers must

understand the interactivity among and between biological, psychological, and sociological variables. Pallone and Hennessy provided a framework for understanding and applying the biopsychosocial model to criminal behavior, specifically aggressive behavior. Taking an interactionist approach, Pallone and Hennessy proposed that 100% of the variance between groups can be explained through the biopsychosocial model.

It is the interaction amongst variables that explains why some individuals living in poor neighborhoods commit crimes and others do not (Pallone & Hennessy, 1996). Combining variables to look at a multifaceted model of personality and behavior allows researchers to see the full effect of variables, including what variables may mitigate risky behavior. Research in psychology and neurosciences have contributed to the linkage between behavior and biopsychosocial components, noting discernable contributions from biological, psychological, and sociological factors to personality development and behavior (Schaefer & Hennessy, 2001).

The biopsychosocial model has been applied to a number of violent and nonviolent offender groups including individuals convicted of homicide, executed capital offenders, sex offenders, and juvenile offenders. Researchers have established that individuals convicted of homicide and other violent offenders are different than the general population, with offender populations more likely to have psychopathy, antisocial behavior, impulsivity, and abuse drugs/alcohol (Ragatz et al.; Walters, 2009, 2011). Violent offenders have a greater likelihood to have experienced trauma or abuse, have lower levels of intellectual functioning, have diagnosed or undiagnosed mental disorders, and abuse drugs or alcohol (Schaefer & Hennessy, 2001).

Schaefer and Hennessy (2001) examined the relationship between biological, psychological, and sociological variables on criminal aggression and executed capital offenders, finding a combination of variables that distinguished the executed capital offender from inmates convicted of homicide. Schaefer and Hennessy examined the case history of 313 capital offenders executed in the United States between 1976 and 1995 through archival data from ICPSR in addition to information from newspaper searches and data from Amnesty International. Variables were subdivided into the categories of neuropathology, substance abuse, childhood abuse, intelligence level, psychiatric illness, and specifics of capital offenses (Schaefer & Hennessy, 2001). Schaefer and Hennessy hypothesized that while a history of abuse, neurological impairment or psychiatric illness may cause violent behavior, it is the mixture of these conditions that makes for a dangerous combination that becomes the link to explosive violent behavior with different combinations of factors resulting in the level of explosiveness that may separate violent offenders from executed capital offenders. Researchers found a combination of education level, cognitive ability, and criminal history distinguished executed capital offenders from homicide offenders (Schaefer & Hennessy, 2001). Additionally, higher degrees of psychiatric illness, child abuse, and substance abuse were found in executed capital offenders compared to homicide offenders (Schaefer & Hennessy, 2001). The differences between these two groups of offenders are based in biological, psychological, and sociological factors. As Schaefer and Hennessy pointed out, it is the compilation of these factors that differentiates between groups rather than a single factor.

Boutwell and Beaver (2008) examined adolescent delinquency abstention through a biosocial perspective concluding that genetic and environmental factors contributed to delinquency abstention. The Add Health database was used to generate a nationally representative sample of 1,540 participants (Boutwell & Beaver, 2008). Participants were initially included in the study between the ages of 11 and 19 and then interviewed three times over the course of 7 years. At each wave of interviews a composite delinquency scale was measured including information on involvement in delinquent and antisocial behavior, genetic factors, and socialization variables (Boutwell & Beaver, 2008). Boutwell and Beaver found abstainers and nonabstainers differed on genetic and social factors, specifically the presence of dopamine D4 receptor gene (DRD4) exposure to drug-using and/or delinquent peers, and levels of self-control. Additionally, research found individuals who were maltreated were more likely to become involved in antisocial behavior (Boutwell & Beaver, 2008). As adolescents grow and mature through puberty, the biological contributions to delinquency are altered, which influences the potential for abstention (Boutwell & Beaver, 2008). Puberty biological changes do not act alone, however, and are influenced by societal restraints (Boutwell & Beaver, 2008). Genetic and societal factors therefore work together to influence delinquency and delinquency abstention.

As children develop into adolescents and adults neural, psychological, sociocultural, and life experiences work together to either exacerbate or diminish antisocial development and conduct disorders (Dodge & Pettit, 2003). Biology provides predisposition to aggression with males more likely than females to be aggressive (Dodge

& Pettit, 2003). Genetic differences in personality characteristics can be seen in impulsivity, tendency to addiction, temperament, and deficits in attention (Dodge & Pettit, 2003). Fetuses exposed to prenatal stress, disease, and toxins have a greater likelihood of a personality defect (Dodge & Pettit, 2003). Genes, prenatal stress, disease, and toxins are biological factors that can lead to behavioral, cognitive, and autonomic nervous system deficiencies that influence personality development and delinquent and misconduct behavior (Dodge & Pettit, 2003). Dodge and Pettit (2003) found sociocultural factors influenced personality development and behavior through the lifespan with factors such as exposure to physical discipline, television violence, family poverty, parental divorce, low socioeconomic status, interparental conflict, and being born to teenage or single parents as highly correlated with delinquent behavior and misconduct. While individual factors are linked to personality development and criminal offending, Dodge and Pettit emphasized the importance of the combination of these factors to understand and modify behavior. The influences are reciprocal over time; changing personality and behavior over time through different interactions with parents, peers, and social institutions as well as changes in biology and psychology (Dodge & Pettit, 2003).

Nederlof, van der Ham, Dingemans, and Oei (2010) studied 168 males ages 12 to 21 residing in a Dutch youth detention center to examine the relationship between the big five personality dimensions (agreeableness, extroversion, neuroticism, openness, and conscientiousness) and the type and severity of crime. Research found personality was associated with criminal offending but did not distinguish between the type and severity

of crime (Nederlof, van der Ham, Dingemans, & Oei, 2010). Nederlof et al. suggested that while personality traits alone did not appear to distinguish types and severity of offending, environmental risk factors such as parenting style, poverty, coming from a broken family, peer delinquency, victimization, living in a high crime neighborhood, substance abuse, and school failure do play a role in explaining the difference between groups may explain the difference and requires additional research.

Farrington (2000) utilized data from the Cambridge study in Delinquent Development to examine antisocial behavior, delinquency, and psychosocial risk factors from age 10 to 40. Data were collected from study participants at ages 8, 10, 14, 16, 18, 21, 25, and 32 (Farrington, 2000). Measures of antisocial personality disorder were created for each age to account for differences in identifying antisocial behavior at different ages (Farrington, 2000). The Cambridge study captured personality traits as well as environmental factors about individuals, used by Farrington to examine the influence of environment on criminal behavior over time. Farrington identified a number of environmental factors that create a higher risk for offending including: parenting style, low income family, coming from a broken home, substance abuse, living in a high-crime neighborhood, and failure in school. Research by Farrington (2000) and Nederlof et al. (2010) suggest a future need to examine the influences of neuropsychological factors such as impulsivity, personality traits, and environmental factors to gain a deeper understanding of the differences between offender and nonoffender groups.

Research on criminal offending has suggested that the development of criminal behavior can be understood in terms of the role of biological, psychological, and

sociological factors. While some personality traits have been more commonly linked to criminal offending, the formation of these traits and the resulting behavior can be seen as interactive, changing over time due to the influences of biological, psychological, and sociological influences.

### **Application of the Biopsychosocial Model to White Collar Crime**

Research on criminal behavior has established the need and importance to study personality and behavior through the biopsychosocial perspective, yet research on white collar crime through this approach has been limited. White collar offender research has found white collar offenders to be uniquely different than violent offenders, with white collar offenders having lower levels of psychopathy, less antisocial behavior, less likely to have an arrest history, less likely to engage in drug/alcohol abuse, more likely to have graduated from high school and/or college, and less likely to be unemployed (Blickle et al., 2006; Perri, 2011; Ragatz et al., 2012). Differences between offender groups has been used as one rationale for why the biopsychosocial model has been applied to violent offenders and not been used to examine white collar crime.

Economic crime, however, is complex (Engdahl, 2009; Naso, 2012) creating a need to examine white collar crime through a multidimensional approach that examines personality characteristics, sociological influences, and biological differences that may influence neurological functioning and decision-making. Feeley (2006) conducted a literature review focused on the causes of white collar crime, concluding that the root of white collar crime cannot be traced to a single cause, rather requires the analysis of both personality and environment. Personality traits such as extroversion, disagreeableness,

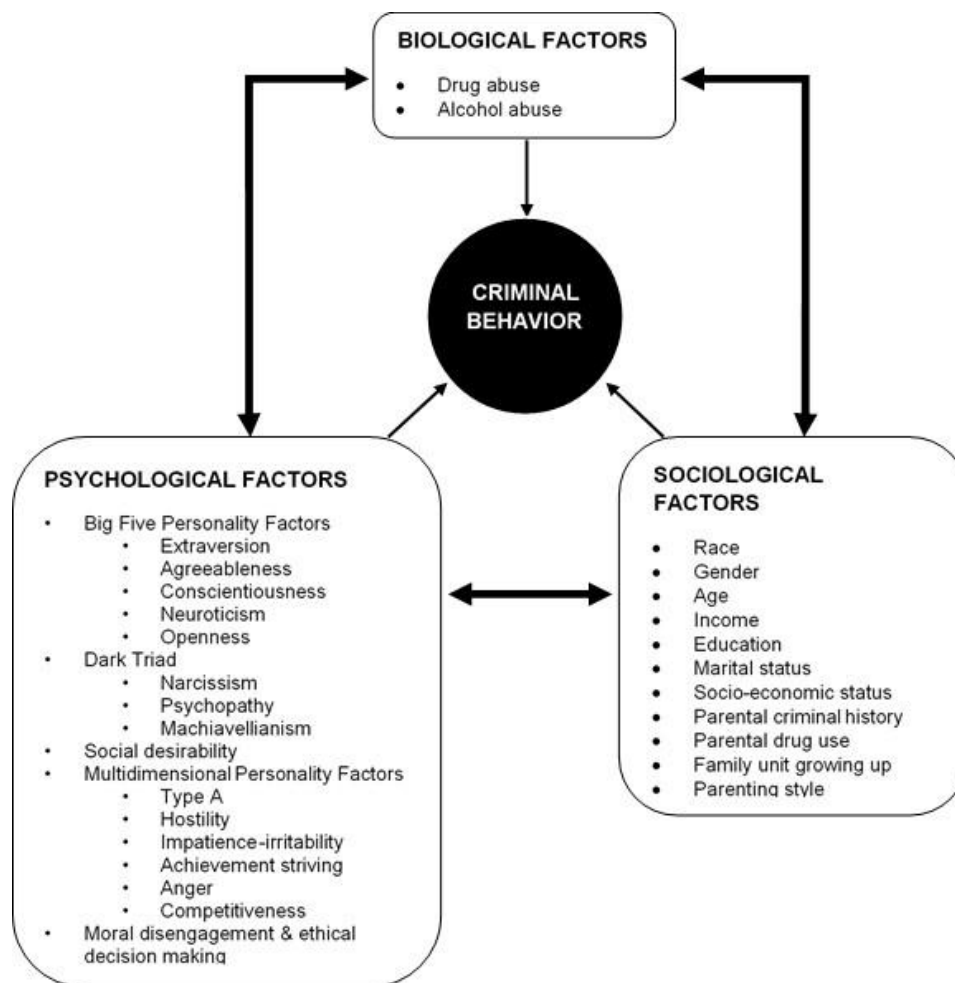
and neuroticism may be tied to white collar offending, however the ripeness of an organization and/or an industry to create opportunities for offending to occur and go undetected cannot be discounted either (Feeley, 2006; Perri, 2011). People make meaning out of situations and their behavior adapts accordingly (Mischel, 2009). Competitive environments and organizational structures provide environmental influences to white collar offending (Feeley, 2006; Perri, 2011), while personality traits may separate offenders from nonoffenders. As individuals interact with their environment, a pattern of associations develop that are shaped by past experiences and personality (Mischel, 2009). As individuals continue to interact, they are continued to be shaped, but because individuals are different and encounter different histories they may respond differently to similar stimuli.

Engdahl (2009) conducted a case study of a broker at a well-reputed brokerage firm who was found guilty of breaches of trust related to his position. Analysis found it was the combination of financial self-interest, lack of organizational barriers, and social contacts that lead to the broker's behavior (Engdahl, 2009). A lack of barriers contributed to the opportunity for the broker to offend but were not the only factors present. Additionally, lack of barriers alone does not explain why some individuals, when exposed to the same opportunities, choose to take advantage of the lack of barriers and others do not, making it important to look at the organization in conjunction with other factors.

Assessing personality and white collar offending from a biopsychosocial model provides a multidimensional analysis that incorporates each of these influences that shape



personality and behavior. Research from this perspective can be viewed not as a divergence from past research on situational and organizational variables but an expansion of that research. Ethical decision making has been found to be a function of how individual and situational factors interact together (Boomer, Gratto, Gravander, & Tuttle, 1987; Stead, Worrell, & Stead, 1990; Terpstra et al., 1993; Trevino, 1986) and nonwhite collar crime research has established criminal behavior as being a function of biological, psychological, and sociological components (Boutwell & Beaver, 2008; Cellini, 2002; Dodge & Pettit, 2002; Nederlof et al., 2010; Perri, 2011; Ragatz et al., 2012; Schaefer & Hennessy, 2001; Walters, 2011). Considering these two perspectives together, the need to examine white collar crime through a lens that combines individual and situational factors such as the biopsychosocial perspective emerges. Figure 1 is a visual representation of the variable selected for inclusion in this study.



*Figure 1.* Biopsychosocial model included in the study. Arrows depict the interaction between the groups of factors (biological, psychological, sociological) as well as the influence of these factors on criminal behavior.

### **Factors Associated With White Collar Criminal Behavior**

Research on white collar offenders has begun to evolve, with personality traits beginning to play a role and a wide-range of disciplines beginning to look at the influence personality has on offending including economic rational choice, sociology's individualism, psychiatry's narcissism, and criminology's self-control (Alalehto, 2003; Blickle et al., 2006). Personality traits such as conscientiousness, extroversion,

disagreeableness, narcissism, neuroticism, hedonism, self-control, negative emotions, insensitivity, Type A personality, self-confidence, integrity, and psychopathy have been individually linked to white collar offending (Alalehto, 2003; Blickle et al., 2006, Collins & Schmidt, 1993; Elliott, 2010; Listwan et al., 2010; Naso, 2012; Stevens et al., 2012). While white collar offenders may not be mentally ill, it is possible that they may have a defect in personality or a personality type that may be linked to a path of offending (Alalehto, 2003), emphasizing the need to understand personality to understand how white collar offenders differ from their business counterparts.

Brottman (2009) examined the role money, behavior, and emotions had on a man named Peter as he transitioned from college to the workforce and his white collar crime conviction using a case study approach. Case assessment showed Peter's neurotic, driven personality and his desire to fit in as the "ideal company man" was directly linked to his unethical and illegal behavior (Brottman, 2009). Rationalization was used to explain and justify his behavior, further feeding his narcissism and grandiose feelings. Brottman's case assessment provided an in-depth case analysis that identified the presence of personality behaviors that may be associated with white collar offending, laying a foundation for continual research in white collar crime and personality influences on offending. A common thread in the research by Engdahl (2009) and Brottman (2009) is the acknowledgement of factors outside rationalization, neutralization, and opportunity contributing to white collar crime. Brottman (2009) identified influences from childhood, development, the environment, and the situation on white collar crime while

Engdahl (2009) identified financial self-interest as an organizational barrier, rather than a personality trait but nonetheless acknowledges the role of self in white collar crime.

Bucy et al. (2008) interviewed 45 nationally recognized experts in white collar crime to examine why white collar offenders commit crime. While Bucy et al. identified personality traits such as charisma and narcissism, contributing to white collar crime, they noted the most common motivator for crime as money, greed, financial gain, opportunity, entitlement, arrogance, and competitiveness. Researchers concluded that rationalization techniques are used to justify actions with less than 5% of experts viewing white collar offenders as “amoral” or evil” thereby negating a need to examine personality traits further (Bucy et al., 2008). In their research, Bucy et al. divided white collar offenders into two groups, leaders and followers; with each group having different personality traits, therefore interacting differently with situations that arise and their environment. While Bucy et al. concluded that it is motives that are the primary influence on criminal behavior, their research identified situational, organizational, and environmental factors that contribute to behavior as well as a distinction in personality traits that points to a need for further exploration. Research suggests in order to understand the differences between white collar offenders and their nonoffender counterparts the biological, psychological, and sociological factors that influence behavior need to be incorporated into a multivariate model. Biological, psychological, sociological, and ethical integrity will be examined individually in the sections to follow.

## **Biological Factors**

Pallone and Hennessy (1996) define biological determinants of the biopsychosocial model as (a) neurologic and neuropsychological dysfunctions, particularly those that affect the ability to weigh the costs, risks, and benefits of behavior; (b) mood-altering chemical substances that stimulate or accelerate neurological processes; and (c) offense-specific physical characteristics such as special skills to operate equipment or scale buildings. This study examines only drug and alcohol use/abuse as biological factors.

Pallone and Hennessy (1996) classify drug and alcohol use/abuse as a biological factors due to the neurochemical changes that occur in brain biochemistry due to the consumption of these substances. Drug and alcohol use/abuse can influence behavior at two different points in time, when consumed during pregnancy (i.e. impacting the fetus) or by the individual themselves (Pallone & Hennessy, 1996). Neurological changes influence how individuals behave and can also influence personality development (Pallone & Hennessy, 1996). Because the influence of drugs and alcohol influence behavior from a neurological functioning perspective they are classified as biological factors.

Poortinga, Lemmen, and Jibson (2006) used a case control study examining the histories of 71 defendants in the state of Michigan referred to the Michigan Center for Forensic Psychiatry (CFP) from 1991 to 2001. Doctoral level psychologists and psychiatrists perform evaluations on all district and circuit defendants referred to the CFP providing historical records that Poortinga et al. used for their study. The presence of

substance abuse was measured as a yes or no response to meeting the DSM IV diagnosis criteria and a history of treatment for substance abuse was measured as a yes or no response, both from a review of psychiatric evaluation records from the CFP (Poortinga, Lemmen, & Jibson, 2006). Finding showed white collar offenders had a lower likelihood of substance abuse than nonwhite collar offenders but is reported to be above the rate of the general population (Poortinga et al., 2006).

Listwan et al. (2010) examined the role personality, social factors, and drug use/abuse played on recidivism of white collar offenders. Using a modified version of the Salient Factor Score (SFS) by replacing heroin/opiate dependence with drug dependence researchers examined the records of study participants to identify the presence or lack of presence of drug dependence. The study showed, with the exception of individuals with a neurotic personality, white collar offenders were less likely than other offenders to be at a high risk to reoffend (Listwan et al., 2010).

Offenders have been previously identified as having higher rates of drug and alcohol use than nonoffenders, with white collar offenders having a lower likelihood than nonwhite collar offenders to use drugs or alcohol (Listwan et al., 2010; Ragatz et al., 2012; Schaefer & Hennessy, 2001). Drug and alcohol abuse has been found to be higher in white collar offenders than the general population (Poortinga et al., 2006) suggesting drug use be included in the present study. Past studies have measured drug and alcohol use or abuse through examination of historical records. The present study used the self-report measure, the AUDIT and DUD to measure alcohol and drug use respectively. Each test is described in detail in Chapter 3.

## **Psychological Factors**

Research on white collar crime has identified a number of psychological risk factors that individually differentiate white-collar offenders from business professionals that will be included in this study and discussed in this section including: the big five personality (extroversion, agreeableness, conscientiousness, neuroticism, openness), dark triad (narcissism, psychopathy, Machiavellianism), hedonism (measured through social desirability), Type A personality, competitiveness, and integrity.

