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Who is Taking the Shirt Off Your Back? A Multi-Method Analysis of Theft at a Specialty Retailer

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WHO IS TAKING THE SHIRT OFF YOUR BACK? A MULTI-METHOD ANALYSIS OF THEFT AT A SPECIALTY RETAILER

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Title: Who is Taking the Shirt Off Your Back? A Multi-Method Analysis of Theft at a Specialty Retailer

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This study examines the causes and cost of theft, both internal and external, at one particular specialty retailer and offers an explanation of motivation for those being caught committing internal theft. Historically, crime has been perceived as an activity of the nonworking or lower class members of society (Hollinger & Clark, 1983). Some still may not even consider illegal actions that occur during the course of business to be crimes at all (Kuratko, Hornsby, Naffziger & Hodgetts, 2000). Currently, business crime costs the United States approximately $186 billion annually (Kuratko, Hornsby, Naffziger & Hodgetts, 2000). Most individuals spend the majority of their adult lives at their workplace; making the study of occupational deviance and theft critical in the field of criminology, as the inclination towards criminal activity does not disappear once an individual enters into the workplace (Kane & Lybarger, 2002). Employee theft is one of the most rampant and costly issues faced by today's public and private business owners (Kane & Lybarger, 2002). The purpose of this study was to provide answers as to who is being caught committing theft, the characteristics of store locations that lead to loss, how much loss is occurring annually, the cost of internal theft, what prevention techniques are being used in an attempt to control/prevent loss, and the motivations to commit internal theft as provided by those individuals who admitted to fraud at the specialty retailer. The results of the study add to the current literature, inform future research, and guide policy changes within retailers in regards to total loss, employee theft and what may be done to prevent it.

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CHAPTER I

INTRODUCTION

The store is vacant with the exception of the assistant manager, a few sales associates, the merchandise, and the money. It is your responsibility to close up for the night. As you count the cash from the registers, you cannot help but become intoxicated by the cold, hard cash in your hands. You begin to think about the time you have given to this organization, the extra hours you put in without additional pay and the cost of your car insurance after the accident. No one is looking; the money is basically yours to keep. You tell yourself that you will pay it back; it is like taking out a loan or borrowing from a friend. You are not stealing.

Now, for the consumer the cost of this crime and others like it is hanging from the tag on that new shirt. Retailers suffer losses in excess of $40 billion dollars annually due to larcenous activity occurring at their organizations (Hollinger & Adams, 2007). These losses may be offset by passing costs onto the consumer in the form of higher pricing. The purpose of this study is to examine the causes and all costs of both internal and external theft at one particular specialty retailer, and to offer an explanation of the motivations for those who have been caught committing internal theft.

A multi-method strategy was employed to answer many of the relevant research questions surrounding loss at a particular specialty retailer. The results of the study provided answers as to who is being caught committing theft, the characteristics of store locations that lead to loss, how much loss is occurring annually, the cost of internal theft, what prevention techniques are being used in an attempt to control/prevent loss, and the motivations to commit internal theft as provided by those individuals who admitted to fraud at the organization.

Crime and deviance in the workplace is often overlooked as an area of study by researchers in the discipline for a number of reasons (Hollinger & Clark, 1983). Historically, crime was perceived as an activity of the nonworking or lower class members of society (Hollinger & Clark, 1983). Some still may not even consider illegal actions that occur during the course of business to be crimes at all (Kuratko, Hornsby, Naffziger & Hodgetts, 2000). Occupational, or employee, theft is not a twentieth century phenomenon, but rather has been occurring throughout history (Tucker, 1989). Aristotle accused road officials and commissioners of embezzling funds (Tucker, 1989).

In the late eighteenth century, it was customary for employees to confiscate goods deemed as waste products via manufacturing (Locker & Godfrey, 2006). The workers believed that these were perks to which they were entitled (Locker & Godfrey, 2006). This practice became so extensive that it was often accepted and for the most part considered legitimate under traditional practices of entitlement (Locker & Godfrey, 2006). Confiscation of goods did not cease into early nineteenth century England, where cotton mill workers were taking materials on a systematic basis (Tucker, 1989). The widespread nature of these practices began to bore deeply into the pockets of employers, who began to rely on legislation to clarify property ownership and rights to certain materials (Locker & Godfrey, 2006). These initial regulations became the launching point for the criminalization of employees removing property from their place of employment without proper payment (Locker & Godfrey, 2006).

Although it was illegitimate by the nineteenth century for employees to take home materials from their workplace without proper payment, the level of this activity was in epidemic proportions (Locker & Godfrey, 2006). Until this point in time, crime had been thought of as a social problem of the lower class, but the increasing participation in occupational theft by

"respectable, middle-class, white collar" employees demonstrated a need for societal change in their view of criminal behavior (Locker & Godfrey, 2006. p. 978). The extent of occupational theft and fraud became increasingly visible to the public, and the economic impact of these crimes began to illicit real concern (Locker & Godfrey, 2006).

Currently, business crime costs the United States approximately $186 billion annually (Kuratko, et.al, 2000). Most individuals spend the majority of their adult lives at their workplace making the study of occupational deviance and theft critical in the field of criminology, as a prior inclination towards criminal activity does not disappear once an individual enters into the workplace (Kuratko, et.al, 2000). Employee theft is one of the most rampant and costly issues faced by today's public and private business owners (Kane & Lybarger, 2002).

At this time, there is no other type of larceny that costs the American public more than employee theft (Hollinger & Adams, 2007). The estimated cost of employee theft on business at the end of fiscal year 2006 was $19 billion (Hollinger & Adams, 2007). This is a large amount of revenue that has to be made up by retailers in some way, and in most cases the consumer pays the price with an increase in the cost of goods and services (Hollinger & Clark, 1983; Rosoff, Pontell & Tillman, 2002). Employee theft can be up to ten times as costly as street crime (Hollinger & Adams, 2007; Kulas, McInnerney, DeMuth, & Jadwinski, 2007). According to Hollinger & Adams (2007), retailers can credit 47% of the company's total losses to employee theft (p.7). Employee theft may not be as visible to the public and may not garner the kind of attention from the news media that street crimes do, but it creates a serious financial burden on the public. The study of this type of crime and the motivations for committing this crime are critical to gaining a greater understanding of all criminal activity.

Shoplifting has become much more problematic in recent years due to the surge of crime groups known as organized retail crime (ORC) rings targeting specialty retailers (Hollinger & Adams, 2007). Retailers not only have to be concerned about those who work within their organization, but the individuals lurking outside who may be devising a plan to remove large amounts of merchandise from various store locations. The estimated cost of all categories of shoplifting for retailers in 2006 was $13 billion (Hollinger & Adams, 2007). The losses suffered by retailers from shoplifting are approaching similar levels to the losses suffered by victims of all personal property crimes combined (Hollinger & Adams, 2007). Shoplifting contributed to 32% of total losses for organizations in 2006 (Hollinger & Adams, 2007).

Cheating, in all forms, has become so commonplace that allegations are often met with a shrug and smirk, but these crimes involving trust violation have serious repercussions for society (Lipman & McGraw, 1988). Crime that occurs in the workplace has a severe economic impact on society, and creates costs to the social relations with the community as well (Lipman & McGraw, 1988). The distrust that occurs is damaging to the morale of society and has an impact on all of the social institutions (Sutherland, 1977; Shover, 1998). These crimes violate the social morale of the community, create distrust, and can lead to social disorganization (Sutherland, 1949; Shover, 1998).

The lack of widespread interest in retail theft, especially an examination of the variables that lead to dollar loss was the catalyst for this study. The researcher examined variables that impact theft in two main phases of data collection and analysis with supplemental interviews to offer support to the primary phases of research. Initially, the variables believed to predict total yearly loss from the retailer were examined. Secondly, the characteristics of individuals caught at the retailer for committing refund fraud were explored to determine who the most likely

individual to participate in this activity has been, and how these characteristics impact the motivations provided by these men and women.

Researchers have made attempts at identifying those factors that would have an effect on losses suffered by retailers. In general, most of the research reviewed was focused on the socioeconomic status of the offender, position within the organization, and offender motivations (Hollinger & Clark, 1983; Tucker, 1989; Walsh, 2000; Kane & Lybarger, 2002). The results of this research often found that those with a marginal position and short tenure felt dissatisfied with their current situation within the work environment (Hollinger & Clark, 1983; Tucker, 1989; Walsh, 2000; Kane & Lybarger, 2002). These feelings of dissatisfaction often led to employee theft and a deviant work environment (Hollinger & Clark, 1983; Tucker, 1989; Walsh, 2000; Kane & Lybarger, 2002). The literature reviewed did not contain any studies where a multitude of store and personnel characteristics were taken into account to determine what may predict levels of loss, and to determine what factors may shape motivational choices.

A number of reasons may be put forth for the lack of research that has been conducted examining multiple variables and their impact on loss. Access to retailers is at a premium for most researchers, especially access to multiple characteristics of the retailer which could be considered identifying. Many research studies are done utilizing surveys of current or former employees, or loss prevention personnel; or observations of retail activities (Albrecht & Schmoldt, 1988; Hollinger & Clark, 1983; Hollinger & Langton, 2005; Hollinger & Adams, 2007; Hogsett III & Radig, 1994; Walsh, 2000). These forms of research limit the number of variables that might be examined during data collection. The researcher capitalized on the generous access provided by the loss prevention department, and collected data on 17 separate variables for all phases of the research.

Another reason may be that women are rarely studied as a separate group in regards to their level of crime in general. This has become problematic as there are crimes that women have begun to commit at a rate similar to men, and women and men most likely have different motives and goals for committing these crimes (Daly, 1989; Small, 2000). Further, the variable of age is often examined in the research as a control variable, rather than an independent variable that has an impact on loss and motivation. The research explored these and other variables that helped to explain both internal and external loss, characteristics of individuals caught for committing theft, and the motivational choices for participating in employee theft.

Purpose of the Study

The purpose of this study was to explore loss at one particular specialty retailer and the variables which predicted external and internal loss in and around stores. In addition, the characteristics of individuals who have participated in internal theft were determined, along with the motivational choices of those participants of internal theft. In order to thoroughly examine retail theft and all variables, a multi-method strategy was employed. The researcher completed three separate phases of data collection and analysis. The initial phase included data collection on variables believed to affect both external and internal loss in stores, and an analysis of all stores and these variables believed to impact loss in those stores. The second phase involved collection of case files for individuals who had been caught and terminated for internal theft from the retail organization, and a case analysis of these files and any statements provided by the individuals at the time of their separation from the organization. Finally, interviews with the loss prevention personnel and director were completed and used as supplemental data to enhance the findings from the first two phases of research.

The population for this study was a specialty retailer with locations across the United States and Canada with a loss prevention department that has been in place since 1995. The initial phase of research involved a total population design, which included all store records for the time frame of 2005 through 2012. The second phase was comprised of a non-probability sample of case files gathered by the department on individuals who have been caught and admitted to employee theft, specifically refund fraud, deposit theft, cash theft, credit/check fraud, and passing or removing merchandise. These files contained descriptive details of the cases such as the age, sex, tenure of employment, and occupational position held of the former employee, as well as, the total dollar loss from that particular incident. Some of the case files also contained a statement of confession composed by the individual at the time of their exit interview. Finally, qualitative interviews were completed with specific loss prevention personnel to gain additional insight into the losses that occurred at this particular specialty retailer, and the tactics employed by the loss prevention department in an effort to control or reduce these losses.

Each phase of this research project contributed to a greater understanding of all loss within specialty retail. The first phase focused on three grouping of variables that lead to a clearer understanding of loss within this retailer. The first group of variables collected and analyzed were environmental factors such as state where the store is located, store location environment, and store location type. The second group of variables collected and examined was internal structural variables such as cash and wrap location, number of doors, and use of camera surveillance. Finally, the personnel variables were collected, these are number of managers per store, management turnover, and store manager turnover.

The second phase of data collection and analysis contributed to the determination about the age, sex, tenure, and occupational position of those being caught committing internal theft

from the organization, and what the motivations for these individuals were at the time of the theft. In other words, what factors in the personal or professional lives of these people led them to the point where theft seemed like the best or only option available. Finally, the interviews with the loss prevention personnel provided insight into the loss prevention techniques developed and implemented in order to control loss at this retailer, the factors that these individuals believed led to loss within their organization, and the reasons they believed employees chose to participate in deviant or criminal acts while at work.

This research not only contributes to a better understanding of loss at the specific research site, but may also lead to an increased knowledge base about loss for other retailers as well. The information provided from the motivational statements should be applicable to other types of organizations and other retailers as most human experiences can transcend occupational boundaries. The data collected from the case files and statements also provides a clearer picture on who is participating in occupational theft, and their reasons for doing so. This information is valuable to this retailer, other retailers, and contributes to the existing literature in the field.

The results from this research have allowed the author to provide policy implications for this specialty retailer about the environmental, structural, and personnel variables which can lead to a greater likelihood of loss. Although structural design of other retailers may impact the results found here, environment factors and personnel can be translated to other locations for policy recommendations as well. This research has uncovered numerous aspects about the relationship between environment, structure, and personnel in a store location, and the level of loss at that location. Finally, the results of the research should contribute to the existing literature on retail theft as this study was used to compare multiple factors to yearly loss and the various

demographics of those who commit theft while at work, and the motivations that correspond to those characteristics.

The following chapter will explore the prevalence and cost of employee theft on various organizations. In addition, the previous studies done on motivations for workplace theft, the impact that tenure and occupational position have on motivations and level of theft, and the prevention techniques used by organizations will be discussed. The lack of research in certain areas such as offending differences between men and women and data on differences between specific age groups will be discussed. In addition, the lack of research completed using multiple variables and how those variables have an impact on loss will be addressed. In Chapter III, the theoretical perspectives that offer support to the research will be covered with specific examples tying the theories and research to retail and occupational theft.

In Chapter IV, the researcher will explore the methodology that was implemented and the specific analysis plan that was executed once the data had been collected. Chapter V details the specific statistical tests run on the data collected, and the results of those tests on all three phases of research. Finally, Chapter VI provides the reader with an explanation of what retail theft is, how much it costs, the variables that lead to an increase in loss, those individuals who partake in employee theft, why they choose to do so, the techniques retailers may implement to control the level of loss within their organization, and the benefits and limitations of this particular research project.

CHAPTER II

LITERATURE REVIEW

The following section is a review of the academic literature. This review establishes the importance of examining employee theft and deviance in the workplace for the reader, in addition to the reasons that this theft occurs. The following discussion will include the definition of employee theft, establish how much theft is occurring via the prevalence and the cost of employee theft to business and society, explore the demographics of individuals committing the theft, the motivations for individuals who have been caught committing theft, and finally the steps retailers are taking to prevent internal theft from happening.

In order to conceptualize variables for this study, a definition of employee theft had to be examined and accepted. Often the total cost of employee theft is difficult to determine, as is the occurrence of this theft at retailers. The research reviewed will explore this issue in greater detail. Offender characteristics vary from one criminal activity to another; therefore, it is important to establish the prevailing characteristics of offenders in previous research in order to better examine those characteristics as well as others not discussed in the literature in the present study.

Organizational structure and climate can also play a large role in determining the occurrence and cost of theft. The workplace has to establish a formal norm that does not promote theft and deviance in order to deter individual employees from participating in this activity while occupying a position with the company (Parilla, Hollinger, & Clark, 1988). An organization that does not have proper formal controls in place to deter theft will be more likely to experience significant loss from this theft (Parilla, et.al, 1988). The workplace that contains a culture of

theft, clear opportunities for this theft, and dissatisfied employees will experience higher levels of employee theft in various forms (Parilla, et.al, 1988). Employee dissatisfaction can result from a variety of circumstances generally grouped into personal reasons or organizational reasons. The literature reviewed will establish the importance of each of these variables in the examination of theft within a retail organization as well as highlighting the areas with deficiencies in the previous research in order to establish the importance of the current study.

Definition of Employee Theft

According to Hollinger and Clarke (1983), employee theft is "the unauthorized taking, control, or transfer of money and/or property of the formal work organization that is perpetrated by an employee during the course of occupational activity" (p.2). This is the definition most often identified in the reviewed research about employee theft and deviance. The methods that employees utilize to perpetrate this criminal activity during the course of employment can be numerous and intricate in design, such as utilizing company computers to falsify finances, embezzling, and forging documents (Hogsett III & Radig, 1994).

The techniques can also be rudimentary and easily detectable by the employer. These would include acts such as taking office supplies e.g. paper, writing utensils, staples or inventory, like apparel or goods for personal use. It may also include making phone calls on company time, excessive internet usage, voiding sales and pocketing the cash, providing unauthorized employee discounts, or theft of time e.g. employees being paid for time that he or she did not actually work (Albrecht & Schmoldt, 1988; Hogsett III & Radig, 1994; Walsh, 2000). No matter the methodology, any activities that involve the unauthorized use of

employment status to gain property or money from one's employer should be considered occupational fraud/theft.

Edwin Sutherland initially introduced the notion of white-collar crimes during his presentation to the American Sociological Association in 1939 (Payne, 2013). It was nearly 10 years later when he developed the first definition of white-collar crime. In his book *White-Collar Crime*, Sutherland defined this behavior as "crime committed by a person of respectability and high social status in the course of his occupation" (Sutherland, 1949, p. 9). Although Sutherland limited his definition by calling attention to the social status of the individuals, he stressed the key factor of occupational position being necessary for individuals to commit crime during the course of their occupation.

Sutherland has been praised by many social scientists for expanding the focus of criminal activity to include those in legitimate occupations. He has also received criticism from those who study white-collar crime for the deficiencies in his definition (Payne, 2013). Most of the criticism of his definition centers on the ambiguity of his concept of white-collar crime specifically the empirical ambiguity about the social status of white-collar offenders (Payne, 2013). One particular study of white-collar offenders convicted in federal courts between 1976 and 1978 found that most offenders were actually individuals who fall into the middle class of society (Weisburd, Chayet & Waring, 1990).

Sutherland was successful in prompting discussion about the concept of white-collar crime, although the conceptual challenges in defining white-collar crime have yet to be resolved. One definition of white-collar crime that is acceptable to everyone has yet to be established. The concept of white-collar crime has been broken into definitions ranging from organizational

deviance and elite deviance to organizational and occupational crime (Payne, 2013). The primary components within each of these definitions are illegal activities being committed during the course of a legitimate occupation; therefore the social status of the individual is irrelevant. A white-collar crime occurs if it is perpetrated by an individual during the course of his or her occupation (Payne, 2013).

Employee theft, for the purposes of this study, includes a few activities that may take place within any store location at the specialty retailer and can be perpetrated by either a member of the management staff or an associate. The removing of money from the register in the form of a fraudulent refund is one of the primary theft activities examined. The theft of cash or the bank deposit was also analyzed. Finally, the theft of merchandise was looked at as a main category of occupational theft. These are the primary theft behaviors that one could participate in during the course of employment at the specialty clothing retailer.

Prevalence of Employee Theft

The prevalence of employee theft can best be determined by those who work in the field on a daily basis. According to Hollinger and Clark (1983), the most informative statistics on this subject come from those experts in the area of private and industrial security. It is difficult to determine a single base rate for employee theft as researchers use varying methods that have produced a mixture of results. These results can range from 12% of employees committing theft to 78% of employees. According to Walsh (2000), approximately 75% of all employees will steal from their employer at least once in their career. The following section details several studies conducted on the prevalence of employee theft in various sectors. These studies show the

variance in results, but more importantly the high incidence of employee theft, and therefore the need to study this crime more extensively.

In 1997, data was collected from 422 small businesses in the Midwestern and Southeastern portion of the United States to determine the occurrence of crime, the methods employed for prevention, and the level of concern over the impact of theft on business (Kuratko, Hornsby, Naffziger & Hodgetts, 2000). The researchers measured level of concern using a five-point Likert scale where 1 = not very concerned and 5 = very concerned (Kuratko et al, 2000). Shoplifting had a mean level of concern of 2.28, a mean occurrence of 35.49 during the previous year, and a mean cost per incident of $185.47 (Kuratko et al, 2000). Employee monetary theft had a mean level of concern of 2.35, a mean occurrence of 7.92 during the previous year, and a mean cost per incident of $1485.19 (Kuratko et al, 2000). Employee merchandise theft had a mean level of concern of 2.34, a mean occurrence of 15.41 during the previous year, and a mean cost per incident of $305.46 (Kuratko et al, 2000). Of the five crime categories examined, shoplifting and both types of employee theft were the most costly, the most frequently occurring, and the crimes that caused the highest average concern (Kuratko et al, 2000).

Wimbush and Dalton (1997) conducted research using four groups of participants who had been employed within the past 2 years in an industry believed to be highly exposed to theft such as fast-food, convenience stores, and service stations. The groups of participants were predominantly from the midwestern portion of the United States. Theft behaviors were classified as theft of cash, supplies, and merchandise (Wimbush & Dalton, 1997). The theft levels were classified as: $5.00 - $9.99, $10.00 - $24.99, $25.00 - $49.99, and >$50.00 (Wimbush & Dalton, 1997).

The researchers used three methods to collect data; a conventional survey instrument, a RRT protocol and a UCT protocol (Wimbush & Dalton, 1997). In the conventional survey, the researchers asked four questions in regard to the level of participation in theft behaviors while employed (Wimbush & Dalton, 1997). The four questions were identical in form but varied on the theft level as identified above such as "are/were you involved in the theft from your employer of cash, supplies or merchandise from $5.00 - $9.99" (Wimbush & Dalton, 1997, p. 757). In the RRT protocol, the respondents were asked the same questions as the survey but with the inclusion of a randomizing device in order to better estimate an overall base rate for theft (Wimbush & Dalton, 1997). Finally, the UCT protocol required two separate groups of respondents who answered questions by indicating how many statements he/she agreed with based upon the already established questionnaire (Wimbush & Dalton, 1997).

The overall results of the study indicated that 28.2% of participants admitted to committing theft in the conventional survey, while 59.2% of employees were committing theft as indicated by the RRT protocol and 57.9% were committing theft according to the UCT protocol (Wimbush & Dalton, 1997). The respondents in all three protocols indicated the highest amount of participation in theft activities at the lowest theft level of $5.00- $9.99 (Wimbush & Dalton, 1997). In particular 12.9% of the survey respondents indicated participation at this level, 26.1% of employees in the RRT protocol were found to be taking part in this level of theft and 21% of those who participated in the UCT protocol were found to have committed theft at this level (Wimbush & Dalton, 1997). According to these results, most theft is in these sectors appears to be trivial in dollar amount but high in frequency.

Albrecht and Schmoldt (1988) conducted a study in an attempt to classify frauds and their occurrence derived from cases that had been prosecuted through state and federal courts. These

researchers examined court cases via Lexis, a legal database, and found 126 cases, 48 of which were federal and 78 of which were state, involving employees committing fraud against their employer (Albrecht & Schmoldt, 1988). According to the researchers, of the 126 cases, 94 (75%) involved the theft of cash, checks, inventory or property (Albrecht & Schmoldt, 1988). Stolen inventory was mainly a problem for retailers, financial institutions and manufacturers, with retailers experiencing this the most just under financial institutions (Albrecht & Schmoldt, 1988).

While stolen inventory was mostly a problem for three of the institutions examined, cash embezzlement, check forging and misrepresentation were issues for most of the industries (banks, manufacturers, insurance companies, retailers) (Albrecht & Schmoldt, 1988). Of the small number of cases reviewed in this research it can be concluded that stolen inventory and cash embezzlement are issues affecting numerous industries, including the most crucial to this study, the retail industry.

Tatham (1974) contacted one hundred employees in a downtown shopping mall and in adult education classes, confirmed as retail employees, and questioned on their involvement in retail theft. Of the one hundred people, 98 responded fully to the questionnaire, 49 of whom responded in the affirmative to the question have you ever taken merchandise from your place of employment without paying for it, therefore these individuals are identified as "takers" from this point forward in the research (Tatham, 1974). The remaining 49 respondents answered in the negative when asked about removing merchandise without paying for it, therefore identified as the "nontakers" for the remainder of the research (Tatham, 1974).

Tatham (1974) questioned the "takers" further on the value of the items stolen and what their feelings were about the theft. Sixty-seven percent indicated that they did not view their

actions as stealing (Tatham, 1974). The value of the item taken did not lead to a significant difference in the participants' view of their actions being theft or not. As a matter of fact, when pressed further on this item, 84 percent admitted to having no feelings of guilt whatsoever despite taking merchandise (Tatham, 1974). The researchers then included questions on giving unauthorized discounts in the survey; 49 of the "takers" admitted to this action as did 18 of the "nontakers" (Tatham, 1974). When the 50 percent of those who responded as "takers" to this survey are combined with those who admitted to giving unauthorized discounts, the number of employees committing theft in some form increases to 68 percent (Tatham, 1974). Employee theft can be generalized as a significant problem and should create concern amongst retailers.

Hollinger and Clark conducted one of the most extensive studies on employee theft and deviance utilizing data from the retail, hospital and manufacturing sectors (1983). The study was conducted by sending out self-report questionnaires to current employees with several retail organizations, interviewing organizational executives, and conducting face to face interviews with employees (Hollinger & Clark, 1983). The results of the self-report questionnaire with a total of 3,567 responses were supplemented by the interviews to confirm the results and verify reliability and validity (Hollinger & Clark, 1983). For the purposes of this study, only the data collected on the retail sector will be reported as this is the area the researcher is most interested in.

Although this research is dated, it is vital in the establishment of the importance of employee theft as a research topic. This original work is cited in almost 300 pieces of literature including each piece of research reviewed by the author. In addition, Richard Hollinger continues his work in this area today as the Director of the Security Research Project at the

University of Florida and continues to publish research on this subject using his original 1983 project as a launching point.

The initial portion of the questionnaire asked the respondents to indicate their level of involvement in certain behaviors which the researchers deemed property deviance (Hollinger & Clark, 1983). The researchers asked about 7 specific activities that could occur during the course of one's occupational duties in retail (Hollinger & Clark, 1983). The activities were: misuse of the discount, taking store merchandise, receiving payment for more hours than actually worked, purposely underringing a purchase, borrowing or taking money from employer without approval, receiving reimbursement on business expenses for more money than actually spent and damaging merchandise to purchase it at a discount (Hollinger & Clark, 1983). The response categories for involvement in each of these activities were as follows: "almost daily" "about once a week" "four to twelve times a year" "one to three times a year" (Hollinger & Clark, 1983, p.42). Of the 3,567 respondents, 35% indicated involvement in at least one of these activities (Hollinger & Clark, 1983).

The researchers concluded that the activity most often participated in by the employees was the misuse of the discount privilege with 29% of the respondents indicating participation in this form of deviance (Hollinger & Clark, 1983). Almost 15% of respondents admitted to doing this one to three times per year, while a mere 0.6% admitted to this behavior almost daily (Hollinger & Clark, 1983). The remaining property deviance activities were reported by respondents as occurring much less frequently than the misuse of the discount. In total, approximately 7% of participants reported taking store merchandise (Hollinger & Clark, 1983). The 4.6% of respondents who reported committing this act one to three times per year make up most of this category while a mere 0.2% admitted to participation almost daily (Hollinger &

Clark, 1983). A total of 2.7% of employees indicated involvement in borrowing or taking money from their employer without prior approval (Hollinger & Clark, 1983). Most of the employees, 2%, claimed to commit this act one to three times per year (Hollinger & Clark, 1983). All other property deviance categories were at a level less than half of one percent (Hollinger & Clark, 1983).

The researchers also questioned the respondents on their level of involvement in various forms of production deviance (Hollinger & Clark, 1983). Production deviance is loosely defined as activities which are counterproductive to the organization (Hollinger & Clark, 1983). The researchers questioned respondents on 5 specific activities under this classification (Hollinger & Clark, 1983). The activities were taking a long lunch or break without approval, arriving to work late or leaving early, using sick leave when not sick, doing slow or sloppy work, and working under the influence of drugs (Hollinger & Clark, 1983). These questions followed the same response category format as the property theft questions.

Of the 3,567 participants in this survey, 65% admitted to some level of production deviance (Hollinger & Clark, 1983). The most prevalent activity that respondents admitted to participating in was taking a long break or lunch without approval; 56% of the employees admitted to partaking in this behavior (Hollinger & Clark, 1983). The level of involvement varied by response category as 20% admitted to this activity one to three times per year and 7% admitted to participation almost daily (Hollinger & Clark, 1983). The respondents appear to be more willing to admit to involvement in production deviance versus property deviance.