**Big five personality factors.** The big five personality model is made up of five factors (extroversion, agreeableness, conscientiousness, neuroticism, and openness). Research has suggested a link between factors of the big five personality model and white collar offender behavior. Alalehto (2003) conducted a qualitative study and interviewed 128 informants on the business practices of a friend or colleague that was (a) close to them and (b) of whom they would know personal and professional information. Interviews were conducted using an interview manual consisting of 62 main questions linked to the Big Five model of personality, followed with additional questions based on the response of the informant (Alalehto, 2003). In addition to information on personality, informants were asked about the business affairs, personal business behavior, and personal factors (education, standard of living, and family dynamics) of their friend or colleague (Alalehto, 2003). Results suggested a positive link between an individual who is a positive extrovert, disagreeable, or neurotic, and white collar offending (Alalehto, 2003).

Alalehto (2003) found individuals with high levels of neuroticism had a greater tendency to commit white collar offenses than those with low levels of neuroticism. The higher tendency to engage in white collar offending may be related to the characteristics of a neurotic personality, including being more compliant, dependent, submissive, and willing to follow the lead of others (Alalehto, 2003). Alalehto found positive extroverts were more likely than negative extroverts or introverts to engage in white collar offending, and agreeable business professionals to be more law-abiding than disagreeable business professionals, with the disagreeable business professional having a greater tendency to avoid white collar offending.

While the study by Alalehto (2003) identified personality traits potentially linked to white collar offending that may separate white collar offenders from business professionals, the study approached personality assessment from a single dimensional approach. Alalehto focused on assessment of single characteristics of personality rather than building a multidimensional approach or a profile that incorporated situational and environmental influences in addition to personality traits that impact personality and white collar offending.

Blickle et al. (2006) conducted the first European study of behavioral self-control, conscientiousness, narcissism, and hedonism to compare white collar offenders with business professionals in high level positions who have not been convicted of an offense. The study was conducted using a self-report questionnaire that incorporated the social desirability scale and the conscientiousness-scale from the NEO Five-Factor Inventory (Blickle et al., 2006). Hierarchical logistic regression and posthoc analysis of



interactions was used to examine the relationship between variables (Blickle et al., 2006). The study showed a difference between white collar offenders and nonoffender business professionals in hedonism, narcissist tendencies, behavioral self-control, and conscientiousness.

Blickle et al. (2006) found white collar offenders to be more hedonistic, have a greater narcissistic tendency, to have less self-control, and higher levels of conscientiousness. Individuals with higher levels of technical proficiency have a greater tendency to go undetected than those with lower technical abilities (Blickle et al., 2006). When personality traits are combined with high technical abilities, in an organizational environment ripe for offending a greater emergence of white collar crime may be seen as the multiple facets work together to lead to criminal offending.

While Blickle et al. (2006) established that individually, individuals with hedonism, narcissism, or self-control have a greater tendency to be white collar offenders, they were unable to establish a combination of personality traits that would predict and identify individuals likely to commit a white collar crime with the variables selected. Research found a correlation between narcissism, hedonism, self-control, and conscientiousness, and white collar offending (Blickle et al., 2006), giving credence to the need to further study the influence personality has on white collar offending when combined with additional environmental, economic, personality, and leadership variables.

Through a longitudinal study, Listwan et al. (2010) examined the role personality played on recidivism of white collar offenders. The Jesness Inventory was used as a self-assessment of personality with the standard nine scales collapsed into four categories

focused on aggressive, neurotic, dependent, and situational behavior. Researchers measured risk through the Salient Factor Score and captured demographic variables of marital status, education, employment, and SES to control for influences (Listwan et al., 2010). Research found that personality and sociological variables were linked to predicting recidivism in white collar offenders (Listwan et al., 2010).

Individuals with a neurotic personality had a higher tendency to reoffend than other groups (Listwan et al., 2010), which may be attributed to the tendency of individuals with a neurotic personality to set high, even unattainable goals for themselves (Listwan et al., 2010). Neurotics tend to have difficulty controlling their emotions, so when they fail to meet their goals they turn to other behavior such as making excuses, abusing drugs or alcohol, or turning to alternative, even criminal activity to help them obtain their goals (Listwan et al., 2010). Listwan et al. (2010) argued that it is likely that recidivism may be a result of learned behavior shaped over time through the prison experience and therefore may or may not be a direct link to demographics, thereby limiting their research findings. While the results may be limited, other researchers have identified a link between neurotic behavior and demographics helping to substantiate their findings.

Collins and Schmidt (1993) examined the personality and integrity differences between 365 inmates convicted in a federal court of white collar crime and 344 Midwestern business professionals using three assessment tools: California Psychological Inventory (CPI), Owens and Schoenfeld's Biodata Questionnaire, and the Personality Employment Inventory (PDI). Research found white collar offenders had a lower level

of conscientiousness than their nonoffender counterparts (Collins & Schmidt, 1993). Conscientiousness has also been linked to job satisfaction through the work of Judge, Higgins, Thoresen, and Barrick (1999). Judge et al. found conscientiousness positively and significantly related to job satisfaction. Those who are more satisfied with their jobs may have a lower tendency to commit white collar offending (Heath, 2008), leading to those with low levels of conscientiousness to have a greater likelihood to be white collar offenders. Blickle et al (2006) found higher levels of conscientiousness in white collar offenders than their nonoffender business professional counterparts. The role of conscientiousness is therefore questionable and it may be other traits that are present that make it appear or not appear that conscientiousness plays a role in white collar offending.

Listwan et al. (2010) identified conscientiousness as a key trait that separates white collar offenders from business professionals. Low conscientiousness was said to be characterized by lower reliability, higher rule breaking, opportunistic, manipulative, and judgmental behavior (Listwan et al., 2010). This is a factor supported by Bucy et al (2008) who noted a lack of responsibility, tolerance, and sociability in low levels of conscientiousness. Nederlof et al. (2010) found personality traits within the big five model of personality, including conscientiousness, were linked to offending in juveniles but not the type or severity of the crime. Environmental factors such as poverty, parenting style, broken families, substance abuse, victimization, living in a poor or high crime neighborhood, and failure in school played a greater role in type and severity of crime than personality alone (Nederlof et al., 2006).

**Dark triad.** The dark triad of personality consists of psychopathy, narcissism, and Machiavellianism with psychopathy and narcissism found to be correlated with white collar offending. This section will focus on psychopathy and narcissism only, those factors found correlated with white collar crime.

Psychopathy has been found to be correlated with corporate crime and white collar offending, with individuals with high psychopathy scores often filling high-ranking business executive roles (Babiak, Neumann, & Hare, 2010; Stevens et al., 2012). Babiak, Neumann, and Hare (2010) used structural equation modeling to examine psychopathy in 203 managers and executives in seven international companies. Researchers interviewed participants to make assessment of personality traits, performance and interpersonal style while using company performance appraisals, personnel records, 360 degree evaluations, and salary data to compile data for the study (Babiak et al., 2010). Babiak et al. found individuals with psychopathic tendencies were generally in high-level management positions and with those positions comes opportunity to commit white collar offending, thereby concluding that psychopathy may be linked to white collar crime and needs further research.

Stevens et al. (2012) investigated the relationship between successful psychopaths (individuals with psychopathic traits who have avoided contact with the criminal justice system) and how they responded to ethical dilemmas to identify if successful psychopaths have a greater likelihood of being unethical decision-makers. Researchers examined the psychopathy of a group of undergraduate students using the Self Report Psychopathy Scale (SRP III) and their moral disengagement and unethical decision-making through a

series of scenarios of common ethical dilemmas faced in business (Stevens et al., 2012). Research found individuals with psychopathic tendencies were more likely to engage in unethical decision making than those without psychopathic tendencies (Stevens et al., 2012). Stevens et al. aids in the identification of psychopathy as a variable for continued assessment in personality traits when combined with biological and sociological factors.

Ragatz, Fremouw, and Baker (2012) used the Psychopathic Personality Inventory-Revised (PPI-R), Personality Assessment Inventory (PAI), Lifestyle Criminality Screening Form (LCSF), and Psychological Inventory of Criminal Thinking (PICTS) to assess psychopathy, criminal attitude, criminal lifestyle, anxiety, and alcohol/drug abuse on white collar offending. Ragatz et al. found white collar offenders had lower levels of criminal thinking than other offender groups and were more likely to be educated and married. Ragatz et al. confirmed the role of psychopathy in white collar offenders, with psychopathy correlated with communication, follow through on the job, and critical thinking. This coincides with manipulative behavior of successful psychopaths and their ability to be successful in the workforce while letting their criminal behavior go undetected.

In examining a variety of personality correlates, discussed previously, Blicke et al. (2006) found narcissistic tendencies to be stronger in white collar offenders than nonoffenders. Bucy et al. (2008) in their survey of experts in white collar criminals also identified narcissism as a factor that influences white collar criminal behavior. In a case study approach, Naso (2012) examined the role integrity, moral values, self-confidence, and narcissism have on white collar offending. Naso examined the behavior, personality,

and decisions of Rob as he entered the business world, struggled with moral decisions, and turned to behavior considered unethical and illegal. Research emphasized the complex nature of white collar crime and the role personality, situation, and social factors play in individual decision making and behavior (Naso, 2012). Rob lacked self-confidence and fantasized about being special, which Naso linked to Rob's lack of ability to attain real accomplishment. Naso found Rob to have a narcissistic personality that in addition his father's feeling of shame and his mother's anxious hovering was a source of shame and inner conflict that Naso concluded led to Rob's unethical decision making and illegal behavior. The influence of the role of Rob's parents and organizational influence, combined with Rob's personality traits highlight the need to look at multiple dimensions to understand the drivers of behavior.

**Social desirability.** Blickle et al. (2006) included hedonism in their study examining the personality correlates of white-collar crime measured through social desirability. Researchers found white collar criminals were more hedonistic than their nonoffender counterparts. Research on social desirability and/or hedonism and white collar crime is limited and therefore included in the present study as one of the potential factors that may aid in describing differences between white collar offenders and business professionals.

**Multidimensional personality factors.** In addition to the big five personality and the Dark Triad of personality, a number of other traits, captured as multidimensional personality factors have been identified as influencers of white collar criminal behavior including Type A personality, competitiveness, and self-control. Elliott (2010) examined

personality traits in relation to acts of embezzlement, fraud, and their ability to be used for profiling and deterring criminal behavior. The constructs of personality, Type A/B personality theory, and the big five model were examined through a literature review approach, with insights provided on the potential validity of each theory. Elliott concluded that culture, society, motivation, organization, individual, and personality influence behavior. While individuals may appear motivated by greed, it may be other factors that either lead to the development of greed, or result in the individual acting in an unethical manner on their greed. Elliott identified individuals with a Type A personality as more inclined to act on feelings of greed due to the high risk taking nature of the personality type. Results by Elliott reinforced the need for further research on the link between personality, environment, psychological factors, and white collar crime.

Carducci and Wong (1998) examined risk taking and Type A/B behavior and found a significant difference in risk taking between people with Type A versus Type B behavior. Individuals with Type A behavior were more likely to take risks than those with type B personality (Carducci & Wong, 1998). Individuals with Type A personality were found to be more likely to have a higher income than individuals with a type B personality, concluding a potential link between Type A and risk taking that may lead to the attainment of higher ranking positions and therefore higher incomes (Carducci & Wong, 1998).

Type A behavior has been linked to white collar crime and is characterized by a highly competitive nature, hard-driving personality, hostility, aggressiveness, impatience, and a heightened sense of urgency (Carducci & Wong, 1998; Elliott, 2010; Perry, Kane,

Barnesser, & Spicker, 1990). Individuals with Type A behaviors are often associated with working to maximize their achievements with an incessant need and struggle to achieve more in less time, with a willingness to take risks to reach their goals (Carducci & Wong, 1998; Perry et al., 1990), even if that risk taking leads to white collar crime.

Perry, Kane, Barnesser, and Spicker (1990) found a similar relationship when they examined cheating and Type A personality. Their research on 80 undergraduate students using Form C of the Jenkins Activity Survey and a word forming task found individuals with a Type A personality were more likely to cheat when given the opportunity. Perry et al. concluded if those with Type A personality are more likely to cheat in the classroom environment on a word forming task, they are also more likely to cheat to gain success or achievement outside the classroom; thereby suggesting that those with Type A may be more likely to be a white collar offender.

Terpstra, Rozell, and Robinson (1993) studied 132 men and 69 women using ethical vignettes and psychological scales to assess the influence of interpersonal competitiveness, locus of control, need for achievement, self-esteem, social class, age, gender, religious beliefs, and educational performance on ethical decision making related to insider trading. Using the Work and Family Orientation Questionnaire, Rotter's Scale, Manifest Needs Questionnaire, and the Personal Orientation Inventory researchers were able to draw conclusions on the relationship between personality traits and the likelihood for insider trading (Terpstra et al., 1993). The influence of individual variables was tested and found that individuals with a highly competitive nature or who had an external locus of control had a greater likelihood to engage in insider trading than those who were



not as competitive or had an internal locus of control (Terpstra et al., 1993). Terpstra et al. also found men were more likely to offend than women and younger individuals more likely than their older counterparts. Gender differences may be associated with differential learning or conditioning highlighting a need to examine a combination of variables rather than the influence of single variables.

Terpstra et al. (1993) found individuals with an external locus of control had a higher likelihood to engage in unethical behavior and insider trading than those with an internal locus of control. Self-control has been identified as a predictor of street crime and white collar crime (Langton et al., 2006). Self-control is formed through ineffective child and adolescent development with common attitudinal traits of impulsivity, risk taking, self-centeredness, quick temperedness, preference to simple tasks, and preference to physical activity over mental activities (Langton et al., 2006). Individuals with low self-control are more likely to view their employers as dishonest or unfair and to perceive individual situations as unfair (Langton et al., 2006). Self-control may appear to have overlapping traits; however Blicke et al (2006) found the two different, suggesting a need to analyze them separately. While self-control is developed during childhood and adolescence, it is reinforced and influenced by organizational structure and behavior (Langton et al., 2006). Low self-control could be shaped positively or negatively and within an organization ripe for offending can result in giving the individual with low self-control techniques, motivation, and rationalization of unethical and illegal behavior (Langton et al., 2006).

Langton, Piquero, and Hollinger (2006) also established a link between low self-control and offender behavior. Researchers emphasized that no one factor could explain all episodes of crime, yet they focused their research only on the role of self-control in employee theft. A 24-scale self-control scale was used in conjunction with eight vignettes to test likelihood of students to commit employee theft. Researchers found individuals with low self-control were more likely than those with high self-control to engage in employee theft as well as to lie on resumes to gain employment, making low self-control a strong predictor of employee theft (Langton et al., 2006).

**Ethical integrity.** Stevens et al. (2012) ethical scenarios to examine ethical integrity, measured by moral disengagement and ethical decision making. Moral disengagement was assessed through four ethical scenarios that depict common dilemmas organizations face including (a) cutting corners to meet production deadlines, (b) disclosure of financial errors, (c) scheduling training despite being directed by management not to, and (d) avoiding providing subordinates disciplinary feedback (Stevens et al., 2012). Ethical decision making was assessed using the same scenarios, asking respondents to assess the extent to which they approved or disapproved of the action (Stevens et al., 2012). Stevens et al. used the ethical scenarios to examine ethical behavior in business professionals finding moral disengagement and poor ethical decision making related to psychopathy in business professionals.

Martin, Rao, and Sloan (2009) examined the relationship between integrity and plagiarism in students from a Western United States University. Using the responsibility and stability scales from the International Personality Item Pool to measure integrity in a

sample of 158 graduate and undergraduate students researchers found individuals with lower integrity were more likely to plagiarize than those with high integrity (Martin, Rao, and Sloan, 2009). Martin et al. used Turnitin.com submissions to measure workplace deviance, (the deliberate violation of social norms). Researchers concluded that the findings suggest integrity is related to workplace deviance, with those showing low integrity potentially more likely to commit white collar offenses in the workplace, identifying a need for future research (Martin et al., 2009).

### **Sociological Factors**

Sociological factors include demographics and other factors derived from interactions with society, culture, environment, organizations, and individuals. Sociological risk factors don't always work alone, rather they are influencers of personality, and behavior. Sociological risk factors in white collar crime can include income, social class, family unit as a child, parental history of crime, parental styles, and organizational environment (Alalehto, 2003; Blickle et al., 2006; Collins & Schmidt, 1993; Elliott, 2010; Naso, 2012; Listwan et al., 2010; Nederlof et al., 2010; Perri, 2011; Ragatz et al., 2012; Stevens et al., 2012).

**Demographics.** Research has linked demographic variables such as age, gender, race, and ethnicity to personality development (Boutwell & Beaver, 2008; Listwan et al., 2010; Langton et al., 2006; Terpstra et al., 1993) and white collar offending. Terpstra et al. (1993) found men were more likely than women to engage in insider trading and younger individuals were more likely than older individuals to participate in unethical behavior linked to insider trading (Terpstra et al., 1993). Listwan et al. (2010) found age

to be related to levels of neuroticism and argued that because individuals shape their own environment, underlying psychological factors can be intensified or diminished over time. Race was also identified as important in predicting recidivism of white collar crime, however Listwan et al argued this may be due to socialization within the prison system, rather than race alone, further highlighting the need to examine offender behavior through a multifaceted approach. Terpstra et al. found older individuals were less likely to offend while men were more likely to offend, both which may be related to learned behavior, differential learning, or conditioning.

Social cultures that place a high value on material success and individual wealth risk higher levels of white collar crime (Blickle et al., 2006). Individuals place different values on situations leading to different interpretations and actions (Blickle et al., 2006), establishing the role of sociological factors. White collar offenders are more likely to have education and be married than other offenders (Ragatz et al., 2012); which may influence their need to succeed, driven by personality traits. Educational attainment (level and GPA) may be linked to white collar offending (Ragatz et al, 2012; Terpstra et al., 1993). Research is mixed, however, with some studies noting those with higher education have a greater propensity to be in higher roles therefore it is unclear if it is the role or the education itself that is a potential driver of white collar crime.

**Criminal history.** Piquero, Piquero, and Farrington, (2010) reinforce the need to examine multiple dimensions of behavioral foundation, including criminal history, in their examination of chronic offenders and occupational status. Piquero et al. examined the relationship between criminal histories of participants to age 40 in relation to their

occupational status. Researchers used data from the Cambridge Study in Delinquent Development, a study that followed South London males from 1961/62 to present. The study included criminal history of any kind and is not limited to white collar offending. Results showed as the number of criminal convictions increased, the prestige of the position and occupation an individual held decreased (Piquero, Piquero, & Farrington, 2010).

Piquero et al. (2010) found chronic offenders less likely to be in high positions and those in high positions were less likely to be offenders. Researchers focused on the trajectory of criminal offending in relationship to the career life path of offenders and nonoffenders and while the results are interesting, they are also expected – those with more convictions have lower paying, lower social status positions. This supports a cycle of crime and prior research on the role of socialization; offenders exposed to other offenders may have a greater likelihood to reoffend, continuing a pattern of illegal behavior.