The researchers found a correlation of .48 between the variables of property deviance and production deviance suggesting that individuals who are participating in production deviance are

also participating in property deviance and vice versa (Hollinger & Clark, 1983). This finding may have implications for the explanations/motivations of employee theft which will be covered in later sections. The employees who are most likely to act out in production deviance e.g. taking unapproved breaks are the same employees who are more than likely unsatisfied at work and may become motivated to move on to property deviance and theft.

The literature reviewed in this section demonstrates the difficulties in determining the occurrence of employee theft. As mentioned previously, employee theft results can range from less than 12% to more than 78%. Most of the studies utilized a self-report questionnaire of current or former employees who identified their level of involvement in theft or deviance activities. The research on employee theft prevalence was conducted using case files of those who have been caught as well as official data from the retail organization to gain a better understanding of the actual occurrence of employee theft. Although it is not an easy task to determine the prevalence of employee theft, the importance of studying this topic should be materializing to the reader. The following section reviews the cost of employee theft to organizations and society and will continue to demonstrate the importance of this topic in terms of research and policy planning.

Cost of Employee Theft

According to Snyder, Broome & Zimmerman (1989) employee theft was increasing at a rate of 15% per year and was costing business $40 billion annually. These figures are relevant in establishing a base and a pattern of behavior for the cost of employee theft as it continues on to be a significant problem for retailers presently. The measurement of fraud is a daunting task and by all accounts determining a true cost may be immeasurable (ACFE, 2010). The crime of fraud

is by its definition and nature an unobserved crime where the perpetrator does everything possible to remain hidden (ACFE, 2010). Therefore, the cost and measurement of occupational fraud may always be estimates but it is vital to continue to examine these numbers in order to demonstrate the destructive nature of occupational fraud (ACFE, 2010). The following section will cover the fiscal cost of employee theft for retailers, as well as, the social consequences experienced by organizations and individuals within and outside of those organizations.

Fiscal Cost

Most companies calculate their losses through inventory shrinkage, which means that once the sales reductions and unsold stock have been accounted for the remaining deficit in dollars is considered loss (Hollinger & Clark, 1983; Hollinger & Langton, 2005; Hollinger & Adams, 2007; Payne, 2013). Inventory shrinkage is calculated through the measure of the losses from several different sources including employee theft, shoplifting, vendor fraud and administrative errors (Hollinger & Clark, 1983; Hollinger & Langton, 2005; Hollinger & Adams, 2007). In general, an exact level of shrinkage is difficult to determine by loss prevention professionals as there is no audit trail that exists for all forms of loss (Hollinger & Langton, 2005; Hollinger & Adams, 2007). The professionals tend to use all available data and their personal knowledge of the business to make educated guesses on the level of shrinkage at the conclusion of a fiscal year (Hollinger & Langton, 2005; Hollinger & Adams, 2007).

Each year since 199,1 the National Retail Security Survey (NRSS) has been sent out to retailers nationwide to gain a better understanding of retail loss prevention and store security practices (Hollinger & Langton, 2005; Hollinger & Adams, 2007). The researchers send out anonymous questionnaires to companies representing 20 different retail markets such as

women's and men's specialty retail, sporting goods, department stores, grocery stores, among others (Hollinger & Langton, 2005; Hollinger & Adams, 2007). The retailers are asked to fill out these questionnaires and return them to the researchers via mail. In addition to the questionnaire, the researchers are asked to return a separate postcard providing identifying information in order for the researchers to maintain data on the companies that return the surveys without compromising the results of the anonymous questionnaire (Hollinger & Langton, 2005; Hollinger & Adams, 2007). In the following paragraphs, the results from 2004 and 2006 are reported.

Vendor fraud is generally the least damaging source of loss for any organization. Vendor fraud occurs when vendors take items during the delivery or stocking of the merchandise (Hollinger & Langton, 2005; Hollinger & Adams, 2007). For each year of the NRSS vendor fraud has accounted for 5 to 6% of the total losses (Hollinger & Langton, 2005; Hollinger & Adams, 2007). In 2004, vendor fraud attributed to 5.5% in loss which accounted for $1.7 billion dollars of loss for retailers (Hollinger & Langton, 2005). In 2006 this category saw a significant decrease dropping to 3.8% of loss, which accounted for $1.54 billion dollars in loss (Hollinger & Adams, 2007).

Administrative errors may involve inventory pricing mistakes, such as incorrectly marking items up or down, or paperwork error (Hollinger & Langton, 2005; Hollinger & Adams, 2007). This activity can be a simple error by sales staff or a misplaced inventory list by a branch manager. Loss due to administrative error has trended at approximately 15% throughout the tenure of the survey (Hollinger & Langton, 2005; Hollinger & Adams, 2007). In 2004, this category accounted for 14% of loss (Hollinger & Langton, 2005). Administrative errors accounted for 14% of the loss that businesses suffered in 2006 as well (Hollinger & Adams,

2007). These errors led to a $5.8 billion dollar loss in the retail sector in both 2004 and 2006 (Hollinger & Langton, 2005; Hollinger & Adams, 2007).

Shoplifting is the second largest source of inventory shrinkage in the retail sector (Hollinger & Langton, 2005; Hollinger & Adams, 2007). Shoplifting losses mostly occur due to the increasing problem with Organized Retail Crime (ORC) groups (Hollinger & Langton, 2005; Hollinger & Adams, 2007). These are groups of individuals who operate as an organized gang to boost product from specialty retailers all across the United States using sophisticated methods and tools (Hollinger & Langton, 2005; Hollinger & Adams, 2007). In 2004 retailers attributed 34% of losses to shoplifting (Hollinger & Langton, 2005). This means that shoplifting cost retailers $10.5 billion in 2004 alone (Hollinger & Langton, 2005). Shoplifting accounted for 32% of loss in 2006 which cost retailers $13 billion dollars in lost revenue (Hollinger & Adams, 2007). The dollar losses suffered by retailers as a result of shoplifting are approaching the losses suffered by all victims of personal property crimes combined (Hollinger & Adams, 2007).

Employee theft is the most significant form of loss that plagues retailers. Employee theft accounted for 47% of the losses in business in the fiscal year 2004 (Hollinger & Langton, 2005). In specialty retail, the losses were estimated slightly lower at 45% of total inventory shrinkage (Hollinger & Langton, 2005). This theft resulted in a total dollar loss of $14.6 billion in 2004 (Hollinger & Langton, 2005). In 2006, employee theft accounted for 47% of loss once again (Hollinger & Adams, 2007). In specialty retail, however, the losses were estimated at a lower 41% of total inventory shrinkage (Hollinger & Adams, 2007). Although the overall percentage of employee theft remained the same in 2004 and 2006, the total dollar amount of loss increased in 2006 to $19 billion (Hollinger & Langton, 2005; Hollinger & Adams, 2007). These are astounding losses to retailers for one single crime type. As a matter of fact, these losses are

greater than any other form of larceny theft (Hollinger & Langton, 2005; Hollinger & Adams, 2007; Kulas, McInnerney, DeMuth, Jadwinski 2007; Sauser Jr. 2007)!

In 2004, 107 retailers responded to the NRSS and reported an annual shrinkage rate of 1.54% of total sales (Hollinger & Langton, 2005). In specialty retail in the same year, the loss was at 1.88% of total sales (Hollinger & Langton, 2005). The overall rate of loss of 1.54% translates into an almost $31 billion dollar loss to retailers as a result of inventory shrinkage (Hollinger & Langton, 2005). In 2006, 151 retailers responded to the survey and reported that the average loss from inventory shrinkage was at a total of 1.57% at retail cost (Hollinger & Adams, 2007). In specialty retail, this loss was at a 1.92% (Hollinger & Adams, 2007). The overall shrink rate and the specialty retail rate increased from 2004 to 2006, and the total dollar loss suffered by retailers increased to approximately $40.5 billion dollars (Hollinger & Adams, 2007).

These figures demonstrate how damaging employee theft can be to a retail business, but how especially damaging they can be to specialty retail business. To put this in perspective for the reader, if one single specialty retail location is making $2 million dollars annually with a shrinkage percent of 1.92%, then just that one store is incurring a $38,400 loss annually. As individual stores sales dollars increase, so does the cost of loss for that store. One specialty retailer can begin to take on millions of dollars in losses from a single store location.

The association of certified fraud examiners (ACFE) completed research in October of 2009 through the use of surveys sent out to 22,927 of their Certified Fraud Examiners (2010). The purpose of this research was to determine details; such as perpetrator information, methodology utilized and cost of victimization; about the largest case of occupational fraud each

of the examiners had encountered within the previous year (ACFE, 2010). The case had to be closed and the perpetrator reasonably indentified in order to provide details in the survey (ACFE, 2010). The total number of usable survey responses was 1,843 out of the 1,939 returned (ACFE, 2010). The data results presented here will be based upon those 1,843 cases.

According to the ACFE report (2010), respondents were asked to indicate the best estimate of the percentage of losses their organization suffered within the previous year as a result of occupational fraud. The median response from all cases was a 5% loss of revenue due to fraud (ACFE, 2010). This percentage was applied to the 2009 Gross World Product of $58.07 trillion indicating a global occupational fraud loss of $2.9 trillion (ACFE, 2010). The reader should note that this figure is based solely upon the results of this survey of fraud examiners. The average loss for organizations due to fraud in this survey was $160,000 with approximately one-third of frauds leading to a loss of $500,000 and one-quarter of the frauds involving a loss of $1 million (ACFE, 2010).

The distribution of dollar losses per percent of cases shows that the dollar loss in 29.3% of the cases is $100,000 to $499,999 (ACFE, 2010). The next highest percent of cases is 23.7% with a loss of $ 1,000,000 and up (ACFE, 2010). The dollar losses significantly decrease in the next level of cases with 18.4% indicating a loss of $10,000 to $49,999 (ACFE, 2010). The researchers only reported 8.4% of the cases with a dollar loss of $500,000 to $999,999 (ACFE, 2010). Finally, only 2.4% of cases had losses of less than $1,000 indicating the seriousness of occupational crime costs (ACFE, 2010).

The association of certified fraud examiners study identified three categories of occupational fraud utilized by the employees to defraud their organizations: asset

misappropriations, corruption, and financial statement fraud schemes (ACFE, 2010). Asset misappropriation is the most similar to the theft researched in this study. Asset misappropriation is a scheme where the person responsible for the fraud misuses or steals the company's resources (ACFE, 2010). Some examples of this would be fraudulent cash refunds, skimming, and removing cash from the deposit (ACFE, 2010). Asset misappropriation accounted for 86.3% of the total fraud types with a median loss of $135,000 (ACFE, 2010). The estimated losses as described here vary in frequency and dollar amount but consistently demonstrate the high cost companies suffer as a result of employee crime.

Consistently, over 30 percent of businesses fail each year due to the significant employee theft problem (Mullen, 1999; Kane & Lybarger, 2002). When smaller companies with limited capital encounter these damaging figures, it can lead to them being forced out of business (Hollinger & Clark, 1983). Although larger companies can temporarily absorb these types of losses, eventually they will be passed on to insurance companies, consumers and taxpayers in the forms of claims and of higher prices in the marketplaces (Hollinger & Clark, 1983; Hogsett III & Radig, 1994; Kane & Lybarger, 2002; Rosoff, Pontell & Tillman, 2002; Payne, 2013). The responsibility of compensation for these illegal activities therefore falls mostly on the consumer (Hogsett III & Radig, 1994; Shover, 1998; Kane & Lybarger, 2002; Rosoff et.al, 2002; Hollinger & Langton, 2004; Hollinger & Clark, 2007). Employee theft is one of the most costly crimes with the actual cost of this activity exceeding any quantifiable amount (Kulas et.al., 2000).

Social Costs

Employee theft creates more than just fiscal consequences for the businesses and individuals who are victims of these behaviors. Emotional consequences may also be

experienced by victims of occupational offending (Payne, 2013). These emotional consequences can include violations of trust, damage to morale, and various forms of stress from the personal nature of these victimizations (Payne, 2013). According to Sutherland (1941), these types of crimes, no matter what the form, are a violation of trust. The individuals who are in a position to commit occupational fraud are most likely in this position because they are trusted, either by their employer or the public (Payne, 2013). The victims of street crimes did not trust the offender in these crimes to begin with, but there is an inherent level of trust with individuals depending upon their occupational roles (Payne, 2013). Most persons do not consider shopping a dangerous experience; therefore they enter into retailers already feeling an inherent sense of trust for the organization. It can be quite damaging to the consumer to learn that this trust has been violated by an individual working for this retailer.

The social impact of these behaviors must be taken into account as the relationship between individuals and the business may be damaged at the time these crimes are committed (Sutherland, 1941; Hollinger & Clark, 1983; Fishman, 2000; Kane & Lybarger, 2002). Employee theft hinders organizational goal attainment and profitability. This occurs in two ways: 1- "stolen property must be replaced," therefore diverting attention and resources from the organizational goals; and 2- "the loss of materials may lead to disruptions," if a product is unavailable for the retailer to sale due to theft, then the company has lost profit in more than one way (Hollinger & Clark, 1983, p.89). Employee theft is costly to the retailer, to the other employees, and to the consumer.

Obviously, the employer is going to be negatively impacted by any type of employee dishonesty and theft. In addition to the monetary losses the organization may suffer, employers may also suffer public humiliation when theft is discovered (Hogsett III & Radig, 1994;

Fishman, 2000). This humiliation may be further exasperated when stakeholders and investors are involved, as these groups may see theft as a sign of weakness (Hogsett III & Radig, 1994). Some businesses may even go as far as underreporting their incidence of employee theft to try to curb negative attention from the public and stakeholders (Lipman & McGraw, 1988; Hogsett III & Radig, 1994). According to Sutherland (1941), most types of white-collar crime "attack the fundamental principles of the American institutions" (p.13). The violations of trust and damage to morale can potentially lead to serious damage between the consumer and faith in the economic system (Payne, 2013).

According to Sutherland (1949), the two sets of people who are the most injured by crime are the offender and those who are most closely associated with the offender. The individuals who are caught committing employee theft do suffer serious consequences that must be considered when reviewing all consequences of theft. According to Hollinger and Clark (2004), the four main reactions to employee theft are: termination, apprehension, prosecution, and civil demand. On average, retailers reported almost 27 apprehensions per $100 million in sales and 26 terminations for every $100 million in sales in 2004 (Hollinger & Langton, 2005). These numbers increased significantly in 2006 as retailers reported almost 49 apprehensions per $100 million in sales and almost 54 terminations per $100 million in sales (Hollinger & Adams, 2007).

Termination of employment creates monetary and emotional stressors for that person almost instantaneously (Hollinger & Clark, 1983; Hogsett III & Radig, 1994). The now former employee will need to find gainful employment again, may have to hire an attorney, may be facing charges in court, may have to spend time in jail, and face all requisite embarrassment that goes along with these activities. In many cases, employees do not realize that loss prevention departments within companies share information about dishonest employees, and obtaining

employment in the near future may be next to impossible (Hollinger & Clark, 1983; Hogsett III & Radig, 1994). These individuals may have restitution payments to make to their former employer due to a criminal conviction, but lack the legitimate employment to make these payments on schedule (Hogsett III & Radig, 1994).

The other workers who remain at the company will be adversely affected by the employee theft that has occurred as well. These individuals may feel like they can no longer trust others in the workplace, especially if the individual who was apprehend for theft was someone who was well-known or well-liked by everyone (Hollinger & Clark, 1983; Kane & Lybarger, 2002). The company may react to the theft by creating draconian security measures which may lead to the employees feeling as though they are not trusted by their employer (Hollinger & Clark 1983). The company may take the complete opposite approach and hope that by ignoring the problem it will make it go away (Hollinger & Clark, 1983). This approach has the effect of making employees feel as though the company does not care at all about its property or employee integrity (Hollinger & Clark, 1983). Either of these approaches creates employee unrest and may lead to an increase in theft, a decrease in employee retention, and an increase in employee dissatisfaction with the company as a whole.

Demographics of Individuals Committing Theft

In order to obtain a complete understanding of any crime, one must gain an understanding of the characteristics of those individuals committing the crime. In the research reviewed, the offender characteristics for individuals who participated in employee theft have been explored briefly and offer little understanding of the whole picture of who this offender is. The following section covers the traits that have been discussed in the reviewed literature about

those who have been caught committing theft from their employer. These will include sex differences, average age of the offender, occupational position, and tenure with the organization.

Sex

According to Daly (1998), almost all traditional theories of criminology are "male-specific" (p.94). These theories have used men as their research subjects, and they have done this under the assumption that men's behavior can be generalized to women (Daly & Chesney-Lind, 1988; Daly, 1998). In general, in the field of criminology, criminal activity is more likely to be perpetrated by men (Dodge, 2009). Men's experiences are considered the norm, and then generalized to society for everyone else to consider them as the norm (Daly & Chesney-Lind, 1988). When individuals hear the words crime and criminal, they tend to picture a "young male offender" (Culliver, 1993, p.3). Scholars of criminology indicate that this train of thought is furthered because males are studying males and males are writing research about males (Cullen & Agnew, 2003).

The predominant use of men in white-collar research has also been done under the belief that women commit less of these crimes than men, but Daly (1998) indicates that this may be a false assumption; she feels that if women were used more in white-collar crime research, then there may be some new results for criminological theories. According to Dodge (2009), white-collar crime is also researched primarily by men about men with little to no attention given to women and their roles in offending. The tendency of criminological scholars has been to ignore females in examinations of criminality because of the historically lower number of female offenders (Adler, Mueller & Laufer, 2007).

Along these lines, the differences in rates of participation for employee theft in regards to gender differences is often ignored in the research or the results may be inconclusive due to a lack of official recording or missing data. The results that have been achieved are discussed in the following section. In addition to the findings about employee fraud from the literature, the author will also discuss the crime of embezzlement as defined by the Federal Bureau of Investigation. This crime is utilized in this research review to add valuable information about sex differences in arrests as the Uniform Crime Report is an official data source compiled annually by the Federal Bureau of Investigation and the crime of embezzlement most closely resembles employee theft in definition.

Embezzlement, which is defined as "the unlawful misappropriation by an offender" of money or something else of value that belongs to someone else who entrusted the item in the care of the offender, is the crime by definition that most closely resembles employee theft (Barnett, 2003, p.10). Embezzlement is a type of crime much like occupational fraud or theft that can be distinguished by its violation of trust (Kane & Lybarger, 2002). Embezzlement is being committed by both men and women at an equivalent rate (Kane & Lybarger, 2002). In part, this may be due to the solitary nature of this crime (Kane & Lybarger, 2002). It is not necessary for women to hold an occupational position that allows them to become part of workplace social groups in order to commit embezzlement. In fact, it may be beneficial for the perpetrator that this type of crime does not involve anyone else from the workplace as it lessens the chances for being caught.

Disaggregating the arrest rates by sex for the crime of embezzlement displays some interesting patterns. The rate of arrest for women throughout the 1990's was far less frequent than that of their male counterparts for this crime, but the trend begins to shift as the decade

comes to an end. The arrest rate for women has increased from 3,258 in 1990 to 6,574 in 2010 (per 100,000 inhabitants) for the offense of embezzlement (FBI, 2011). The arrest rate for men has increased from 4,450 in 1990 to 6,446 in 2010 (per 100,000 inhabitants) for the offense of embezzlement (FBI, 2011).

The pattern of arrest for this offense has clearly undergone a shift within the past twenty years as women have overtaken men in their frequency of arrest for embezzlement. In 1989, women were 45% of those arrested for embezzlement; in 1998, women comprised almost 50% of those arrested; in 2008 women were 51.7% of those arrested; and in 2010 women were 50.5% of those arrested for embezzlement (Daly, 1989; Small, 2000; FBI, 2009; FBI 2011).

According to Simon and Landis (1991), increases in the proportion of females being arrested for serious crimes may be explained almost completely by the fact that women appear to be committing more property offenses than ever before. In 1963, females comprised 11.4% of arrests for all crimes (Simon & Landis, 1991; Simon & Ahn-Redding, 2005). In 1987, that number had climbed to 17.7% and in 2001 females made up 22.5% of persons arrested for all crimes (Simon & Landis, 1991; Simon & Ahn-Redding, 2005). Of all the women arrested in 1963, 10.3% of those arrests were for violent crimes versus 12% of those arrests for property crimes (Simon & Landis, 1991).

In 1987, women comprised 11.1% of violent crime arrests and 24.4% of property crime arrests (Simon & Landis, 1991). Female arrest rates doubled in over twenty years for participation in property crime, and in 2001 they increased yet again to 30.4% in the category of property crime (Simon & Ahn-Redding, 2005). Women are steadily committing property crimes at a rate of twice that of any violent crime.

Of the total female arrests for serious crimes, 84.2% of those were property crimes in 1963 (Simon & Landis, 1991). In 1987, these figures saw a slight increase with 89.3% of total female arrests being for property crime and in 2001 there was a decrease in these arrests to 81.9% (Simon & Landis, 1991; Simon & Ahn-Redding, 2005). Of the total male arrests for serious crime in 1963, 81.8% of those were for property crime (Simon & Landis, 1991). The arrests decreased in 1987 to 76.3% and in 2001 they further decreased to 68.5% (Simon & Landis, 1991; Simon & Ahn-Redding, 2005). These figures further demonstrate that while men's participation in property crime has declined over time, women's participation has increased or remained at a relatively stable level. Women are not only committing this crime at a rate similar to men but have surpassed men in certain crime categories with their participation over several decades.

An examination of the arrest rates for Type II offenses (according to the UCR) shows that embezzlement, fraud and forgery/counterfeiting have seen the largest increase in female participation since 1964 (Simon & Landis, 1991; Simon & Ahn-Redding, 2005). The crimes of embezzlement and fraud were separated in 1964 so no data is reported prior to this year (Simon & Landis, 1991). In 1964, 17.3% of all persons arrested for embezzlement were females (Simon & Landis, 1991). In 1987, these figures climbed to 38.1% of all individuals arrested for embezzlement were female and in 2001, the percentage increased to 49.6 (Simon & Landis, 1991; Simon & Ahn-Redding, 2005). As discussed previously, as recently as 2010 the percentage of women arrested for embezzlement has increased once again to 50.5. The proportion of females being arrested for property crimes continues to climb whereas their arrests for violent crimes have remained relatively stable over time.

Daly (1989) conducted an analysis of a data set gathered using case files of those who were convicted of bank embezzlement, income tax fraud, credit fraud, postal fraud and bribery from 1976 through 1978 in seven federal district courts and subsequently developed several hypotheses in regards to women and their involvement in crime. Initially, Daly (1989) examined the differences in men's and women's participation in each of the crimes mentioned above. For the purposes of this research only the results from the crimes of embezzlement and credit fraud will be reported as the embezzlement most closely resembles the theft researched in this study. The crime of credit fraud is included because it allows the reader to view a statistical comparison between embezzlement and a crime with similar attributes. The crime of embezzlement had an overall N of 201; 45% of which was committed by women (Daly, 1989). Credit fraud had an overall N of 158; 15% attributable to women (Daly, 1989). Clearly, the reader can see that there are significant differences in the level of participation from one crime category to another when sex differences are considered. One can surmise that even as early as 1989 women were participating in embezzlement at a rate similar to men.

Age

The age of employees is also discussed in most literature as an indicator for employee theft and/or deviance. Younger employees are most often those caught for involvement in theft or deviance even though they make up a small fraction of the total workforce (Hollinger & Clark, 1983; Ghisell & Ismail, 1998). The younger employees are often hired for the lower status positions and may perceive their job requirements to pay ratio to be inequitable to others in the workplace (Ghisell & Ismail, 1998). In a retail environment, employees are usually younger, hired for part-time work and do not feel attached to the goals of the business (Payne, 2013).

Examining the data once again from the Uniform Crime Report on the crime of embezzlement allows the reader to view the breakdown of arrests by age groups. In 2002, there were a total of 6,740 (per 100,000) males arrested for committing embezzlement (FBI, 2003). Of these men, 2,395 fell into the age grouping of 18 to 24 while in stark contrast 909 males were between the ages of 25 and 29 (FBI, 2003). The arrests continue to decline as the ages of those arrested rise (FBI, 2003).

The total number of women arrested in 2002 for embezzlement was 6,676 (per 100,000) with 2,487 of these women falling into the age category of 18 to 24 (FBI, 2003). In a similar fashion to the male arrest patterns, the female arrest rates also markedly decline with age as the group from 25 to 29 has 981 arrests for 2002 and the arrest rates steadily decline as the age increases (FBI, 2003). Two main points may be derived from this data: younger individuals, whether male or female, are being arrested more often for embezzlement and men and women are committing embezzlement at remarkably similar rates with men still at a slightly higher frequency than women in 2002.

The data for arrest rates by age and sex, as reported in the 2010 Uniform Crime Report, continues to demonstrate that younger individuals are committing embezzlement more often, and women's participation in this crime continues to grow. The total arrests for males was 6,446 (per 100,000) in 2010; a decrease from 2002 (FBI, 2011). Of the total number of arrests for men 2,459 were between the ages of 18 and 24 versus 957 in the ages of 25 to 29 (FBI, 2011). Although the overall arrest rate declined from 2002, the pattern of offending within age groups remained the same.

The total arrests for females in 2010 was 6,574 (per 100,000) with 2,246 of those arrested being between the ages of 18 and 24 (FBI, 2011). In contrast, 1,005 of the females arrested were in the age group of 25 to 29 (FBI, 2011). A few notable differences can be seen in the data from 2010 as compared to the data in 2002. Initially, it is noteworthy that the female arrest rate has increased over that of the males. Additionally, although the age group arrest rates in 2010 follow a similar pattern to the previous data reported, there is an increase in participation for the 25 to 29 age category for females.

Ghiselli and Ismail (1998) completed a study on employee theft in the food service industry that examined the demographics of those committing theft, the various types of theft occurring in the food service industry and the efficacy of control procedures for guarding against theft. The researchers utilized food service operators from a previous study to gain access to potential participants (Ghiselli & Ismail, 1998). The food service operators were asked to distribute surveys to employees with specific instructions on how to quantify behaviors (Ghiselli & Ismail, 1998). A total of 103 surveys were returned from seven food service operators (Ghiselli & Ismail, 1998). It should be noted that this was a very low response rate (11.4%) but the results serve their general purpose for this research study.

The average age of the respondents for this particular research was 25.5 years of age, with all participants ranging in age from 15 to 62 years (Ghiselli & Ismail, 1998). The average age of the men was slightly older than the women, 26.5 years versus 23.5 years (Ghiselli & Ismail, 1998). Approximately 30% of the respondents were 20 years old or younger (Ghiselli & Ismail, 1998). The researchers broke down the various types of theft by age categories grouping the ages into less than or equal to 20, 21 to 29, and greater than 29 (Ghiselli & Ismail, 1998). A total of 4.7% of participants admitted to removing money from the register and they all fell into

the age category of 21 to 29 (Ghiselli & Ismail, 1998). Almost 33% of the respondents admitted to taking money by failing to report or ring all sales through the register (Ghiselli & Ismail, 1998). Of these individuals, 23.3% were ages 21 to 29 while 9.1% were 20 years of age or younger (Ghiselli & Ismail, 1998).

The researchers measured a total of 13 theft categories by the age groups and only five of these categories had individuals over the age of 29 indicating participation (Ghiselli & Ismail, 1998). These results do indicate that the most likely person to be participating in theft and deviance within the workplace is a younger employee and, as we will see in the following section, employees who have been with the company for a shortened period of time (Ghiselli & Ismail, 1998). Unfortunately, most of the individuals who desire work in the restaurant or retail industry are younger workers who are merely looking for temporary employment.

According to the study, discussed in the previous section, conducted by Daly (1989), the average age of the 90 women participating in embezzlement was 26 years old with a range of ages from 19 to 50. The average age of the 111 male embezzlers was 31 years old with a range of ages from 18-62 (Daly, 1989). The women convicted of credit fraud were of an average age of 31 falling in the range of 22 to 38 but this group had a small N of 24 (Daly, 1989). The males involved in the credit fraud were the average age of 38 falling within the range of 21 to 64 with an N of 134 (Daly, 1989).

Hollinger and Clark (1983) posit that higher levels of theft among younger employees may simply be the result of less loyalty to the organization due to occupational positions which are often short-tenured. The results from their study confirm their hypothesis as all sectors examined (retail, manufacturing, hospital) saw a significant correlation between younger

employees and theft (Hollinger & Clark, 1983). Younger employees appear to feel less risk if caught for theft and also indicated more concern over their education and future career rather than their current position (Hollinger & Clark, 1983). It could be assumed that these thoughts would still hold true currently. In addition to age, Hollinger and Clark (1983) found a significant relationship between age, tenure with the organization and theft thus indicating that younger employees who have been with the organization for a short period of time are more likely to participate in theft and deviance.

Tenure with the Organization

Another dimension for determining marginality, which may lead to theft, is the inclusion of tenure with the organization (Tucker, 1989). Individuals who are in a short-term position with the organization have little time or opportunity to develop a relationship with their employer or with others in the organization (Tucker, 1989). In retail, the combination of being in a lower status position and being considered a short-term employee by the organization leads to a higher level of theft among these workers (Hollinger & Clark, 1983; Tucker, 1989). Length of tenure often serves as protection for higher status employees, but often does not amount to anything tangible for lower status employees, especially in the retail sector (Tucker, 1989). Tucker (1989) posits that employees are using theft as a form of social control to maintain a feeling of status within the organizational structure, and that theft is inversely related to one's position and length of tenure with the company.

In the study completed by Ghiselli and Ismail (1998) discussed previously, more than half (53%) of the individuals reported working for their organization for less than a year. Thirty-five percent of the respondents reported working six months or less and over half of the

respondents reported working over 30 hours per week while being considered part-time (Ghiselli & Ismail, 1998). Sadly, a majority of the jobs in the sales-related industries are often viewed by the organizations as temporary and therefore do not warrant loyalty from employees (Ghiselli & Ismail, 1998). When these feelings linger and no controls are in place to combat theft it becomes easier for the employees to justify their illicit behaviors.

Occupational Position

Employees who are marginal members of both the formal organization and the informal social groups are more likely to utilize theft as a mechanism for handling grievances (Tucker, 1989). The level of marginality can be determined in various ways. The position one holds in the organizational hierarchy is a logical place to begin (Tucker, 1989). In general, the individuals who hold a lower status within the company are going to be treated significantly different than those who are considered more valuable to the organization (Tucker, 1989). The lower status employees most likely do not receive the same benefits as others such as bonuses, healthcare, education reimbursement, vacation time, and they are often paid considerably less (Tucker, 1989). The lower status employees may also be designated to work the undesirable hours such as evenings, weekends, and holidays (Ghiselli & Ismail, 1998). These employees often do not have legitimate channels for expressing grievances about their position and lack of benefits so they resort to theft as a means of gaining status even if it is simply in their own mind (Tucker, 1989).

Those who are not accepted into the main social groups within the workplace are more likely to utilize employee theft as a control mechanism as well (Tucker, 1989). The relationship between a grievous employee and the alleged offender (employer) can be handled in varying

ways depending on the social setting where the relationship is occurring (Tucker, 1989). Social isolation in the workplace conditions the manner in which employees respond to grievances as well as how other employees respond to deviant behavior (Tucker, 1989). The structure of the organization may contribute to the establishment of social interactions within the workplace (Tucker, 1989). An organization that structures its' employees by job function and salary creates an environment not conducive for unity (Tucker, 1989). Employees generally become individualistic choosing to handle grievances on their own. The occupational theft that may occur is a result of these feelings (Tucker, 1989). Theft in this type of work environment is often a solitary and covert event (Tucker, 1989)

Hollinger and Clark hypothesized that the prevalence of employee theft would vary by occupational title as those who have direct contact with the cash and materials that could be taken will be more likely to commit the theft (1983). In a retail organization, it can be assumed that those who would be committing the most theft based upon opportunity created by position would be cashiers, managers, stock associates and sales clerks. Hollinger and Clark (1983), asked participants to identify a job category from a list of thirty provided on the self-administered questionnaire. The results were broken down once again by property theft and property deviance (Hollinger & Clark, 1983).

The results within the retail sector were as expected, indicating that those with the most formal access to cash and materials were the most likely to be involved in employee theft e.g. sales clerks, stockroom employees, and buyers (Hollinger & Clark, 1983). These same groups of individuals also identified the highest levels of production deviance in the workplace as well (Hollinger & Clark, 1983). In general, individuals who reported the highest occurrence of theft

were in the jobs with the most access to cash but with the least amount of social status within the organization.

When examining the outcome of the aforementioned survey an interesting result emerged. The researchers established the category of "store manager" and the category of "assistant manager" for the retail organization (Hollinger & Clark, 1983). The group of store managers reported theft and production deviance levels above the mean, whereas the group of assistant managers reported levels below the mean (Hollinger & Clark, 1983). One would expect the opposite result in a retail organization as most retailers' base bonuses and pay increases upon the success of a store. In general, store managers are held accountable for the results of a store including the level of loss. The assistant managers would seem be more likely to commit theft as they have more responsibility in the total outcome of the store, but less of the spoils that go along with a successful store.

Ultimately, based on the research reviewed in regards to characteristics of employees more likely to partake in occupational theft, one can conclude that employee theft will be more prevalent in organizations where young, lower status employees with a short-term tenure are the predominant working group, especially if these employees feel socially isolated from the organization.

While each of the pieces of research reviewed for this section contains valuable information about the relationship between various demographics and employee theft, there are areas in which they lack certain data. The one area lacking research is the totality of demographic variables and the occurrence of theft. The various literature reviewed may have combined one or two of the demographic variables examined in this study but none of the

reviewed research looked at all of the variables as a whole in regards to their impact on the level of theft. The current research study examined the demographic variables individually and as a group to identify who is most likely committing theft, why they are committing the theft, how much theft is occurring and perhaps what may be done about it.

Management as a Predictor of Theft

The various demographics of those who may commit theft have been examined in previous research and in the current research project. These characteristics, while valuable to understanding employee theft, do not lend to a greater understanding of a cause and effect relationship in an organization experiencing theft. In addition to the variables of age, sex, tenure with organization, occupational position, and types of environmental design, the current research examined the cause and effect relationship between the number of managers per store and the level of theft and the level of management turnover and its impact on the prevalence of theft within individual store locations.

In an effort to determine the relationship between characteristics of workers and shrinkage levels, the NRSS survey posed questions to the participating retailers about the tenure of store employees when a dishonest act is discovered (Hollinger & Langton, 2005; Hollinger & Adams, 2007). In 2004, the researchers found that on average dishonest workers were employed for a mere 9.9 months prior to being caught for theft (Hollinger & Langton, 2005). In 2006, the average length of time for employment by dishonest individuals was slightly longer at 10.72 months (Hollinger & Adams, 2007). It can be concluded that, in general, dishonest employees are employed for less than a year before being terminated for theft.

According to Hollinger and associates (2005 & 2007), employee turnover is one of the most constant predictors of inventory shrinkage at retail organizations. The general finding is that low turnover rates are associated with lower shrinkage rates in the retail industry (Hollinger & Langton, 2005; Hollinger & Adams, 2007). The researchers further examined the impact of turnover on inventory shrinkage through two separate categories, sales associates' turnover rates and management turnover rates (Hollinger & Langton, 2005; Hollinger & Adams, 2007).

In 2004, the retail firms with less than 50% turnover rates for sales associates had a shrinkage percentage of 1.40% which was 0.14% less than the overall average (Hollinger & Langton, 2005). Those retailers with a turnover rate in the sales associate position greater than 50% had a shrinkage percentage average of 1.65 which was 0.11% more than the overall average (Hollinger & Langton, 2005). In 2006, the researchers determined the average turnover rate for sales associates and calculated deviation from those results. The average sales associate turnover rate was 85.5% (Hollinger & Adams, 2007). When the sales associate turnover rate fell below the mean, the shrink rates also fell significantly below the total average, from 1.57% to a mere 1.17 % (Hollinger & Adams, 2007). On the other hand, when sales associate turnover rates were higher than the average, the shrinkage percentage increased from 1.57% to 1.78% (Hollinger & Adams, 2007). These numbers clearly demonstrate a correlation between staff retention and overall loss in the retail sector.

The management turnover results also demonstrate a relationship between turnover results and shrinkage percentage rates. The management turnover in 2004, when less than 50%, led to a shrinkage percentage of 1.49, which was 0.06% less than the average (Hollinger & Langton, 2005). The shrink percentage increased to 1.94, 0.30% above the average, when manager turnover rates were greater than 50% (Hollinger & Langton, 2005). Clearly, indicating

that management retention is vital in decreasing overall loss in the retail industry. The average management turnover rate was 31.5% in 2006 (Hollinger & Adams, 2007). When the management turnover rate falls below the average, the average shrinkage rate falls from 1.57% to 1.38% (Hollinger & Adams, 2007). In contrast, when the management turnover increases above the average, the shrink rate also increases to 1.66% (Hollinger & Adams, 2007). It undoubtedly can be concluded that maintaining a long term management staff leads to a decrease in inventory shrinkage.

Hollinger provides solid evidence that employee turnover at a higher rate will lead to an increase in total inventory shrinkage at a retail organization. The current study took this a step further by adding in the number of managers per store and the impact that this has on levels of theft. The current research looks at the impact of management turnover for one fiscal year and the affect of the number of managers for one fiscal year. This is a new component to the research on the factors that lead to theft as no reviewed literature has been found on this specific research subject.

Motivations for Theft

Understanding the motivations behind criminal activity provides explanations that may be translated into policies and procedures that can be used to prevent future crime of the same type. Most of the reviewed research, in regards to theft from organizations, offers some level of explanation as to why individuals steal from their employers. The themes from the research cover a variety of ideas about employee motivation for crime. Overall, the theme from most of the reviewed literature is that individuals are unsatisfied with their position or working

environment and use theft as a response to this current situation or perceived need (Tatham, 1974; Tucker, 1989; Walsh, 2000; Everton, Jolton, & Mastrangelo, 2007; Kulas et.al., 2007).

A study done by Kulas and associates (2007) focused on what they called "climate for theft". The researchers hypothesized that if there was already a norm of theft in a business, the opportunity to steal, and motivated employees then there would be a higher frequency of employee theft. A norm of theft can include but is not limited to the organization's attitude towards theft, the perceived degree of co-worker and management dishonesty, and the perceived certainty and severity of sanctions if theft occurs (Kulas et al, 2007). An opportunity to steal is created by a lack of internal and external controls, as well as, the perception of sanctions from the employees (Kulas et al, 2007). In their study, a motivated employee is one who is experiencing dissatisfaction with their current job position (Kulas et al, 2007).

Kulas and associates (2007) collected self-report surveys of employees from 19 different supermarkets. The original survey was delivered to 2,047 employees (Kulas et al., 2007). The survey process yielded a return rate of 1,004 surveys; a 43% response rate (Kulas et al, 2007). Of the 1,004 surveys returned, 155 were discarded due to a lack of complete response or a lack of supermarket experience (Kulas et al, 2007). The final sample of respondents included 33% who identified as managers and 67% of who were entry-level employees (Kulas et al, 2007). In addition, 48% of whom identified as men and 52% of whom identified as women (Kulas et al, 2007).

Kulas and colleagues (2007) tested for several constructs which included satisfaction, climate for theft, theft and time theft. The climate for theft construct included items such as the perception of ease of theft, probability of being caught stealing and perceptions of coworker

acceptance of theft (Kulas et al, 2007). The satisfaction construct had variables such as pay, supervision, co-worker acceptance and general satisfaction (Kulas et al, 2007). The tenets utilized to test for theft were improper use of employee discount, taking supplies or merchandise from one's employer without consent, and taking money from one's employer without permission (Kulas et al, 2007). The findings from this piece of research were supportive of the hypothesis that dissatisfied employees are more likely to commit theft, and that an environment that appears to be more conducive to theft will lead to an increase in theft as well as an increase in the level of dissatisfaction among employees (Kulas et al, 2007).

Greenberg (1990) examined the impact of cutting wages, with and without an adequate explanation, on employee theft. The participants of this particular study were manufacturing employees who were having their pay reduced by 15% for a period of 10 weeks rather than suffering layoffs (Greenberg, 1990). The participants were split into two groups one group was given an adequate explanation for the pay cut (n=55) and the other was not (n=30) (Greenberg, 1990). The results of the study indicated that those who had not received an adequate explanation for the pay cuts were more likely to redress their perceived inequity by participating in employee pilferage (Greenberg, 1990).

It is hypothesized by Greenberg (1990) that the pay cut led to feelings of resentment and frustration in the employees which acted as the motivator for theft. The employees felt justified in acting out using deviant activities because they believe the employer defaulted on their obligation to the employees in some form (Greenberg, 1990). The subsequent theft is a result of feelings of resentment towards the organization (Greenberg, 1990). Some employees were motivated by this perceived mistreatment to commit deviant acts against the organization, even if

they were not directly benefitting from those acts (Greenberg, 1990). The employees may just want to see the organization suffer a loss or an overall reduction in worth (Greenberg, 1990).

Tucker (1989) hypothesizes that employees use theft as a vehicle for handling grievances against the employer who they believe has acted in an egregious manner towards them. The theft is a reaction to perceived inequities occurring in the workplace between employer and employee (Tucker, 1989; Kane & Lybarger, 2002). The employees are pursuing justice in a distorted manner by helping themselves to a solution rather than pursuing a formal sanction for their feelings of dissatisfaction (Tucker, 1989). The resentment felt towards the organization manifests itself as pilferage to satisfy the urge for revenge or restitution the employee feels he or she is owed (Tatham, 1974; Lipman & McGraw, 1988; Tucker, 1989; Sauser Jr., 2007). The less supportive and fair an organization appears to be to the employee, the more theft incidents are likely to occur (Everton et.al, 2007).

The establishment of goals for employees that may not be attainable within a certain time frame can not only create negative feelings but may also lead to theft. The pressure at work to meet unrealistic goals in the short or long term can lead to the falsification of financial documents (Hogsett III & Radig, 1994). A work environment that is unsupportive of its employees can lead to low morale, which can lead to low productivity and theft (Tucker, 1989; Hogsett III & Radig, 1994; Walsh, 2000). Employees may feel that they are under-appreciated and under-paid for all of the hard work and effort that they put into their position leading them to try and compensate on their own (Lipman & McGraw, 1988; Tucker, 1989; Walsh, 2000; Kane & Lybarger, 2002).

According to Hollinger & Clark (1983), employee perception of the workplace is also a great indicator of employee theft. In the study conducted by Hollinger and Clark (1983) the concept of workplace satisfaction was operationalized into three different measures; two different single-item measures and a multidimensional index. The first measure was one question posed to participants to gain a general understanding of employees' perceived job satisfaction (Hollinger & Clark, 1983). The question was posed as "all in all, how satisfied are you with your present job?" and the response categories were as follows: 4, very satisfied; 3, somewhat satisfied; 2, somewhat dissatisfied; and 1, very dissatisfied (Hollinger & Clark, 1983, p. 80).

The second question posed to the respondents from the index was as follows: "considering how you feel at this time about your job, how likely is it that you will make a genuine effort to find a new job in the next year?" with response categories of 3, very likely; 2, somewhat likely; and 1, not at all likely (Hollinger & Clark, 1983, p.80). The third measure was completed by providing participants with a series of short statements about workplace satisfaction to which they had the following as response options 4, very true; 3, somewhat true; 2, not very true; 1, not true at all (Hollinger & Clark, 1983, p.80).

Hollinger and Clark (1983) then conducted both varimax-factor and reliability analysis to arrive at eight distinct dimensions of job satisfaction. These eight dimensions with thirty items total represent various portions of the workplace experience (Hollinger & Clark, 1983). The first dimension focuses on the employees' beliefs about fairness and the ethical standards held by the employer (Hollinger & Clark, 1983). The type of relationships that exist between co-workers is the second dimension, and the third dimension is an employee evaluation of the supervisor's performance (Hollinger & Clark, 1983). The fourth dimension examines the appropriateness of

information and authority provided to employees in order to complete their tasks without problems (Hollinger & Clark, 1983).

The fifth dimension assesses the adequacy of challenging work provided by the employer and the sixth dimension looks at the quantity of work to be completed on a daily basis by each employee (Hollinger & Clark, 1983). The satisfaction over level of pay and promotional opportunities as perceived by the employee is the basis for dimensions seven and eight (Hollinger & Clark, 1983). A score was developed for each of the eight dimensions to determine the level of satisfaction of employees participating in the survey. The researchers compared their results from the satisfaction measures to the self-reported involvement in theft and deviance by employees and found that dissatisfaction and theft had a correlation of -.11 and dissatisfaction and deviance had a correlation of -.23 (Hollinger & Clark, 1983).

It can be concluded then that employees who do not feel satisfied while at work are more likely to participate in property theft and workplace deviance. The researchers also found a correlation of .18 between employees who intended to leave work in the immediate future and their level of involvement in deviance (Hollinger & Clark, 1983). These findings also suggest that those who intend to terminate their employment in the near future participate more frequently in theft and deviance (Hollinger & Clark, 1983). The eight dimensions were all determined to be statistically significant at the .05 level for both theft and deviance, providing further evidence that job satisfaction does affect participation in theft and deviance at the workplace (Hollinger & Clark, 1983).

Theft may become an attractive way out of financial problems when there are no conventional solutions in sight (Tucker, 1989). Unfortunately, individuals continue to get in

over their heads and are unable to pay back the debt they have incurred via the theft (Hogsett III & Radig, 1994). The various stressors that exist outside of the workplace such as debt, gambling problems, alimony payments, drug problems, and medical bills may play an influential role in the decision to partake in employee crime in the workplace (Lipman & McGraw, 1988; Hogsett III & Radig, 1994). The employee becomes desperate because of these outside of work circumstances, perceives a real need for quick money and resorts to theft to solve the problem (Everton et.al, 2007). According to Fishman (2000), one in every three employees who committed theft did so because they were in need of money to support a certain lifestyle; while others began to steal because of medical bills or family member medical emergencies.

Hollinger and Clarke examined whether financial pressures in an individual's personal life as well as social-structural pressures such as community location would influence participation in employee theft and deviance (1983). One would assume that as the financial pressures of life increase then the likelihood of stealing cash and property would also increase (Hollinger & Clark, 1983). The level of personal financial difficulties was examined through three different surveys that asked respondents about their annual income, the adequacy of that income, and their perceived level of concern about their current financial situation (Hollinger & Clark, 1983). The results were surprising as it was determined that an individual's actual level of income did not have a relationship with their likelihood of committing theft within the organization, but the perception of having financial problems did correlate with participation in employee theft (Hollinger & Clark, 1983). In other words, an individual's true level of income did not correlate with theft participation, but an individual at any income level who perceived their financial situation as dire would participate in theft.

Employees may convince themselves that their intention is not to steal, rather they are merely borrowing the money or merchandise until their life circumstances improve and then they will pay it back (Hogsett III & Radig, 1994). In a study done by Tatham (1974), 100 retail employees from three different retail venues were contacted to participate in a survey in regards to employee theft. These respondents were located at the local shopping mall, the downtown shopping area and in adult education classes (Tatham, 1974). The participants were initially qualified as retail employees and subsequently asked if they had ever taken merchandise from their employer without paying for it (Tatham, 1974). Of the 100 participants, 2 did not complete this question so their questionnaires were discarded (Tatham, 1974).

The remaining 98 responses were divided into two categories. One category consisted of those who responded in the affirmative to the question about participation in employee theft. This category was termed the "takers" and was comprised of 49 respondents (Tatham, 1974). The other category was comprised by those who responded in the negative, labeled as the "nontakers" with a total of 49 respondents as well (Tatham, 1974). When the participants were questioned about the value of items taken and their opinion of their actions, 84 % of the "takers" claimed to feel no remorse in spite of their acknowledgement of theft (Tatham, 1974).

Further, 67% of those who admitted to being "takers" indicated that they did not see their actions as stealing at all, especially if the item(s) value was less than $25.00 (Tatham, 1974). Even as the value of the items increased, the employees indicated that they did not feel a sense of guilt even as they were admitting to committing theft (Tatham, 1974). The results of this study seem to indicate that the assumption that employee theft is prevalent and an accepted practice among employees is valid (Tatham, 1974).

Motivations by Sex

The motives for women who choose to commit employee theft may be different from those of the men who choose to commit theft. Women are held in a different position in society than men, and the differences in the structure of these positions could account for the variations in criminal motivation and levels of offending (Small, 2000). Although women have more opportunities in the workplace today than in the past, they still maintain a marginal role in society to a certain extent (Small, 2000). This lack of equity for women in society and at work may lead some women to commit acts of theft and deviance in an attempt to improve their view of their position in society.

In a qualitative study done on the motivational accounts of white collar offenders, the researchers examined the differences in motivations provided by men and women who were incarcerated for various types of trust violations (Klenowski, Copes, & Mullins, 2011). Interviews were conducted with 40 incarcerated white collar offenders in an effort to compare the explanations provided by men and women to establish patterns of gendered motivations (Klenowski et.al., 2011). The researchers completed 40 semi-structured interviews with 20 men and 20 women who were incarcerated for a white collar crime such as embezzlement, false corporate reporting, tax fraud, false bank loans, false credit loans, or securities and exchange violations (Klenowski et.al., 2011).

First and foremost, it should be noted that every respondent, regardless of gender, justified their crime in some way to the researchers (Klenowski et.al., 2011). The 20 male participants offered 58 separate justifications for their participation in the crimes (Klenowski et.al., 2011). The most common excuse provided by the male respondents was being the provider

of their family aka the breadwinner role. A total of 17 participants indicated participation in their crimes as a means to support their family (Klenowski et.al., 2011).

On the other hand, the women framed their justifications in a way that would reduce the disgrace of committing a crime. The women utilized 45 different justifications that fell along the lines of reducing their stigma (Klenowski et.al., 2011). The women, much like the men, cited the excuse of caring for their family most frequently for their actions; 14 of the women indicated this justification for their illegal behavior (Klenowski et.al., 2011). The major difference in these accounts was that men utilized this excuse in the context of the need to fulfill their masculine breadwinning duties whereas women claimed they were supporting their family due to a lack of ability by their spouse (Klenowski et.al., 2011).

The second most common justification provided by the male respondents was that "nobody got hurt" or that they were merely borrowing the money temporarily (Klenowski et. al., 2011, p. 55). In general, the respondents are justifying their actions by telling themselves that no real harm was caused to anyone and they were helping their families in the process. The female participants offered a slightly different version of this justification during their interviews. The females claimed that the crime was a result of a desperate situation that they were attempting to fix i.e. illness in the family, financial problems because of outside circumstances or the males in their life being too incompetent to improve the situation (Klenowski et.al., 2011).

The male respondents also claimed their crimes should be excused because everyone in their industry is doing it; some went as far to say that their actions were in line with the expectations of the business at the time (Klenowski et.al., 2011). Along these same lines, the male respondents also placed blame for their choices on those who condemned them for their

crimes. The men provided excuses like the laws are too strict, the government is corrupt anyway, and taxes are too high (Klenowski et.al., 2011). Some of the participants indicated they should not be held accountable for their actions because of an unfortunate situation either in their past or presently occurring (Klenowski et.al., 2011). Some examples of these situations were a financially poor upbringing, an abusive relationship (past or present) and an unhealthy relationship with their parents (Klenowski et.al., 2011). Clearly, these are all justifications that allow the offender to place the blame for their actions onto someone else's shoulders.

The final general justifications provided by the male respondents involved acceptance that their actions were illegal but able to be justified. Of the 20 men, five claimed that their actions were just because they deserved more than what they were receiving from their company (Klenowski et.al., 2011). The men indicated that their legitimate work was not paying off, therefore they began obtaining their fringe benefits through illegitimate means (Klenowski et.al., 2011). The least common justification provided by the males was blaming of the victim. These four participants felt that they were the real victim and the organization deserved what it was getting for how others were treated (Klenowski et.al., 2011).

The women participants, on the other hand, did attempt to blame the victim more often than not (Klenowski et.al., 2011). They also claimed that they were justified in their actions because they deserved more than what their company had provided them (Klenowski et. al., 2011). The women were also specific about who they blamed for their actions whereas the men were more generalized in their blame (Klenowski et.al., 2011). The women cited a lack of financial compensation for all of their hard work as a reason for the crimes indicating they felt entitled to the extra benefits (Klenowski et.al., 2011).

Some of the women, much like the men, indicated they were merely borrowing the money and that they would have paid it back as soon as they were able (Klenowski et.al., 2011). The women also blamed social conditions for the crimes they committed or claimed that their boss led them astray and the situation was beyond their control (Klenowski et.al., 2011). This is an example of the female participants using their gender as a justification by claiming they are not fully knowledgeable about business affairs and needed someone else to guide them through the particulars. Finally, only two of the women claimed that crime was just a daily part of business and they participated because everyone else was (Klenowski et.al., 2011).

While women and men appear to draw upon similar justification patterns when describing their criminal activities, there are clear gendered differences between them. The motivations provided by these individuals allow them to accept their actions as criminal but present themselves as decent and respectable people otherwise (Klenowski et.al., 2011). The commonalities across all of the justifications discussed here are the claims that the actions committed were for the greater good of one's family or household. The women and men look for sympathy and understanding from their audience in different ways using similar excuses.

From the study done on white collar defendants discussed previously, Daly (1989) argues that the motives of men and women vary in two ways. The first of these variations is the importance of self versus family need is not the same when presenting justifications for theft. The second is the influence of the social situation one is in during the commission of the crime. Financial needs for the family were cited by women as the reason for embezzlement 36% of the time, whereas men indicated this justification a mere 18% of the time (Daly, 1989). According to the research, men indicated financial gain with no need stated as a justification for embezzlement 18% of the time versus 11% for women (Daly, 1989). Women also cited nonfinancial personal

issues, like frustration with their job, as their justification for their participation in embezzlement 18% of the time versus 11% for the men (Daly, 1989). Finally, women were more likely than men to take responsibility for and express remorse for their actions (Daly, 1989).

The findings for credit fraud were quite similar to those of embezzlement. According to the research, women indicated 37% of the time versus 15.5% for men that financial need for the family was the primary motive for the fraud (Daly, 1989). The results for financial gain with no need stated were much closer in this fraud category with women reporting this motive 16% of the time and men reporting 17% (Daly, 1989). Finally, once again women cited nonfinancial personal reasons more than men with 16% of women versus 8% of men indicating this as their primary motivation (Daly, 1989).

Although established in the workforce, women still experience limited opportunity and access to the types of occupational positions that allow them to commit large white collar schemes. In the study conducted by Daly (1989) a mere seven percent of women, from a total number of 90, were in an occupational role of professional or managerial for the crime of embezzlement. On the contrary, 91% of those 90 women were in occupational roles such as sales, clerical, service, laborers, and craft at the time of the embezzlement (Daly, 1989). A stark contrast can be seen when the results from the men are examined. Of the 111 men in the study, 51% held occupations such as professional or managerial at the time of embezzlement (Daly, 1989). In addition, the occupational roles of sales, clerical, and laborer were held by 45% of the men (Daly, 1989). Clearly, there is a rather large differential between the occupational roles held by men versus women in this study. This difference could very well be responsible for women in organizations choosing theft as their alternative for recognition.

As the job responsibilities of women increase the level of workplace criminality is also likely to increase (Daly & Chesney-Lind, 1989; Small, 2000). Women entering into workplace positions that were previously occupied by men may also experience social ostracism from the informal workplace groups (Daly, 1998). This can further inhibit women in their search for equality within the workforce leading to the use of illegal or deviant actions in an attempt to create perceived equality. A lack of acceptance into workplace social groups also severs the ties women would have with the informal social controls that may act as a deterrent to theft (Daly, 1998). These workplace conditions are creating motive and opportunity for women to participate in theft and deviance.

Finally, it cannot be ruled out that some employees commit theft in the workplace because it is fun and adventurous for them and satisfies a need for excitement that they are not receiving in other portions of their life (Tucker, 1989). Greed is an often cited reason for participation in white collar crimes (Dodge, 2009). These adventurous and self-indulgent personalities collide with an environment that promotes a culture of gluttony in business (Dodge, 2009). Management decisions demonstrate that economic success and competition are highly valued and respected by the corporation (Vaughan, 1992). Organizational characteristics such as these create the perspective that acting illegally is merely the nature of a competitive business and should be a valued attribute of employees (Vaughan, 1992). In other words, some organizations create opportunity for theft and deviance by their goals and values.

"The American Dream" raises the pursuit of assets, gains and material success over the attributes of integrity and lawfulness (Coleman, 1987, 1995). Industrial capitalism has led to a "culture of competition" that supports winning at all costs, even if that means bending the rules to circumvent the competition (Coleman, 1987, 1995). A conflict in business has occurred

between ethical standards and this culture of achieving top status at all cost (Coleman, 1987, 1995). According to Messner and Rosenfield (1994), this attention to monetary success, competition and desire to succeed at all costs has led to a dark side of society and business. Organizations are creating an environment where individuals can readily justify their behavior as part of business. These individuals are so afraid of losing their status at any moment that they will do just about anything to keep from falling, so to speak (Coleman, 1987, 1995).