**Family history.** In addition to demographic variables and criminal history, a number of other sociological variables may influence white collar offending include: family unit as a child (single parent home, parents married, lived with grandparents, foster care), parenting styles (authoritarian, permissive, authoritative, and neglecting), parental history of crime (white collar and nonwhite collar). Research on violent offenders has identified a number of development factors that influence development and have a greater propensity to lead to criminal offending. Living in a single family home has been identified as having a greater propensity toward criminal behavior due to a

decreased level of interaction and/or oversight by parents or guardians (Bartol & Bartol, 2011; Zembroski, 2011). Parenting styles shape the development of children and has been linked to personality traits such as extroversion and anxiety (Bartol & Bartol, 2011; Zembroski, 2011). In addition to the interaction of parents with their children, the offender history of parents influences offender behavior in children; putting children at a higher risk for offending later in life (Bartol & Bartol, 2011; Zembroski, 2011). In general, the social environment individuals live in shapes development, resulting in vicarious learning and modeling behavior such as violence and lack of empathy (Rao, 2002). Each of these developmental factors has the potential to influence behavior and personality and is needed to gain a deeper understanding of the history of the offenders and nonoffenders included in the study to help explain differences that may exist between groups.

### **Summary**

White collar crime research has historically focused on organizational situations (Alalehto, 2003), organizational barriers that create an environment ripe for offending (Engdahl, 2009), greed and/or money as a primary driver for offending (Brottman, 2009; Bucy et al., 2008), and neutralization or rationalization techniques used by offenders to justify their behavior (Brottman, 2009; Heath, 2008). These efforts, however, fail to answer the question of why do some individuals when faced with opportunity and/or motivation, engage in white collar crime, while others choose to remain on the path of ethical and legal behavior.

Personality is one of a number of factors that influence behavioral choices and, as described in the biopsychosocial model, interacts with biology, cognition, environment, sociological interactions, and psychological influences (Alalehto, 2003), with individuals responding differently to situations and their environment (Elliott, 2010). Research on white collar offenders has begun to examine personality traits that are more common in white collar offenders including conscientiousness, extroversion, disagreeableness, narcissism, neuroticism, hedonism, self-control, negative emotions, insensitivity, Type A personality, self-confidence, integrity, and psychopathy with further study needed to validate these conclusions (Alalehto, 2003; Blickle et al., 2006; Elliott, 2010; Perri, 2011; Ragatz et al., 2012; Stevens et al., 2012). While research has looked at traits individually and acknowledged the role of environment and biological factors on white collar offender behavior, research to date has not yet developed a profile of white collar offenders that can be used to explain the differences between white collar offenders and their business professional counterparts. Using the biopsychosocial approach, the biological, psychological, and sociological factors influencing personality development and behavior can be used to identify the similarities and differences between groups and develop a personality profile of white collar offenders.

### Chapter 3: Research Method

The purpose of this quantitative study was to examine the biological, psychological, and sociological differences between white collar offenders and business professionals to gain a deeper understanding of the influences of white collar criminal behavior. This chapter provides a detailed description of the methodology of the study and how the approach will answer the study's research question and hypotheses. This exploratory quantitative study used a survey tool consisting of a number of test instruments and ethical vignettes to examine the differences between white collar offenders and business professionals. In this chapter, I also examine the population, sample design, participant recruitment, instruments contained within the survey tool, steps for data analysis, minimizing threats to validity, and protecting the rights of participants.

#### **Research Design**

A nonexperimental survey research design was used to examine the research question and test the hypotheses. Both online and print versions of the data collection instruments were used due to limitations in conducting research with offenders incarcerated within the BOP. Survey research allows for the collection of large amounts of data, without manipulation of the environment, allowing for examination of relationships between variables (Creswell, 2009). Online survey deployment allows researchers to connect with more potential respondents in a faster, more cost effective manner (Ramo & Prochaska, 2012). While online surveys are favored from an expediency perspective, online surveys are not allowable with inmates (M. Jones,



personal communication, September 25, 2013); therefore, a paper survey was used with this population. The variables included in the study are as follows:

- Demographic: age, race, gender, income, education, marital status, socioeconomic status.
- Biological: drug or alcohol abuse measured through DUD and AUDIT respectively.
- Psychological: extraversion, agreeableness, conscientiousness, and openness measured by the BFI; psychopathy, narcissism, and Machiavellianism measured by the SD3; social desirability measured by the MC-SDS; hostility, impatience-irritability, achievement striving, anger, and competitiveness measured by the MTABS. Machiavellianism, hostility, impatience-irritability, achievement striving, and danger included only as additional factor within the instruments selected for data collection.
- Sociological: family unit as a child captures the type of home environment the respondent had growing up (single parent home, parents were married, lived with grandparents, family member guardians, nonfamily member guardians, foster care, other); parenting style of parents asks respondents to indicate what type of parenting style they view their parent as having (authoritarian, permissive, authoritative, neglecting); parental history of crime collected through a yes/no response for each parent broken up between white collar crime, violent crime, and street level crime.

## **Methodology**

### **Population**

This research is designed to compare white collar offenders and business professionals, thereby drawing from two populations: white collar crime offenders and business professionals. White collar offenders are those who have been convicted and are currently incarcerated for a white collar crime, as defined in Chapter 1, in the BOP. For the purposes of this study, business professionals are considered those who are working or have worked in management and/or executive level positions.

### **Sampling and Sampling Procedures**

Power, effect size, and level of significance are important in calculating the sample size in a quantitative study (Gravetter & Wallnau, 2009). The sample size was estimated using a .05 level of significance and a target power of 0.80 as recommended by Gravetter and Wallnau (2009). Effect size was estimated at .15 as recommended by Cohen (1988).

Sample size was calculated using G\*Power 3.1.2. Power analysis was based on the *F* tests family and the statistical test MANOVA: Global Effects. G\*Power lacks a sample size calculation for DA; therefore, MANOVA was selected based on the similarities between MANOVA and DA discussed by Tabachnick and Fidell (2012). The selected MANOVA option within G-Power 3.1.2 allows the researcher to include the number of independent variables and the number of groups to include in the sample size calculation (Faul, Erdfelder, Buchner, & Lang, 2009). The effect size of .15, .05 level of significance, power of 0.80, and 20 predictor variables were entered into the G\*Power

calculator, generating a total sample size of 158. Twenty predictor variables were selected from the 29 total variables included in the study, as it was estimated that at least nine variables would be excluded from DA due to lack of significance or multicollinearity. The sample does not need to be evenly distributed between groups, but the smallest group must exceed the number of predictor variables (Tabachnick & Fidell, 2012). While the sample is not required to be evenly distributed between groups, I sought to obtain even samples between groups with a minimum of 80 participants from white collar offenders and business professional groups.

### **Recruitment, Participation and Data Collection**

The original design of this study included two populations: white collar offenders incarcerated within the Wisconsin Department of Corrections (DOC) and business professionals drawn from the Walden Participant Pool and supplemented by my business contacts. The target population changed from the Wisconsin DOC to the Federal BOP and business professionals drawn only from my business contacts. The change in the target population was due to Wisconsin DOC access issues and inclusion of certain items that precluded the use of the Walden Participant Pool. A summary of the original is provided below followed by the detailed approach that was approved by the Walden IRB and the Federal BOP.

**Original design.** Purposeful sampling was proposed to draw a sample from inmates incarcerated within the Wisconsin DOC and business professionals through the Walden Participation Pool. Prior to recruitment from the prison population, I would work with the Wisconsin DOC Research Review Committee (RRC) to obtain permission

to conduct research and recruit participants within the system. Upon receiving permission to conduct research, a list of offenders incarcerated within the WI DOC, for identified statutes, was to be obtained from a WI DOC research liaison. Identified offenders would be invited to participate in the study through an invitation letter and informed consent provided in an invitation packet mailed directly to the offender at the Wisconsin DOC facility he or she was incarcerated.

Informed consent was designed to meet the requirements of both the Walden IRB and the RCC and therefore included limited confidentiality in addition to the research purpose, research procedures, potential risks, benefits, researcher contact information, and procedures to withdraw consent. Confidentiality for offenders is limited under Wisconsin Executive Directive #36 covering Human Subject Research Request Process and Procedure (Directive #36). Under Directive #36, confidentiality is to be maintained with the exception of any disclosure of the participant to the threat of his or her own safety, the health or safety of others, or the security of the correctional institute.

The Wisconsin DOC does not allow inmates to participate in research via the Internet, nor do they allow researchers to provide inmates with postage that originates from outside the correctional institution. Therefore, participants would be mailed a survey packet directly to complete. Participants returning their completed survey tool with a copy of their informed consent statement would be reimbursed for the cost of the postage to return the survey tool to me. A code would be provided on all communication with the offender allowing me to have a connection to the name of the offender in order to reimburse the offender for the cost of the postage. After data collection was

completed, the link between the offender name and their submitted survey code would be destroyed by fire and/or shredding.

Business professionals were to be drawn through the use of the Walden Participant Pool and supplemented through my business contacts through an invitation to participate. Use of the Walden Participation Pool was selected for convenience and the large cross-section of students, researchers, and faculty the invitations could reach. Invitations would also be sent to business contacts that I had made via email, Facebook, and LinkedIn, making them aware of the opportunity to participate in research and providing them the same invitation as inmates and those invited through the Walden Participation Pool. This approach was selected to help increase the awareness of the research opportunity amongst managers and executive leaders for the study.

The Wisconsin DOC RCC denied the request for research, resulting in a change in target population to white collar offenders incarcerated in the Federal BOP and, therefore, a change in recruitment and data collection from this population. The Walden Participation Pool was also denied as a method for data collection as questions included in the survey tool on alcohol use, drug use, and history of offending were not approved for inclusion when conducting research with this population. Because questions on alcohol use, drug use, and offending history were critical to the proposed research, the business professional population could only be drawn through other methods including business contacts made via email, Facebook, and LinkedIn by me.

The change in the target population from offenders incarcerated in the WI DOC to the Federal BOP and the inability to use the Walden Participation Pool resulted in

substantial changes to the data collection process including identification of offenders, distribution of the survey to offenders and business professionals, and offenders no longer being reimbursed for postage. Due to the extent of these changes, a revised application was submitted and approved by the Walden IRB. The current design outlined below reflects the research proposal approved by the Walden IRB and the Federal BOP.

**Current design.** Purposeful sampling was used to draw from each of the identified populations. Before recruiting potential participants from the prison population, I worked with the BOP Office of Research to obtain permission to conduct research and recruit participants within the prison system. Once permission for this population was granted, I generated a list of offenders incarcerated within the BOP for white collar offenses through news articles, blogs, and court records. The list was submitted to and reviewed by the Human Subjects Officer at the BOP to ensure there was nothing that would preclude the offender from participating, such as being on a government watch list.

Upon research approval by the BOP Office of Research, the Human Subjects Officer sent a request for Education Department Supervisor contact information to the wardens at the eight agreed upon facilities housing the identified offenders. Once the contact name was received, I sent a packet of surveys to the education unit coordinator at the approved facilities for distribution to identified offenders that included an invitation letter, informed consent, the survey tool, and self-addressed return envelope. I had no prior affiliation or relationship with any of the facilities selected for research. Facilities were selected because of the high number of white collar offenders in the facility. The

education unit coordinator at each facility received the survey packet and invited offenders into a classroom setting where they were provided the survey packets to review. Offenders could then choose to participate and complete the survey tool or leave the education classroom without completing the survey.

The informed consent included the research purpose, research procedures, potential risks, benefits, researcher contact information, procedures to withdraw consent if desired, statement of limited confidentiality, and how data were maintained. The informed consent was designed to meet the requirements of both the Walden IRB and the BOP; therefore, limited confidentiality was included. Confidentiality was maintained with the exception of any disclosure of the participant to the threat of his or her own safety, the health or safety of others, or the security of the correctional institute, thereby complying with the Department of Justice (DOJ) regulations on protecting human subjects (28 CFR 46). All participation was voluntary and inmates were provided with a code that could be used to communicate with me or withdraw from the study at a later date, if desired. Only I could connect the code to the offender. The link between the code and the offender were destroyed via deletion and shredding now that data collection has been completed. The link was needed temporarily to be able to mail invitation letters with informed consent and the survey tool to offenders. Data were maintained with strict confidentiality, with me being the only individual who was able to connect offenders with their coded number prior to the link being destroyed.

Upon completion of the survey tool, participants placed their survey tool and one copy of the informed consent into the self-addressed envelope provided. This envelope

was provided to the Education Unit Coordinator who placed all of the completed and noncompleted surveys into a large mailing envelope and returned the packet to me.

Business professionals were drawn through the use of personal emails from me to business contacts, posting on Facebook, and posting to LinkedIn groups I am a member of. Invitations were sent to business contacts that I have made via email, Facebook, and LinkedIn, making them aware of the opportunity to participate in the research with the same invitation provided to them as the inmates. This approach was selected to quickly distribute the survey and gain awareness of the research opportunity amongst managers and executive leaders for the study.

The invitation letter to business professionals provided an introduction to the study, including who was qualified to participate, information on participation, modus operandi, confidentiality, risks and benefits of participation, information on the right to withdraw from the study, how to make contact with me with questions or concerns on the study, and the link to the electronic survey. Potential business professional participants who followed the survey link were able to see the information repeated as part of the informed consent built into the online survey tool within Survey Monkey. Those who chose to participate agreed electronically to the informed consent and continued on to the screening questions used to make sure participants qualified for the study. In addition to screening questions, participants were asked for general demographic information including age, income, education, race/ethnicity, marital status, and employment information. All participation by business professionals was voluntary. Business professional participants were given an electronically generated code via Survey Monkey



that could be used to communicate with me or withdraw from the study at a later date, if desired.

Offender type was used to exclude offenders who had not committed a white collar crime while level of management was used to exclude participants who are in a nonmanagerial role from the study. Offenders were identified through researcher identification of offenders in news articles, blogs, and court records, with the list narrowed based on the definition of white collar offenders included in Chapter 1. Logic was built into the survey as a preinventory screening for business professionals. Business professionals who were convicted of a white collar crime or who were not currently or had not previously worked in a management or executive position were excluded from the study. Those excluded were thanked for their participation, indicating based on the information provided, they did not meet the study requirements.

The survey tool was administered in two different formats for the two samples; however, the questions asked and information gathered was identical, allowing me to manually input the white collar offender data with the business professional data in the survey tool. This approach overcame the need for inmates to have access to the Internet to participate in the study while expediting data collection from business professionals. Participants exited the study through the submission of their survey either electronically or by placing the completed survey in the self-addressed return envelope and providing it to the education unit coordinator for return to me. No follow up of participants after submission of the survey was planned or required of participants from either group.

## **Instrumentation**

The survey tool developed for this study used five instruments to gather data and assess the psychological traits of participants: BFI, SD3, MC-SDS, MTABS, ethics scenarios, AUDIT, DUD, demographic questionnaire, and family history questionnaire. Each of these tools were designed and validated to identify specific psychological information and will be reviewed in the sections that follow.

### **Big Five Inventory (BFI)**

The BFI is a 44- item self-report developed in 1991 by John, Donahue, and Kentle. BFI is designed to measure the personality dimensions extraversion, agreeableness, conscientiousness, neuroticism, and openness (John, Naumann, & Soto, 2008). BFI has been shown to be effective in assessing personality in offender and nonoffender groups (John, Naumann, & Soto, 2008; Nederlof et al., 2010; Paulhus & Williams, 2002; Rammstedt & John, 2003; Srivastava, John, Gosling, & Potter, 2003). Participants were asked to respond to 44 short, easy to understand statements that start with the phrase “I am someone who” on a five point Likert scale (1=disagree strongly, 2=disagree a little, 3=neither agree nor disagree, 4=agree a little, 5=agree strongly). Responses were scored to obtain an average score for extraversion, agreeableness, conscientiousness, neuroticism, and openness (John et al., 2008). The BFI scales have been found to have demonstrated substantial internal consistency, clear factor structures, retest reliability, as well as validity with other personality measures such as NEO (John & Paulhus, 2003; Rammstedt & John, 2003; Srivastava et al., 2003).

Five factor personality analysis has been used in a variety of studies on offending and white collar offending to develop a greater understanding of personality and offender behavior. Nederlof et al. (2010) used the BFI to assess if personality dimensions differed between delinquent and normal populations of adolescents or in the severity of offense types. Nederlof et al. found personality differences to exist between offender and nonoffender groups but not between different severity levels of offenses. Blickle et al (2006) used the NEO Five Factor to assess the personality traits of offenders that may make them more or less likely to commit a white collar offense finding conscientiousness from the big five measures linked to white collar crime. The BFI was selected over the NEO Five Factor instrument due to the simplicity and ease of self-report of the BFI. Because the BFI has shown strong validity with other personality measures, including NEO (John & Paulhus, 2003; Rammstedt & John, 2003; Srivastava et al., 2003), using BFI was an acceptable instrument for the purposes of this study.

The BFI instrument is available from the Berkeley Personality lab for noncommercial research purposes following the completion of a short survey noting the intentions of use and subject of the study. Submission of this information has been sent to the Berkeley Personality lab and the test instrument acquired. Follow up emails requesting confirmation of permission to use the test instrument were requested by the researcher.

### **Short Dark Triad (SD3)**

The SD3 was created by Jones and Paulus (2014) and is designed to measure what has been labeled the dark triad of personality, which includes psychopathy, narcissism,

and Machiavellianism. SD3 is a 27-item self-report 3-factor model that measures psychopathy, narcissism, and Machiavellianism. Participants were asked to respond to statements on a 5-point Likert scale (1=disagree strongly, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=agree strongly). According to Jones and Paulus SD3 shows an overall reliability of .80, .71, and .77 for psychopathy, narcissism, and Machiavellianism respectively. Additionally, the SD3 shows strong validities for each measure as compared to the traditional full scales (Jones & Paulus, 2014).

Jones and Paulus (2014) tested SD3 in four studies used to develop the instrument, refining the questions and confirming reliability and validity as compared to Self-Report Psychopathy (SRP-III) for psychopathy, Narcissistic Personality Inventory (NPI) for narcissism, and the standard measure for Machiavellianism (Mach-IV). Using SD3 instead of the individual measures allowed for the assessment of these personality traits in 27 questions compared to 124 if all three instruments were used. Jones and Paulus also compared SD3 to the Dirty Dozen (DD), the existing test for measuring the dark triad of variables. The DD has reported reliability and validity issues that are overcome through the SD3 by an enhanced question selection that more robustly measure each of the subfactors. The study used SD3, which overcomes the validity and reliability issues of DD, while allowing for the measurement of the dark triad.

### **Marlowe-Crowne Social Desirability Scale (MC-SDS)**

The MD-SDS was created by Crowne and Marlowe in 1960 to measure social desirability independent of psychopathology measuring need for social approval (Beretvas, Meyers, & Leite, 2002). The MD-SDS is a 33-item self-report measure in

which participants were asked to respond to statements related to personal attributes and traits with a true/false response (Beretvas et al., 2002; Crowne & Marlowe, 1960). Crowne and Marlowe (1960) reported internal consistency of  $r=.88$  and test-retest reliability of  $r=.89$ . Beretvas, Meyers, and Leite (2002) examined reliability and consistency of MD-SDS as well, reporting internal consistency of  $r=.726$  and test-retest reliability of  $r=.86$ .

Blickle et al. (2006) used the MD-SDS as part of a larger study to identify the personality correlates of white collar offenders. The MD-SDS was used to measure hedonism both in inmates incarcerated for white collar crime and business professionals working in management positions (Blickle et al., 2006). Blickle et al. found white collar offenders to be more hedonistic than business professionals. Reliability and validity of the tool coupled with current use of the tool to examine personality dimensions of white collar offenders confirmed MD-SDS as appropriate for this study.

### **Multidimensional Type A Behaviour Scale (MTABS)**

The MTABS is a 24 item, 5-factor, self-report tool designed by Burns and Bluen in 1992 to measure Type A behavior and the subfactors Achievement striving (AS), Impatience/Irritability (II), Anger, Hostility, and Competitiveness. MTABS yields a composite score for Type A personality and each of the subfactor scales (Burns & Bluen, 1992). The MTABS was developed as an alternative model to JAS.