According to Sauser Jr. (2007) employee theft can be deterred by decreasing motive and desire and finally by limiting the opportunity to participate in this activity. In this research study, the motivations of individuals caught participating in theft and the opportunities available to individuals to participate in theft are both examined. In order to posit policy changes that may be necessary to improve the overall quality of work experience as well as to limit the opportunity for theft, it was critical for the researcher to look at all sides of the theft triangle.

Opportunity for Theft

In addition to a motivated employee there must be an opportunity to steal without detection at the organization (Fishman, 2000). The internal controls at any given organization can ultimately address the level of opportunity to commit theft as well as the ability to cover up this activity over time (Fishman, 2000). According to Walsh (2000), opportunity is the primary cause of employee theft. Opportunity is the absence of barriers which would inhibit an individual from taking product without paying for it (Sauser Jr, 2007).

Marcus Felson and Ronald V. Clarke (1998) posit that opportunity is the “root cause” of all crime. Felson and Clarke (1998) argue that opportunity plays an important role in each offense committed. Even the most articulate, elaborate criminal plans must contain the all

important element of opportunity. A burglary cannot occur if the potential burglar cannot find a way into a home due to an extensive home security system; the homeowner removed the opportunity. Crime opportunities are also concentrated in one area and during specific times of day depending upon the offense; therefore given the correct analysis an organization can reduce its likelihood of theft (Felson & Clarke, 1998).

The impact of opportunity is definitively linked to employee theft and deviance, but there is the possibility that other factors may be involved. As discussed previously, employee dissatisfaction with the organization and in one's personal life may lead to theft from the workplace especially when an opportunity presents itself to this already motivated individual. Hollinger and Clark (1983) identify this very possibility; indicating that job dissatisfaction, in addition to, opportunity may be responsible for the amount of theft occurring in certain occupational positions. In the retail sample of their study, theft was most often reported by those in occupational positions with the most access to cash and merchandise and with the least desirable social status in the company (Hollinger & Clark, 1983). As most of the property and production theft and deviance in their retail sample were occurring in the lower status positions, one can hypothesize that these individuals were most likely not satisfied in the workplace and then given an opportunity (Hollinger & Clark, 1983). Any position can lend to an opportunity for deviance whereas only certain positions have tangible opportunity for serious theft (Hollinger & Clark, 1983).

According to Kane & Lybarger (2002), there are a number of ways for an employee to steal from an organization. In the retail industry, employees who have the most frequent access to cash and merchandise are the most likely to commit theft (Hollinger & Clarke, 1983; Kane & Lybarger, 2002). In the specialty retailer for this study, those with the most frequent access to

cash and merchandise were the store manager, assistant managers and key holders. These individuals were analyzed for their frequency in theft participation at the retailer.

The opportunity for theft may be more appealing to employees when the sanctions for theft appear to be minimal (Walsh, 2000). The various ways that the opportunity for theft may appear to be worth the risk to employees are as follows: the organization either has no procedures or regulations in place to prevent theft, or the processes that are in place are inadequate or loosely enforced by the company therefore creating the perception that the organization really does not care about the occurrence of theft (Walsh, 2000). Employees are less likely to commit theft if they believe that they will be caught by the organization (Everton et.al, 2007).

In order to reinforce this belief amongst employees, the organization must create specific penalties for violations of the code of conduct and enforce those penalties strictly even amongst upper-level management (Lipman & McGraw, 1988). Many employees are honest and ethical and it is up to the company to eliminate the opportunity for temptation that is outside their ability to resist (Lipman & McGraw, 1988). Employees will have no desire to commit theft if they see an honesty policy put in place and being observed and tangible individuals within the organization who may be harmed should a theft occur (Everton et.al., 2007). All regulations and rules need to be applied evenly to all individuals at every level of the company in order for them to reduce opportunity (Lipman & McGraw, 1988; Everton et.al., 2007).

Preventive controls are the key to reducing or removing loss within an organization. A lack of or useless internal controls create opportunity for employees at all levels to participate in theft (Hogsett III & Radig, 1994). A lack of control over inventory will lead to employees who

are taking merchandise without paying for it at every level of the company (Fishman, 2000; Walsh, 2000). An organizational hierarchy of command that leaves upper management in a position where they are unable to track the actions and behaviors of the lower level employees creates opportunity for merchandise or cash theft (Hogsett III & Radig, 1994; Fishman, 2000). The lack of an audit committee or internal review board of some form can also lead to a greater amount of theft occurring in upper management before it is noticed by anyone within the organization (Hogsett III & Radig, 1994). Generally speaking, a strong chain of command in organization controls will lead to a decrease in theft and deviance within and outside of the workplace.

Prevention Techniques

Organizations are created with the intention of reaching certain goals and objectives. These objectives often require some type of policy in order to create a controlled environment where everyone has the same goal to achieve (Hollinger & Clark, 1983). These policies or controls can be formal as laid out by the organization or informal social controls that are established amongst the employees of the workplace (Hollinger & Clark, 1983). Formal control can be established through specific policies, hiring practices, inventory control, security measures, and sanctions (Hollinger & Clark, 1983). In order for these controls to be impactful they must be implemented and used in a way that demonstrates understanding about those who may steal from the organization if given the opportunity (Snyder et.al., 1989). The informal social controls are established in the workplace by the employees and can be effective tools in preventing deviance and theft (Hollinger & Clark, 1983).

Formal Policy Controls

Formal policies are the building blocks of creating and maintaining control in the organization (Hollinger & Clark, 1983; Snyder et.al., 1989). The formal policies explicitly state the expectations of employees and the consequences if those expectations are not met (Hollinger & Clark, 1983; Lipman & McGraw, 1988). Effective controls start with the formation of a climate which emphasizes and supports values such as honesty and integrity (Snyder et.al., 1989; Payne, 2013). Policies are often introduced at the primary stages of the hiring process and reinforced throughout the employees' tenure with the company through various mediums such as memos, posters for bulletin boards and meetings (Hollinger & Adams, 2007). The institution of policies about employee theft within an organization may serve more than one function at that organization (Hollinger & Clark, 1983). Some of these functions are clarification and deterrence, creation of an informal environment where theft is not accepted by peers or supervisors, and/or education on the reality of employee theft within the organization (Hollinger & Clark, 1983).

Corporate policies about employee theft serve as formal announcements that the company takes this issue seriously and the consequences will be just as serious (Hollinger & Clark, 1983). Some employees may refrain from participating in theft because they value the goals of the organization and do not want to suffer any long term consequences for violating policies (Hollinger & Clark, 1983; Lipman & McGraw, 1988). A standard set of policies also alleviates pressure on supervisors in handling sensitive theft issues as the supervisor is merely a vehicle for the corporate policy (Hollinger & Clark, 1983). The policies are creating a sense of fairness as all employees are aware of the rules and subsequent sanctions in advance of any behavior (Hollinger & Clark, 1983; Lipman & McGraw, 1988; Snyder et.al., 1989). The policies, therefore, are clarifying and deterring specific actions.

The communication of policies at the hiring process and throughout the course of employment also serves to create an environment where theft is not normative and individuals do not prefer to steal (Hollinger & Clark, 1983; Lipman & McGraw, 1988). In general, employees believe themselves to be honest, trustworthy and not capable of theft. Employees may begin participating in theft without even realizing that the goods they are taking home from work do not belong to them and that this behavior does constitute theft (Tatham, 1974; Hollinger & Clark, 1983). A clear and concise policy would highlight to employees that removing property from the company is not a perk; rather it is theft, no different than removing property from a friend's home without asking (Tatham, 1974; Hollinger & Clark, 1983).

The company should also build a policy that strives to educate employees on the cost of employee theft in the aggregate to the organization. Often employees only see the loss in terms of a few acts missing the entire picture of the damage these acts cumulatively lead to (Hollinger & Clark, 1983). Formal policy can be used to educate employees on the reality of what constitutes theft and the financial consequences of that theft to the organization.

Parilla, Hollinger, and Clark (1988) collected data from corporate officials using 247 interviews about the overall level of controls utilized in their organizations to prevent employee theft. This data was collected during the larger study completed by Hollinger and Clark in 1983. An index was created by the researchers to determine how effectively organizations controlled theft through written policies, and how well those policies were communicated to employees (Parilla et.al., 1988). The executives were asked questions such as: "does the organization possess a formal written policy or rules prohibiting employee dishonesty? Were new employees made aware of this policy during their orientation? Was the topic of employee theft covered in any other forum other than orientation (e.g., newsletters, bulletin boards)?" (Parilla et.al., 1988).

The results of the study indicated that in retail organizations where controls were fully developed, the controls were consistently correlated to lower levels of theft participation (Parilla et.al., 1988).

Hiring controls. The hiring process is often overlooked as an avenue for preventing loss from occurring in an organization, but can be a valuable tool in getting the right employees in your organization and keeping the wrong ones out. The important task of identifying and hiring those who will conform to the organizational norms can be accomplished using various tools available to those responsible for hiring (Hollinger & Clark, 1983; Lipman & McGraw, 1988). Importation strategies, or pre-employment integrity screening measures, are those that endeavor to introduce only the best employees into the organization; those who are less likely to participate in theft (Friedman, 2009). Some of the most commonly used pre-employment integrity screening measures are criminal conviction checks, verification of employment history, and utilizing multiple interviews (Lipman & McGraw, 1988; Walsh, 2000; Hollinger & Langton, 2005; Hollinger & Adams, 2007; Friedman, 2009).

In addition to these tools, employers may also conduct a credit check, verify educational information, or require drug testing (Walsh, 2000; Hollinger & Langton, 2005; Hollinger & Adams, 2007; Friedman, 2009). The use of these measures may vary based upon the occupational position being sought (Hollinger & Langton, 2005; Hollinger & Adams, 2007). Effective hiring practices geared towards the goal of theft prevention can result in stopping dishonest individuals before they even enter into the organization.

In the study conducted by Parilla and colleagues (1988), personnel directors were asked to explain the degree of their pre-employment screening process. Specifically, the researchers

collected data on whether the personnel department looked into the information provided by the candidate or if that information was accepted at face value (Parilla et.al., 1988). The researchers asked about five areas: "references, job history, conviction record, extent of indebtedness, and previous involvement in employee theft" (Parilla et.al., 1988). The relationship between these variables and theft was found to lack statistical significance (Parilla et.al., 1988). This is not to say that pre-employment screening measures should not be utilized and re-examined to determine effectiveness.

Inventory controls. Inventory records can not only be an effective way to maintain appropriate levels of product, but can also determine the amount of goods being stolen from the organization (Hollinger & Clark, 1983). Inventory controls can guard against loss from administrative errors, vendor fraud and employee theft by detecting errors and ensuring valid record keeping (Hollinger & Clark, 1983). An organization that monitors the levels of inventory closely will have up-to-date records about the occurrence of property that has gone missing enabling them to create a proactive approach for stopping the continued loss of products (Hollinger & Clark, 1983).

In order to maintain current records for inventory levels, organizations should complete a physical count of all merchandise at least once per year including all product that is housed in off-site storage (Snyder et.al., 1989). The physical inventory should be conducted by an outside company under the supervision of a dependable representative of the organization being audited (Snyder et.al., 1989). These two parties should maintain separate inventory sheets which would be compared and verified at the conclusion of the physical inventory to ensure accuracy with counts (Snyder et.al., 1989). Finally, these inventory levels would be compared with the

inventory records maintained by the main office of the corporation to determine the full extent of loss (Snyder et.al., 1989).

Many inventory controls are designed to create limited access to certain assets by specific individuals within the organization (Hollinger & Clark, 1983). The loss of any of these assets could easily be traced back to the employees who have been granted access to them, thereby creating specific deterrence for these individuals (Hollinger & Clark, 1983). In general, larceny may be prevented due to the concern management has demonstrated simply by putting these controls in place and visible for all to see. These controls are vital not only for the determination of inventory shrinkage and loss but in establishing a sense of importance about theft within the organization.

Security controls. Security measures, often implemented by the loss prevention department of an organization, tend to be the most visible to the employees and the most direct actions for attempting to control theft. Implementing a program of regular vigilance demonstrates to the employees and management that theft is considered a serious problem (Tatham, 1974; Lipman & McGraw, 1988; Payne, 2013). Security personnel often engage in specific proactive activities in an attempt to stave off theft before it even occurs (Hollinger & Clark, 1983; Mishra& Prasad, 2006). Some of these proactive measures are refund controls i.e. limiting customer refunds to same tender transactions (cash for cash, credit for credit), requiring management approval on all returns, requiring associate and management signatures on all returns, maintaining a hard copy of customer receipts, employee package or locker checks, mystery shoppers, and plain clothes detectives (Snyder et.al., 1989; Hollinger & Langton, 2005; Mishra & Prasad, 2006; Hollinger & Adams, 2007).

Security personnel also utilize reactive approaches once a theft has occurred like Point of Sale (POS) exception reporting to determine the frequency of theft and in-store interviews to gain an understanding of the climate in the store (Hollinger & Adams, 2007). Most security measures are a combination of proactive and reactive. Surveillance tools like closed circuit television (CCTV), public view monitors (PVM) and digital video recording (DVR) are used to prevent theft and to record an incident should it occur (Lipman & McGraw, 1988; Hollinger & Adams, 2007). Closed circuit television has been deemed the most effective deterrent in any retail setting (Anderson, 2007). The use of benefit denial devices, commonly referred to as sensor tags, is also intended to deter theft from occurring. These devices can also identify a potential thief to other shoppers and the store employees once the sensor alarm has been activated (Hollinger & Clark, 1983, Hollinger & Langton, 2005; Hollinger & Adams, 2007). The goals of these physical security techniques are prevention, apprehension and punishment (Hollinger & Clark, 1983, Hollinger & Langton, 2005; Hollinger & Adams, 2007).

The structural characteristics of security departments were studied by Parilla et.al (1988) to determine their effectiveness in preventing loss. The security characteristics were broken down into three separate dimensions in order to examine their impact on theft (Parilla et.al., 1988). The first dimension was named "security sophistication" and was used to determine if the organization had a specialized security department under the direction of trained experts (Parilla et.al., 1988). The researchers measured this by asking the questions "does the organization have a functionary identified as security director? Is the security director a professional i.e. has had previous law enforcement experience, belongs to a professional security association?" (Parilla et.al., 1988). The second dimension was determining the size of the department. This was

measured by calculating the ratio of full-time security staff to the total number of employees used by the organization (Parilla et.al., 1988).

The third dimension was deemed "theft priority" in order to establish the priority the security department places on the prevention and detection of theft versus other security department responsibilities (Parilla et.al., 1988). The security directors were asked to look over a list of 16 duties, 3 of which pertain to employee theft, and then to identify which of the duties the department had the most responsibility for (Parilla et.al., 1988). In the retail sector, the researchers determined that theft controls are more fully developed, are often the principal focus of the security department, and consistently lead to the prevention and detection of theft (Parilla et.al., 1988).

Punishment. Another formal option for controlling theft is through the use of sanctions imposed upon those who have been caught stealing from the organization (Hollinger & Clark, 1983; Walsh, 2000). In theory punishing apprehended offenders should deter other individuals from repeating the same actions (Hollinger & Clark, 1983). The punishment options may vary from one organization to another but can include termination, internal discipline with retention of employee, restitution, and criminal prosecution (Tatham, 1974; Hollinger & Clark, 1983). In order for the punishments to be effective a few key components must exist: clearly established sanctions which are communicated in advance, a sense of fairness, and certainty of punishment (Tatham, 1974; Hollinger & Clark, 1983; Lipman & McGraw, 1988; Snyder et.al., 1989; Walsh, 2000).

In order to assess the impact of prior punishment on employees, data was gathered from interviews with corporate officials about several forms of sanctions available to security

professionals in the organization. The researchers gathered data on four punishments for the previous year; these were: apprehensions i.e. the number of employees caught committing theft; terminations i.e. the percentage of employees who were caught and terminated; prosecutions i.e. the percentage of employees who were prosecuted; restitution i.e. the percentage of employees who made restitution when caught (Parilla et.al., 1988). The four sanctions did not have any statistical differences among them in regards to their impact on controlling theft rates (Parilla et.al., 1988).

In conjunction with this information, the researchers also posed a question in the survey to the employees about their perceived certainty of detection (Parilla et.al., 1988). The researchers asked respondents to indicate their level of acceptance with the following statement: "I believe I would be caught if I took something belonging to my employer" (Parilla et.al., 1988). The researchers provided a likert type scale with responses of "very true," "somewhat true," "not very true," "not at all true" (Parilla et.al., 1988, p. 270). The results of this analysis were statistically significant indicating that organizations with employees who believed they would be caught if committing theft were less likely to participate in theft than those who did not believe they would be apprehended (Parilla et.al., 1988). In general terms, heightened controls do lead to a strong perception of certainty of detection leading to a decrease in theft participation.

Informal Policy Controls

The ability of an organization to control theft also depends on the characteristics of the work force, in addition to the formal controls put into place by those in power (Parilla et.al., 1988). According to the study conducted by Hollinger and Clark (1983), employee perceptions of co-worker sanctions for violating social norms were more salient than the perception of formal

sanctions administered by the organization. Further, it appeared that some workplace social groups had informal norms accepting theft and others even promoted the activity (Hollinger & Clark, 1983; Greenberg, 1990; Sauser Jr., 2007). Employees who ignore workplace theft or do not report the activity to a supervisor are creating a social environment where theft is considered acceptable (Walsh, 2000). According to Tatham (1974), most employees (65 of 98) stated that they would not report a fellow employee for stealing. In general, most employees also favored leniency in regards to punishment with only 21 respondents indicating that the employees who steal should be fired and prosecuted (Tatham, 1974).

Research Questions

Each piece of research reviewed here has been vital in bringing this researcher to the point of asking the following research questions. The information provided in the latter pages has assisted the reader in establishing what has been examined previously within this field of study and where information is lacking. Each piece of research reviewed here has helped to establish individual research questions but vastly important has lent to an unanswered question that this researcher hopes to answer: How does a management team (size and tenure) impact the level of internal theft within individual store locations? Organizations can put prevention techniques in place and examine theft from the characteristics of those who commit it but how those controls are carried out on a daily basis and by whom will help us gain a greater understanding of how to predict theft in specific locations.

This study attempts to answer numerous research questions. Those questions are as follows: What is the total loss suffered by the organization over a seven year period? This information is the backbone of the primary data collection and analysis of the study. In addition,

as demonstrated in the literature reviewed loss in retail is often difficult to determine on a global level so it was crucial to establish the loss for this study. What variables, including the number of managers on staff per store; management turnover; surveillance measures; store location; and store design features, predict the level of loss in each store location? The researcher found very little literature on these variables and their ability to predict theft behaviors and hypothesizes that a significant relationship will be found between them and loss in store locations across the United States and Canada.

What is the prevalence of employee theft; specifically refund fraud, cash theft, deposit theft, wearing/removing merchandise, and credit card fraud, within the specialty retailer? In a review of the literature, it has been determined that no one universal answer can be determined for this particular question, so it is of vital importance to establish this initially for this research project. Most research examines theft as a whole from an organization rather than dividing the theft into pieces and analyzing each piece on its own merits. This research examined employee theft alone and as a part of the whole picture of loss within the organization. Who (gender, age, tenure with organization, position) is being caught committing this theft at the organization? Crime research often looks into the characteristics of those committing/being arrested for various crimes, but not all research accounts for these variables together. The research reviewed may have examined one or two demographic variables individually but failed to analyze these variables in total.

What are the motivations for those who have been caught committing this theft? Are there clear motivational differences between men and women, ages, occupational position, tenure? Overall, most of the research reviewed indicates that level of workplace satisfaction and opportunity are indicative of participation in theft. This research looked at the motivations for

each individual caught for participating in internal theft and determined if there was variance among the demographics of these individuals and the motivations they had provided. What prevention techniques is the organization utilizing in an attempt to curb the theft from occurring? The literature presented discussed various techniques that have been used by organizations in an attempt to curtail theft from occurring. The researcher proposed that the implementation of prevention techniques in each individual store location would be indicative of the level of employee theft participation.

CHAPTER III

THEORETICAL PERSPECTIVE

White collar crimes are intricately entangled in the motives and opportunities of those who perpetuate these actions. Criminological theory is essential to explain these actions, motives, and opportunities. Criminological theory will be used to help explain how and why individuals begin to participate in employee theft, as well as, to understand what makes an organization more vulnerable to internal and external theft. Routine Activities theory was developed by Lawrence Cohen and Marcus Felson (1979) as a way to explain how structural changes in society could lead to differences in crime rates. Routine Activities theory will be utilized to explain how an organization can be more susceptible both internal and external theft. Techniques of Neutralization was developed by Gresham Sykes and David Matza (1957) to describe how juveniles used specific neutralizations to rationalize their behavior. In this case, the theory will be used to explain how white-collar criminals offer excuses that align with the five neutralizations.

Routine Activities Theory

Cohen and Felson (1979) argue that any structural alterations in routine activity patterns can influence crime rates. Crime occurs when three elements converge in the same time and space: the presence of a motivated offender (s), the availability of suitable targets, and the lack of a capable guardian (Cohen & Felson, 1979). According to Cohen and Felson (1979), the lack of just one of these elements may be enough to deter a crime from occurring. Although, they do contend that the presence of a suitable target and the lack of a capable guardian may be enough to lead to increases in crime rates without structural motivational changes (Cohen & Felson,

1979). In other words, motivated offenders may remain stable in time and space and changes in targets and capable guardians can still create more opportunity for crime. The control of opportunity them becomes a crucial element of this theory.

The main difference between this theory versus others is that the likely offender is a given concept and the authors chose to focus more on the remaining two elements of a suitable target and the lack of a capable guardian (Felson & Clarke, 1998). A capable guardian is not simply a police officer or security personnel but rather any individual whose mere presence or juxtaposition would discourage the perpetuation of a crime (Felson & Clarke, 1998). This individual can be a housewife, a doorman, employees, neighbors, house keeper, or anyone who just by their presence serve as the capable guardian (Felson & Clarke, 1998). A guardian can also be an alarm system, a camera, or lighting; these may initially be inadvertent but serve as a powerful guardian against crime.

In routine activities theory, the term target is favored over victim as the desirable item to the offender may be a person or an object (Felson & Clarke, 1998). In the case of a burglary, the owner will not even be present at the scene and was not the desired target to begin with; their 50 inch big screen television was. Targets of crime may be a person or an object, whose temporal or spatial location place them more or less at risk (Felson & Clarke, 1998). According to Felson and Clarke (1998), there are four main elements that an offender will consider when deciding the suitability of a target for a criminal attack. Those four elements are value, inertia, visibility, and access.

Offenders are only going to be interested in objects or persons that they value on an individual basis (Felson & Clarke, 1998). Thus, a female offender is not going to steal jeans for a

man when she cannot wear them herself; there is no value in that crime for her. Inertia is in reference to the actual weight of the desired item(s) (Felson & Clarke, 1998). In this regard, small items are much more likely to be stolen, rather than heavy items like a couch. Consistently, furniture stores have lower levels of shrink as compared to other retailers. Inertia plays a large role in this; the weight of most furniture alone makes it an unsuitable target.

The third factor, visibility, is in reference to the exposure of the desired item or individual to the perpetrator (Felson & Clarke, 1998). Visibility can simply be an individual flashing cash in public, or a retailer placing expensive items in a window display for everyone to view (Felson & Clarke, 1998). Finally, access is denoted by street patterns, placement of goods by the door, or any other features of everyday life that make it easier for offenders to get the targets they desire (Felson & Clarke, 1998). A retailer keeping small, easily concealed items such as jewelry, belts, or tank tops near the front of the store where they are harder to monitor and much easier for an offender to slip out of the store would be an example of access. According to Felson and Clarke (1998), routine activities theory is one of the best explanations for burglary. This author believes that it is also the best explanation for retail theft.

Routine activities theory is valuable in the analysis of certain occupational situations in order to assess the likelihood of workplace crime (Payne, 2013). A decrease in the number of workers in a retail setting can be detrimental in various ways. In terms of external theft, fewer workers on the floor of a retailer means that would be shoplifters and boosters have a greater opportunity for theft as there is a reduction in capable guardians. When the number of workers has been decreased by the organization, it can also lead to internal theft issues. Once again, the number of capable guardians has been reduced and the remaining employees feel more comfortable participating in workplace crime (Payne, 2013). An organization becomes a suitable

target when they continue to engage in these types of cutbacks on a consistent basis, leaving the workplace open to internal and external pilferage.

Routine activities theory could be considered an "opportunity" theory of crime meaning that the tenets of this theory address real life principles and are readily available to put into practice by criminal justice agencies (Felson & Clarke, 1998). Crime theories should assist in developing crime prevention strategies. According to Felson and Clarke (1998) opportunity is the "root cause" of crime (p.v). The theories that emphasize reducing crime opportunities should be utilized when examining the level of theft in any organization, including merchandise retailers. No crime can occur without the physical opportunity for the perpetrator to commit that crime. Individual behavior, then, is the interaction between the person and their environment (Felson & Clarke, 1998). In their examination of crime theory, Felson and Clarke (1998) present 10 principles of opportunity theory. Several of these will be discussed in terms of their application to theft in the retail sector.

Opportunity plays a role in causing all crime is the first principle in Felson and Clarke's opportunity and crime theory (1998). The significance of opportunity in cases of fraud can be seen in a variety of ways. The presence of stringent controls, or the lack thereof, can greatly influence the level of fraud in an organization. Felson and Clarke (1998) provided several examples in their research. Easy check cashing policies means an increase in check fraud. Refund fraud in stores has been reduced in Australia because organizations have set up and implemented better regulations for returning merchandise. Employee reimbursement fraud has been curbed by establishing specific rules about original receipts and per diem requests. In addition, multiple signatures and audit checks prevent large fraudulent actions in organizations

(Felson & Clarke, 1998). In the retail sector, opportunity can be reduced by establishing proactive policies such as refund controls and double signatures in each store location.

The second opportunity principle is the notion that crime opportunities are highly specific to each offender (Felson & Clarke, 1998). Offenders may enter into a situation knowing they want to steal something but what that is varies depending upon the interest of the offender. An offender may enter a location knowing they want to steal cash, another may want to take clothing, and yet another person may be interested in jewelry (Felson & Clarke, 1998). Offenses and offenders vary so opportunity reductions must also be different when employed by organizations. All possible factors must be considered when attempting to reduce or remove opportunity so that one action does not lead to a different form of crime (Felson & Clarke, 1998). A retailer that only places surveillance cameras in the front of the store is definitely creating crime opportunities in other areas of the store location. In order to reduce opportunity, the store should maintain multiple employees on the floor at all times and utilize surveillance cameras, benefit denial devices and good customer service.

Crime opportunity is concentrated temporally and spatially is the third principle (Felson & Clarke, 1998). Crime opportunity is not equally spread throughout locations or during all times of the day. A variety of reasons exist to cause this differential occurrence of crime opportunity. Many individuals are simply not suitable targets for offending behaviors (Felson & Clarke, 1998). Some locations are not viable for crime at a certain time of the day, month, year, or season, whereas other locations by design are not accessible for criminal activity (Felson & Clarke, 1998). In general, the distribution of both offenders and potential capable guardians is highly disproportionate in society and can lead to concentrations of crime in certain areas and specific times. Although retailers cannot change the environmental location of their stores once

they are in place, they can actively attempt to prevent crime from occurring at their location by implementing strategies that deflect offenders.

Crime opportunity also depends upon the ease of everyday movements or activities (Felson & Clarke, 1998). The availability of public transportation or the location of shopping malls in relationship to schools can lead to increased opportunity for crime (Felson & Clarke, 1998). The path to get to desirable locations can also present opportunities for crime, especially for younger people (Felson & Clarke, 1998). A store location that is easy to get to and relatively simple to get in and out of is going to experience higher levels of crime because there is more opportunity naturally for that crime.

An initial crime can also lead to opportunities for a secondary crime to occur (Felson & Clarke, 1998). This can occur in several ways. The organization is now vulnerable to a second victimization because it has been demonstrated to offenders that there are opportunities available. In addition, the stolen merchandise must be sold in order for it to be worth the effort for the offender. So, the initial crime has been theft and now the offender is selling stolen goods (Felson & Clarke, 1998). One crime produces opportunity for another crime to take place (Felson & Clarke, 1998).

The products being offered at an organization may also be more tempting and lead to crime opportunities (Felson & Clarke, 1998). Studies of the retail industry consistently demonstrate that certain items and brands are considered more valuable and thus more likely to be stolen than others (Felson & Clarke, 1998). The disadvantage of producing merchandise that is desirable to numerous groups of people is that the product also becomes quite desirable for

criminals. The popularity of a product may also lend greater explanation to repeat victimizations of specific retailers as the opportunity presents itself.