Carducci and Wong (1998) used JAS to assess Type A behavior and its association to financial risk taking and higher income attainment in graduate students. Researchers found individuals with a Type A personality tend to take greater financial

risks and have higher income (Carducci & Wong, 1998). JAS is no longer in print as of 2002, therefore MTABS has been selected as an alternative test method.

### **Ethical Scenarios**

Ethical scenarios or vignettes have been used by a number of researchers to assess integrity and ethical behavior in business professionals as well as students. Langton et al. (2006) used hypothetical vignettes to assess self-control and employee theft finding self-control to be a strong predictor of theft behavior. Rayburn and Rayburn (1996) used ethical statements adapted and expanded from a 1991 study conducted by Whipple and Wolf. Rayburn and Rayburn (1996) used ethical statements to analyze the relationship between Machiavellianism, Type A behavior, and ethical orientation of business professionals. Most recently, Stevens et al. (2012) used four ethical scenarios to depict ethical dilemmas in order to measure moral disengagement as well as judge overall ethicality of participant actions. Ethical scenarios will be adopted from Stevens et al., thereby using an instrument that has been used with a reliability estimate of .52 (Stevens et al., 2012). Permission was granted for use via email from Dr. Achilles Armenakis.

### **Alcohol Use Disorders Identification Test (AUDIT)**

The AUDIT was used to measure alcohol use of study participants. AUDIT is a 10-question self-report assessment developed by the World Health Organization to assess if an individual's consumption could be harmful (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993). Questions address alcohol consumption, alcohol dependence, and alcohol related problems with a total score over 8 in men and 7 in women suggests hazardous or harmful alcohol consumption with a score of 20 suggestive of alcohol

dependence (Saunders et al, 1993). Internal consistency is reported with mean values of 0.93 and 0.81 (Saunders et al., 1993). Validity of AUDIT was confirmed with known alcoholics and nondrinkers with over 98% accuracy (Saunders et al, 1993).

### **Drug Use Disorder Questionnaire (DUD)**

The DUD was used to measure drug use of study participants. DUD is a 12-question self-report assessment developed by Scherer, Furr-Holden, and Voas (2013) to assess substance abuse and dependence of marijuana, cocaine, and painkillers. Questions assess drug use and dependence in a yes/no format, with a positive response to one of the four substance use questions and three of the eight dependence questions required for categorization as dependent on substances (Scherer, Furr-Holden, & Voas, 2013).

Scherer et al. report internal consistency, external validity, and construct validity.

### **Demographic Questionnaire**

The demographics of age, gender, race, income, education, and marital status were collected through a demographic questionnaire. Participants were asked to provide their current age or age at the time of conviction for white collar offender and select if they are male or female. Marital status was captured using the categories single, married, divorced, or widowed; collecting current status for business professionals and status at the time of conviction for white collar offenders. Race was categorized into five groups including: Caucasian, African American, Hispanic, Asian, and other. Income was classified in nine groups in \$25,000 increments beginning with under \$25,000 and ending with over \$200,000.

### **Family History Questionnaire**

The final section of the survey tool included a section on family history questions to capture a couple of select questions on parental criminal history, parental drug use, and family dynamics as a child including family unit, and parenting style. Parental criminal history, drug use, and alcohol use were each asked as a yes/no response question for the respondent's mother and father. Criminal history was further broken down into white collar and nonwhite collar offenses to delineate broad categories of offenses in alignment with this study. The family unit an individual grew up in was captured through a categorical response with the groups: single parent home, parents were married, lived with grandparents, lived with family member guardian (nonparents or grandparents), lived with nonfamily member guardian, lived in foster care, or other. Finally, respondents were asked to classify the parenting style in their home growing up as authoritarian, permissive, authoritative, and neglecting with definitions of each included from Bartol and Bartol (2012).

### **Data Analysis**

Data were collected in the survey software Survey Monkey and exported to SPSS for statistical analysis. Data for business professionals was collected via Survey Monkey with preinventory screening logic used to exclude participants that do not meet study requirements. Questions were marked as required, forcing respondents to answer each question. For validation purposes, the researcher reviewed data for exclusionary data and completeness. Offender data were reviewed for completeness with any participant who



failed to respond to all questions excluded from the study to minimize the potential for erroneous conclusions.

This study used a two-step approach that included (a) individual level analysis through t-tests and chi-square and (b) discriminant function analysis (DFA) to aid in answering the proposed research question and hypothesis identified in Chapter 1 of this study. The research question is: what is the discriminant profile of white collar offenders and business professionals on a set of demographic, biological, psychological, and sociological variables?

The following hypotheses was tested to examine the differences between white collar offenders and nonoffender business professionals and answer the identified research question.

$H_01$ : The discriminant profile of white collar offenders is not different than the discriminant profile of business professionals.

$H_a1$ : The discriminant profile of white collar offenders is different than the discriminant profile of business professionals.

The research question and accompanying hypothesis were analyzed in a two-step approach that included (a) testing of individual variables using t-tests and chi-square and (b) investigating differences between white collar offenders and business professionals using DFA. The type of participant served as the nominal dependent variable for the study.

For the first step, the nominal independent variables (i.e., sociological) were examined using chi-square analysis. Continuous variables (psychological) were

examined for distributional properties and tested for univariate differences between groups using t-tests.

In the second stage of research, variables identified as significant were tested using DFA to build a composite variable producing a discriminant profile to describe each group (Burns & Burns, 2008).

The research question examined how the discriminant profile of white collar offenders differs from the discriminant profile of the business professional based on demographic, biological, psychological, and sociological variables. Biological factors included: age, gender, race, and ethnic identity (Blickle et al., 2006; Collins & Schmidt, 1993; Elliott, 2010; Listwan et al., 2010). Psychological traits included: narcissism, psychopathy, antisocial behavior, self-control, extroversion, disagreeableness, neuroticism, hedonism, Type A personality, self-confidence, integrity, charisma, conscientiousness, need for power, and need for achievement (Alalehto, 2003; Blickle et al., 2006; Collins & Schmidt, 1993; Elliott, 2010; Listwan et al., 2010; Naso, 2012; Perri, 2011; Ragatz et al., 2012; Stevens et al., 2012). Sociological variables included: income, social class, family unit as a child, parental history of drug/alcohol abuse, parental styles, parental history of crime, and the organizational environment (Alalehto, 2003; Blickle et al., 2006; Collins & Schmidt, 1993; Elliott, 2010; Naso, 2012; Listwan et al., 2010; Perri, 2011; Ragatz et al., 2012; Stevens et al., 2012).

DFA was used to investigate differences between groups. DFA is designed to combine variables to create a composite variable, with each group having its own distribution of scores (Burns & Burns, 2008; Tabachnick & Fidell, 2012). If the scores

are normally distributed with little overlap between groups then distinct groups will have been formed (Burns & Burns, 2008). In the DFA, personality traits were first reviewed by comparing the group statistics and quality of group means to identify variables with the largest differences in means and high F scores (Burns & Burns, 2008). Variables with low significance or multicollinearity were excluded from the DFA model to improve reliability (Tabachnick & Fidell, 2012). Pooled within group data were also reviewed for low intercorrelations (Burns & Burns, 2008). With low intercorrelations established, analysis of the groups continued with an examination of correlation and discriminant function coefficients (Burns & Burns, 2008).

### **Threats to Validity**

Threats to validity were monitored throughout the course of the study to ensure the study has the ability to attain the intended results. Creswell (2009) emphasized the need to identify potential internal and external threats to validity in order to control the threats to minimize or eliminate them from occurring. Threats to internal validity arise from treatments, experiment procedures, and participant experiences that limit the ability to draw inferences about the population from the data (Creswell, 2009). This study does not use experimental procedures or treatments thereby minimizing internal validity. Different experiences of individuals can play a role in personality development and is key to answering research question 7 in this study. Questions on the background and history of participants were therefore gathered as control variables.

Creswell (2009) defined threats to external validity as researchers drawing incorrect inferences due to external factors such as other persons, past settings, or future

settings. A common threat to external validity in this study is participant selection. In order to effectively draw conclusions and apply those conclusions to the population, a representative cross-sample is needed both of the prison population and the business professional population. Every effort was made to recruit a diverse and representative sample.

Threats to construct validity are those arising from inadequate definitions of measures of variables (Creswell, 2009). The threat of construct validity has been minimized in this study through selection of instruments designed to measure the constructs and adopting previously accepted definitions of the constructs in the study.

The last type of validity to mention is the threat to statistical validity. These threats can lead the researcher to draw incorrect conclusions about data observations (Gravetter & Wallnau, 2009). Two types of errors can occur, Type I and Type II errors. Type I errors involve rejecting the null hypothesis when it is true, concluding a relationship when one does not exist (Gravetter & Wallnau, 2009). Type II errors involve failing to reject the null hypothesis concluding a relationship does not exist when in fact it does (Gravetter & Wallnau, 2009). A number of steps can assist with improving statistical validity including (a) using instruments with good reliability, (b) proper implementation of the study, and (c) good statistical power (Creswell, 2009; Gravetter & Wallnau, 2009). Threats to statistical validity were addressed in this study by selecting measures that have a history of reliability, recruiting an adequate sample size based on power analysis calculations, and rigorous survey implementation.

### **Ethical Considerations**

Prospective participants received an invitation letter that outlined the modus operandi, confidentiality, risks and benefits of participation, information on their right to withdraw from the study, and how to make contact with the researcher with questions or concerns on the study. Offenders were provided two copies of the informed consent document, one to sign and return to the researcher and one to keep for future reference. Business professionals were directed to an online survey link where the informed consent information were provided. Participants electronically consented to participate in the study by agreeing to the informed consent provided on Survey Monkey.

Participants have the right to terminate participation at any time and no information was gathered to directly link the respondent to their results, making for study anonymity. Participants were asked to provide general demographic information to aid analysis including age, gender, marital status, race, education, and income (current or prior to incarceration). Participants were assured of confidentiality with access to the data granted only to the researcher. Quantitative data is coded and stored on a password protected computer and completed inmate surveys, after electronic entry was completed, were stored in a locked file cabinet only accessible to the researcher for 5 years. Confidential data will be destroyed after 5 years.

Potential participants did not receive physical harm or benefits as a result of study participation. Questions included in the study were not intended or designed to create an emotional risk, therefore a minimum risk of harm exists. A minimum risk of potential harm may arise through self-reflection used to respond to the survey questions.

Participants were informed in the informed consent that they could discontinue participation if emotional harm ensues. Since data analysis requires completion of the entire survey tool, those experiencing emotional harm should discontinue rather than skip questions as missing responses would be excluded from the study. Participants can withdraw from the study at any time. Paper surveys were coded with a number that was included on the survey and the informational letter for inmates to keep. This number is not connected to an individual participant, but participants are able to use this number to request to withdraw from the study at any time after the study has been submitted. Those participating online received an electronically generated code through Survey Monkey that they will be able to use to withdraw from the study at a later date, if desired.

The informed consent indicated continuation with the study indicated participants understood and agreed with the terms of the study. A request to the Institutional Review Board (IRB) for approval to conduct the proposed study was submitted, once approval was received (03-28-14-0172563) from the Walden IRB, a proposal was submitted to the BOJ and approved to conduct research in Federal Prisons housing identified white collar offenders. This study and the supervision of Walden's Dissertation Committee has adhered to the University's guide on Ethical Standards of Research.

Business professionals exited the study by submitting their survey via Survey Monkey while white collar offender participants exited by mailing their surveys to the researcher. No follow up with either group after survey submission was planned. Before research began, the study was approved by the Walden IRB and the Federal BOJ.

## Summary

The goal of this study was to compare the personality differences of white collar offenders and business professionals, with a focus on the biological, psychological, and sociological factors that influence personality and behavior. This chapter described the research methods for the study including research design, methodology (population, sampling, and sampling procedures), data collection and instrumentation, data analysis, threats to validity, and ethical procedures. Data were gathered using recognized tools with a demonstrated history of reliability and validity. The instruments and the design were selected because they allowed for the presence of traits and differences between groups.

The populations selected for this study were appropriate to examine the research question and hypothesis and consisted of both white collar offenders and business professionals. The study planned to obtain a minimum sample of 160 total participants with a target of 80 from each population, determined by using G-Power 3.1. Data collection was completed through a survey tool comprising of a number of instruments including: BFI, SD3, MD-SDS, MTABS, ethics scenarios, AUDIT, DUD, demographic history, and family history questionnaire. The validity and reliability of these instruments was described in this chapter. Data collection was conducted using a paper survey tool for white collar offenders and an electronic survey tool for business professionals via Survey Monkey. White collar offender surveys were entered by the researcher into the electronic survey tool. Following data collection, data were imported into SPSS for analysis. Data were analyzed in a multistep approach in order to answer the research

question outlined and included: (a) testing of individual variables using t-tests and chi-square and (b) investigating differences between white collar offenders and business professionals using DFA.

Threats to instrument validity were minimized by using measures with acceptable psychometric properties. Both internal and external validity issues were identified including different participant experiences and participant selection approaches. The researcher worked to gain representative samples from each population.

Steps were taken to ensure the safety and confidentiality of participants. Participation was voluntary and the informed consent form outlined all aspects of informed consent including: confidentiality, anonymity, modus operandi, risk and benefits to participants, rights to withdraw, and instructions to contact researcher with questions or concerns regarding study participation. Informed consent was given via electronic submission for business professionals and paper submission for white collar offenders. The researcher followed the Walden University IRB guidelines and gained approval to conduct research in the BOJ. Study results are reported in Chapter 4.



## Chapter 4: Results

The purpose of this quantitative study was to examine the biological, psychological, and sociological differences between white collar offenders and business professionals to gain a deeper understanding of the influences of white collar criminal behavior. The study was designed to address the following research question: What is the discriminant profile of white collar offenders and business professionals on a set of demographic, biological, psychological, and sociological variables? To address this research question, hypothesis testing was designed to examine if the discriminant profile of white collar offenders was different than the discriminant profile of business professionals. In this chapter, I present the data collection and the results of chi-square analysis on nominal variables, independent *t* test analysis on continuous variables, and the DFA used to address the research question and study hypothesis.

### **Data Collection**

Data were collected from two groups, white collar offenders and business professionals, from August 11<sup>th</sup> 2014 to November 3<sup>rd</sup> 2014. A paper copy of the survey was sent to 98 offenders incarcerated at eight facilities within the BOP for white collar offenses, as defined in Chapter 1 of this study. Surveys were sent directly to the education department supervisor at each facility who invited the identified offenders to an education classroom for participation in the survey. The surveys, letter of introduction, and informed consent forms as well as a blank envelope were provided to each offender invited to participate. Offenders were able to decline participation or complete the survey and return it to the education supervisor. The education supervisors collected all surveys

in their blank sealed envelopes and returned them to me. Of the 98 surveys sent, 62 were completed and returned for a 63% response rate.

Purposeful sampling was used to collect data from the identified populations. Data were collected from the business professional population through personal emails from me to business contacts, posting on Facebook, and posting to LinkedIn groups I am a member of. The invitation was emailed to 52 business contacts, made visible on Facebook to 80 of my contacts, and posted on my LinkedIn profile update to reach 65 business contacts. In addition, an invitation to participate in research was posted on 10 different LinkedIn group forums with a total of approximately 150,000 members (may not be unique members due to crossover between groups). A total of 225 business professionals started the survey, with 121 completing the survey in its entirety.

In total, 183 individuals completed the survey in its entirety. A total sample of 158 participants was needed for this study with a goal to obtain equal number of professional and offender cases even though DFA does not require an even distribution between groups. Survey response exceeded the total necessary for analysis, with the smallest group, the offender population, exceeding the number of variables included in the analysis, a prerequisite for DFA. Of the total respondents, 124 were female and 59 male, ranging in age from 26 to 77 with a median age of 51. No known adverse events occurred for participants in either group in the study.

## **Results**

Data collection resulted in a total of 15 nominal variables and 21 continuous biological, sociological, or psychological factors. Biological factors included alcohol and

drug abuse; for each of these variables, a composite score was generated with the higher the score, the greater the likelihood of drug or alcohol abuse. Psychological factors included extraversion, agreeableness, conscientiousness, neuroticism, and openness from the BFI; Machiavellianism, narcissism, and psychopathy from the SD3; attribution, denial, and social desirability from the MC-SDS; hostility, impatience, achievement, anger, competitiveness, and Type A personality from the MTABS, and moral disengagement and ethics from ethical scenarios. Each of these factors has a composite score derived from the questions in their respective instruments.

Sociological factors included race, gender, age, income, marital status, parental criminal history, parental drug use, family unit growing up, and parenting style. The composite scores of the biological and psychological factors allowed for each variable to be tested using an independent  $t$  test while the sociological factors, with the exception of age, were nominal variables tested using chi-square to identify if there were any differences between offenders and business professionals. Variables with a significant difference between groups were selected for inclusion in the next step of analysis, DFA.

Survey respondents were a mix of business professionals (68%) and white collar offenders (32%) as defined in Chapter 1. Thirty-two percent of respondents were male and 68% female. Nine percent of respondents were single, 70% married, 17% divorced, 2% widowed, and 2% other. The majority of respondents were white (79%), followed by Black or African American (9%), Hispanic American (4%), American Indian (3%), other (3%), and Asian/Pacific Islanders (2%). The median age of respondents was 51 years

old, ranging from an age of 26 to 77. Table 1 provides an overview of the descriptive statistics.

Table 1

*Demographic Characteristics of the Sample*

Variable	Business professional <i>n</i> = 121		White collar offender <i>n</i> = 62		Total <i>N</i> = 183	
	<i>N</i>	%	<i>n</i>	%	<i>N</i>	%
Gender						
Male	53	44	6	10	59	32
Female	68	56	56	90	124	68
Marital status						
Single	9	7	7	11	16	9
Married	92	76	36	58	128	70
Divorced	16	13	15	24	31	17
Widowed	1	< 1	3	5	4	2
Other	3	2	1	2	4	2
Ethnicity						
White	96	79	49	79	145	79
American Indian	3	2	3	5	6	3
Asian/Pacific Islander	2	2	2	3	4	2
Black or African American	11	9	5	8	16	9
Hispanic American	4	3	3	5	7	4
Other	5	4	0	0	5	3
Age	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
	50.4	10.5	50.1	10.9	50.3	10.6

### Evaluation of Univariate and DFA Assumptions and Conditions

Parametric and nonparametric statistics rely on certain assumptions and conditions for optimal function. Discussion of these and how they relate to this study are presented in the subsections that follow.

**Unequal sample size.** There were twice as many business professional as white collar offender participants in this study. For discriminant analysis, “*no special problems are posed by unequal sample sizes in groups*” (Tabachnick & Fidell, 2007a, p. 381, emphasis as in original). For the univariate tests with  $\alpha = .05$  and the 2-to-1 sample size ratio obtained in this study, a Cohen’s  $d$  of .3077 or larger would be statistically significantly detectable. Had the groups been of equal size, a Cohen’s  $d$  of .2913 would have been statistically significantly detectable. The .0164 difference in detectable  $d$  is extremely trivial and of no concern (C. T. Diebold, personal communication, February 5, 2015). For the univariate chi square tests, expected cell frequencies should be greater than one with no more than 20% less than five (Field, 2013; Norusis, 2005; Tabachnick & Fidell, 2007a). All statistically significant chi square tests met these conditions (violation does not increase Type I error, so any effect on nonsignificant results were immaterial to screening purposes).

**Outliers.** Multivariate outliers on the final set of 10 DFA predictors were examined using the standard Mahalanobis procedure described in Tabachnick and Fidell (2007a), which would also identify influential univariate outliers. The maximum Mahalanobis values for business professionals and offenders were 34.25 and 27.11, respectively. The critical value at  $\alpha = .001$  is 29.59. One business professional exceeded the critical value. DFA was conducted with and without this case to determine its influence. Because inclusion of the case did not substantively affect inferential or interpretive results, the case was deemed not to have undue influence and was retained.

**Normality.** The central limit theorem reassures when error  $df$  is at least 20 (in this study, error  $df$  for the  $t$  tests was 181) that the sampling distribution can be assumed normal (Tabachnick & Fidell, 2007a), so there is no concern over the univariate assumption of normality. There are no generally accepted statistical tests for multivariate normality (Tabachnick & Fidell, 2007a). Moreover, DFA is robust to violation when sample size in each group are large (i.e., exceed 20; Tabachnick & Fidell, 2007a). Finally, there is no known empirical or theoretical reason to doubt normal sampling distributions of the population for any predictor or any linear combination of predictors, which is the essence of multivariate normality (Tabachnick & Fidell, 2007a).

**Linearity.** Linear (or random) relationships between pairs of predictors were visually confirmed by inspection of a scatterplot matrix for each group. Even if a predictor pair had not been linearly related, it would have been of no concern because it would not have increased Type I error (Tabachnick & Fidell, 2007a).

**Singularity.** By design, no predictor was a subset of another or a combination of two or more of the predictors, so singularity was not a problem.

**Collinearity and multicollinearity.** The pooled within-group correlation matrix supported DFA use of the final set of 10 independent variables as intercorrelations were low and positive skewed with 21 of 45 pairs (46.7%) nonsignificant at .05 alpha level,  $M = .132$ ,  $Mdn = .125$ ,  $SD = .100$ . Of the 45 pairs, 19 (42.2%) had correlations of .10 or less, 15 (33.3%) had correlations between .11 and .20, 9 (20.0%) had correlations between .21 and .30, and only 2 (4.40%)—one .36, another .45—exceeded a medium effect size. There was no collinearity of concern. In addition, following procedures

described in Tabachnick and Fidell (2007a), variance inflation factors for predictors ranged from 1.12 to 1.41, well below any multicollinearity concern.

**Homogeneity of variance and covariance.** The independent  $t$  test is robust to violation of equal variance (C. T. Diebold, personal communication, February 5, 2015). Warner (2008), quite colorfully, put it this way: “Doing the preliminary test for heterogeneity of variance when  $N$ s are very large is something like sending out a rowboat to see if the water is safe for the Queen Mary” (p. 161). Levene’s test, in particular, is notoriously oversensitive to minor departures (Field, 2013; Sheskin, 2007; Tabachnick & Fidell, 2007b), and it is “reasonable to use very small  $\alpha$  levels, such as  $\alpha = .001$ ” (Warner, 2008, p. 161) and, even then, to use a  $\alpha < .001$  finding merely as warrant to investigate Hartley’s  $F_{\max}$  (Field, 2013; Tabachnick & Fidell, 2007a, 2007b). If the largest group is no more than 4 times the size of the smallest, and if the largest variance is no more than 10 times the smallest variance (i.e.,  $F_{\max} \leq 10$ ) “*there is adequate homogeneity of variance*” (Tabachnick & Fidell, 2007b, p. 88, emphasis as in original). All statistically significant  $t$  test findings met these conditions (heterogeneity is irrelevant for a nonsignificant finding).

With large samples, DFA statistical inference is robust to variance-covariance heterogeneity (Tabachnick & Fidell, 2007a) and “should not be taken too ‘seriously’” (StatSoft, Inc., 2013). Nonetheless, because Box’s  $M$  was statistically significant, the validity of DFA conclusions was checked against a binary logistic regression solution that does not require equal variance-covariance matrices. The DFA profile of predictors

discriminating business professionals from offenders was consistent with logistic results, so heterogeneity was not a concern.

**Multiple testing.** This research is predicated on a single multivariate DFA hypothesis, the single test of which cannot inflate alpha. While a number of preliminary screening tests were conducted, these were for the purposes (as described in Huberty & Olejnik [2006]) to (a) retain, for theoretical reasons, only the potentially worthwhile predictors, (b) make the function and structure coefficients more precise for the given sample size, and (c) profit from parsimony. Moreover, for those who consider the multiple screening tests a threat, consider that alpha can only be inflated if more than 1 in 20 tests yield  $p < .05$  when 19 in 20 are truly null in the population (C. T. Diebold, personal communication, February 5, 2015). If 10 of 20 tests yield  $p < .05$ , and 9 of those were nonnull in the population, then alpha is not inflated (C. T. Diebold, personal communication, February 5, 2015). To be clear, the alpha level, and the inflation thereof, is based on the assumption that all tests are truly null in the population (C. T. Diebold, personal communication, February 5, 2015). It cannot be known the proportion of screening tests that were truly null in the population, but because the variables selected for screening were based on theoretical or prior empirical expectation of being nonnull in the population, the sample results of this study are much more likely to contain Type II errors than Type I inflated alpha errors (C. T. Diebold, personal communication, February 5, 2015).



### **Biological Factors**

Three biological factors used in the study included alcohol abuse, drug abuse, and drug use to see if there was a difference between white collar offenders and business professionals. Alcohol abuse and drug abuse were each evaluated using an independent  $t$  test, while drug use was evaluated using chi-square to assess the use of drugs (yes/no).

An independent  $t$  test did not find a significant difference between offenders and business professionals on drug abuse. The test for alcohol abuse was significant,  $t(181) = -2.20$ ,  $p = .029$ , Cohen's  $d = 0.34$ , eta squared ( $\eta^2$ ) = .026 (between a small and medium size effect),  $MD = 2.02$ , 95% CI [0.20, 3.83]. Those in the offender population ( $M = 5.37$ ,  $SD = 8.31$ ) had a higher risk for alcohol abuse prior to incarceration than their business professional counterparts ( $M = 3.36$ ,  $SD = 4.12$ ).

A chi-square analysis conducted to evaluate differences between white collar offenders and business professionals on drug use was found to be significantly related, Pearson  $\chi^2(1, N = 183) = 5.72$ ,  $p = .017$ , Cramer's  $V = .177$ ,  $\eta^2 = .031$  (between a small and medium effect size). White collar offenders had a higher reported use of drugs prior to incarceration than business professionals. With significance identified in alcohol abuse and drug abuse, these variables were selected for inclusion in DFA.

### **Psychological Factors**

An independent  $t$  test was conducted to evaluate each of the psychological factors for differences between business professionals and offenders on the BFI, SD3, MC-SDS, MTABS instruments, and ethic scenarios.

**Big Five Inventory (BFI).** Five subscales of the BFI were evaluated to examine the differences between groups including extraversion, agreeableness, conscientiousness, neuroticism, and openness. Only 2 of the 5 factors, neuroticism and openness, resulted in statistically significant differences and were selected for inclusion in DFA.

White collar offenders ( $M = 2.70$ ,  $SD = 0.69$ ) scored higher on neuroticism than business professionals ( $M = 2.26$ ,  $SD = 0.83$ ),  $t(181) = 3.571$ ,  $p < .001$ , Cohen's  $d = .56$ ,  $\eta^2 = .066$  (a medium size effect),  $MD = 0.44$ , 95% CI [0.20, 0.68].

The independent  $t$ -test on openness was significant,  $t(181) = 2.481$ ,  $p = .014$ , Cohen's  $d = 0.39$ ,  $\eta^2 = .033$  (between a small and medium size effect),  $MD = 0.23$ , 95% CI [0.05, 0.41]. Scores of business professionals ( $M = 3.94$ ,  $SD = .527$ ) were higher on openness than offenders ( $M = 3.71$ ,  $SD = .691$ ).

**Short Dark Triad (SD3).** An independent  $t$ -test was conducted on each of the three factors of SD3: Machiavellianism, narcissism, and psychopathy. In the present study there was not a statistically significant difference on Machiavellianism or psychopathy. There was a significant difference between offenders and business professionals on narcissism,  $t(181) = 4.082$ ,  $p < .001$ , Cohen's  $d = 0.64$ ,  $\eta^2 = .084$  (between a medium and large effect size),  $MD = 0.34$ , 95% CI [0.18, 0.51]. Business professionals ( $M = 2.83$ ,  $SD = .508$ ) had a higher mean score on narcissism than their offender counterparts ( $M = 2.49$ ,  $SD = .592$ ). Narcissism was selected for inclusion in DFA.

**Marlow-Crowne Social Desirability Scale (MC-SDS).** Social desirability was included in the study as a measure of hedonism, along with the two subscales of

attribution and denial using MC-SDS. Neither the overall social desirability score or denial subscale score were statistically different between business professionals and white collar offenders. The attribution subscale score was statistically significantly different between groups,  $t(181) = 3.04$ ,  $p = .003$ , Cohen's  $d = 0.48$ ,  $\eta^2 = .049$  (a medium effect size),  $MD = 1.56$ , 95% CI [0.55, 2.58]. Business professionals had a higher level of attribution ( $M = 24.92$ ,  $SD = 3.44$ ) than offenders ( $M = 23.35$ ,  $SD = 2.98$ ). Attribution was selected for inclusion in DFA.

**Multidimensional Type A Behaviour Scale (MTABS).** MTABS was used to evaluate Type A behavior and the five individual factors associated with Type A behavior. There were no statistically significant differences between business professionals and white collar offenders on the overall Type A behavior score, impatience subscale, achievement subscale, or competitiveness subscale. There were statistically significant group differences on the hostility subscale and the anger subscale, both of which were selected for inclusion in DFA.

Those in the business professional sample ( $M = 13.21$ ,  $SD = 3.53$ ) showed higher levels of hostility than their offender counterparts ( $M = 11.79$ ,  $SD = 3.79$ ),  $t(181) = 2.51$ ,  $p = .013$ , Cohen's  $d = 0.39$ ,  $\eta^2 = .034$  (a small to medium effect size),  $MD = 1.42$ , 95% CI [0.30, 2.53].

Similarly, those in the business professional sample ( $M = 13.72$ ,  $SD = 3.06$ ) showed higher levels of anger than their offender counterparts ( $M = 12.34$ ,  $SD = 4.04$ ),  $t(181) = 2.59$ ,  $p = .011$ , Cohen's  $d = 0.40$ ,  $\eta^2 = .036$  (a small to medium effect size),  $MD = 1.42$ , 95% CI [0.33, 2.43].

**Ethical scenarios.** An independent *t*-test was conducted on the composite score created from each of the four ethical scenarios provided to study participants with no significant difference found between groups. Results suggest there is no difference in moral disengagement or ethical integrity between business professionals and white collar offenders, therefore ethical integrity has not been included in DFA.

### **Sociological Factors**

A variety of sociological factors were selected for inclusion in the study including: race, gender, age, income, marital status, parental criminal history, parental drug use, family unit growing up, and parenting style. The actual age of the individual at the time of the survey was collected, generating a continuous variable tested with an independent *t*-test for differences between business professionals and offenders. No significant difference was found between groups.

Chi-square analysis was conducted on each of the remaining sociological factors. No significant difference was found in evaluating the differences between white collar offenders and business professionals on race, marital status, parental criminal history, parental drug use, family unit growing up, or parenting style. Significance was identified in two factors, gender and family income, which were selected for DFA inclusion.

A chi-square analysis conducted to evaluate differences between white collar offenders and business professionals on income level was found to be significantly related, Pearson  $\chi^2 (1, N = 183) = 27.45, p = .001$ , Cramer's  $V = .39, \eta^2 = .072$  (a medium size effect). White collar offenders had a lower level of income prior to incarceration than business professionals.

The potential differences between white collar offenders and business professionals on gender were also evaluated using chi-square with a significant difference identified, Pearson  $\chi^2 (1, N = 183) = 21.85, p < .001$ , Cramer's  $V = .35, \eta^2 = .119$  (a large size effect). There were more females (and fewer males) incarcerated for white collar crime than proportionally statistically expected. To be clear, although 56 of the 62 white collar offenders were female, such does not bias the chi square test; in fact, it is the observed frequency that is used to determine the expected frequency—in other words, the expected frequency, and chi square test, controls for the observed frequency (C. T. Diebold, personal communication, February 5, 2015).

#### **Discriminant Function Analysis (DFA)**

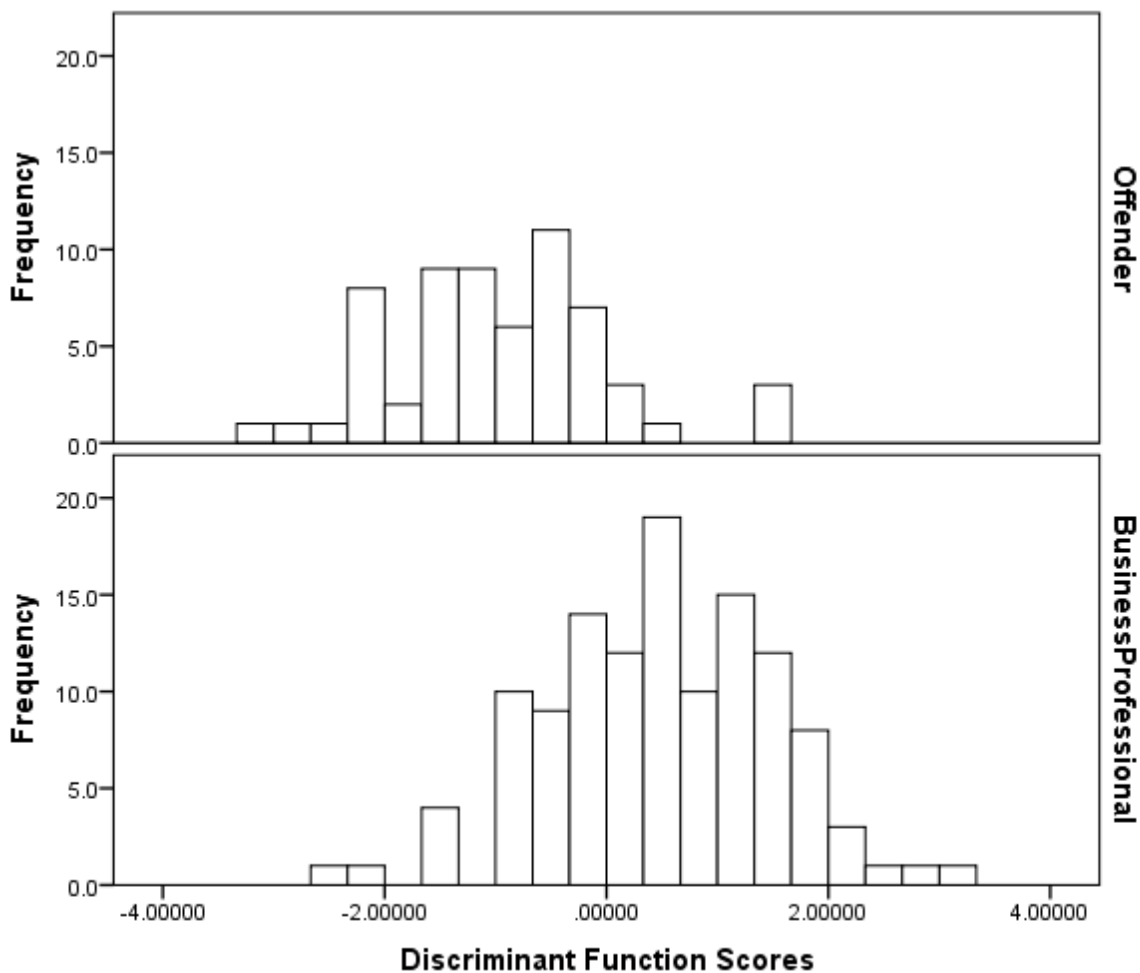
DFA was performed using the variables that produced statistically significant univariate differences between business professionals and white collar offenders. These included two biological variables (alcohol abuse and drug use), six psychological variables (neuroticism, openness, narcissism, attribution, hostility, and anger), and two sociological variables (gender and family income). The univariate results are summarized in Table 2.

Table 2

*Summary of Significant Univariate Findings Between Business Professionals and White Collar Offenders*

Variable	White collar offenders		Business professionals		95% CI	<i>p</i>	<i>d</i>	$\eta^2$
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Alcohol abuse	5.4	8.3	3.4	4.1	[0.20, 3.83]	.029	0.34	.026
Neuroticism	2.7	0.7	2.3	0.8	[0.20, 0.68]	<.001	0.56	.066
Openness	3.7	0.7	3.9	0.5	[0.05, 0.41]	.014	0.39	.033
Narcissism	2.5	0.6	2.8	0.5	[0.18, 0.51]	<.001	0.64	.084
Attribution	23.4	3.0	24.9	3.4	[0.55, 2.58]	.003	0.48	.049
Hostility	11.8	3.8	13.2	3.5	[0.30, 2.53]	.013	0.39	.034
Anger	12.3	4.0	13.7	3.1	[0.33, 2.43]	.011	0.40	.036
	White collar offenders					<i>p</i>	<i>V</i>	$\eta^2$
Gender	More females, fewer males than expected					<.001	.35	.119
Family income	More than expected in lower income brackets					.001	.39	.072
Drug use	More than expected had used drugs					.017	.18	.031

The discriminant function scores of business professionals and offenders were statistically significantly different, Wilks'  $\Lambda = .673$ ,  $\chi^2(10, N = 183) = 69.587$ ,  $p < .001$ , canonical- $R = .571$ . Differences between the groups accounted for 33% of the variability in discriminant function scores, a very large effect size (Cohen, 1988). Business professionals (centroid = 0.496) tended to score higher than white collar offenders (centroid = -0.968) on the discriminant function (see Figure 2).

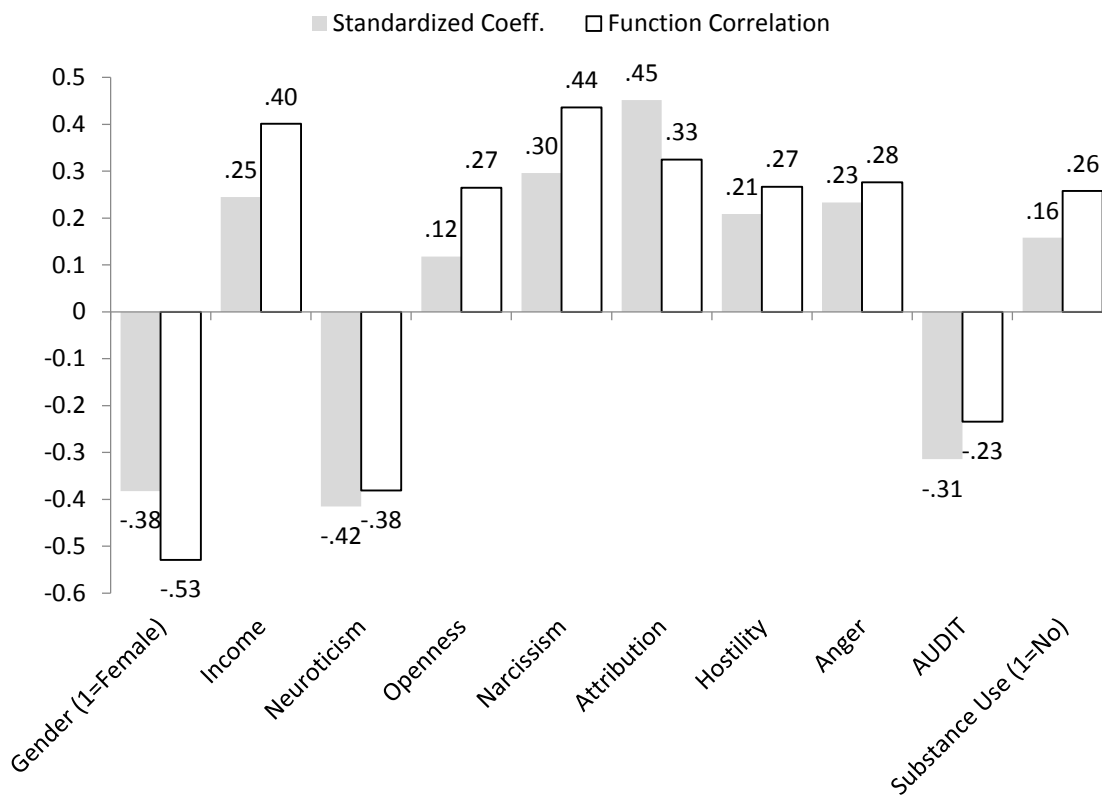


*Figure 2.* Comparative histograms of offender and business professional discriminant function scores. Business professionals (centroid = 0.496) scored higher on the function than offenders (centroid = -0.968).