Finally, these crimes can be prevented by reducing opportunity (Felson & Clarke, 1998). Several approaches to crime prevention could be utilized by organizations, including crime prevention through environmental design and situational crime prevention (Felson & Clarke, 1998). Each of these methods is concerned with reducing crime opportunities for specific targets, places and victims (Felson & Clarke, 1998). These methods seek to employ cost effective techniques that will prevent crime through simple and practical changes (Felson & Clarke, 1998). Situational crime control theorists put forth four main objectives that can be utilized to reduce crime opportunity; these are increase the perceived effort of crime, increase the perceived risks of crime, reduce the anticipated rewards of crime, and remove excuses for crime (Felson & Clarke, 1998). Some specific examples of these objectives in the retail industry would include the use of surveillance, the use of fitting room attendants, benefit denial devices, and security guards.

According to Felson and Clarke (1998), crime is most definitely an interaction between a person and their environment but ignoring the role of opportunity in crime commission is causing an imbalance in criminological theory. Examining opportunities for crime in addition to social, biological, and psychological causes opens up a new arena for discussion about tangible features of life that can be changed to reduce the amount of crime. Accepting that opportunity is a cause for crime will result in a criminology that is more complex and more relevant to policy and practice. It seems impossible to ignore opportunity as a predominant feature for crime in the retail sector as the studies previously discussed have demonstrated that those who have the most access to valuable items commit the most crime.

Techniques of Neutralization

Neutralization theory was developed in 1957 by Sykes and Matza in an attempt to explain how juveniles drift in and out of delinquent behavior. They theorized that juveniles know right from wrong before they participate in delinquent acts. In order to partake in these activities then juveniles rationalize or neutralize their behavior as appropriate in some way (Sykes & Matza, 1957). These neutralizations occur prior to the unlawful acts and provide the potential offender the mental fortitude to go through with the activities being considered (Payne, 2013). Sykes and Matza (1957) further clarify their theory by proposing five techniques of neutralizations they believed juveniles used to justify their actions. The techniques were denial of injury, denial of victim, denial of responsibility, appeal to higher loyalties, and condemnation of condemners (Sykes & Matza, 1957).

The denial of injury technique centers on the idea that no one was hurt during the criminal act (Sykes & Matza, 1957; Cullen & Agnew, 2010). The interesting perspective here is that the offender using this rationalization would say that he or she does not approve of criminal actions that are mala in se and that no such behavior took place (Sykes & Matza, 1957; Cullen & Agnew, 2010). The offender will deny any real harm to the victims as a result of his or her conduct. In the case of employee theft, the individual may feel that there is no injury because the organization does not represent a tangible victim to them. According to the research conducted by Klenowski and colleagues (2011), denial of injury was the second most common way that male white-collar offenders justified their actions. These male offenders claimed that "nobody got hurt," "it's only money," or "I was only borrowing it" (Klenowski et.al., 2011, p.55). The female offenders utilized this justification less frequently than the male offenders in the same

study; much like the men they emphasized that they were merely borrowing the money (Klenowski et.al., 2011).

Denial of victim occurs when the offender admits that there was some form of injury but that the victimization is not wrong in the current circumstances (Sykes & Matza, 1957; Cullen & Agnew, 2010). The offender may go as far as to see themselves as the avenger of some perceived wrong and the victim becomes the wrongdoer who needed to learn a lesson (Sykes & Matza, 1957; Cullen & Agnew, 2010). In a retailer, this denial may arise when the offender convinces themselves that the corporation (victim) mistreated the offender in some way and deserves to be punished for their misdeeds (Payne, 2013). The employee may take on the persona of Robin Hood believing that they are righting all wrongs committed by the organization against the staff.

The individual offender may try to neutralize their actions by claiming that they are not responsible for their misconduct (Payne, 2013). Denial of responsibility is not the simple act of claiming that the behaviors were accidental, rather is the assertion that this actions were beyond their control because of life circumstances (Sykes & Matza, 1957; Cullen & Agnew 2010). According to Klenowski and colleagues (2011), six of the male offenders used this technique claiming that they should not be held responsible for their actions. Each one of the male offenders who claimed lack of responsibility cited their impoverished upbringing or an unhealthy or abusive relationship with a parent (Klenowski et.al., 2011). The female offenders participating in the research study claimed that their crimes were beyond their control or that they were not their fault because of some social condition (Klenowski et.al., 2011). The women blamed their boss or spouse for leading them astray in the ways of business; therefore trading in on the notion that women are not fully in control or totally knowledgeable about business matters and still need to be told what to do by men (Klenowski et.al., 2011).

Appeal to higher loyalties neutralizations occur when an offender sees himself as a member of some smaller group and is caught in a dilemma where crime must occur for the good of the group (Sykes & Matza, 1957; Payne, 2013). The offender rationalizes their actions as beneficial for the entire group believing they should be justified because it was not done for selfish reasons (Sykes & Matza, 1957). In the study of white-collar offenders, male participants cited this justification more than any others (Klenowski et.al., 2011). The male offenders often claimed to have committed crime for the betterment of their family, their colleagues or their communities (Klenowski et.al., 2011). The female offenders also cited this neutralization most often in the study. The female participants took a slightly different approach though claiming that their husbands were incompetent or failing so they had to step up as mothers to solve the situation (Klenowski et.al., 2011). In addition, the females also claimed to be helping a flailing friend or family member who was ill (Klenowski et.al., 2011). All of the participants attributed their behavior to the efforts required to assist someone else in a bad situation.

Condemnation of condemners is the final technique of neutralization according to Sykes and Matza (1957). Condemnation of condemners occurs when the offender shifts the focus from his or her actions onto those who are disapproving of the behaviors (Sykes & Matza, 1957). The offender may claim hypocrisy indicating that those who are pointing fingers, so to speak, have also done the same thing. The offender may also claim that the system is corrupt and everyone else is participating in this behavior so what is the issue (Payne, 2013). According to Klenowski and colleagues (2011), seven of the male participants claimed that the laws were too strict and that the government is "forcing people in this field to be criminal" (p. 56). Only two of the female participants used this justification when speaking about their crimes. The women who

neutralized their behavior in this manner claimed that “the government is the mafia” and that the dishonest behaviors by the government justified their actions (Klenowski et.al., 2011, p. 62).

Each of the theories discussed in this chapter have impacted research on occupational crime in various capacities. Routine activities theory was used as a guide for this research project when considering what variables to examine at the store locations and what types of questions to pose to the organization about ways they prevent crime opportunities on a daily basis. Techniques of neutralization was the guiding theoretical perspective behind forming the idea to examine employees and the motivations they provided at the time of their confession. Even though these theories were not specifically tested by the researcher, the tenets were a valuable guide and the results of the research will demonstrate a clear relationship between routine activities and neutralizations in the losses suffered by the retailer.

CHAPTER IV

METHODOLOGY

The following research project addressed five major points; the level of theft that occurred at the specialty retailer for an eight year period (2005-2012), the factors at the individual store level which were the most significant at predicting theft at the specialty retailer, the characteristics of those who have been caught committing internal theft at the organization, the motivations of these individuals for the internal theft, and finally the techniques put into place by the retailer to reduce the opportunity for theft. The researcher initially gathered data on all of the predetermined relevant independent variables i.e. number of managers, management turnover, sales volume, number of doors, use of surveillance, location of cash and wrap, store location type, store location environment, and simply the state location of the store for each of the store locations in the retailer in order to determine the variables which may predict an occurrence of theft in store locations.

The researcher then collected data on individuals who had been caught committing internal theft from the retailer over an 18 year period. The researcher collected data on the variables of sex, age, tenure of employment, occupational position, loss as a result of the fraud, year of theft, and type of theft. In addition to these variables, the researcher reviewed confession statements from the individuals who had been caught and terminated for committing theft. The researcher looked for themes in the statements to determine if the motivations could be categorized. Finally, the researcher conducted several interviews with the staff of the loss prevention department at the retailer to explore the reasons they believed theft occurs and what steps are taken by the organization and department to attempt to curb loss.

The goal of the initial phase of data collection was the determination of variables from numerous areas of the store that can indicate vulnerabilities in every individual store for theft to occur. The aim of the remaining portions of the research was to determine the extent of the relationship between the demographics of those caught committing various types of internal theft and their motivation for that theft. In addition, the researcher has established where the opportunity for employee theft exists through an examination of the prevention methods utilized and the amount of loss that has occurred at this particular specialty retailer. The study of these variables allowed the researcher to gather data on the level of theft that has occurred over time at the retailer, the factors that make a location more vulnerable to theft, who has committed theft from this retailer during their employment, why this theft has occurred and what may be done to prevent it. The results of this study should have numerous policy implications for not only the specialty retailer participating in the study but retailers in general.

The following chapter will provide a description and discussion of the methodology that was utilized in the research study. In order to examine the level of loss, the causes of loss, who was caught committing theft, why these individuals were stealing, and what has been done to prevent it the researcher employed a multi-method strategy. The researcher utilized a multi-method approach in the anticipation of gaining a greater theoretical, practical and sociological understanding of the phenomena employee theft (Brewer & Hunter, 2006). The measurement possibilities for employee theft are almost limitless; the decision to use a multi-method approach was based upon the prior reviewed research on the subject. A review of the relevant literature demonstrated a lack of culmination in the aforementioned variables which was a crucial catalyst to the formation of this research project.

A flawless method for obtaining information in the social sciences does not exist. Fortunately, many of the flaws in a mixed methodology scheme are complimentary; meaning the strength of one method can offset the limitations in another (Brewer & Hunter, 2006). The use of multiple methods provided the researcher with the opportunity to strengthen the research via complimentary methodology in addition to establishing a more complete picture of the research topic (Brewer & Hunter, 2006). The researcher found that a multi-method approach provided a greater opportunity for determining how much theft occurred and why it occurred. In addition to the verification of who was caught committing theft, why they were committing this theft, and the steps taken to prevent the theft from occurring by the specialty retailer.

The researcher utilized several nonreactive approaches. Initially, all relevant store variables were collected for each individual location for the years 2005 through 2012. For example, the level of theft as calculated by inventory shrinkage was gathered for all store locations at the chosen retailer, along with the other established relevant variables, for each of these years. The researcher utilized this data to determine the prediction variables for yearly loss per store location.

The second portion of the research included an analysis of archival file data for those individuals who have been caught committing theft and terminated from the retail organization in order to determine the demographics of these individuals. In addition, the confession statements from the case files were analyzed by themes to establish the motivations behind these thefts. Finally, the researcher completed qualitative interviews with the loss prevention personnel and the director of loss prevention to verify the frequency and cost of theft on an annual basis, as well as, the efforts made by the department to control and prevent losses from occurring. The researcher attempted, through the use of a multi-method approach, to gain a greater theoretical

and practical understanding and explanation of loss at a retailer in addition to a statistically significant one.

Sample

Site and Access

The site of this study was a specialty apparel retailer. This particular retailer has been in business for over 30 years, specializes in young women's and young men's brand apparel, and has store locations all across the United States, Canada and Puerto Rico. This retailer was chosen as the site for the research study for two reasons. The primary reason is that the retailer is a rich data source for the focus of this study. The organization has an extensive loss prevention department that maintains thorough records on each one of the stores within the company. The loss prevention department tracks shrinkage results, external theft incidents, internal theft issues, amongst numerous other important pieces of data about the stores and their employees.

The retailer also maintains case files spanning the past 17 years on former employees who have been caught committing internal theft. These case files contain demographic information on the terminated employees such as age, sex, tenure with organization, occupational position, type of theft, store location, and amount of loss. In addition to this valuable information, many of the case files contain confession statements composed by the former employee at the time of the investigation. Many of the statements contain information on the motivation behind the theft.

The secondary reason for using this retailer in the study was due to a relationship between the researcher and the retailer. The researcher had formal access to the retailer as she is a former employee. The director of the loss prevention department provided the researcher with

verbal and written specific access to all case files from 1995 through 2011. In addition to the case files, the department director also provided access to all store datasets which are relevant to loss in any way.

Sample Selection

The research was a longitudinal study with a total population design and a non-probability sample as the researcher was looking to compare all stores at the retailer for the variables that predict loss on a yearly basis. The researcher also examined a specific subgroup of individuals for their participation in internal theft in the form of refund fraud, deposit theft, cash theft, passing/removing merchandise, or credit card/check fraud. A purposeful sampling strategy was utilized for the second portion of data collection as the researcher felt that each case file was critical for establishing the total cost of internal theft, the motivation behind most of the theft; in addition to answering the demographic research questions in relation to who is committing internal theft at this particular retailer. The researcher also felt that the number of case files would not have been large enough to draw statistical conclusions should any have been withheld from the study.

Individual store sample. The researcher examined all of the store locations for the specialty retailer for the loss incurred at each one of the individual locations. The specialty retailer has a total of 1,068 stores located in the United States, Canada and Puerto Rico. The researcher reviewed these stores throughout an eight year period, from 2005 through 2012. The total sample for this portion of the research was 7,373 cases. It is important to note that not all of the 1,068 stores have been in existence over the entire eight year period reviewed as stores are constantly being built, remodeled and closing. Each store had a varied number of entries in the

dataset as they all did not open in 2005, and some were inventoried more than once per year. Each store's inventory numbers were averaged for a total per store. These numbers were used to create the final 1,068 cases that were used in all analysis.

In 2012, each of the stores had a range of managers on staff with a minimum of three managers to a maximum of 23 managers depending on store sales volume. The total number of managers in 2012 was 1,089 with a mean of 3.97. The researcher was also able to calculate management turnover for 2012. The store manager listing was held separately from the remaining management staff in each store. As a result, the researcher had to calculate each in separate categories. The store manager turnover for 2012 ranged from a minimum of 0% to a maximum of 400%. The mean of store manager turnover in 2012 was 51.06%. All other managers were grouped into the category of management turnover with a minimum turnover of 0% to a maximum turnover of 75%. The mean of management turnover in 2012 was 5.79%. This data allowed for calculations about the number of managers and loss and the level of management turnover and loss at each store location for the year 2012.

In addition to the number of managers and management turnover, the researcher also gathered store characteristics that were used to predict a level of loss per store location. These characteristics were also utilized to verify which are the most significant in predicting loss within stores. The variables, or characteristics, were chosen based upon prior knowledge in the field and the relevant literature. The researcher believes that the variables that have been collected are the best prediction variables for specialty retail. The variables are a mix of internal and external characteristics believed to have an impact on the vulnerability of the store to loss. The variables were grouped into three main categories of environmental, internal structural, and personnel. The environmental variables were the state in which the store is located, the type of mall location,

and the type of environment around the store. The internal structural variables were the cash and wrap location, number of doors, and use of camera surveillance. The personnel variables were number of managers, store manager turnover, and management turnover.

The researcher gathered the characteristics about the interior of each store location based upon the relevant literature and previous theoretical constructs. According to routine activities theory, reducing the availability of suitable targets and maintaining the presence of a capable guardian should reduce the likelihood of theft (Felson & Clarke, 1998; Cohen & Felson, 1979). The variables examined in this study were chosen by the author as they are most closely associated with reducing the vulnerability of a location to loss. The location of the cash and wrap (desk where all registers/bags/sensor removers are located i.e. where the customers purchases are completed) within the store was chosen for a variety of reasons. The location of the cash and wrap may impact how well the registers can be seen by others in the store and how efficiently those working behind the cash and wrap can view the remainder of the store. The location may also make it more or less difficult for managers to commit fraud or more or less difficult for employees to see external theft occurring when assisting customers at the cash and wrap.

The researcher also reviewed the blueprints for all stores to determine store design and therefore to verify the number of doors within each store location, including both front and back doors. Felson and Clarke (1998) discussed the elements of access and visibility in reference to reducing crime opportunities. The author chose to examine the number of doors under the premise that more entrances and exits at one store location will lead to an increase in loss as the opportunity for theft increases with access and visibility. For example, the front/entrance doors may be a main factor when external crime groups are choosing store locations for theft, and the

back door accessibility may be an aspect in the level of comfort employees' feel when removing merchandise.

Finally, the use of closed circuit television (CCTV) or public view monitors (PVM) were verified for each store location. Researchers have determined that a capable guardian in the prevention of loss does not necessarily have to be a person (Payne, 2013; Felson & Clarke, 1998). The use of camera surveillance equipment may act as a deterrent for internal and external theft. It is also utilized as evidence when a theft does occur.

The external environmental variables of state, store location type, and store location environment were chosen as constant variables. These variables can lend important information about the loss that has incurred at an individual location but they are not likely to be altered, unlike the internal variables. A store location may lend itself to suitability of target and lack of guardians simply by existing in its current space. These external characteristics while unlikely changing can offer a vast level of explanation about the level of annual loss in a particular store location.

Individual case sample. Although this particular retailer has been in business for over 30 years, the loss prevention department has only been in place since 1995. Therefore, the case files begin in 1995 and continue through the middle of 2012. The researcher took precautions to ensure there were no current or pending cases included in the data collection. The researcher collected data on a total of 682 case files which included activities of fraud, cash theft, deposit theft, and merchandise theft. Of the total number of case files, 396 were found to contain both demographic data and a confession statement. The remaining case files (n=286) did not contain the necessary confession statements, rather only the demographic data. The researcher collected

the demographic information from all cases to determine if those who completed the confession statements varied in a statistically significant way from those who did not.

The review of these case files over the time period of 1995 through 2012 allowed the researcher to determine the characteristics of the individual most likely to be caught committing various types of theft, the motivation behind the theft for numerous individuals, and the level of variance amongst these motivations within and between the demographic categories collected in the study. The individual case files contained the necessary demographic information allowing for categorization of them based upon age, sex, occupational position and tenure within the organization. The case files also contained data on the dollar loss for each individual theft which was used to extrapolate to a total sum of loss for the years researched.

Interview sample. The final sample was qualitative interviews with the loss prevention personnel and the director of the loss prevention department. The qualitative interviews with the loss prevention staff and the director of loss prevention were instrumental in determining the prevention techniques put into place by the loss prevention department in stores, as well as, garnering the opinion of each interviewee about the level of internal theft in their area and the motivations behind those thefts. The interviews also provided insight on the various techniques utilized by the each member of the loss prevention personnel to prevent theft from occurring in their stores. The participants were questioned on which of the techniques they felt were most effective at deterring both internal and external theft. The effectiveness of these techniques will be discussed in terms of overall loss and loss on an individual store basis. Finally, the interviewer ascertained the factors which the personnel believed led to loss, both externally and internally, in the organization.

Data Collection

The data collection design for the initial phase of the research study was a total population design. The majority of the research was nonreactive in the form of store attribute analysis, individual case analysis and narrative studies. The remainder of the research was done via qualitative interviews with experts in the loss prevention field. The initial data collection was a review of store records to determine the level of shrinkage in each store and the characteristics of each store that may predict theft. The research then continued into a secondary phase with the collection and analysis of case files of terminated employees to determine the demographic information about each individual involved in a theft case throughout the last 15 years. As mentioned previously, this included age, sex, occupational position, and tenure of employment. The demographic information obtained during this phase of collection and the letters of confession provided insight into the motivations for the thefts. Finally, the personnel and the director of the loss prevention department were interviewed to gain understanding about the factors believed to cause theft and what has been done to prevent theft from occurring.

Individual store data collection. The initial data collection involved gathering all of the variables that were predetermined to be predictive of theft at each store location. The unit of analysis for this portion of the study was the individual store locations at the specialty retailer. The dependent variable was the yearly loss suffered by each store. This was collected in two forms; one as a shrink percentage coded as 0.00% and the other was the actual dollar loss suffered by each store coded as $0000.00. The shrink percentage and annual dollar loss was calculated on a yearly basis for each store. Although each store did not have an inventory at the same time each year, the results of the inventory were calculated on an annual basis. The

inventory shrinkage for each store is based upon the loss that incurred during the previous fiscal year. This loss may be due to internal theft, external theft, or administrative errors.

The independent variables were numerous as a number of characteristics may impact the level of loss in stores and it was paramount to determine which of those variables will be prediction variables. The first four variables are constant for each of the individual stores. First, the researcher identified the store number for each store location within the retailer (n= 1068). The store number was simply recorded as the same number used for identification by the organization. The store state location was recorded as the two letter state abbreviation in which the store is located. The store location type was also identified and coded as "0" outlet "1" mall and "2" lifestyle center "3" street location "4" strip center "5" mills "6" beach store. Finally, the store location environment was determined as "0" rural or "1" suburban and "2" metropolitan. An example of this would be store 81 located in the Soho neighborhood in New York City, NY, which would be coded as 81, NY, 3, 3. (See Appendix A for Complete Code Sheet)

The number of managers per store was recorded simply by the whole number. The frequency of management turnover was then recorded in two separate categories of store manager turnover and management turnover per store as a whole percentage number ranging from 0-400%. The researcher hypothesized that management personnel and management turnover would be important predictors of the level of theft within each individual store location based upon the relevant literature and field experience. The sales volume for each individual store was also documented as this number is used by the organization to determine personnel, inventory levels, security measures, and hours. The higher the sales volume the more staff, inventory, security, and hours were allocated to that location. This was simply coded as $0000.00.

In addition to the previous variables, the researcher also determined the location of the cash & wrap within each individual store. This was coded as “0” side “1” center “2” front corner and “3” backwall. As mentioned previously, the location of the cash & wrap may be indicative of the ease in which theft can occur in varying store locations. In addition to the cash & wrap, the number of doors was also recorded. This included both front and back doors and was coded as a whole number. As previously indicated, the number of doors may also be indicative of the level of theft within a store. Finally, the researcher recorded if the store locations maintained an active surveillance system such as CCTV or PVM. This was recorded as “0” no “1” PVM “2” CCTV or “3” both.

Individual case data collection. In the second phase of analysis, the researcher explored “who” the most likely person to be caught participating in employee theft would be at the specialty retailer and what the motivations of these individuals were. The unit of analysis for this particular portion of the study is the individual cases. The case files reviewed contained information on the demographics of those individuals caught committing theft at the organization as well as details about the fraud such as cost and methodology. The demographic variables collected are the independent variables for this portion of the research as the researcher found these variables may assist in the prediction of the type of motivation expressed by those caught committing theft. The sex of the individuals was categorized as “0” female and “1” male as it is a nominal level of data. Age was recorded in years as it is interval level data.

The tenure with the organization was recorded in months as a number of employees who were terminated were employed by the organization for less than one full year. The employee position was classified as “0” Associate, “1” Key holder, “2” Assistant Store Manager, and “3” Store Manager. The total dollar loss from each case was recorded as well. These were recorded

in whole dollar amounts such as $0000.00. The sum of the individual loss amounts were used to identify the total dollar loss suffered by the organization as result of types of internal theft examined in this particular study. The total dollar loss from internal theft from each year was used to determine how impactful internal theft was on the organization during those particular years. A comparison will be completed using the overall dollar loss collected earlier from each store and the total dollar loss established for internal theft.

Each case file should have contained a written confession statement, but the researcher found that a little more than 60 percent of the cases were marked as containing a statement. Therefore, the case files were separated into two categories of either case files with a statement or case files without a statement. Upon further examination, the author determined that 139 (20 percent) of the case files marked as containing a statement actually had a useable letter. This occurred for a variety of reasons, such as illegible writing, a lack of actual confession (i.e. participant merely listing all items stolen or transaction numbers of fraudulent returns), a total lack of motivation provided, or the actual physical statement missing from the file. When a letter was appropriate, the researcher, using the thematic content analysis technique, determined the type of motivation that may have led to the theft by the employee.

The dependent variable for this portion of the research was the artifacts of behavior, or motivations, as recorded by the employee at the time of their integrity interview. Employee motivations were determined via categorizing strategies such as coding and thematic content analysis of the confessional statements. Initially, the researcher surmised that these motivations could be separated into two main subgroups: Organizational and Personal. The researcher found during data analysis that very few responses could actually be considered organizational in nature. The final categories were constructed based upon an original analysis of the most

frequently used words in the 139 viable letters of confession. The most frequently used words were reviewed for similarities in order to create larger categories of motivations for quantifiable purposes (coding).

Each case file was reviewed to determine the most frequently used word and then subsequently coded into thematic categories based upon the motivation provided at the time of confession. The motivational category of "financial" was created based upon the frequency of words such as money, pay, cash, needed, bills and time. The category of "family" was created based upon the frequency of words such as family, life, and needed. The original category suggestions of "organizational" and "personal" had little support in the initial analysis of word frequency. The researcher created a category entitled "remorse" based upon the frequency of terms such as sorry, apologize, wrong, really, truly, and completely. The final two categories of "medical" and "opportunity" were created based upon a review of the remaining letters that were not already allocated to other categories. The medical category includes motivations that have to do with the individual's health issues. The opportunity category derived from letters where the participant seemed to only have committed the theft because the opportunity presented itself.

These motivational subcategories will be compared to the demographic variables obtained in the case files. The analysis of these variables produced the individuals who are most likely to get caught participating in theft and the motivations that lead them to commit theft.

In addition to developing the above categories for the motivations, the researcher also employed a theoretical analysis in order to determine if the statements provided would fall into the previously established constructs of routine activities theory and the techniques of neutralization. The researcher used memos throughout the collection of the confessional letters to

note which of the statements seemed to fall in line with each of the theoretical constructs being considered. At the conclusion of the data collection, the researcher had numerous letters which could be aligned with the theories. These categorizations were used to offer support to the purpose of the research as the specific purpose of this study was not to test any one theory.

Interview process. The interview process with the loss prevention director included an extensive interview after all of the personnel interviews were completed in order to verify organizational responses provided and to garner the valuable insight of the director who has been with the loss prevention department since its inception in 1995. The researcher also completed interviews with seven members of the loss prevention department. These interviews were semi-structured with the majority of questions prepared prior to each interview. The researcher left room for a discussion in an area that may not have been established in the interview guide. The researcher gained valuable insight into the entire picture of loss at the specialty retailer through these interviews. In addition, each member of the loss prevention department demonstrated a clear understanding for the characteristics of those who commit theft within the retailer's walls and the general motivations of the employees who participate in criminal activities.

The researcher was specifically looking to verify the loss this retailer has incurred as a result of both internal and external theft, and the number of cases the retailer handles on an annual basis for internal theft specifically. The data collected from these interviews was used in the verification of the predictor variables chosen for the research such as number of doors, use of camera surveillance, and management turnover. This information was also useful in the process of making suggestions for policy changes.

The researcher posed specific questions to the director and loss prevention personnel about the loss prevention department's use of prevention methods to control losses. These questions included areas of asset control, surveillance, loss prevention awareness programs and pre-employment screening measures. Some of the questions that were included in the area of asset control were: do you have refund controls put into place in the stores? What are the specifics of these controls? What level of activity does your POS exception reporting system cover? The researcher also asked questions about surveillance such as: does every store have an alarm? Why or why not? Does every store utilize closed circuit television or public view monitors to deter internal and external theft? If no, how many stores use these systems and what are the criteria for a store to receive the system?

The areas of loss prevention awareness programs and pre-employment screening measures were also covered in the interviews. Some of those questions for the awareness programs were: what programs are in place to make associates aware of a loss prevention presence? How often are loss prevention personnel physically in the store? The researcher posed similar questions to all loss prevention personnel and the director in order to gain a sense of validity and reliability in the responses.

Finally, the researcher inquired about the use of pre-employment screening measures using questions such as: do you complete criminal conviction checks on all employees? Are all employees subjected to drug tests? Are reference checks completed on all employees? Who completes these reference checks? These are some samples of questions that were used during the interview process to gain a better understanding of loss prevention methods at the organization being studied. (Interview guides for the loss prevention director and personnel can be viewed in Appendix B).

The interviews were the main instrument for measuring the opportunity or culture for theft. Opportunity was measured by the company measures already in place to reduce theft such as surveillance, pre-employment screening measures, loss prevention awareness programs, and asset controls. These measures were described by the loss prevention director and personnel in their own words. Understanding of the prevention methods utilized by the loss prevention department clarified several areas of the research. This information provided further insight into the motivations of those individuals who have been caught. In addition, the interviews lent clarification to the variables that may lead to an increase in both external and internal theft within this particular specialty retailer.

Research Questions and Hypotheses

The following research questions and hypotheses were developed based upon the relevant literature and the goals of the research.

1. What is the total loss suffered by the retailer over a seven year period?
2. What variables within a store location are the most important in predicting levels of theft?

    H1: The higher the number of managers at a single store location the higher than normal the shrinkage percentage will be at that store location.

    H2: Management turnover at a higher percentage at a single store location will result in a higher than normal shrinkage percentage at that store location.

3. What is the cost of known employee theft, specifically refund fraud, within the

specialty retailer?