The standardized coefficients in DFA index predictor variable's "relative" contribution while controlling for the contribution of other predictor variables. Typically, predictors with coefficients greater than .30 in absolute value are considered substantial contributors (C. T. Diebold, personal communication, February 5, 2015). Structure coefficients are the correlations between each predictor and the discriminant function

score. Predictors with a high structure coefficient, but relatively low standardized coefficient indicates the predictor is correlated with one or more of the other predictors that do a better job of accounting for the unique variance in the function score. Five predictor variables (gender, neuroticism, narcissism, attribution, and alcohol abuse) had function coefficients greater than .30 (see Figure 3).





*Figure 3.* Discriminant profile of offender and business professional groups. Standardized coefficient represents relative contribution of a predictor while controlling for effects of other predictors. Function correlation represents association of each predictor with the function score, ignoring the other predictors. Business professionals tended to have high function scores (centroid = 0.496), scoring high on the positive coefficient predictors and low on the negative coefficient predictors. Offenders tended to have low function scores (centroid = -0.968), scoring low on the positive coefficient predictors and high on the negative coefficient predictors.

A discriminant function score is a linear combination of scores across the predictor variables. As such, a profile represents a pattern of high or low scores across the entire set of relatively important predictors, not just a high or low score on a single predictor (see Figure 3). Using the traditional .30 coefficient cutoff, individuals in the business professionals' group, tended to be male, have low neuroticism scores, high

narcissism scores, high attribution scores, and low AUDIT (alcohol abuse) scores.

Conversely, those in the offender group tended to be female, have high neuroticism and AUDIT (alcohol abuse) scores, and low scores on narcissism and attribution.

### **Summary**

This quantitative study examined the biological, psychological, and sociological differences between white collar offenders and business professionals to gain a deeper understanding of the influences of white collar criminal behavior, addressing the research question: What is the discriminant profile of white collar offenders and business professionals on a set of demographic, biological, psychological, and sociological variables. Results indicated a significant difference between the composite profile of white collar offenders and business professionals. White collar offenders tended to be female, have high neurotic and alcohol abuse scores, and low scores on narcissistic and attribution; conversely, business professionals tended to be male, have low neuroticism scores, high narcissism and attribution scores, and low alcohol abuse scores. Chapter Five presents the interpretation and discussion of the findings, the implications of these results, the limitations of the study, as well as future recommendations for research.

## Chapter 5: Discussion, Conclusions, and Recommendations

This quantitative study was designed to examine the multivariate differences between white collar offenders and business professionals on a variety of biological, psychological, and sociological factors that influence personality development. The purpose of this study was to provide researchers, psychologists, law enforcement, and business professionals with a composite of variables that distinguish white collar offenders from business professionals through DFA. This nonexperimental quantitative survey research design allowed for the examination of a variety of biological factors (alcohol and drug use), psychological factors (extraversion, agreeableness, conscientiousness, neuroticism, openness, psychopathy, narcissism, Machiavellianism, social desirability, Type A personality, hostility, impatience-irritability, achievement striving, anger, and competitiveness), sociological factors (age, race, gender, marital status, income, parental drug and alcohol abuse, parenting style, and parental history of crime), and ethical integrity to assess the composite difference between individuals who have been convicted and incarcerated for white collar offenses and business professionals.

Study results showed a significant difference between the composite profile of white collar offenders and business professionals; white collar offenders tended to be female, have high neurotic and AUDIT scores, and have low scores on narcissism and attribution; conversely, business professionals tended to be male, have low neuroticism scores, high narcissism and attribution scores, and low AUDIT scores. Chapter 5 provides a brief summary and discussion of the univariate results and a more in-depth

summary and discussion of the multivariate DFA profile that discriminated business professionals from white collar offenders, followed by a discussion of study limitations, recommendations, and implications for social change.

### **Interpretation of the Findings**

The biopsychosocial model, used to guide this research, is a multidimensional perspective that recognizes the importance of biological, psychological, and sociological influences on personality development and the interaction of multiple etiological influences on criminal behavior (Paris, 1993; Rao, 2002; Tansey, 2010). Prior research on white collar crime has focused on individual traits rather than multivariate factors that influence offender behavior, thus identifying individual variables that describe differences between white collar offenders and business professionals but not a composite profile of the differences between groups.

### **Univariate Results**

Univariate analyses were conducted to trim a large set of variables theoretically or empirically expected to differ between business professionals and white collar offenders, to a smaller, parsimonious set of potentially worthwhile variables for DFA, yielding more precise discriminant coefficients than would have been the case had all variables been used. The summary and discussion of the univariate results that follows is for the limited purposes to connect to prior empirical findings or theoretical expectations, and to set the context for discussion of the multivariate result. The multivariate result is the focus of this research, which cannot be deconstructed and explained in simple univariate relationships.

The present study examined 15 nominal and 21 continuous biological, sociological, or psychological factors with respect to differences between business professionals and white collar offenders. Univariate results identified 10 variables that significantly distinguished between the groups: alcohol abuse, drug use, openness, narcissism, neuroticism, attribution, hostility, anger, gender, and family income. This confirms some of the variables identified in past research, provides some results contrary to past findings, and identifies new factors that can be used to describe the differences between white collar offenders and business professionals.

Poortinga et al. (2006) found drug and alcohol abuse higher in white collar offenders than business professionals or the general population. The univariate results of the current study were consistent with this research, finding both alcohol abuse and drug use as factors more likely in white collar offenders than business professionals. The methodology used in the present study differed from that of Poortinga et al., who examined historical records, where the current study used self-report measures. The self-report for white collar offenders focused on the year prior to incarceration, while the self-report for business professionals was for the year prior to completion of the survey.

All five factors of the big five personality model were included in the present study, with past research suggesting a univariate relationship between white collar offending and neuroticism, extraversion, conscientiousness, and agreeableness (Alalehto, 2003; Blickle et al., 2006; Collins & Schmidt, 1993; Judge et al., 1999; Listwan et al., 2010), the fifth factor, openness, was not reported by prior research. The present study identified a significant univariate relationship between neuroticism and white collar

offending, consistent with the past research by Alalehto (2003) and Listwan et al. (2010) who each identified individuals with a higher rate of neuroticism as having a greater tendency to commit a white collar offense.

Alalehto (2003) suggested a positive link between white collar offending and extroversion, identifying those specifically classified as positive extroverts, a subset of extroverts, to be more likely to engage in white collar offending but not all extroverts. The current study does not differentiate between types of extroverts (positive or negative); results of the univariate analysis confirmed that extroversion, in general, does not significantly describe differences between white collar offenders and business professionals.

Past studies on conscientiousness have been mixed with studies identifying a difference in some cases with white collar offenders having a lower level of conscientiousness compared to business professional counterparts, and other studies showing a higher level of conscientiousness (Alalehto, 2003; Blickle et al., 2006; Collins & Schmidt, 1993; Heath, 2008; Judge et al., 1999; Listwan et al., 2010; Nederlof et al., 2010). The univariate results of the current study failed to identify a significant difference between white collar offenders and business professionals on conscientiousness. The lack of a significant difference supports the questionable role of conscientiousness in explaining the difference between groups as it may be that conscientiousness mediates or is mediated by other traits. This presents a future research opportunity for theoretically building and examining mediation models of conscientiousness.

Agreeableness, or more precisely the disagreeable business professional, was identified by Alalehto (2003) as having a greater tendency to be a white collar offender than the agreeable business professional. The premise proposed that the agreeable business professional is more law-abiding than the disagreeable professional (Alalehto, 2003). The univariate results of the current study did not find a significant relationship between agreeableness and white collar offending. Alalehto contended that the disagreeable business professional lacks social competency, is grudging, angry, envious, bitter, and may act with contempt. Each of these are characteristics or traits that can be measured separate from agreeableness and may explain why no significant difference was found in the present study for agreeableness; it may be only select subcomponents of agreeableness or disagreeableness that explain the difference between white collar offenders and business professionals.

The univariate results of the current study identified a significant difference between white collar offenders and business professionals on the BFI subfactor openness, a difference that has not been previously reported in the literature. The univariate results found individuals with a lower level of openness to have a higher tendency to be white collar offenders resulting in openness being included in the multivariate analysis. Openness includes openness to emotions and sensitivity of feelings or empathy. Rao (2002) noted lack of empathy as a characteristic present in violent offenders but did not specifically test openness in violent offenders; rather, Rao focused on the social environment that may shape a lack of empathy. The finding of openness as a univariate personality trait describing significant differences between white collar offenders and

business professionals provides an opportunity for additional study on openness in general as well as empathy and other subfactors that may provide a greater understanding in the differences between white collar offenders and business professionals.

Prior research suggested psychopathy and narcissism to be correlated with white collar offending (Babiak et al., 2010; Blickle et al., 2006; Bucy et al., 2008; Ragatz et al., Stevens et al., 2012), with those with higher levels of narcissism and psychopathy having a greater tendency to engage in white collar offending. Psychopathy, in general, as well as the successful psychopath, was identified in a number of univariate studies as correlated with white collar offending (Babiak et al., 2010; Ragatz et al., 2012; Stevens et al., 2012). Babiak et al., (2010) noted the high level of successful psychopaths who reach top executive positions due, in part, to their manipulative behavior, critical thinking skills, ability to follow through on the job, and ability to communicate with others (Ragatz et al., 2012). The univariate results of the current study failed to find a significant relationship between white collar offenders and business professionals on psychopathy. The lack of significant differences between groups is consistent with the interpretation that psychopathy may be as common among business professionals as white collar offenders; therefore, the trait does not discriminate between groups but is present in both.

Research by Bucy et al. (2008), Blickle et al. (2006), and Naso (2012) each identified narcissism as influencing white collar crime. However, Bucy et al. was based on interviews of legal and law enforcement experts in white collar crime, not on direct examination of white collar criminals. In Naso, narcissism was part of a psychoanalytic



profile of a single individual. While Blickle et al. did compare white collar criminals to nonoffenders, the findings were complex. After controlling for gender and social desirability, narcissism was predictive of the criminal group. After further controlling for conscientiousness, the interaction of narcissism and conscientiousness was predictive of the noncriminal group. The univariate results of the current study found the business professional group to have stronger narcissistic tendencies than the white collar offender group.

Social desirability was included in the present study following the work of Blickle et al. (2006) who found white collar offenders were more hedonistic than their nonoffender counterparts. Hedonism was measured in the current study through the MC-SDS and included the subscales of attribution and denial. While Blickle et al. found white collar offenders to be more hedonistic than nonoffenders, the univariate results of the current study failed to identify a significant difference between groups on social desirability as a composite trait but did find a significant difference on the subscale of attribution with nonoffenders having a lower attribution score. This may mean that business professionals are more likely to attribute the work to those who deserve it, while offenders are more likely to take credit for the success of the work but blame others for failures. This appears to be the first time this trait was examined for univariate differences between groups, providing an opportunity for future research and follow up on the role of attribution in white collar offending or a potential link to ethical and/or moral behavior.

Type A behavior has been associated with risk taking (Carducci & Wong, 1998) with research linking Type A behavior to white collar offending (Carducci & Wong, 1998; Elliott, 2010; Perry et al., 1990). While past studies found a significant difference in Type A personality between white collar offenders and nonoffenders, the univariate results of the current study did not find a significant difference between groups on an overall composite of Type A personality. Separate analyses of its multiple dimensions showed no group differences on impatience, achievement, and competitiveness, but showed business professionals as having higher self-reported scores on both the hostility and anger subscales. The relationship between the multiple dimensions of Type A personality and white collar offending is complex and warrants further research focused on the interplay of the dimensions

Ethical scenarios were used by Stevens et al. (2012) to measure moral disengagement and ethical integrity, suggesting those with a low ethical decision making, as measured through scenarios, had a higher risk of offending. The univariate results of the present study found no significant difference between white collar offenders and business professionals on the scenarios presented. No standard grouping exists for high or low ethical integrity on the scenarios adopted by Stevens et al.; however, there may be a future opportunity to develop groupings of high, medium, and low ethical integrity in order to assess if there are differences between these three groups that may be incorporated into future research on white collar offending.

Terpstra et al. (1993) found men more likely than women to engage in insider trading and younger individuals more likely than older individuals to participate in

unethical behavior linked to insider trading. Contrary to the findings of Terpstra et al., the univariate results of the present study did not find a significant difference in age of white collar offenders versus nonoffenders but did identify a significant difference based on gender. The gender difference identified in the univariate results of the current study identified females as more likely to commit white collar offenses than males.

Listwan et al. (2010) found race to be linked with recidivism of white collar offenders; however, the univariate results of the current study found no significant difference between groups on race. Listwan et al. suggested race as a predictor variable in recidivism of white collar offenders, not as a univariate predictor in the commission of the prima fascia offense, which may be why no significant difference between groups was identified in the current study.

Ragatz et al. (2012) identified white collar offenders to be more likely to be married than other offender groups but did not test for a difference between white collar offenders and nonoffenders or business professionals. The current study included marital status as a variable to examine the differences between groups; however, the univariate results failed to find a significant difference between white collar offenders and business professionals.

Income levels were identified by Blickle et al. (2006) as placing individuals at risk for white collar crime, suggesting a link between social cultures that place a high value on material success that may drive risk taking behavior. The univariate results of the present study identified a significant difference between groups based on family income of white collar offenders the year prior to incarceration and business

professionals, suggesting those with a lower income have a higher likelihood to be white collar offenders than those with a higher income and supporting Blickle et al.'s theory of a drive for material success but not that a higher income makes one more likely to commit a white collar offense. The data may be suggestive that those who get caught are seeking ways to obtain material wealth and are still income striving, resulting in a lower income than those who have been convicted of a white collar offense compared to business professionals who have not.

Research examining criminal behavior, in general, has addressed the developmental history of offenders and identified factors related to parents and family history as contributing to the development of criminal behavior in offenders. A parental history of criminal offending, parental drug use, type of family unit a child grows up in (such as single family, parents married, and living in foster care), and parenting style have been found in past research to contribute to criminal behavior in general but have not been tested specifically with white collar offenders. The present study included these variables to examine if there was a difference between white collar offenders and business professionals. Unlike research on chronic offenders and nonwhite collar offenders that found a difference between offenders and nonoffenders on these factors (Piquero et al., 2010; Rao, 2002; Zembroski, 2011), the univariate results of the current study found no significant difference between white collar offenders and business professionals on parental history of criminal offending, parental drug use, family unit, or parenting style. These results may be viewed as supportive of research finding white collar offenders are uniquely different from other offender groups (Blickle et al., 2006;

Perri, 2011; Ragatz et al., 2012) and may demonstrate the challenges of early detection of white collar offenders with limited sociological predictor variables for white collar offending. Research that directly compares these variables across white collar offenders, nonwhite collar offenders, and nonoffenders seems warranted.

### **Discriminant Function Analysis (DFA) Results**

Univariate analyses identified 10 variables that showed significance between white collar offenders and business professionals: alcohol abuse, drug abuse, openness, narcissism, neuroticism, attribution, hostility, anger, gender, and family income. This mix of biological, psychological, and sociological traits and characteristics were included in a multivariate DFA that produced a distinct profile discriminating white collar offenders and business professionals, accounting for 33% of the variance. Based on the model, five variables substantively contributed to discriminating between groups: alcohol abuse, neuroticism, attribution, narcissism, and gender. White collar offenders tended to be female, have high neurotic and alcohol abuse scores, and low scores on narcissistic and attribution scales. Conversely, business professionals tended to be male, have low neuroticism scores, high narcissism and attribution scores, and low alcohol abuse scores.

It is important to understand that the DFA profile is holistic and cannot be deconstructed into its component parts. For example, it would be incorrect to ask “Why is a neurotic individual at risk for white collar offenses?”, or “Why is a narcissistic individual not at risk for offending?” Instead, based on this sample and this set of predictors, the question would be “Why is a neurotic, alcohol abusing, nonnarcissistic

female who takes credit for successes but blames others for failures more likely to commit white collar offenses?” Similarly, “Why is a narcissistic, nonneurotic, nonalcohol abusing male who gives credit where it is due not likely to commit white collar offenses?”

Though simply speculative, the profiles suggest that business professionals have life and work under confident control, while life and work were out of control for those who went on to commit white collar offenses—the offending, perhaps, a way to feel in control.

Although income, openness, hostility, anger, and drug use (0 = yes, 1 = no) did not substantively uniquely contribute to the discriminant function, each had a medium size positive correlation with the function. Those with a high score on any of these variables, tended to also have a high discriminate function score (i.e., have the profile of a business professional), while those with a low score on any of these, tended to also have a low function score (i.e., have the profile of a white collar offender).

It makes intuitive sense that those with life and work under confident control would also have higher income, while those still climbing the income ladder of success saw white collar offending as a way to compensate. It also makes sense that those in confident control would also be open to new experiences and ideas and confidently adapt, while those with life and work already out of control longing for order and routine. Openness also reflects sensitivity of feelings and empathy, something those in confident control would more likely possess compared to the white collar offenders’ profile

consistent with Rao (2002) who noted that lack of empathy was present in violent offenders.

The positive correlation of hostility and anger with the business professional profile may, at first glance, seem counterintuitive. However, keeping in mind that the discriminant profile is a multivariate result that controls for the complex interrelationships among all the predictors, hostility and anger may be tapping into latent characteristics of assertiveness and competitiveness in the business professionals, which would be consistent with confident control.

Finally, the finding that drug use (0 = yes, 1 = no) correlated positively with the business professional profile is consistent with being in confident control.

### **Summary of Findings**

Prior research focused on identifying individual traits that influence or may lead to white collar offending. The intent of the present study was to develop a multivariate composite profile distinguishing white collar offenders from business professionals, helping to better understand why choose to cross legal and ethical lines while others do not.

The discriminant function accounted for 33% of the variance between these groups. Five of ten predictors substantively contributed to the function score: gender (female = 1, function coefficient =  $-.38$ , structure coefficient =  $-.53$ ), narcissism (function coefficient =  $.30$ , structure coefficient =  $.44$ ), neuroticism (function coefficient =  $-.42$ , structure coefficient =  $-.38$ ), attribution (function coefficient =  $.45$ , structure coefficient =  $.33$ ), and alcohol use (function coefficient =  $-.31$ , structure coefficient =  $-.23$ ). White

collar offenders scored low on the function (centroid = -0.968) compared to business professionals (centroid = 0.496). The other five predictors had near medium size correlations with the function: income ( $r = .40$ ), openness ( $r = .27$ ), hostility ( $r = .27$ ), anger ( $r = .28$ ), and drug use (1 = no),  $r = .26$ ).

### **Limitations of the Study**

The multivariate results of the present study should be interpreted with caution due to several threats to validity that need to be considered.

The study used a nonrandom, convenience sample of business professionals and white collar offenders. Use of a nonrandom sample can limit generalizability to the population, limiting in this case the application of the developed profile to the population at large.

Additionally, the business sample may not be homogenous with respect to criminal offending. That is, there may have been undetected offenders within the business professional sample. Undetected offenders within the business professional sample, could influence first the univariate analysis used to identify variables for inclusion in DFA and then the testing of the multivariate model. Ethics scenarios were introduced in the study to attempt to use integrity to identify a subgroup within the business professional sample that more closely represent the white collar offender. Analysis of the ethics scenarios, however, found no significant difference between groups suggesting that white collar offenders and business professionals within the sample tended to behave ethically the same. Offenders may have been less skilled in not getting caught for their unethical behavior or now that they have been caught, they may respond



differently to the ethical scenarios than they would have prior to conviction. Meaning the intervention of incarceration may have changed the way the white collar offenders responded to the questions, giving the appearance of similar ethical behavior between groups.

Another limitation that may influence the generalizability of the results is the gender differences in the samples. Significant differences were detected between white collar offenders and business professionals from a univariate perspective and the multivariate analysis confirmed gender as a contributing factor in the function. The gender differences in the current study may be limited in generalizability because there was a small sample of males in the white collar offender sample due to the Federal Bureau of Justice facilities where data collection occurred. More female white collar offenders were included in the offender sample, as a percent of the total sample, as compared to the business professional sample.

### **Recommendations**

The current composite of biological, psychological, and sociological factors only describes described 33% of the differences between groups. This provides future opportunities to expand research in the area of white collar offending to identify other personality, biological, psychological, and sociological factors that may further contribute to the model and explain the composite differences between groups. White collar offenders differ from their street and violent crime offender counterparts (Blickle et al., 2006; Perri, 2011; Ragatz et al., 2012), yet to date, many of the same univariate personality traits, biological factors and sociological factors have been used to examine

the differences between white collar offenders and business professionals. The current research identified traits that have not been examined previously suggesting a need to broaden the research on personality and white collar offenders.

Openness, one of the five factors of BFI was not previously included in research that examined differences between white collar offenders and business professionals. The univariate results of the present study found a significant difference between groups suggesting a need to further explore traits that have not previously been associated with criminal behavior in order to identify new variables that can undergo univariate testing and future multivariate analysis to look for ways to strengthen the model and explain a larger percentage of the differences between groups. While univariate analysis found a significant difference between groups, multivariate analysis did not find openness as a strong contributing factor to the function but it was positively correlated with the function. There are a number of traits and behaviors associated with openness including sensitivity, emotion, and empathy. Research can further explore these other traits in order to attempt to identify variables through univariate analysis that may be able to be included into multivariate analysis to strengthen the model and understand the relationship between variables.

Attribution, a subfactor of social desirability, was identified in univariate and multivariate analysis as a discriminating factor in describing the differences between groups. Research suggests a potential link between attribution and moral behavior or moral disengagement that can be further tested in an effort to try to examine the ethics and morality of business professionals and understand factors that may help predict those

at greater risk of offending. This may provide a better opportunity to identify individuals within the business professional sample that have a higher risk for offending allowing for a third classification to be identified – potential undetected offender – and the model refined further.

Prior research identified traits such as psychopathy and extroversion as traits common in white collar offenders, however the univariate analysis of the present study was unable to confirm those traits. Past research focused on subsets of these factors – successful psychopaths and positive extroverts. Future multivariate research can explore these specific subsets further to see if they have the ability to strengthen the discriminant model. Additionally, future research could work to identify a way to identify the potential undetected offender and expand the multivariate model with the undetected offender, successful psychopaths, and positive extroverts. This could make the model more robust, developing a profile that describes a higher percent of the variance between groups.

### **Implications**

The study provided a multivariate composite of variables that distinguish between white collar offenders and nonoffenders. This composite of traits can help researchers and organizations gain a deeper understanding of why, when faced with similar situations, some professionals choose to cross legal and ethical lines and others do not. By identifying traits such as attribution, business professionals can be provided training on how to change their behavior and the importance of giving credit to others when due.

Understanding the traits that may lead to white collar offending allows businesses to provide training to employees that may be at risk for offending.

Additionally, training programs for youth and college level students can be tailored to help students gain skills related to attribution, empathy, and ethics before they enter the workplace while they are in earlier stages of development and influenced by social learning. These programs could incorporate into the classroom setting skill-building on empathy, showing sensitivity to others, and building team-work. These same types of skills can be incorporated into corporate training programs, in addition to additional training on ethics and integrity to help develop strong moral compasses.

White collar offenders tended to have high AUDIT scores, meaning a higher score on alcohol abuse. This information can be used to reinforce the need for alcohol use, abuse, and detection programs that can help reduce employee risk for abuse. Alcohol use and abuse among employees can effect business success. Independent of its relationship to white collar crime, these findings provide one more reason to help provide treatment to employees at risk for alcohol abuse, while protecting the organization from the potential for white collar offending to occur.

### **Summary**

White collar crime is complex, as is understanding why, when faced with similar situations, some business professionals choose to cross legal and ethical lines and others do not. Developing a composite profile of a white collar offender is a step towards understanding factors that separate offenders from nonoffenders, allowing researchers

and businesses to begin to develop and test training programs to help reduce the risk to organizations, while reducing criminal offending at the same time.

The model produced in this study explained 33% of the differences between groups, offering the opportunity to explore additional variables and subfactors of existing variables to refine and improve the model. Existing research has been fairly limited to variables that have been identified in nonwhite collar offenders as influential factors or predictor variables. The current study confirms past research that white collar offenders differ significantly from their business professional counterparts. The current study extends existing research through development of a profile and identified factors that were not previously identified in white collar offender research. The identification of new traits suggests an opportunity for additional research on traits that have not yet been explored to help enhance the multivariate model and develop a stronger profile of the white collar offender to aid business professionals and researchers in understanding white collar offenders at a deeper level.

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## Appendix A: Inmate Informed Consent Form

You are invited to take part in a research study of personality differences between white collar offenders and business professionals. The researcher is inviting the following two groups to be in the study:

- Offenders who have been convicted under one of the following Federal Statutes:
  - Fraud and False Statements, 18 U.S.C. §§ 1001-1036
  - Wire Fraud, 18 U.S.C. § 1343
  - Health Care Fraud, 18 U.S.C. § 1347
  - Conspiracy, 18 U.S.C. § 371
  - Counterfeiting and Forgery, 18 U.S.C. §§ 470-514
  - Embezzlement and Theft, 18 U.S.C. §§ 641-649
  - Money Laundering, 18 U.S.C. § 1956
  - Racketeering, 18 U.S.C. §§ 1961-1964
  - Bribery, 18 U.S.C. § 201
  - Mail Fraud, 18 U.S.C. § 1341
  - Obstruction of Justice, 18 U.S.C. § 1501-1518
  - Tax Crime, 26 U.S.C. §§ 7201-7206
  - Bank Fraud, 18 U.S.C. § 1344
  - Economic Espionage, 18 U.S.C. §§ 1831-1839
  - Telemarketing Fraud, 18 U.S.C. §§ 2325-2327
  - Tax Crimes, 26 U.S.C. §§ 7201-7217
  - Securities Act of 1933
  - Securities Exchange Act of 1934
- Business professionals who have or currently work in a managerial role within any size organization and have not been convicted of a white collar crime

This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Susan Zukowski, who is a doctoral student at Walden University.

### **Background Information:**

The purpose of this study is to understand the personality differences between white collar offenders and business professionals to help develop a greater understanding of the differences between those who offend and those who do not to better answer the question of why some business professionals cross legal and ethical lines while others do not.

### **Procedures:**

If you agree to be in this study, you will be asked to:

- Sign one copy of the consent form and complete the attached survey tool

- The survey is estimated to take approximately 20 to 30 minutes and is intended to gather information about participant's personality, background, thinking, and behavior using a series of instruments
- Upon completion of the survey tool, please return the completed survey tool and the signed copy of the consent form to the researcher at the following address:
- Keep one copy of the consent form for your records

Business professional participants, will participant through an online survey administered through Survey Monkey.

Here are some sample questions:

Indicate the extent to which you agree with the following statements

- I am someone who is talkative
- It's not wise to tell your secrets
- I tell someone how I feel if they annoy me

#### **Voluntary Nature of the Study:**

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at the prison facility will treat you differently if you decide not to be in the study. Participation will have no effect on your release date or parole eligibility. If you decide to join the study now, you can still change your mind later. You may stop at any time. You may withdraw from study participation at any time without penalty by contacting the researcher and requesting to be withdrawn from the study. Please use the participant code listed at the bottom of this informed consent when communicating with the researcher. The researcher may terminate participant involvement in the study if they do not meet the study requirements or fail to complete the survey in its entirety.

#### **Risks and Benefits of Being in the Study:**

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as stress or becoming upset through self-reflection to answer the questions that are included for assessment. Being in this study would not pose risk to your safety or wellbeing.

Developing a deeper understanding of white collar offenders can positively influence social change by aiding white collar crime reduction by advancing knowledge of factors linked to white collar crime; aiding business professionals in identifying characteristics of at-risk professionals to help with detection and training; and influencing the creation of youth, collegiate, and organizational programs to improve detection and prevent infractions of ethical violations and white collar offenses.

#### **Payment:**

No payment or gift is available for participation in the study.

**Privacy:**

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by maintaining a cross reference between your informed consent and participant code, listed below, separate from the survey data. The researcher will be the only one to access this information and will use it only for communicating with survey participants. Once data collection is completed, this cross-reference will be destroyed through electronic deletion of the file. The participant code will be included on the survey file and will be the only way for participants to communicate with the researcher.

Data will be kept for a period of at least 5 years, as required by the university and the Federal Bureau of Justice. Electronic data will be stored on the researcher's personal computer, with both the files and the computer password protected. Paper surveys will be stored in the researcher's personal file cabinet that has been dedicated to doctoral research and locked. Records will be destroyed after 5 years by deleting, shredding, or burning.

Information disclosed to the researcher will not be disclosed to the Bureau of Prisons, except where the researcher believes the participant is a threat to his or her own safety, the health or safety of another person, the security or orderly operation of any state or federal correctional institution or community corrections site, expresses intent to commit future criminal conduct, or indicates an intent to leave the facility without authorization.

**Contacts and Questions:**

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number for this study is **03-28-14-0172563** and it expires on **March 10, 2015.**

Please keep this consent form for your records, the participant code will be needed to communicate with the researcher.

**Statement of Consent:**

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By returning the completed informed consent and the completed survey that will be sent upon receipt of the informed consent, I understand that I am agreeing to the terms described above.

---

Signature of Research Participant

Date

Participant Code: \_\_\_\_\_

## Appendix B: Business Professional Informed Consent Form

You are invited to take part in a research study of personality differences between white collar offenders and business professionals. The researcher is inviting the following two groups to be in the study:

- Offenders who have been convicted under one of the following Federal Statutes:
  - Fraud and False Statements, 18 U.S.C. §§ 1001-1036
  - Wire Fraud, 18 U.S.C. § 1343
  - Health Care Fraud, 18 U.S.C. § 1347
  - Conspiracy, 18 U.S.C. § 371
  - Counterfeiting and Forgery, 18 U.S.C. §§ 470-514
  - Embezzlement and Theft, 18 U.S.C. §§ 641-649
  - Money Laundering, 18 U.S.C. § 1956
  - Racketeering, 18 U.S.C. §§ 1961-1964
  - Bribery, 18 U.S.C. § 201
  - Mail Fraud, 18 U.S.C. § 1341
  - Obstruction of Justice, 18 U.S.C. § 1501-1518
  - Tax Crime, 26 U.S.C. §§ 7201-7206
  - Bank Fraud, 18 U.S.C. § 1344
  - Economic Espionage, 18 U.S.C. §§ 1831-1839
  - Telemarketing Fraud, 18 U.S.C. §§ 2325-2327
  - Tax Crimes, 26 U.S.C. §§ 7201-7217
  - Securities Act of 1933
  - Securities Exchange Act of 1934
- Business professionals who have or currently work in a managerial role within any size organization and have not been convicted of a white collar crime

This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Susan Zukowski, who is a doctoral student at Walden University.

### **Background Information:**

The purpose of this study is to understand the personality differences between white collar offenders and business professionals to help develop a greater understanding of the differences between those who offend and those who do not to better answer the question of why some business professionals cross legal and ethical lines while others do not.

### **Procedures:**

If you agree to be in this study, you will be asked to:

- Electronically agree to consent to participate in this study

- Print a copy of this informed consent form for your records
- Complete the survey; the survey is estimated to take approximately 20 to 30 minutes.
- Upon completion of the study you will be assigned a participant code, please record this code as it will be used to communicate with the researcher, if needed.

Offender participants, will participant through a paper survey due to lack of Internet access for this population.

Here are some sample questions:

Indicate the extent to which you agree with the following statements

- I am someone who is talkative
- It's not wise to tell your secrets
- I tell someone how I feel if they annoy me

**Voluntary Nature of the Study:**

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at your business or Walden University will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time. You may withdraw from study participation at any time without penalty by contacting the researcher and requesting to be withdrawn from the study. Please use the participant code provided at the time of survey submission when communicating with the researcher. The researcher may terminate participant involvement in the study if they do not meet the study requirements or fail to complete the survey in its entirety.

**Risks and Benefits of Being in the Study:**

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as stress or becoming upset through self-reflection to answer the questions that are included for assessment. Being in this study would not pose risk to your safety or wellbeing.

Developing a deeper understanding of white collar offenders can positively influence social change by aiding white collar crime reduction by advancing knowledge of factors linked to white collar crime; aiding business professionals in identifying characteristics of at-risk professionals to help with detection and training; and influencing the creation of youth, collegiate, and organizational programs to improve detection and prevent infractions of ethical violations and white collar offenses.

**Payment:**

No payment or gift is available for participation in the study.

**Privacy:**

Any information you provide will be kept anonymous. No personal information will be obtained, providing no way for the researcher or others to connect your responses with your identity. The participant code will be included on the survey file and will be the only way for participants to communicate with the researcher.

Data will be kept for a period of at least 5 years, as required by the university and the Wisconsin Department of Corrections. Electronic data will be stored on the researcher's personal computer, with both the files and the computer password protected. Paper surveys will be stored in the researcher's personal file cabinet that has been dedicated to doctoral research and locked. Records will be destroyed after 5 years by deleting, shredding, or burning.

**Contacts and Questions:**

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone at. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number for this study is **03-28-14-0172563** and it expires on **March 10, 2015.**

Please keep this consent form for your records, the participant code will be needed to communicate with the researcher.

**Statement of Consent:**

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By clicking the link below, I understand that I am agreeing to the terms described above.

### Appendix C: Big Five Inventory Consent and Survey Tool

The Big Five Inventory is available for non-commercial research, without permission. The Big Five Inventory tool used in the survey for this study is provided below.

#### BIG FIVE INVENTORY

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

#### I am someone who...

	1 Disagree Strongly	2 Disagree a little	3 Neither agree nor disagree	4 Agree a little	5 Agree strongly
1. Is talkative					
2. Tends to find fault with others					
3. Does a thorough job					
4. Is depressed, blue					
5. Is original, comes up with new ideas					
6. Is reserved					
7. Is helpful and unselfish with others					
8. Can be somewhat careless					
9. Is relaxed, handles stress well.					
10. Is curious about many different things					
11. Is full of energy					
12. Starts quarrels with others					
13. Is a reliable worker					
14. Can be tense					
15. Is ingenious, a deep thinker					
16. Generates a lot of enthusiasm					
17. Has a forgiving nature					
18. Tends to be disorganized					
19. Worries a lot					
20. Has an active imagination					
21. Tends to be quiet					
22. Is generally trusting					
23. Tends to be lazy					
24. Is emotionally stable, not easily upset					
25. Is inventive					
26. Has an assertive personality					
27. Can be cold and aloof					
28. Perseveres until the task is finished					



29. Can be moody					
30. Values artistic, aesthetic experiences					
31. Is sometimes shy, inhibited					
32. Is considerate and kind to almost everyone					
33. Does things efficiently					
34. Remains calm in tense situations					
35. Prefers work that is routine					
36. Is outgoing, sociable					
37. Is sometimes rude to others					
38. Makes plans and follows through with them					
39. Gets nervous easily					
40. Likes to reflect, play with ideas					
41. Has few artistic interests					
42. Likes to cooperate with others					
43. Is easily distracted					
44. Is sophisticated in art, music, or literature					

## Appendix D: Short Dark Triad Consent and Survey Tool

Permission to use the Short Dark Triad was provided by Dr. Del Paulus via email. The email approval is included below, as is the Short Dark Triad tool used in the survey for this study.

**Subject :** Re: [Fwd: Request to use SRP-III in Doctoral Research]

**Date :** Thu, Oct 03, 2013 09:45 PM CDT

**From :** [del paulhus <delp1@mail.ubc.ca>](mailto:delp1@mail.ubc.ca)

**To :** [Susan Zukowski <susan.zukowski@waldenu.edu>](mailto:susan.zukowski@waldenu.edu)

**Attachment :**  SRP\_III.13.doc

 SD3.revision.999.999.doc

Here's a copy. But the SRP is rather long. I recommend using our new Dark Triad measure, also attached. It taps narcissism & Machiavellianism as well as psychopathy.

Items are at the end of the manuscript.

dp

Instructions: Please indicate how much you agree with each of the following statements

	<b>1</b> Disagree Strongly	<b>2</b> Disagree	<b>3</b> Neither agree nor disagree	<b>4</b> Agree	<b>5</b> Agree strongly
1. It's not wise to tell your secrets.					
2. I like to use clever manipulation to get my way.					
3. Whatever it takes, you must get the important people on your side.					
4. Avoid direct conflict with others because they may be useful in the future.					
5. It's wise to keep track of information that you can use against people later.					
6. You should wait for the right time to get back at people.					
7. There are things you should hide from other people because they don't need to know.					
8. Make sure your plans benefit yourself, not others.					
9. Most people can be manipulated.					
10. People see me as a natural leader.					
11. I hate being the center of attention.					
12. Many group activities tend to be dull					

	<b>1</b> Disagree Strongly	<b>2</b> Disagree	<b>3</b> Neither agree nor disagree	<b>4</b> Agree	<b>5</b> Agree strongly
without me.					
13. I know that I am special because everyone keeps telling me so.					
14. I like to get acquainted with important people.					
15. I feel embarrassed if someone compliments me.					
16. I have been compared to famous people.					
17. I am an average person.					
18. I insist on getting the respect I deserve.					
19. I like to get revenge on authorities.					
20. I avoid dangerous situations.					
21. Payback needs to be quick and nasty.					
22. People often say I'm out of control.					
23. It's true that I can be mean to others.					
24. People who mess with me always regret it.					
25. I have never gotten into trouble with the law.					
26. I enjoy having sex with people I hardly know.					
27. I'll say anything to get what I want.					

## Appendix E: Marlowe-Crowne Social Desirability Scale Consent and Survey Tool

Permission to use the Marlowe-Crowne Social Desirability Scale was provided by Dr. Doug Crowne via email. The email approval is included below, as is the Marlowe-Crowne Social Desirability Scale tool used in the survey for this study.

**Subject :** Re: Request to use Social Desirability Scale in Doctoral Research

**Date :** Fri, Oct 04, 2013 11:12 AM CDT

**From :** [Doug Crowne <dcrowne@uwaterloo.ca>](mailto:dcrowne@uwaterloo.ca)

**To :** [Susan Zukowski <susan.zukowski@waldenu.edu>](mailto:susan.zukowski@waldenu.edu)

Dear Ms Zukowski,

You have permission to use the Marlowe-Crowne scale in your doctoral research.