4. Who is being caught committing internal theft (sex, age, tenure with organization, position within the store)?

   H3: Women are more likely to commit internal theft than men.

   H4: Individuals between the ages of 20 and 25 are more likely to commit internal theft than other age groups.

   H5: Individuals who have been employed by the retailer for 1 year or less are more likely to commit internal theft than those employed for more than 1 year.

   H6: Individuals in the Assistant Manager position are more likely to commit internal theft than other management positions.

5. What are the motivations for those individuals who have been caught for committing this theft?

6. Are there clear motivational differences between men and women, age groups, job positions, length of time with the organization?

   H7: Women will cite personal motivations more often than men.

   H8: Men will cite organizational motivations more often than women.

H9: Individuals between the ages of 20 and 25 are more likely to cite personal motivations than older age groups.

H10: Individuals aged 26 years and older are more likely to cite organizational motivations than the younger age group.

H11: Individuals who have been employed by the retailer for 1 year or less are more likely to cite organizational motivations than those employed for more than 1 year.

H12: Individuals who have been employed by the retailer for more than 1 year are more likely to cite personal motivations than those employed for 1 year or less.

H13: Individuals in the Assistant Manager position are more likely to cite organizational motivations than other management positions.

H14: Individuals in the Store Manager, Keyholder or Associate position are more likely to cite personal motivations than the Assistant Manager position.

7. What prevention techniques is the organization employing in an attempt to curb internal theft from occurring?

Dependent Variables

The dependent variables for this research were loss and motivation. The dependent variable of loss was measured using the individual stores as the unit of analysis. The loss suffered by each store on a yearly basis was measured initially using the shrinkage percentage, which was defined as a deficit in dollars once the sales reductions and unsold stocks have been accounted for, of the entire organization and individual stores. The shrinkage will be noted by the actual percentage (0.00%). The loss was also measured as the whole dollar amount ($0000.00) suffered by each store location, and the organization in total.

The dependent variable of motivations was used when the unit of analysis was the individual cases. This researcher conducted a thematic content analysis of 139 written statements to determine the appropriate category for the provided motivations. The motivations were broken down into seven categories and a total of 10 subcategories broken up within the main categories. Approximately 37% (n=51) of the statements contained more than one motivational type, therefore the total number of identified motivational statements exceeds the actual number of written statements.

Independent Variables

The independent variables varied within each phase of the data collection. The independent variables were a mixture of nominal, ordinal, and ratio level variables. The primary data collection with the unit of analysis of individual stores had several independent variables that were tested to determine which one(s) were the most significant for predicting levels of theft (loss) within stores. The environmental independent variables for this portion of the study were store location (state where the store is located), store location type as determined by the

organization (mall location, street location, outlet location, strip center, mills locations, beach stores, and lifestyle centers), and the environment of the store location such as rural, suburban, or metropolitan.

Additionally, the researcher analyzed the internal structural features as independent variables. The cash and wrap location (center, side, backwall), number of entrance doors (front and back), and the use of surveillance technology such as public view monitors or closed circuit television were explored in terms of their impact on loss. The remaining independent variables were used to make determinations about the relationship between personnel and loss in stores. The number of managers in fiscal year 2012 per each store location (minimum of 3 and a maximum of up 23; depending on store sales volume and location) was observed in relation to loss. The store manager turnover within each store location for the fiscal year 2012 was measured as 0.00% to 400%, and the management turnover (assistant managers, key holders) within each store location was measured as 0.00% to 75%.

In the second portion of data collection the unit of analysis was the individual case files. Once again there were several independent variables examined. The demographic variables, such as the sex, age, tenure with organization, and occupational position with the company of those caught committing theft, were collected and analyzed for use in both determining the characteristics of those who participate in theft and for predicting the characteristics that correspond to the types of motivations provided. An example may be: do women tend to be more likely to participate in workplace theft and are they motivated more by family issues or financial issues?

Human Subjects Protections

The main areas of concern with this research project were confidentiality, voluntary participation, informed consent, and no harm to participants. Siever (1998) recommends keeping research items for five to ten years. All research materials will be kept in a locked, secure location for a time no less than five years and not to exceed ten years. The notes of the researcher which contain identifying information of the respondents were destroyed once the initial data collection was concluded so no one else was able to gain access to this information. The case files were coded for identification purposes only understood by the researcher. At the conclusion of the coding, the identifying information was destroyed and only the coded data remained. This was done to protect the terminated employees from any further legal action or consequences at a new employer. The researcher took all necessary precautions to ensure the identity of those included in the case files was protected; the organization blacked out all names and identifying markers on the confession statements prior to providing these statements to the researcher for use in analysis.

The researcher also provided the director of the loss prevention department with a confidentiality agreement that explained what confidentiality means between participant and researcher. The researcher thoroughly explained to the director that the information collected was for research purposes only, and would not be used to harm the participant or the corporation in any way. The director provided consent via a written statement for this project to be conducted on the premises of the organization. The director and subsequent organization also maintained a clear right to discontinue the research at any time, and to limit the availability of information based upon potential harm to said organization, current employees, or former employees.

The study did not cause any unnecessary harm to the participants. This study did appear to meet the benchmark of "minimal risk" to the participants (Maxwell, 2005). The researcher did not see any physical, social, legal, or economic risk to the participants. It was unnecessary for the researcher to gain the subjects', in the written statements, overt approval to participate in the study therefore eliminating the chance that the subjects' will be negatively impacted by the research (Brewer & Hunter, 2006). The organization removed all identifying markers from the case files prior to providing them to the researcher for analysis in order to ensure that no further harm came to those individuals who have already been terminated by the company. Finally, the researcher clearly explained to the interview participants that if any of the questions throughout the interview made them feel uncomfortable they were welcome to not answer them or to terminate the interview at any point in time. No reported harm from any respondents was conveyed to the researcher during or prior to the conclusion of this project.

Benefits of the Current Study

The strengths of this research were the formal access available to the researcher through a prior relationship with the retail organization, the option to conduct multi-method research via the numerous outlets available at the retail organization, and the overall cost effectiveness of the study.

The benefits of using a multi-method approach were numerous. The use of multi-methods provided the researcher with the opportunity to confront and handle conflicts and diversity during the research planning process (Brewer & Hunter, 2006). Insulating participants from numerous waves of data collection was crucial for avoiding ethical questions and dilemmas in the research (Brewer & Hunter, 2006). The combination of interviews, case analysis and

content analysis of confession statements assisted the researcher in insulating the interview participant from the other portions of the research. Brewer & Hunter (2006) recommended collecting the most reactive data first prior to moving on to the nonreactive portion. Therefore, the interviews with the loss prevention personnel and the director took place prior to the collection of the case files and confession statements.

The researcher was trying to achieve a certain level of interdependence among the data collection methods in order to determine if there was a level of theoretical significance for those who commit theft and the reasons for why they did it within this organization. The researcher created a new perspective in regards to employee theft by combining variables that had not been previously examined together into a three prong approach to determine the "who", the "why" and the opportunity for theft within one specialty retail organization. This multi-method approach encouraged creativity and openness in this process of theory creation (Brewer & Hunter, 2006). It also allowed the researcher to make connections between the current study and pre-established theoretical constructs.

Employing nonreactive research methods had several benefits, especially in regards to the researcher/subject relationship. The nonreactive data collection was cost effective and allowed the researcher to gather and transform data without any harm to the participants (Brewer & Hunter, 2006). The data was collected unobtrusively and avoided subject reaction as the participants are unaware the research was occurring (Brewer & Hunter, 2006). Also, nonreactive data collection helped to reduce reactivity for the majority of this project as the researcher merely analyzed existing data rather than interacting with human subjects.

All of the methods employed contributed to the determination of the level of theft that occurred, the variables that led to this theft, the characteristics of the individual most likely to be caught committing internal theft, the motivations of this individual, and the opportunity for theft that existed within this retail organization.

Limits of the Current Study

All research, whether reactive or nonreactive, has limitations to the data collection process. The key to conducting good research is to identify and handle these limitations from the outset of the research. One problem that occurs in all styles of research is nonresponse among participants (Brewer & Hunter, 2006). In this research nonresponse occurred in a variety of ways, such as the investigator failing to input all case and employee information into the database at the time of the investigation, the employee refusing to complete a confession statement, or completing a confession statement but refusing to indicate their motivation behind the theft. These are obstacles the researcher overcame by using the purposive sample of all employee theft case files to gather as much internal theft information as possible.

The researcher was also aware that there may be individuals who were naturally underrepresented in this study as it is so specific and narrow in its' examination of one specialty retailer (Brewer & Hunter, 2006). The researcher examined case files of those who have been caught and terminated from the retailer for theft. It is probable that there are individuals who have not been caught at the retailer, and that those who have not been caught and terminated vary in some statistically significant way than those who have been caught. The researcher wanted to address the potential variance between the male and female breakdown of all employed managers versus the gender breakdown of those managers who have been caught and terminated

for theft, but was unable to do so because the human resources department would not provide the data on management.

The two validity threats that the researcher was aware of in the study were researcher bias and reactivity (Maxwell, 2005). The researcher had to try and remove any personal beliefs about the subject of theft and participants of theft by viewing the information provided with an objective mind. The level of researcher reactivity was monitored and kept to a minimum during data collection and analysis. The researcher had firsthand knowledge of employee theft activities due to prior field experience, and therefore took every precaution to view the case files from an unbiased researcher perspective. The inclusion of the theoretical perspectives, routine activities theory and techniques of neutralization, provided the researcher with an academic objective construct to place the motivations into, therefore eliminating bias from the previous experience. The researcher knew it was a key responsibility to keep the reactivity to a minimum.

Analysis Plan

When the final data was analyzed a combination of descriptive statistics, difference of means tests, multivariate linear regression, thematic content analysis, theoretical, and narrative analysis were used. In the first phase of data collection and analysis, the researcher collected a total population so statistics were not a necessity for determining significance but were completed in order to determine the greatest mean loss for each independent variable, and to define the impact of the independent variables on the dependent variable. The researcher was not looking for the most significant variables as this is done to extrapolate a sample to the larger population. This was an unnecessary step as the researcher already had a total population. The

mode, median, and means of the variables, as well as the slope, were calculated to determine which of the variables had more of an impact on loss than the others.

The second phase of data collection and analysis was a non-probability sample. The researcher was given access to case files from individuals who were caught committing theft within the retail organization. Initially, the researcher completed descriptive statistics for this portion of the analysis. The researcher determined the frequency of the independent variables of age, sex, occupational position, and tenure with the organization. Additionally, the mode, median, and means of each of the variables were calculated to determine which of the variables were more impactful than others. The researcher then analyzed the characteristics of the employees and the relationship between those characteristics and the motivations listed in the statements.

Descriptive statistics provided a summary of the information collected during two phases of the data collection. The descriptive statistics allowed the researcher to identify several items such as the most common score in the distribution, the dispersion of data, and if the distribution is normal or skewed (Bachman & Paternoster, 2004). The main statistics involved summary measures of centrality or location and association between variables (Miethe & Gauthier, 2008). In the results chapter, the researcher will compile and interpret all relevant measures for the reader about the sample selected.

The descriptive statistics for the first portion of the study were used to determine the mode, median, and mean for all independent variables; as well as the association between all the variables. This was the initial step in determining the variables that impacted loss at the retailer. The descriptive statistics for the second portion of the data collection were for the demographic variables for those who were caught committing theft at the retailer for the period reviewed. The

descriptive statistics informed the researcher of the associations between all of the characteristics (age, sex, tenure, position) of an individual caught committing theft at the specialty retailer, the distribution for each variable examined, and the mode, median, and mean for each variable when applicable.

In the primary phase of the analysis, the researcher completed analysis of variance tests in order to see the differences between the independent variables and the dependent variable of loss (shrink dollars and shrink percentage). Analysis of variance (ANOVA) is a "statistical approach for examining group differences on a quantitatively measured dependent variable" (Miethe & Gauthier, 2008, p. 226). This determined if knowledge of a form of group membership helps explain variation in the dependent variable (Miethe & Gauthier, 2008).

For the purposes of this study, ANOVA was conducted with the independent variables from the first phase of collection and analysis. The independent variables of state, store location type, store location environment, cash and wrap location, number of doors, use of surveillance, number of managers, management turnover and store manager turnover were tested by ANOVA in the initial phase of data analysis. The ANOVA test was utilized to interpret the level of association between the independent variables and the dependent variables of dollar loss and shrink loss.

In addition to these tests, measures of association between the variables were completed for independent variables and the dependent variables of dollar loss and shrink percentage. The model used to conduct these measures of association was a proportionate reduction in error (PRE) correlation (Maxfield & Babbie, 2001). The level of the independent variable dictates the suitable test for PRE; in this case the Pearson's correlation (r) was used after the categorical independent variables were converted into dummy variables (Maxfield & Babbie, 2001).

Pearson's correlation (r) represents a reduction in error as a proportion of errors that may have been made based upon the predictions from the overall distribution (Maxfield & Babbie, 2001).

Multivariate regression allows the researcher to include multiple independent variables; this may provide a fuller explanation of the dependent variable as most phenomena are not the result of a single cause (Lewis-Beck, 1980). It is also useful to run multiple regression in order to gain a clearer insight into the impact of each independent variable. Multiple regression gives the researcher the ability to remove the distorting influences of other variables (Lewis-Beck, 1980). The same principles and advantages of bivariate linear regression exist with the added benefits described above.

In this study, multivariate regression was used to examine the relationship between the independent variables of store location type, store location environment, number of doors, number of managers, management turnover, and the store manager turnover and the dependent variable of yearly loss (dollar loss and shrink percentage) in each store locations for the time frame of July 2011 through July 2012. As mentioned previously, this study was a total population design requiring no statistical operations. In order to more fully discuss the relationship between the independent variables and the dependent variables in total, the researcher chose to pull a sample year from the data for analysis purposes. This year was chosen due to the availability of the personnel data during this time frame versus the remaining years of data.

The researcher treated each of the independent variables as additive for the purposes of this project. The dependent variable of loss is appropriate for the multivariate regression model as it is continuous and numeric. The independent variables, which are at the ratio level of

measurement such as number of managers, management turnover, and number of doors, were examined for their impact on yearly loss, then each of the dummy variables, such as store location type, environment, use of surveillance, and cash & wrap were added into the analysis to determine which variables predict the highest likelihood individual store for loss. The following formula represents multivariate regression for the first portion of this project:

$$Y= a_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + \ldots b_{14}X_{14} + e,$$

Where Y = loss (yearly); X1 = number of managers per store; X2 = management turnover (yearly); X3 = store sales volume (yearly); X4 = number of refund fraud cases (per year); X5 = a dummy variable scored 1 if urban, 0 otherwise; X6 = a dummy variable representing the store location type which has 7 categories therefore the G-1 rule will be applied to create 6 categories for this variable X7 = a dummy variable scored 1 if center cash & wrap, 0 otherwise; X8 = number of doors per store ; X9 = a dummy variable scored 1 if yes to surveillance being present (CCTV/PVM), 0 otherwise; e = error term.

In addition to the primary multivariate model which includes all of the independent variables and their relationship to the dependent variables, the three categories of independent variables were broken down and compared to the dependent variables separately in additional models. The results from these three separate analyses were then compared to the main model for discussion. Each model was analyzed for the standardized coefficient and directionality of the independent variables in their relationship to the dependent variables. The multivariate regression in all phases of the research provided the researcher with the slope of the variables so the importance of each of the independent variables on the dependent variables of loss will be discussed in Chapter V.

The data from the confessional statements was analyzed by the researcher as it was collected. A variety of analytic options were utilized throughout the qualitative portion of the study: memos, categorizing strategies; such as coding, thematic content analysis, and theoretical characterization analysis, and connecting strategies of narrative analysis (Maxwell, 2005). Memos allow for reflection throughout the entire process, in addition to functional analysis; these reflections can be based upon theoretical constructs or purposes of the findings (Maxwell, 2005). Memos were used for both reflection and for aiding in the creation of new analytical discernments (Maxwell, 2005). The researcher maintained memos and notes as the letters were read. These memos followed two paths: theoretical and organizational. The memos were used to organize the responses into various motivational categories, as well as, used to compare these motivations to the theoretical explanations put forth in the routine activities theory and the techniques of neutralization for why these individuals are committing these crimes.

The process of coding, which is essentially organizing the qualitative data into "chunks" with similar themes, occurred throughout the review of each statement (Cresswell, 2003; Rossman & Rallis, 1998). This process of coding is essential to qualitative data analysis as it forces the researcher to organize the data into meaningful classifications to better define what the data is all about (Lofland, Snow, Anderson & Lofland, 2006; Maxwell, 2005). Initial, or open, coding occurred primarily through the use of the qualitative analysis tool Nvivo (Lofland, Snow, Anderson & Lofland, 2006). Initial coding happened when the most frequently occurring words were separated out using Nvivo. This coding then moved into focused coding as the researcher began creating categories of motivations based upon the initial results from the common word search. Focused coding allowed the selection of categories to become more conceptual and discerning based upon the research questions (Lofland, Snow, Anderson & Lofland, 2006).

Thematic content analysis is a form of qualitative data analysis utilized especially for interviews (Cresswell, 2003). In this type of analysis, reoccurring themes and concepts were pulled from the statements to discover what relationships existed between the content of the transcripts and the research topic. The confession statements were treated as "secondary" interviews reviewed for themes. The researcher identified statements which fit into seven main categories. Each of these main categories has sub-categories for additional content; a total of 10 subcategories are found distributed throughout the main categories.

The researcher was trying to find several themes within the respondent's answers; some of the themes the researcher uncovered were individual reasons for committing theft, the structural/organizational reasons for committing theft, both individual and organizational reasons, and then tying these reasons together using the routine activities theory and the techniques of neutralization. Theoretical categories were established from two prior theories and allowed the researcher to place the data into a framework therefore grounding the project in the field (Maxwell, 2005). The researcher identified a variety of statements that were contextually appropriate for both routine activities theory and the techniques of neutralization.

Finally, the interviews with the loss prevention personnel and the Director of Loss Prevention, Safety, and Security were analyzed utilizing memos, thematic content analysis, and narrative analysis. The use of memos was the initial step in the analytical process for the interviews. Immediately after the interviews, the researcher made several memos about the similarities and differences noted in the responses from the interviewees. These memos led to a thematic content analysis whereby the researcher identified various reoccurring themes in the responses. The final step in the process was a narrative analysis. A narrative analysis was

important as the focus was not merely on finding parallels, but looking for relationships in the statements that connected events and made them whole and logical (Maxwell, 2005).

Narrative analysis was completed not only to finding connections between the loss prevention personnel responses, but also to identify the connections between their responses and the data results from the previous phases of research. In Chapters V and VI, the results from the narrative analysis are presented and discussed throughout. The researcher was able to make numerous comparisons between the members of the loss prevention department's responses, and to draw connections between their answers and the results from other parts of the study. The narrative analysis was a key step in constructing the whole picture of loss for this study. The use of both categorizing and connecting strategies in the qualitative analysis made the entire design and analysis of this portion of the project more substantial (Maxwell, 2005).

Table 1
Analysis Plan

Nature of Analysis	***Hypothesis or proposition being tested***	***Method of Analysis/Procedure***	***Level of measurement in variables***
Phase I: Unit of Analysis- Individual Store Locations			
Determined the frequency of each of the independent variables in the study		Descriptive Statistics were completed to allow the researcher to see the distribution, modal , median, and mean measures of the central tendency of the independent variables	The independent variables were a mix of nominal level and interval level data therefore the descriptive statistic varied based upon the appropriateness to the variable.
Compared the means of each of the independent variables to the dependent variable of loss (in dollars) and then again to the dependent variable of loss (as shrink percentage) (RQ1)	The location (type) of stores and their impact on loss	Difference of means test (ANOVA) compared the means of each independent variable to the dependent variable	The descriptive statistics were used to derive the mean of the independent and dependent variables

Association of independent variables to one another and to the dependent variables	The association of all independent variables to one another and their association to dollar loss and shrink percentage.	Proportionate Reduction of error (PRE) test Pearson's r to determine the statistical association between independent variables and dependent variables	The independent variables were a mix of nominal level and interval level data therefore dummy variables were created in order to make this an appropriate measure
Association between the independent variables believed to predict loss and the actual yearly loss as calculated by the retailer (RQ2)	Compared each of the independent variables to the dependent variable to evaluate which are best at predicting loss	Multivariate linear regression was utilized to test the slope of each of the independent variables and the impact this had on the level of loss in stores	The independent variables were a mix of nominal level and interval level. The nominal level variables were converted into dummy variables (see code sheet) in order to meet the assumptions established for running a regression ** It is important to note that this portion of the data was a total population and as such no tests discussing statistical significance were completed. The slope and beta were examined but the data is what it is so to speak
Phase II: Unit of Analysis- Case Files			
Determined the total dollar loss as a result of refund fraud over the course of 15 years (RQ3)		Summation of all refund fraud cases known to the organization	
Determined the frequency of each of the independent variables in the study in order to determine the characteristics of the individuals being caught for committing refund fraud at the organization (RQ4)	Sex, Age, Tenure with Organization, Occupational position varied in the frequency of internal theft	Descriptive Statistics were completed to allow the researcher to see the distribution, mode, mean and median measures of the central tendency and rates of the demographic variables	The independent variables were a mix of nominal level and interval level data therefore the descriptives varied based upon the appropriateness to the variable. For example: the age of the "participants" varied from 18 and on so it was important to establish the mode, mean and median of this variable in order to demonstrate how age relates to internal fraud and the motivations for this fraud as well as use the modal age in the measures of association

Determined the type of motivation described by those who have composed written confession statements (RQ5)	Motivations fell into 7 main categories ranging from personal to opportunity, and 10 subcategories within the main categorizations	Memos, Coding, and Content Analysis determined the type of motivation chosen by those caught and terminated at the organization who had composed a confession statement	The motivations were reported both qualitatively and quantitatively in order to enrich the discussion and to complete analysis using motivation as the dependent variable
Determined the type of theoretical perspective the composed written confession statements would fall into	Motivations aligned with various constructs in the routine activities theory and the techniques of neutralization	Memos, coding, and theoretical categorical analysis determined the appropriate theoretical groupings for the motivations	The findings were reported qualitatively to enrich discussion and ground the research study in theory.
Determine prevention techniques and supplement previous data with expert opinion	Prevention techniques implemented by loss prevention and supplemental evidence of	Memos, coding, and narrative analysis determined the appropriate groupings for interview responses	The findings were reported qualitatively to enrich discussion and ground the research study in theory.

CHAPTER V

RESULTS

This chapter will address the results obtained from data collection in order to respond to each of the research questions and hypotheses previously presented. The study was an analysis of three different forms of data from one specialty retailer with an emphasis on the variables that predict loss in stores. The researcher collected data in three different phases. The initial phase was a total population design where nine independent variables were examined in terms of their impact on the dependent variable of loss (represented both as dollar loss and shrink percentage). The second phase was a nonprobability sample of case files of former employees who had been caught committing a form of internal theft; this phase also included a review of the confession statement provided by the employee at the time of their termination interview. Finally, the researcher conducted eight interviews with members of the loss prevention department to flush out themes about both external and internal loss, and to garner information about the types of prevention techniques used at this particular retailer in an attempt to deter crime.

Individual Store Results

The sample from this portion of the study was all store locations at the specialty retailer from 2005 through 2012. The total number of entries was 7,373. Each store at the retailer is inventoried a minimum of once per year on an annual basis. Some stores are inventoried more than once each year, generally in six month intervals, to gain a clearer understanding of when loss is occurring. At the time of the study, there were 1,068 open store locations. It is also important to note that not all of the 1,068 stores have been in existence over the entire eight year period reviewed as stores are constantly being built, remodeled and closed. Each store therefore

has a varied number of entries in the dataset as they all did not open in 2005, and some may have been inventoried multiple times during one or more years thus the 7,373 separate entries. The total number of inventory results was averaged for each store location in order to obtain 1,068 cases for the final analysis.

The following chart depicts the number of stores and the frequency at which they were inventoried from 2005 through 2012. The greatest number of stores was inventoried between seven to nine times over the eight year period indicating that the majority of stores were open for the entire time frame being studied.

Table 2
Number of Stores and Frequency of Inventory

Frequency	Number of Stores
1	25
2	30
3	62
4	44
5	58
6	46
7	295
8	323
9	143
10	35
11	5
12	2

The independent variables of store location, store location type, store location environment, cash and wrap location, and use of camera surveillance were analyzed for the mode and frequency as all are nominal level data. The independent variables of number of doors, number of managers, store manager turnover and management turnover (assistant manager, key holder) were analyzed for median, mean, sum, range, standard deviation, and frequency as they

are a mixture of interval and ratio level data. The dependent variable was loss, represented by both dollar loss and shrink percentage. The range, mean, sum and standard deviation for each of these variables will be presented.

Descriptive Statistics: Independent Variables

Store location. The store location was classified as the state where the individual store is located. Texas has the highest frequency of stores located within their borders (n=73). California has the second highest frequency of stores at 71. New York has the third highest frequency of stores with 65. The state of Pennsylvania has 62 stores and the state of Florida has 52 to round out the top five. The location with lowest frequency of stores is found in Newfoundland and Labrador, Canada (n=1). (See Appendix E for Map and Appendix F for a table of all states and frequency)

Store location type. The store location type variable had a total number of 1,066 with 2 missing cases. These cases were missing from the database during data collection. The missing cases account for a mere .2% of the total cases, so the author surmises that these should not cause any major discrepancies in the results. The store location type category was comprised of outlets, malls, lifestyle centers, street locations, strip centers, mills locations, and beach stores.

In this category, malls are the most frequently occurring location type with 877 (82.3%) of all stores. The next location type was lifestyle centers at a markedly lower 90 (8.4%). Outlet locations had 51 (4.8%), strip centers and street locations had 15 each (1.4%), mills locations had 13 (1.2%) and beach stores had 5 (.5%) locations. It can be concluded then that the primary store location type for this organization is a traditional mall setting.

Table 3
Frequency of Store Location Type

Store Location Type		
Type	**Frequency**	**Percentage**
Outlets	51	4.8
Malls	877	82.3
Lifestyle Centers	90	8.4
Street Location	15	1.4
Strip Center	15	1.4
Mills	13	1.2
Beach Store	5	0.5

Store location environment. The store location environment had a total of number of 1,066 with 2 missing cases as well. These cases were also missing from the database during data collection. The store location environment was collected and coded as rural, suburban, and metropolitan. The suburban locations were the most frequently occurring cases with 607 (56.9%) of the total sample. The rural store locations were the second highest categorical occurrence with 269 (25.2%) of all stores. The remaining 190 (17.8%) fell into the metropolitan category. Most stores for this retailer appear to be located in environments deemed suburban.

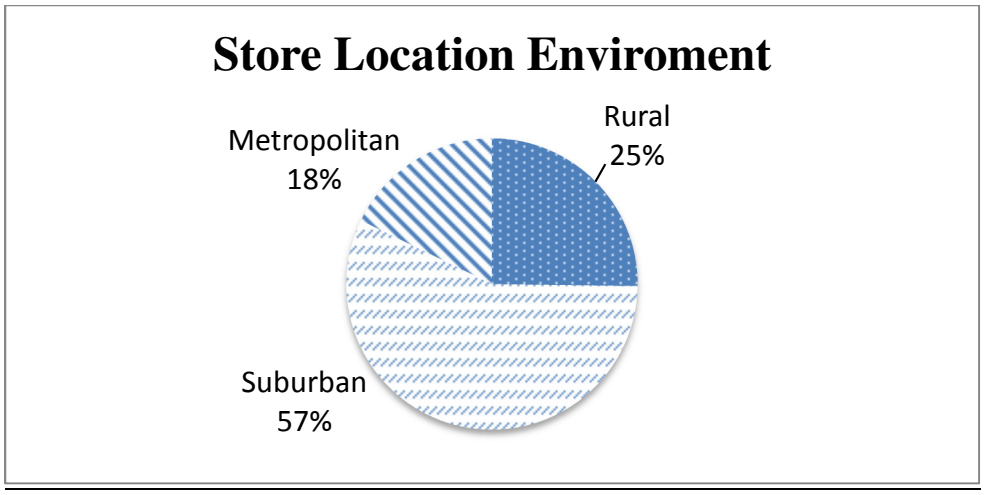

Figure 1. Frequency of store location environment.