D.P. Crowne

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

	True	False
1. Before voting I thoroughly investigate the qualifications of all the candidates.		
2. I never hesitate to go out of my way to help someone in trouble.		
3. It is sometimes hard for me to go on with my work if I am not encouraged.		
4. I have never intensely disliked anyone.		
5. On occasion I have had doubts about my ability to succeed in life.		
6. I sometimes feel resentful when I don't get my way.		
7. I am always careful about my manner of dress.		
8. My table manners at home are as good as when I eat out in a restaurant.		
9. If I could get into a movie without paying and be sure I was not seen I would probably do it.		
10. On a few occasions, I have given up doing something because I thought too little of my ability.		
11. I like to gossip at times.		
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.		
13. No matter who I'm talking to, I'm always a good listener.		
14. I can remember "playing sick" to get out of something.		
15. There have been occasions when I took advantage of someone.		
16. I'm always willing to admit it when I make a mistake.		
17. I always try to practice what I preach.		

	True	False
18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.		
19. I sometimes try to get even rather than forgive and forget.		
20. When I don't know something I don't at all mind admitting it.		
21. I am always courteous, even to people who are disagreeable.		
22. At times I have really insisted on having things my own way.		
23. There have been occasions when I felt like smashing things.		
24. I would never think of letting someone else be punished for my wrongdoings.		
25. I never resent being asked to return a favor.		
26. I have never been irked when people expressed ideas very different from my own.		
27. I never make a long trip without checking the safety of my car.		
28. There have been times when I was quite jealous of the good fortune of others.		
29. I have almost never felt the urge to tell someone off.		
30. I am sometimes irritated by people who ask favors of me.		
31. I have never felt that I was punished without cause.		
32. I sometimes think when people have a misfortune they only got what they deserved.		
33. I have never deliberately said something that hurt someone's feelings.		

## Appendix F: Multidimensional Type A Behavior Scale Consent and Survey Tool

Permission to use the Multidimensional Type A Behavior Scale was provided by Dr. Steve Bluen via email. The email approval is included below as is the Multidimensional Type A Behavior Scale tool used in the survey for this study.

**Subject :** RE: Request for Permission to use the Multidimensional Type A Behavior Scale in Doctoral Research

**Date :** Mon, Feb 24, 2014 03:14 AM CST

**From :** [Steve Bluen <stevebluen@vodamail.co.za>](mailto:stevebluen@vodamail.co.za)

**To :** "Susan Zukowski" <susan.zukowski@waldenu.edu>

**Attachment :**  image001.png

Hi Suzan,

Thanks for your email. I formally give you permission to use the MTAB scale in your research. Please keep me posted how it worked.

Thanks

Kind Regards

Steve Bluen

Director and Head of School  
Wits Business School

Instructions: For each of the following questions, please indicate how much you agree on a scale of 1 to 5

	<b>1</b> Disagree Strongly	<b>2</b> Disagree a little	<b>3</b> Neither agree nor disagree	<b>4</b> Agree a little	<b>5</b> Agree strongly
1. I express my anger.					
2. I tell someone how I feel if they annoy me.					
3. I lose my temper.					
4. I argue with others.					
5. I strike out at whatever infuriates me.					

Instructions: For each of the following questions, on a scale of 1 to 5, please indicate how frequently or often you do or feel the item described.

	<b>1</b> Never	<b>2</b> Rarely	<b>3</b> Sometimes	<b>4</b> Often	<b>5</b> Always
6. Would people who know you well agree that you tend to get irritated easily?					
7. How often do you get irritated?					
8. Would people who know you well, agree that					

	1	2	3	4	5
	Never	Rarely	Sometimes	Often	Always
you tend to do most things in a hurry?					
9. When you listen to someone talking and this person takes too long to come to the point do you feel like hurrying him or her along?					
10. Do you find yourself hurrying to places when there is plenty of time?					
11. Do you ever set deadlines or quotas for yourself at work or at home?					

Instructions: For each of the following questions, please place the letter of your response in the box on the right.

	Response
12. Nowadays, do you consider yourself to be hard-driving and competitive? a. Definitely hard driving and competitive b. Probably hard driving and competitive c. Probably relaxed and easy going d. Definitely relaxed and easy going	
13. Would people who know you well agree that you take your work too seriously? a. Approach life more seriously b. Approach life as seriously as others c. Approach life less seriously than others	
14. In amount of effort put forth, I give: a. Much more effort than others b. Same amount of effort as others c. Less effort than others	
15. Does (did) your job stir you into action? a. Stirred me into action b. Not stirred me into action	
16. How would your spouse (or closest friend) rate your general level of activity? a. Too slow – never gets anything done b. Slow – but gets things done c. Average – reasonably busy d. Too active – should slow down	

Instructions: For each of the following questions, please indicate how much you agree on a scale of 1 to 5

	<b>1</b> Disagree Strongly	<b>2</b> Disagree a little	<b>3</b> Neither agree nor disagree	<b>4</b> Agree a little	<b>5</b> Agree strongly
17. I feel infuriated when I do a good job and get a poor evaluation.					
18. I feel annoyed when I am not given recognition for good work.					
19. I get angry when slowed down by other's mistakes.					
20. It makes me furious when I am criticized in front of others.					
21. To be a real success I feel I have to do better than everyone I come up against.					
22. It is important to me to perform better than others on a task.					
23. I judge my performance on whether I do better than others rather than on getting a good result.					
24. It annoys me when other people perform better than I do.					



## Appendix G: Ethics Scenarios Consent and Survey Tool

Permission to use the Ethics Scenarios was provided by Dr. Achilles Armenakis and Greg Stevens via email. The email approvals are included below as are the ethical scenarios used in the study.

**Subject :** RE: Request for Use of Ethical Scenarios used in 2012 Article "Successful  
They Unethical Decision-Makers and Why?"

**Date :** Fri, Oct 04, 2013 07:17 AM CDT

**From :** [Achilles Armenakis <ARMENAC@auburn.edu>](mailto:ARMENAC@auburn.edu)

**To :** [Susan Zukowski <susan.zukowski@waldenu.edu>](mailto:susan.zukowski@waldenu.edu)

**Attachment :**  Gregory\_W.\_Stevens\_Thesis.pdf

Hi Susan:

I think Greg has changed his email. I sent him an email before I received your email and have not received any acknowledgement back. Anyway I have inserted the PDF of his thesis. What you want is in the thesis. Hope this answers your request.

Sincerely,

Achilles

**Subject :** RE: Request for Use of Ethical Scenarios used in 2012 Article "Successful Psychopaths: Are  
They Unethical Decision-Makers and Why?"

**Date :** Sat, Oct 26, 2013 01:19 PM CDT

**From :** [Gregory Stevens <gws0002@tigermail.auburn.edu>](mailto:gws0002@tigermail.auburn.edu)

**To :** ["susan.zukowski@waldenu.edu" <susan.zukowski@waldenu.edu>](mailto:susan.zukowski@waldenu.edu)

**Attachment :**  Ethical\_Scenarios.pdf

Hello Susan,

Achilles forwarded me your email about the scenarios for the JBE article... sorry for the delay in getting back with you as I don't check this email all that frequently.

I've attached the scenarios that were used for that study. They were originally a part of my thesis, so they also included an organizational justice manipulation. Unfortunately, the manipulation check and subsequent analyses revealed no significant differences due to that manipulation, so they were collapsed across the org. justice conditions for the paper that we eventually published. If you would like to use these scenarios, you could simply remove the bolded language as that was the only modification I had made from the original. Please let me know if you have any further questions (a better email for me is: [gwstevens@gmail.com](mailto:gwstevens@gmail.com)).

Thanks  
Greg

**Scenario 1**

Ray manages a unit in a company that calls itself a “total quality” organization. Part of the organization’s mission statement says that employees should strive to continually improve their performance. Lately, Ray’s unit has been extremely busy trying to get its work done on several important projects. Ray asked his boss for advice about how to meet all of the deadlines, and the boss basically told him that his unit would have to cut corners on quality in order to get everything done on time. The boss also told Ray that meeting deadlines is the best way to keep clients off their backs, and that the clients rarely complain about substandard work because its effects show up much later. However, Ray knows that doing substandard work for clients will only hurt the company’s reputation in the long run.

It’s okay for Ray to tell his unit to focus on meeting deadlines at the expense of doing quality work because

(1 = ‘Strongly Disapprove’ and 7 = ‘Strongly Approve’)

	Strongly Disapprove					Strongly Approve	
	1	2	3	4	5	6	7
1. He needs to take care of his own company first and foremost.							
2. This is just the way that the game is played.							
3. Cutting corners is better than losing a client because of a missed deadline.							
4. Ray’s boss gave the go-ahead to do it.							
5. All the managers of the other units will be doing the same thing.							
6. The clients won’t even notice the decline in quality.							
7. If the clients want their deadlines to be met, then they don’t deserve quality work.							
8. The clients have brought this on themselves by being too demanding.							
9. It’s never okay to focus on deadlines at the expense of quality.							

**Scenario 2**

Pat is responsible for providing estimates of business expenses for his unit to his boss, who then determines the budget for all units in the company. Upper management has always emphasized the importance of providing timely and accurate financial estimates, and they have backed up this policy by disciplining managers for inaccurate or late estimates. Pat recently realized that the figures he supplied contained a mistake. The mistake was that an expense was projected to be larger than it should have been. It will not affect the ability of the company to stay within the budget. However, the money could be used to cover other company expenditures. Up to this point, no one else has identified the mistake and it is unlikely that they will.

It's okay for Pat to NOT report the mistake because...  
(1 = 'Strongly Disapprove' and 7 = 'Strongly Approve')

	Strongly Disapprove					Strongly Approve	
	1	2	3	4	5	6	7
1. He needs to protect the reputation of his unit above all else.							
2. The mistake is really just a "drop in the bucket" in the overall budget.							
3. Compared to other possible mistakes, this one isn't hurting the company any.							
4. Managers shouldn't be doing the accountants' jobs anyway.							
5. The entire team helped with the estimates, so any one person should not be blamed.							
6. The estimates are just for the accountants. They don't really affect anyone.							
7. If the estimate process weren't so complicated, mistakes like this wouldn't be made.							
8. His boss doesn't even deserve accurate estimates.							
9. Mistakes, once they've been identified, should never go unreported.							

**Scenario 3**

Kris decided that her subordinates would benefit greatly from a particular training program. In fact, Kris as much as promised these employees that they would receive the training in the near future. The employees were excited and looked forward to developing their skills. At the time that Kris made that statement she felt that her budget would easily cover the training. However, upper management recently sent Kris and the other managers at her level a memo about new financial policies. The memo demanded increased efficiency over the next quarter, and outlined new rules saying funds could only be spent on essential functions. Kris believes that this focus on short-term goals would be detrimental to the long-term functioning of the unit that she manages.

Kris should schedule the training for her subordinates because...  
(1 = 'Strongly Disapprove' and 7 = 'Strongly Approve')

	Strongly Disapprove					Strongly Approve	
	1	2	3	4	5	6	7
1. She has an obligation to look out for her own subordinates first and foremost.							
2. The new rules on expenses are basically guidelines anyway.							
3. Using the money for training is not as bad as using it for some other purpose.							
4. The new memo is forcing her into this situation, so she can't be blamed.							
5. All of the other managers are probably doing the same things.							
6. Using the money on training won't really hurt the company.							
7. The new rules are really just more mistreatment by upper management.							
8. Upper management only thinks about money instead of people.							
9. It's not okay to schedule training if it breaks company rules.							

**Scenario 4**

Leigh has been looking forward to the day that a certain subordinate is rotated out of her unit. This subordinate usually works up to performance standards, but is very abrasive, mean-spirited, and hardly anyone can stand interacting with him. The subordinate is due to be rotated out of the work unit in two days. But today, Leigh has learned that the subordinate made a serious mistake. When others made the same mistake, Leigh has followed company policy by providing negative feedback and constructive criticism after writing a formal letter of discipline for the employee's personnel file. In this situation, Leigh has written up the employee, but does not know if it is worth the time and effort to engage in what will probably be a very unpleasant interaction with the subordinate. After all, the subordinate will be rotated out of the unit very soon.

It would be okay for Leigh to NOT have the interaction with the subordinate because...  
(1 = 'Strongly Disapprove' and 7 = 'Strongly Approve')

	Strongly Disapprove					Strongly Approve	
	1	2	3	4	5	6	7
1. She should be spending time and effort on stable members of her unit.							
2. Policies like this are meant to be "flexible" in these situations anyway.							
3. Skipping this interaction isn't as serious as skipping one with someone staying in the unit.							
4. It's really the subordinate's next manager who should be taking care of feedback.							
5. Other managers certainly don't follow the procedures all the time.							
6. Having the meeting or not won't have an effect on the employee's future behavior.							
7. It's the subordinate's fault for being abrasive, so the effort of feedback isn't worth it.							
8. Someone that abrasive and mean doesn't deserve to be treated like other humans.							
9. It's never okay to ignore disciplinary policy; Leigh needs to meet with the subordinate.							

## Appendix H: Alcohol Use Disorders Identification Test Consent and Survey Tool

The Alcohol Use Disorders Identification Test is available in the public domain for use in research and teaching from the World Health Organization. No additional permission required. The Alcohol Use Disorders Identification Test tool used in the survey for this study is included below.

### Instructions:

Business Professionals: Please respond to each question by placing an “X” in the appropriate box.

Offenders: Thinking about the year prior to your arrest, please respond to each question by placing an “X” in the appropriate box.

1. How often do you have a drink containing alcohol?

<input type="checkbox"/>	(0) Never (Skip to Question 9-10)
<input type="checkbox"/>	(1) Monthly or less
<input type="checkbox"/>	(2) 2 to 4 times a month
<input type="checkbox"/>	(3) 2 to 3 times a week
<input type="checkbox"/>	(4) 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

<input type="checkbox"/>	(0) 1 or 2
<input type="checkbox"/>	(1) 3 or 4
<input type="checkbox"/>	(2) 5 or 6
<input type="checkbox"/>	(3) 7,8,9
<input type="checkbox"/>	(4) 10 or more

3. How often do you have six or more drinks on one occasion?

<input type="checkbox"/>	(0) Never
<input type="checkbox"/>	(1) Less than monthly
<input type="checkbox"/>	(2) Monthly
<input type="checkbox"/>	(3) Weekly
<input type="checkbox"/>	(4) Daily or almost daily

4. How often during the last year have you found that you were not able to stop drinking once you had started?

<input type="checkbox"/>	(0) Never
<input type="checkbox"/>	(1) Less than monthly
<input type="checkbox"/>	(2) Monthly
<input type="checkbox"/>	(3) Weekly
<input type="checkbox"/>	(4) Daily or almost daily

How often during the last year have you failed to do what was normally expected from you because of drinking?

	(0) Never
	(1) Less than monthly
	(2) Monthly
	(3) Weekly
	(4) Daily or almost daily

5. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

	(0) Never
	(1) Less than monthly
	(2) Monthly
	(3) Weekly
	(4) Daily or almost daily

6. How often during the last year have you needed an alcoholic drink first thing in the morning to get yourself going after a night of heavy drinking?

	(0) Never
	(1) Less than monthly
	(2) Monthly
	(3) Weekly
	(4) Daily or almost daily

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

	(0) Never
	(1) Less than monthly
	(2) Monthly
	(3) Weekly
	(4) Daily or almost daily

8. Have you or someone else been injured as a result of your drinking?

	(0) No
	(2) Yes, but not in the last year
	(4) Yes, during the last year

9. Has a relative, friend, doctor, or another health professional expressed concern about your drinking or suggested you cut down?

	(0) No
	(2) Yes, but not in the last year
	(4) Yes, during the last year

### Appendix I: Drug Use Disorder Questionnaire Consent and Survey Tool

The Drug Use Disorders Questionnaire is available in the public domain for use in research and teaching. No additional permission required. The Drug Use Disorders Questionnaire tool used in the survey for this study is included below.

#### Instructions:

Business Professionals: Please respond “yes” or “no” to each of the questions by placing an “X” in the column.

Offenders: Thinking about the year prior to your arrest, please respond “yes” or “no” to each of the questions by placing an “X” in the appropriate column.

	Yes	No
Screening Question: Have you used this substance in the past year? [Offenders: year prior to arrest] (If yes, continue to substance specific items. If no, stop here)		
1. In the past year, did your use interfere with taking care of your home or family or cause you problems at work or school?		
2. In the past year, did you more than once get into a situation while using or after using that increased your chances of getting hurt—like driving a car or other vehicle or using heavy machinery?		
3. In the past year, did you get arrested, held at a police station or have legal problems because of your use?		
4. In the past year, did you continue to use even though it was causing you trouble with your family or friends?		
5. In the past year, have you found that you have to use more than you once did to get the effect you wanted?		
6. In the past year, did you find that your usual amount had less effect on you than it once did?		
7. In the past year, when the medication/drug effects were wearing off, did you experience some of the bad aftereffects—like trouble sleeping, feeling nervous, restless, anxious, sweating, or shaking, or did you have seizures or sense things that were not really there?		
8. In the past year, did you end up using more or using for a longer period than you intended?		
9. In the past year, did you more than once want to try to stop or cut down on your use, but could not do it?		
10. In the past year, did you spend a lot of time using or getting over the bad after effects of use?		
11. In the past year, did you give up or cut down on activities that were important to you or gave you pleasure in order to use?		
12. In the past year, did you continue to use even though it was causing you to feel depressed or anxious or causing a health problem or making one worse?		



## Appendix J: Demographic and Sociological Questions on Survey Tool

A variety of demographic factors and other sociological factors were included in the survey tool and are included below.

What is your age? \_\_\_\_\_

What is your gender?

- Male
- Female

What is your marital status?

- Single
- Married
- Divorced
- Widowed
- Other (please specify) \_\_\_\_\_

Which race/ethnicity best describes you? (Please choose only one.)

- American Indian or Alaskan Native
- Asian / Pacific Islander
- Black or African American
- Hispanic American
- White / Caucasian
- Other (please specify) \_\_\_\_\_

What is your current family income level (offenders: at time of incarceration)?

- Less than \$25,000
- \$25,000 to \$49,000
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$124,999
- \$125,000 to \$149,999
- \$150,000 to \$174,999
- \$175,000 to \$199,999
- Over \$200,000

**Other Information**

Please indicate the type of family unit you grew up in:

- Single parent home
- Parents were married
- Lived with grandparents
- Lived with family member guardians (not parents or grandparents)
- Lived with non-family member guardians
- Lived in foster care
- Other (please specify): \_\_\_\_\_

Did your mother abuse or misuse drugs?

- Yes
- No
- Unsure

Did your father abuse or misuse drugs?

- Yes
- No
- Unsure

How would you classify the parenting style you grew up with?

- Authoritarian
- Permissive
- Authoritative
- Neglecting

Was your mother ever convicted of a white collar crime (antitrust violations, securities fraud, corporate fraud, commodities fraud, occupational fraud, financial institution fraud, insurance fraud, mortgage fraud, money laundering, bribery/kickbacks, extortion, and mass marketing fraud)?

- Yes
- No
- Unknown

Was your mother ever convicted of a violent crime (murder, rape, kidnapping)?

- Yes
- No
- Unknown

Was your mother ever convicted of a street level crime?

- Yes
- No
- Unknown

Was your father ever convicted of a white collar crime (antitrust violations, securities fraud, corporate fraud, commodities fraud, occupational fraud, financial institution fraud, insurance fraud, mortgage fraud, money laundering, bribery/kickbacks, extortion, and mass marketing fraud)?

- Yes
- No
- Unknown

Was your father ever convicted of a violent crime (murder, rape, kidnapping)?

- Yes
- No
- Unknown

Was your father ever convicted of a street level crime?

- Yes
- No
- Unknown