Cash and wrap location. The location of the cash and wrap had categories of side, center, front corner, and back wall. The categories were expanded when the author discovered that several store locations had multiple cash and wrap locations due to large side by side store locations or store locations with multiple floors. The most frequently occurring location was the center cash and wrap at 544 (50.9%) of the total stores. The side cash and wrap was the secondary location with 476 (44.6%) of all store locations found in this category. The back wall cash and wrap location had 20 (1.9%) and the front corner location had a total of 4. The center cash and wrap with a side cash and wrap occurred in 10 (.9%) locations. The side cash and wrap with an additional side cash and wrap was found in 11 (1.1%) of all locations. It can be concluded then that this retailer utilizes center cash and wrap locations in most of their store designs.

Table 4
Frequency of Cash and Wrap Locations

Cash and Wrap Locations		
Type	**Frequency**	**Percentage**
Side	476	44.6
Center	544	50.9
Front Corner	4	0.4
Back Wall	20	1.9
Side/Side	11	1.1
Center/Side	10	0.9
Back Wall/Side	2	0.2

Use of camera surveillance. Finally, the use of camera surveillance was categorized as no surveillance, public view monitor (PVM), closed circuit television (CCTV), and both. The public view monitor is a camera surveillance system that records all in store activity, and feeds those images to one or more monitors located on the sales floor for the shoppers to view. The closed circuit television is a camera surveillance system that records all store activity through the

use of small globe cameras strategically placed around the store. This data is then translated to a digital video recorder located in the stock room, where it is stored in the event it may be necessary as evidence in a theft incident. In 821 (76.9%) of the stores camera surveillance is not being utilized by the organization. The public view monitor (PVM) is used in 159 (14.9%) stores, the closed circuit television (CCTV) is utilized in 53 (5.0%) of all stores and the use of both techniques is restricted to 34 (3.2%) stores, with one of those locations only utilizing both surveillance technologies in the stockroom. In general, the retailer is not employing camera surveillance in the majority of stores.

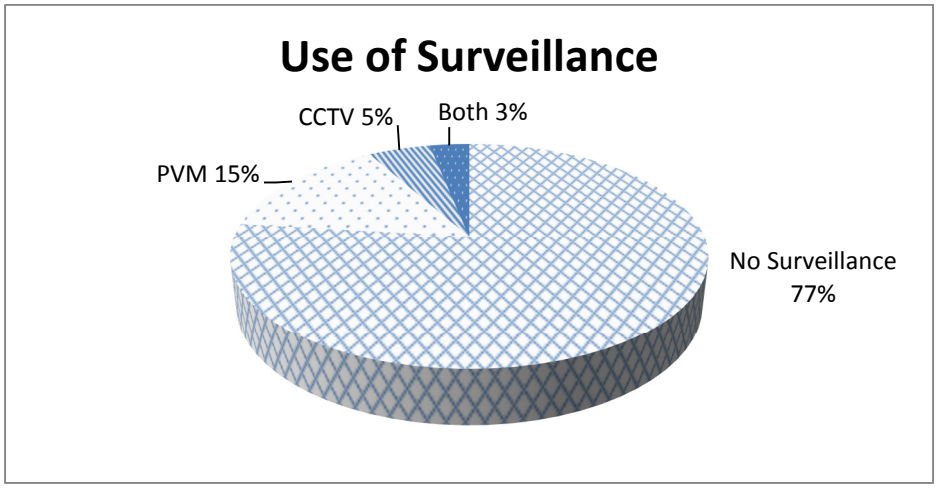

Figure 2. Frequency of use of camera surveillance.

According to the data presented thus far malls in suburban areas in Texas with center cash and wraps and no surveillance are the most frequently occurring type of store one would find for this organization.

Number of doors. The number of doors had 1,067 total cases with one store missing due to a lack of blueprints available to the researcher at the time of collection. The number of doors variable had a minimum of 2 doors to a maximum of 6 doors. The standard deviation for number

of doors was .804. The mode and median number of doors was 3 (mean = 3.13) with 647 (60.6%) of store locations having two front entrance doors and one backdoor location. In 210 (19.7%) of store locations there are 2 doors; in 126 (11.8%) of stores there are 4 doors; in 79 (7.4%) stores 5 doors are being used, and in 5 (.5%) store locations 6 doors are being used. The majority of stores are going to have 3 doors for entrance and exit into the store location.

Table 5
Frequency of Number of Doors

Number of Doors		
Number	**Frequency**	**Percentage**
2	210	19.7
3	647	60.6
4	126	11.8
5	79	7.4
6	5	0.5

Number of managers. The number of managers, store manager turnover and management turnover could only be collected from July of 2011 through July of 2012 for all store locations. The researcher was not able to gain formal access from the human resources department to previous years for these particular variables. The number of managers represents all members of management, including store manager, assistant managers, and key holders. The modal and median number of managers for 2011-2012 was four (most likely one store manager with three assistant managers) with a mean of 3.97. The minimum number of managers at any one store location was three with a maximum of 23. The standard deviation for the number of managers was 1.20.

The total number of stores studied for 2011-2012 was 1,091 with 1,089 of those having data present on the number of managers employed at the time of collection. The researcher was unable to obtain data on two of the stores open during the time period of study. The most

frequently occurring number of managers of four was found in 442 stores. Three managers were employed in 411 stores, and five managers were in 168 store locations. The remaining data on the number of managers per store location, represented by frequency and percentage, is presented in the following table.

Table 6
Frequency of the Number of Managers

Number of Managers	Frequency	Percentage
3	411	37.7%
4	442	40.5%
5	168	15.4%
6	39	3.6%
7	18	1.6%
8	4	0.4%
9	2	0.2%
10	1	0.1%
11	2	0.2%
12	1	0.1%
23	1	0.1%

In 2011 and 2012, an average mall in a suburban area in Texas with a center cash and wrap and no surveillance will have 3 doors and an average of 4 managers.

Store manager turnover. In 2011-2012, store manager turnover had a minimum of 0.00% to a maximum of 400%. The modal and median store manager turnover was 0.00% with a mean of 51.06%. The standard deviation for store manager turnover was 64.89%. The total number of stores studied from July of 2011 through July of 2012 was 1,091 with 1,089 of those having data present on the level of store manager turnover at the time of collection. The researcher was unable to obtain data on two of the stores open during the time period of study. Each store location has one store manager, therefore the turnover rates are indicative of the total number of managers that a store saw from July of 2011 through July of 2012. In 619 (56.8%)

store locations, there was no turnover in the store manager position for the years 2011- 2012. In 390 (35.8%) stores, the store manager position saw a turnover of 100%; 75 (6.9%) stores had a 200% store manager turnover; 4 (.4%) stores had a 300% turnover and finally one store had a 400% store manager turnover in 2011- 2012. It can be concluded that on average store locations were able to retain individuals at the store manager position for at least one year.

Table 7
Frequency of Store Manager Turnover

Store Manager Turnover	Frequency	Percentage
0.00%	619	56.8%
100.00%	390	35.8%
200.00%	75	6.9%
300.00%	4	0.4%
400.00%	1	0.1%

Management turnover. Finally, management turnover had a minimum of 0.00% and a maximum of 75%. The modal management turnover was 0% with a mean of 5.79% for the time frame of July 2011 through July 2012. The standard deviation for this variable was 6.17%. The total number of stores studied from July 2011 through July 2012 was 1,091. In these store locations, the total number of managers, other than store manager, was collected for the year available; subsequently the total number of managers (other than the store manager) who left the store during that year was determined, and the percentage of management turnover was calculated using these two sets of numbers. The management turnover varies greatly amongst the 1,091 stores during the year data was gathered.

Descriptive Statistics: Dependent Variables

Total dollar loss. The dependent variable of shrink loss calculated in dollars is a ratio level variable with the potential for a true zero. The shrink loss in dollars was collected for the entire eight year time frame and had a mean of $36,209.65 with a minimum of $175.00 in loss to a maximum of $438,696.00 in loss. The dollar loss was collected for each store for each year during the designated time frame, meaning one store in one year had a loss of $175.00. The standard deviation for shrink loss was $26,835.72. The total loss suffered by this organization for 2005 through 2012 was $267,009,958.00.

Total shrink percentage. Shrink loss calculated as a percentage of sales dollars is also ratio level with the potential for a true zero. The shrink loss when represented as a percentage of sales had a mean of 1.58% with a minimum of .29% and a maximum of 6.59% in loss. The standard deviation for shrink percentage was .62%. The average loss for this organization is 1.58% of the total sales dollars.

Dollar loss. The shrink loss in dollars was calculated separately for the inventory period of July 2011 through July 2012 in order to obtain accurate results when comparing the independent variables of number of managers, management turnover, and store manager turnover to the dependent variable. During this specified time frame, the minimum dollar loss was $999.00 and the maximum was $438,696.00. The mean loss for stores during this time was $43,307.35, and the total loss was $47,248,322.00.

Shrink percentage. The shrink percentage was also examined separately for the inventory period of July 2011 through July 2012. The minimum shrink percentage was .14 with a maximum of 15.67. The mean shrink percentage was 1.65 for this time period.

Analysis of Variance and Measures of Association

An analysis of variance (ANOVA) was conducted in order to compare the means of each of the independent variables to the dependent variable of shrink loss in dollars and then the dependent variable of shrink percentage. An ANOVA test was conducted that examined the impact of state, cash and wrap location, number of doors, use of surveillance, store location type, and store location environment on shrink loss in dollars and then shrink percentage on the entire data set. The variables of number of managers, management turnover, and store manager turnover were compared to the dollar loss and shrink percentage solely from the fiscal years of 2011 and 2012.

The measures of association were also calculated for each of the independent variables and the dependent variables of dollar loss and shrink percentage. The variables that are categorical are explained using the Eta^2 and the continuous variables are explained using $R^{2.}$ These measures clarify the difference in the population as explained by each independent variable. While each of the variables may have a low measure of association, it is important to remember that this research is assessing a total population with many cases and the traditional use of statistics does not apply. These measures may be used to assist in making inferences about which independent variables have the greatest impact on loss at the retailer in this particular study. The use of a census means that a discussion of significance will not occur as any difference is a difference in the population since almost all cases have been collected.

Store location. The Eta^2 is .092 for the interaction between the variable of state where the store is located and dollar loss. The variable of store location explains 9.2% of the variance when looking at loss in dollars. When examining the relationship between store location and

dollar loss the largest mean loss was found to be attributed to the state of Delaware with a mean loss of $50,136.00. (See Appendix G for total mean table)

The Eta^2 is .204 for the interaction between the state where the store is located and the dependent variable of shrink percentage. The store location explains 20.4% of the variance when considering shrink percentage. The state with the greatest mean shrink percentage is Maryland with a mean shrink of 2.28%. The state of Delaware is a close second with a mean shrink percentage of 2.24%. (See Appendix H for total mean table)

Store location type. The store location type has an Eta^2 of .045 when interacting with dollar loss. The variable of store location type explains 4.5% of the variance when considering dollar loss. The store location type with the greatest mean dollar loss is street locations with a mean of $62,795. 73.

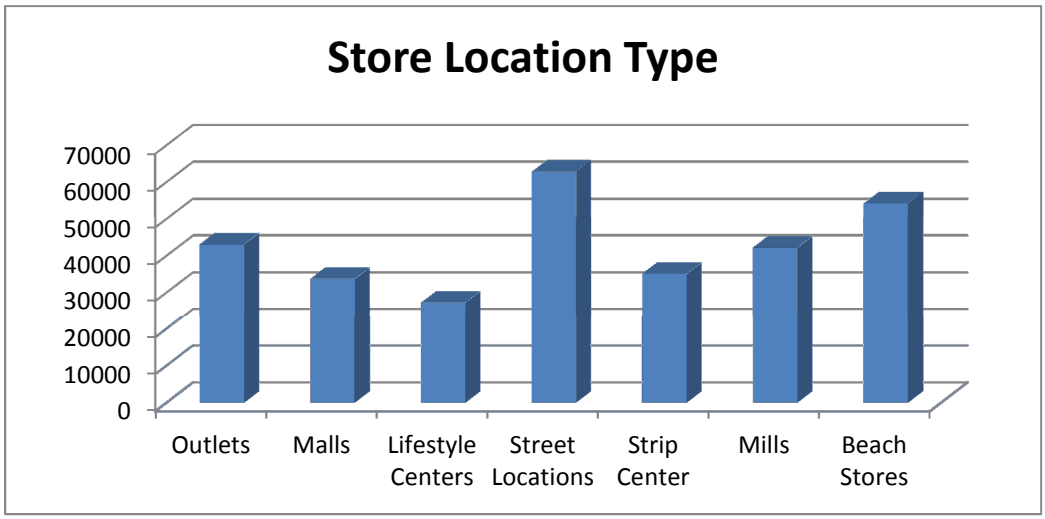

Figure 3. Summary results for store location type and dollar loss.

The Eta^2 for the interaction between store location type and shrink percentage is .009. There is a mere .9% of the variance explained when considering store location type and shrink percentage. The Mills location types have the largest mean shrink percentage of 1.79%.

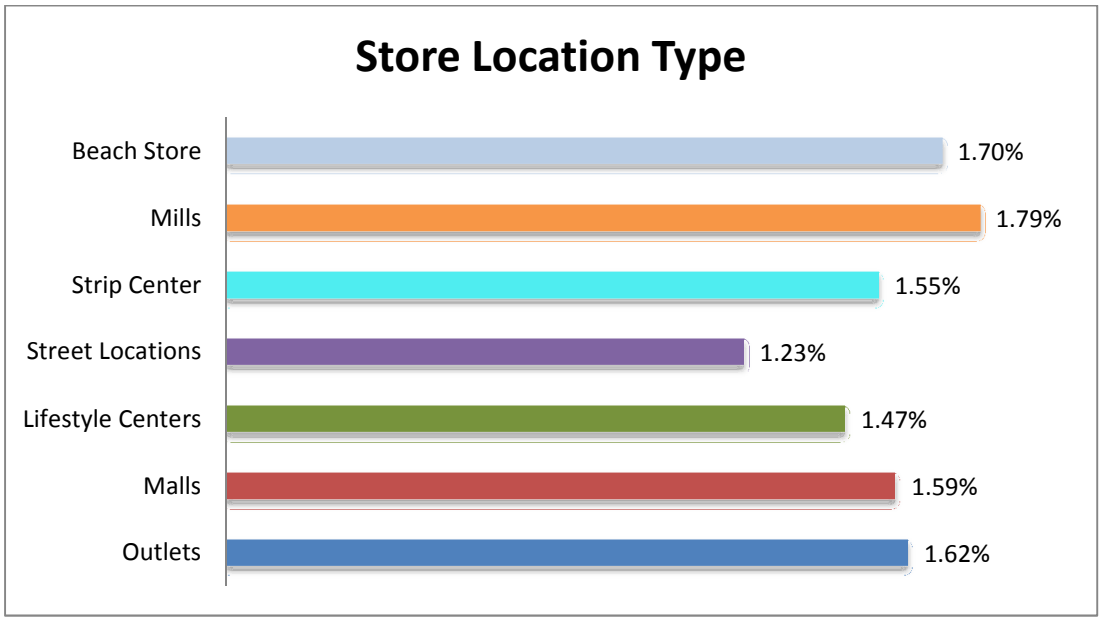

Figure 4. Summary results for store location type and shrink percentage.

Store location environment. When the store location environment was considered, the Eta^2 was .101, which indicates that 10.1% of the variance is explained when holding store location environment in comparison dollar loss. The largest mean loss for store location environment resides in the metropolitan category ($48,768.41)

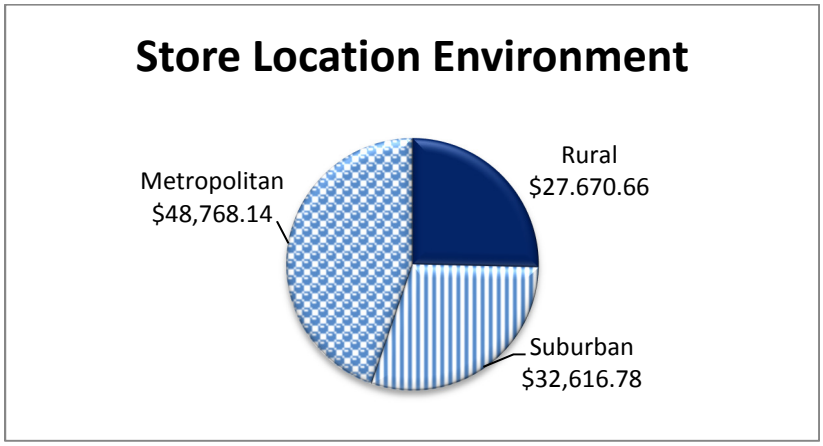

Figure 5. Summary results for store location environment and dollar loss.

The Eta^2 for the interaction between store location environment and shrink percentage is .068. Therefore, 6.8% of the variance is explained when store location environment is considered

in shrink percentage. The metropolitan environment also has the greatest shrink percentage of 1.86%.

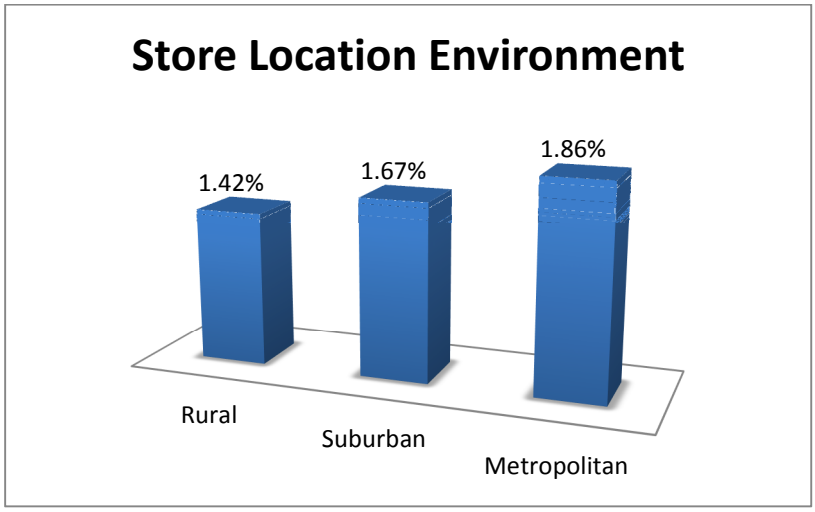

Figure 6. Summary results for store location environment and shrink percentage.

Cash and wrap location. The Eta^2 for the variable of cash and wrap location is .141. The cash and wrap location explains 14.1% of the variance in determining the level of dollar loss. When taking dollar loss into account for location of the cash and wrap, the largest mean loss occurs specifically in a multi-floor store where the cash and wrap is located on the lowest level in the back wall and on the second level in the center (mean = $164,129.00) . In general, the largest mean loss occurred in the stores where the cash and wrap is located in a side by side store location where one side has a center cash and wrap and the other half has a side cash and wrap location ($64,825.90), although it should be noted that the total number of stores utilizing this design is only ten.

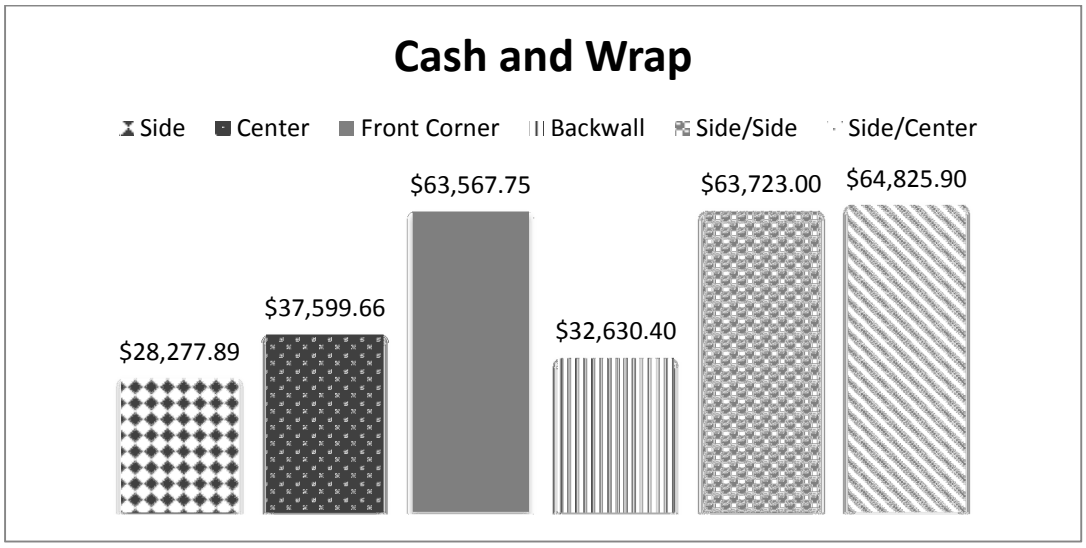

Figure 7. Summary results for cash and wrap location and dollar loss.

The Eta^2 for the relationship between cash and wrap location and shrink percentage is .011. The cash and wrap explains a minimal amount of variance (1.1%) when shrink percentage is considered. The cash and wrap location with the largest mean shrink percentage is in a multi-floor store where the cash and wrap is located on the side on the lowest level and in the center on the second floor (2.04%). Overall, the largest mean category was the back wall cash and wrap location with a mean of 1.84%.

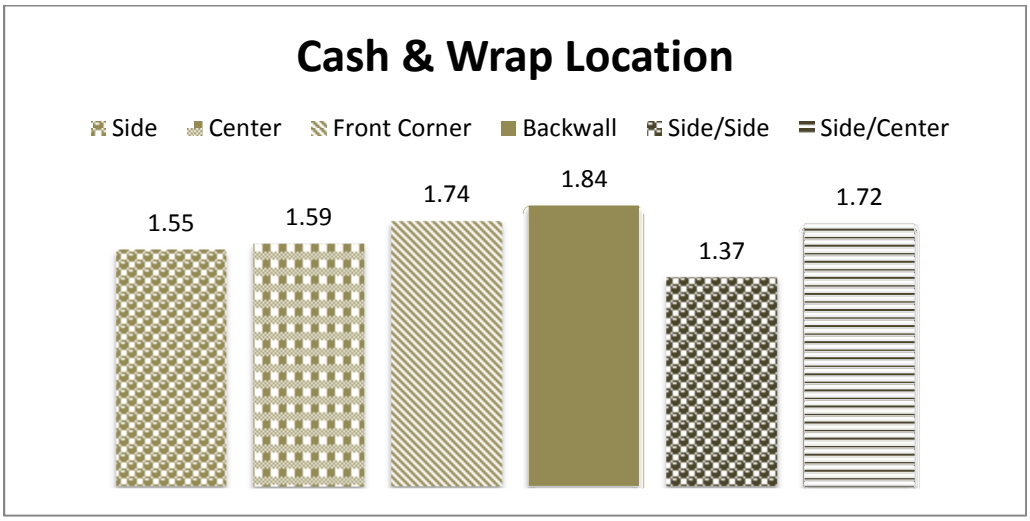

Figure 8. Summary results for cash and wrap location and shrink percentage.

Number of doors. The Eta^2 for the variable of number of doors is .106. The error in predicting loss as dollars is reduced by 10.6% when taking into consideration the number of doors at a single store location, as compared to the error in predicting loss when number of doors is not considered. The largest mean was $45,917.51 when the number of doors was 4. Therefore, in terms of dollar loss the store locations with 4 doors, including both front and back doors, have the greatest level of loss when compared to other door numbers at various store locations.

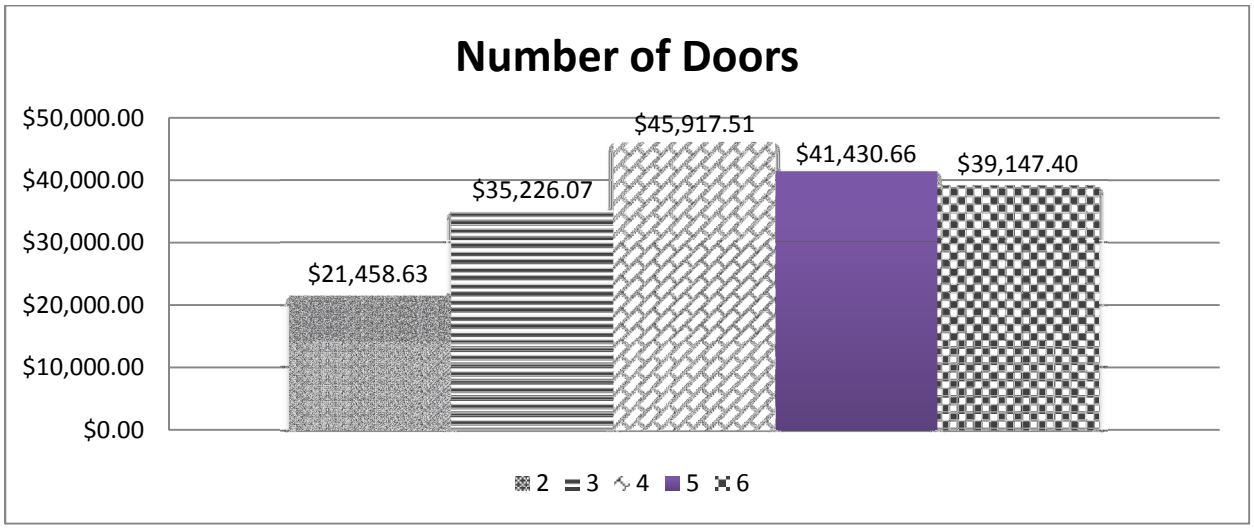

Figure 9. Summary results for number of doors and dollar loss.

The Eta^2 for number of doors and shrink percentage was .022 meaning that there is a 2.2% reduction in error in predicting shrink percentage when considering the number of doors at individual store locations. The greatest mean of shrink percentage was 1.64% for stores that had a total of 3 doors, including all front and back entrances.

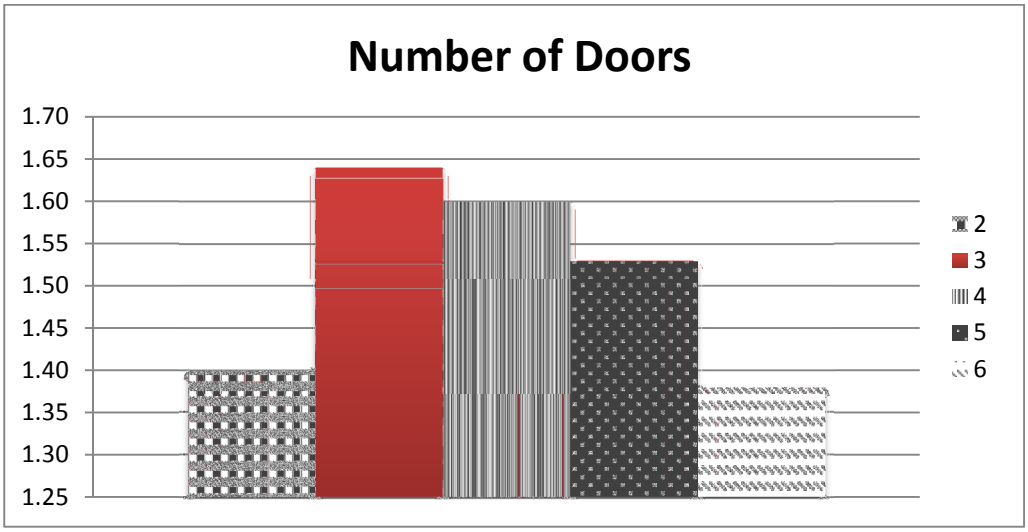

Figure 10. Summary results for number of doors and shrink percentage.

Use of camera surveillance. The use of camera surveillance was also examined and the Eta^2 is .087. The use of surveillance explains 8.7% of the variance when interacting with dollar loss. The largest overall mean for the use of surveillance is $214,939.76 and occurs in stores where both a public view monitors (PVM) and closed circuit televisions (CCTV) are being utilized. Interestingly, the lowest mean loss is incurred in stores where neither system is being used.

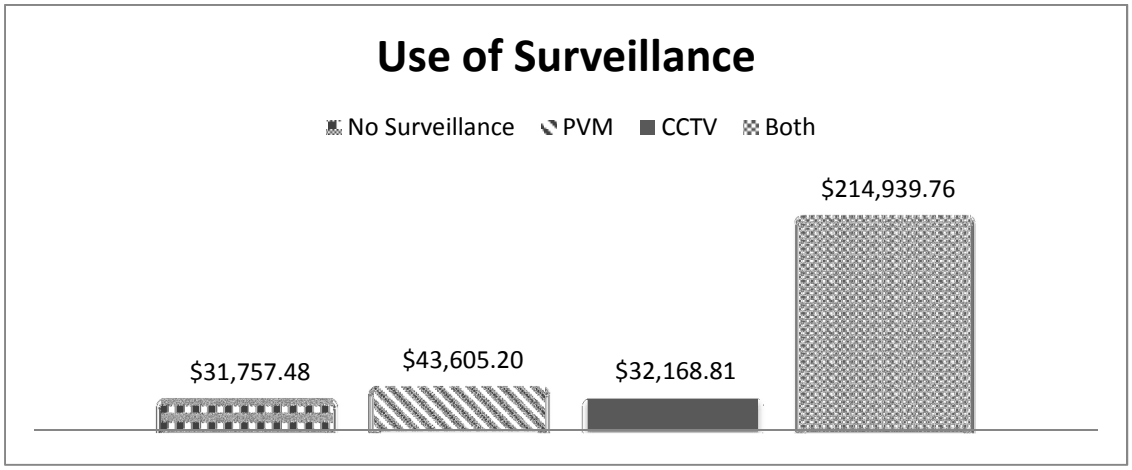

Figure 11. Summary results for use of camera surveillance and dollar loss.

The Eta^2 for use of camera surveillance when looking at shrink is .047. The use of surveillance explains 4.7% of the variance when holding for shrink percentage. The greatest mean was 1.84% for the use of a public view monitor (PVM) when considering shrink percentage. The stores that utilize both the PVM and the CCTV have the lowest shrink percentage.

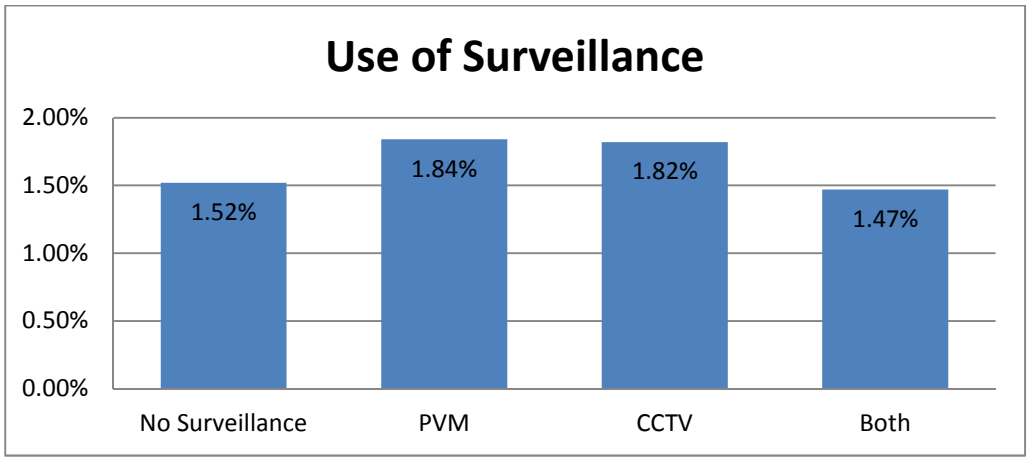

Figure 12. Summary results for use of camera surveillance and shrink percentage.

Number of managers. The number of managers per store location was compared to the dollar loss for stores during from July 2011 through July 2012 as these were the only dates available to the researcher during data collection. The R^2 for number of managers was .206. The error then in predicting loss represented as shrink dollars is reduced by 20.6% when taking the number of managers into consideration, as compared to the error in predicting loss when the number of managers is not considered. The largest mean scores for the number of managers were found in the stores with more managers on staff. The store with 23 managers had a mean of $303,500.00. The stores with 9 managers had a mean of $173,020.00 and the stores with 11 managers had a mean score of $136,685.50. These stores only comprise a small portion of the total number of stores and are in high profile locations. The majority of stores (1,021) had a management range of 3 to 5. It is notable though that of these stores the largest mean fell into the stores with 5 managers. It does appear that more managers in one location are indicative of a higher level of dollar loss.

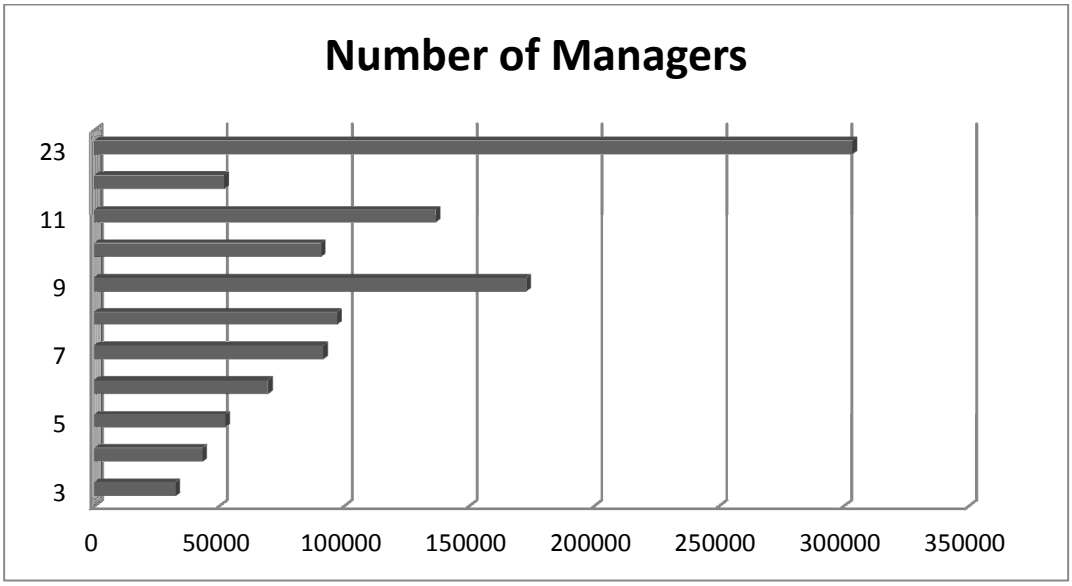

Figure 13. Summary results for number of managers and dollar loss.

The number of managers per store location was also compared to shrink percentage for July 2011 through July 2012. The R^2 is .003 when comparing shrink percentage and number of managers, meaning that the error in predicting shrink percentage is reduced by .3% when taking the number of managers into consideration, as compared to the error in predicting loss when the number of managers is not considered. The stores with 3 managers had the greatest shrink percentage for the dates collected (1.69%). The stores with 4 managers had the second greatest mean of 1.67%.

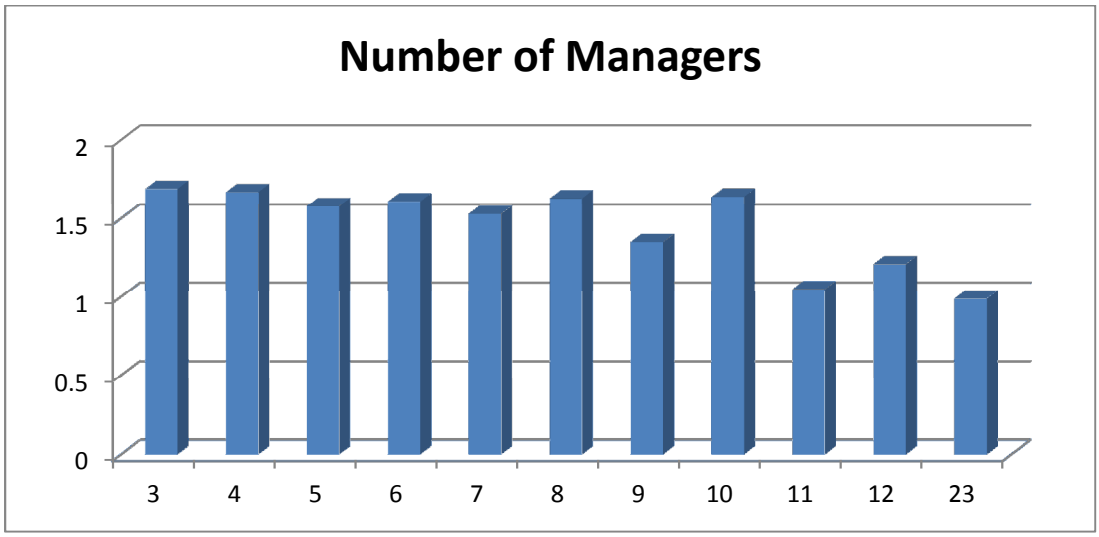

Figure 14. Summary results for number of managers and shrink percentage.

Management turnover. Management turnover from July of 2011 through July of 2012 was examined in relation to loss in dollars for those years and the R^2 is .008. The error in predicting loss in dollars then is reduced by .8% when taking management turnover into consideration. The greatest mean score for management turnover is $303,500.00 and was found in the store that experienced 2.14% turnover in the lower levels of management for 2011-2012. (See Appendix I for the total results).

Management turnover was also compared to loss as a shrink percentage. The R^2 was .004 for management turnover and shrink percent. The error in predicting shrink is reduced by a mere .4% when taking management turnover into consideration. The largest mean shrink percentage of 2.96% was found in stores with 7.32% turnover for July 2011 through July 2012. (See Appendix J for total results).

Store manager turnover. The association between store manager turnover and loss in dollars was the final variable examined for loss. The interaction between these variables appears

to be minimal as the R^2 is .000. There is no error in predicting loss when taking store manager turnover into consideration. The store that experienced 400% turnover at the store manager position in July 2011 through July 2012 experienced the greatest loss at $57,193. The reader should note that there was only one store location that experienced this frequency of turnover in the year reviewed. The second greatest mean in store manager turnover occurred in stores with a 100% store manager turnover rate. This occurred in 390 stores and had a mean of $45,333.90. In terms of frequency and dollar loss, stores that experienced a single change in store leadership during July 2011 through July 2012 were most likely to experience higher levels of overall loss.

Table 8
Summary Results for Store Manager Turnover and Dollar Loss

Shrink Dollars	
Store Manager Turnover	**Mean Loss**
0.00%	$42,315.04
100.00%	$45,333.90
200.00%	$41,185.47
300.00%	$40,008.75
400.00%	$57,193.00

Store manager turnover was also compared to the shrink percentage for the same year. The R2 is .004 for these variables indicating that the error in predicting shrink is reduced by .4% when taking store manager turnover into consideration. When considering shrink percentage, the largest mean occurred in stores that had a 200% store manager turnover (1.80%).

Table 9
Summary Results for Store Manager Turnover and Shrink Percentage

Shrink Percentage	
Store Manager Turnover	**Mean Loss**
0.00%	1.60%
100.00%	1.71%
200.00%	1.80%
300.00%	1.64%
400.00%	1.42%

Correlations

A bi-variate correlation was completed in order to draw conclusions about which of the independent variables are strongly correlated to one another when accounting for each of the dependent variables. A correlation was completed comparing the independent variables of store location, store location type, store location environment, and number of doors to the total data set. A separate correlation was completed examining the independent variables of number of managers, management turnover, and store manager turnover and their relationship to the July 2011 through July 2012 dataset. Finally, a correlation was run comparing each categorical value of the independent variables from the 2011-2012 dataset to each other and both dependent variables.

Total population correlation. The dependent variable of shrink dollars for the total population was correlated to the independent variables of store location (state), store location environment, and the number of doors. The store location has a correlation of .257 with the variable of shrink dollars. The store location environment has a correlation of .292 with shrink dollars, and the number of doors has a correlation of .281. The store location type and shrink dollars were not strongly correlated. The store location was strongly correlated to every other independent variable as well. The store location and store location type had a correlation of .118. The store location and store location environment had a correlation of .121. The store location and number of doors had a correlation of .218. The state where the store is located is the only variable that is correlated to all independent and both dependent variables for the total number of stores examined in this research.

The correlations for the remaining independent variables, as well as, the dependent variable of shrink percentage show relationships in the physical location of each store and loss. The store location type was correlated to the store location and the store location environment (.138). The number of doors is only correlated to store location and shrink dollars. The dependent variable of shrink percentage was not correlated to number of doors and store location type. The store location (state) had a correlation to shrink percentage of .101, and store location environment had a correlation to shrink percentage of .259. (See Appendix K for correlations table).

Management correlations. Each of the independent variables from the separate data set from July 2011 through July 2012 was compared to the dependent variable of dollar loss to determine the level of correlation. The strongest correlation of .454 existed between the number of managers and dollar loss. Management turnover and dollar loss had a correlation of .087, and store manager turnover and dollar loss had a correlation of .021. The number of managers and management turnover had a correlation of .088. The store manager turnover had a correlation of .039 with the number of managers, and a correlation with management turnover of .214. The correlations between the independent variables of number of managers and management turnover, and shrink percent are not consistently strong. The number of managers and shrink percentage had a correlation of .054, the management turnover and shrink percentage had a correlation of .064, and the store manager turnover had a correlation of .065 with shrink percentage. (See Appendix L for the management correlations table).

Categorical correlations. The correlations for each independent variable broken down categorically aid in clarifying just how much each component of this research impacts all of the other parts. This information will also be used in latter portions to clarify relationships and

determine the most impactful variable(s) on loss at this organization. The dependent variable of shrink dollars had a correlation of -.214 to the side cash and wrap variable. The center cash and wrap had a correlation of .141 to the dependent variable of dollar loss. The side cash and wrap location had noteworthy correlations with the number of doors (-.376), the number of managers (-.189), center cash and wrap (-.912), mall locations (.183), and lifestyle center locations (-.143). The center cash and wrap was correlated to several other variables as well. The center cash and wrap had a correlation of .319 to number of doors, a correlation of -.142 to back wall cash and wrap location, a correlation of -.143 to mall locations, and a correlation of .157 to lifestyle center locations. The back wall cash and wrap location variable did not have substantial correlations to any variables. (See Appendix M for cash and wrap location correlations).

The number of doors, as mentioned previously was correlated to dollar loss. In addition, number of doors was correlated to number of managers (.189), no use of camera surveillance (-.116), and the use of a public view monitor (.115). The use of camera surveillance was broken down into sub-categories of no surveillance, PVM, and CCTV. The variable of no surveillance was correlated to shrink dollars (-.156). The lack of camera surveillance in stores also had correlations of -.136 to number of managers, -.768 to PVM, -.415 to CCTV, .170 to rural store locations, -.197 to metropolitan store locations, and .111 to mall locations. The use of a public view monitor had mediocre correlations with shrink dollars (.119) and metropolitan store locations (.110). The use of closed circuit television also showed insignificant correlations with the majority of variables. (See Appendix M for number of doors and Appendix N for use of surveillance correlations).

The store location environment variable of rural was correlated to both dollar loss (-.114) and shrink percent (-.108). The rural environment was also correlated to store manager turnover

(-.120) and metropolitan locations (-.271). The variable of metropolitan was correlate to the dependent variable of loss (.227) and shrink percentage (.119), as well as, number of managers (.195). (See Appendix O for store location environment correlations). Finally, the store location types were separated and examined for substantial correlations. None of the store location types had a strong correlation to either shrink dollar loss or shrink percentage. The mall locations were correlated to number of managers (-.157), outlet locations (-.497), lifestyle centers (-.641), strip center locations (-.252), and mills locations (-.252). The outlets had a noteworthy correlation to number of managers (.164). These correlations help to paint a clearer picture about the relationship between all variables in this study. (See Appendix P for store location types correlations).

Regression

Total regression with dollar loss. Multivariate regression was completed in order to test the slope of each of the independent variables separately on the dependent variables of shrink dollar loss and shrink percentage loss. Up to this point in the research each variable was examined from the total population with the exception of the variables of number of managers, management turnover, and store manager turnover. These variables were collected for July 2011 through July 2012 and were only compared to the loss from these years. The multivariate regression was completed on all of the variables from this portion of the dataset in order to interpret the strength of the standardized coefficients on the dependent variables. These results were then utilized to determine which of the independent variables is the most important in predicting loss at stores.

Table 10

Multi-Variate Model for Independent Variables and Dependent Variable: Dollar Loss

Model Summary									
					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.527[a]	.278	.266	27993.052	.278	24.202	17	1071[a]	.000

The R^2 for the regression model when accounting for number of managers, management turnover, store manager turnover, number of doors, side cash and wrap, center cash and wrap, backwall cash and wrap, no camera surveillance, public view monitor surveillance, closed circuit television surveillance, rural locations, metropolitan areas, malls, outlets, lifestyle centers, strip centers, and mills locations and shrink dollar loss was .278. The error then in predicting shrink dollar loss was reduced by 27.8% when accounting for all of the aforementioned variables as compared to predicting the error in shrink dollar loss when these variables are not considered.

Table 11

Coefficients of Determination for Independent Variables and Dependent Variable: Dollar Loss

Coefficients of Determination for Independent Variables and Dollar Loss				
Variables	**Unstandardized Coefficients**	**Standardized Coefficients**	**t**	**Sig.**
	B	Beta		
Number of doors	4947.056	0.121	4.205	0.00
# of managers 2012	9688.048	0.356	11.698	0.00
Management Turnover2012	-325.776	-0.062	-2.285	0.02
StoreManagerTurnover2012	4.728	0.009	0.348	0.73
side	-8013.435	-0.122	-1.287	0.20
center	-1600.162	-0.024	-0.266	0.79
Backwall	-6312.927	-0.027	-0.734	0.46
No	-2627.82	-0.034	-0.5	0.62
PVM	3869.743	0.042	0.696	0.49
CCTV	-6031.978	-0.04	-0.953	0.34
Rural	-5552.544	-0.074	-2.648	0.01
Metropolitan	10200.773	0.12	4.25	0.00
Mallsl	-8890.826	-0.104	-1.265	0.21
Outletsl	-5152.799	-0.035	-0.672	0.50
LifestyleCentersl	-15920.685	-0.134	-2.108	0.04
StripCentersl	-3693.352	-0.013	-0.367	0.71
Millssl	-19518.43	-0.07	-1.948	0.05

The total regression run produced some interesting results in the effort to explain what particular variables explain, or help to explain, loss in a specialty retailer. Although not many of the variables had a strong Beta, the directionality of the unstandardized coefficient allows ones to makes educated inferences about loss and to compare one variable to another. The variable with the strongest Beta was number of managers (.356). This variable has two and half times the impact on the dependent variable of loss versus the other independent variables. The number of managers also has a positive Beta indicating that as the number of managers increases, the shrink dollar loss will also increase. The analysis of variance results seen in Figure 13 help to affirm these results as stores with more managers saw an increase in the mean dollar loss suffered on an annual basis. The correlation between number of managers and shrink dollar loss was also

noteworthy at .484 further demonstrating the strength of the relationship between number of managers and dollar loss for this organization.

The next notable variable in the regression was lifestyle centers, which is a subcategory of store location type, with a Beta of -.134. This negative relationship means that when a store is located in a lifestyle center, there will be a decrease in the total level of loss. These results are also supported by the analysis of variance test (Figure 3), which shows lifestyle centers with the lowest mean loss in store location type. The correlation for lifestyle center and shrink dollar loss is not very impressive (-.062), but the correlation for the store location type variable as a whole was better (see Appendix K).

The variable of a side located cash and wrap has a Beta of -.122 meaning as this location of a cash and wrap increases the dollar loss decreases. These results are supported by the analysis of variance test as the side location of cash and wrap had the lowest average loss (Figure 7). The correlation between side cash and wrap and shrink dollar loss was also of note at -.214. This is the largest correlation amongst all the types of cash and wrap location.

The number of doors had an unstandardized coefficient of .121. As the number of doors at a store location increases, the dollar loss will also increase at those store locations. The analysis of variance does not offer clear cut support of this result. The greatest number of doors is six, but these stores do not have the greatest mean loss. The greatest mean loss is found in stores with four doors. Although the general directionality is supported as stores with four, five, and six doors do have the greatest mean losses (see Figure 9). The numbers of doors and shrink dollar loss have a correlation of .240, which is the second strongest correlation next to number of managers.

Finally, the metropolitan category had a Beta of .120 when compared to shrink dollar loss. The stores which are located in a metropolitan area then are going to have an increase in total dollar loss. The analysis of variance for store location environment and shrink dollar loss overwhelmingly supports this result as metropolitan has the greatest mean loss of all environmental locations (see Figure 5). The metropolitan category also has a correlation of .227 with shrink dollar loss.

Interestingly, each of the independent variables had at least one subcategory fall into the top five variables except for the variable of use of camera surveillance. None of these had a particular strong relationship to the dependent variable. The use of a public view monitor had the strongest relationship of any of the categories (.042). Although the relationship is not strong, it is fascinating to note the positive direction indicating that as the use of a PVM increases, the level of loss will increase. The relationships and their directionality found in the regression run have produced intriguing results which will be further explored and clarified in latter portions of the results and conclusions.

Management variables and dollar loss. In an effort to continue to understand the relationships between the independent variables and the dependent variable of loss, various regression runs were conducted to further unbundle the interactions between these variables. Initially, all other independent variables with the exception of number of managers, store manager turnover, and management turnover were removed. These three independent variables were compared to the dependent variable of dollar loss to investigate any changes in the unstandardized coefficient.

Table 12

Multi-Variate Model for Independent Variables: Personnel and Dependent Variable: Dollar Loss

Model Summary									
					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.457[a]	.209	.207	29105.468	.209	95.430	3	1085	.000

The R^2 for the regression model accounting for number of managers, management turnover, and store manager turnover was .209. The error in predicting shrink dollar loss was reduced by 20.9% when taking number of managers, management turnover, and store manager turnover into account as compared to predicting the error in shrink dollar loss when these variables are not considered. This is a slightly lower reduction in the error explained versus accounting for all independent variables.

Table 13

Coefficients of Determination for Independent Variables: Personnel and Dependent Variable: Dollar Loss

Coefficients of Determination for Independent Variables: Personnel and Dollar Loss							
	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variables	B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound
Number of managers	12230.391	739.057	.449	16.549	.000	10780.248	13680.534
Management Turnover	-263.024	147.079	-.050	-1.788	.074	-551.615	25.566
Store Manager Turnover	6.900	13.947	.014	.495	.621	-20.466	34.265

The variable of number of managers had a strong relationship to the dependent variable of dollar loss. The number of managers had a standardized coefficient of .449. The management turnover had a standardized coefficient of -.050. The store manager turnover had a standardized coefficient of -.014. In this model, the number of managers is almost four times as impactful on

dollar loss in comparison to the other management variables. In comparison to the total variable model, this model shows an increase in Beta strength for the number of managers and store manager turnover when the other variables were removed, whereas the strength of the management turnover variable decreased. Interestingly, both the management turnover and store manager turnover had a negative slope in this model indicating that an increase in turnover would lead to a decrease in loss, rather than the projected increase in loss.

Store location variables and dollar loss. The variables comprising the locational category were examined separately from all other variables in the following model. The error in predicting loss when considering only these variables increases considerably. The R^2 for the regression model accounting for store location environment and store location type was .088. The error in predicting shrink dollar loss was reduced by 8.8% when taking store location environment and store location type into account as compared to predicting the error in shrink dollar loss when these variables were not considered.

Table 14
Multi-Variate Model for Independent Variables: Environmental and Dependent Variable: Dollar Loss

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.297[a]	.088	.082	31306.532

Although the error in explaining dollar loss was underwhelming for these variables, some of the standardized coefficients showed an increase in strength and offered some clarity in directionality of the relationship between location and shrink dollar loss. In the total population model, lifestyle centers had a stronger Beta than malls. In this model, malls have the strongest Beta (-.389) of all of the locational variables. Therefore, as the number of malls increase, the total shrink dollar loss will decrease.

Lifestyle centers are the second strongest Beta in this model with a -.341; also showing that an increase in lifestyle center locations will lead to a decrease in shrink dollar loss. All of the store location variables examined here, with the exception of street location, show a decrease in loss to some capacity leading to the conclusion that the street locations and the omitted variable of beach store would lead to an increase in dollar loss. The date found in Figure 3 confirms these conclusions as street locations and beach stores do have the greatest mean loss when compared to other store locations.

The environmental locational variables of rural and metropolitan saw some differences from the total population run. The rural variable lost Beta strength, but maintained a negative slope meaning as more rural stores exist, the dollar loss will decrease. The metropolitan category saw an increase in Beta strength (.187). The reader can see that as metropolitan store locations increase, the level of dollar loss will also increase. A metropolitan street location then would most likely see a greater level of dollar loss than other store location types.

Table 15
Coefficient of Determination for Independent Variable: Environmental and Dependent Variable: Dollar Loss

Coefficients of Determination for Independent Variables: Environmental and Dollar Loss						
Variables		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	60243.673	14022.519		4.296	.000
	Rural	-5123.067	2290.414	-.068	-2.237	.026
	Metropolitan	15961.701	2611.793	.187	6.111	.000
	MallsI	-19323.460	14040.660	-.227	-1.376	.169
	OutletsI	-4791.070	14618.979	-.032	-.328	.743
	LifestyleCentersI	-26709.199	14385.696	-.225	-1.857	.064
	StreetlocationsI	18511.217	16222.355	.066	1.141	.254
	StripCentersI	-13775.853	16179.509	-.049	-.851	.395
	MillsI	-18699.785	16167.841	-.067	-1.157	.248

Internal structural variables and dollar loss. The R^2 for the regression model accounting for number of doors, use of camera surveillance, and cash and wrap location was .128. The error in predicting shrink dollar loss was reduced by 12.8% when taking number of doors, use of camera surveillance, and cash and wrap location type into account as compared to predicting the error in shrink dollar loss when these variables were not considered. In comparison to the total model, the error in predicting loss increases when these internal structural variables were examined separately.

Table 16
Multi-Variate Model for Independent Variables: Internal Structural and Dependent Variable: Dollar Loss

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.357[a]	.128	.122	30611.069

The standardized coefficients did show an increase in strength when the internal structural variables were examined separately from all other variables. In this model, the side cash and wrap location had the greatest impact upon the dollar loss. The Beta for side cash and wrap was a -.627, therefore as side cash and wrap locations increase in stores, the dollar loss will decrease in stores. The unstandardized coefficient of the center cash and wrap was a -.505, also demonstrating that as center cash and wrap locations increase, dollar loss decreases. The back wall cash and wrap location had the weakest Beta strength, for cash and wrap locations, of -.154. The back wall location also shows a decrease in dollar loss with an increase in use. Therefore, one may conclude that an increase in dollar loss will occur with front corner cash and wrap locations and with multi-room and multi-floor cash and wrap locations. The results detailed in Figure 7 would support this conclusion as these variables are shown to have the greatest mean loss of all cash and wrap locations.

The number of doors had a Beta strength increase from the total population run to a .147, demonstrating again that as the number of doors increases, the level of dollar loss will also increase. The Beta strength for all of the surveillance variables increased from the total variable regression run. The greatest unstandardized coefficient of -.272 is for the no camera surveillance variable. Interestingly, this variable had the weakest strength of all surveillance variables in the total run and this variable's slope indicates that as a lack of camera surveillance increases, the dollar loss will decrease.

The public view monitor (PVM) variable saw a change in slope from the total variable run; in this model the Beta for PVM is -.132 meaning that as the number of stores utilizing public view monitors increases, the level of dollar loss will decrease. Most readers would conclude that this makes logical sense, but these results are contradictory to the total population

run. The reader should recall that in the total run, the PVM slope indicated that as the number of stores with public view monitors increased, the level of loss also increased. The total population run aligns closer to the results reported in Figure 11. The use of a public view monitor does have a greater level of loss when compared to no surveillance and the use of a closed circuit television.

Table 17
Coefficients of Determination for Independent Variables: Internal Structural and Dependent Variable: Dollar Loss

Coefficients of Determination for Independent Variable: Internal Structural and Dollar Loss						
Variables		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Numberofdoors	6010.836	1274.989	.147	4.714	.000
	Side	-41135.238	6098.850	-.627	-6.745	.000
	Center	-32953.704	5933.111	-.505	-5.554	.000
	No	-21042.955	5436.483	-.272	-3.871	.000
	PVM	-12001.578	5818.521	-.132	-2.063	.039
	CCTV	-20409.514	6756.126	-.136	-3.021	.003
	Backwall	-36569.180	8894.988	-.154	-4.111	.000

While the strength of the standardized coefficient improved when the independent variables were unbundled and compared to the dependent variable of dollar loss, the potential for error in each regression run also grew. Therefore, while the variable relationship and directionality may have improved in these various runs, the original variable model is the best choice for final interpretation as the level of error is the smallest.

Total regression with shrink percentage. Overall, none of the variables had a noteworthy relationship when compared to the dependent variable of shrink percent loss. The R^2

for the regression model when accounting for number of managers, management turnover, store manager turnover, number of doors, side cash and wrap, center cash and wrap, backwall cash and wrap, no camera surveillance, public view monitor surveillance, closed circuit television surveillance, rural locations, metropolitan areas, malls, outlets, lifestyle centers, strip centers, and mills locations and shrink percent was .057. The error then in predicting shrink dollar loss was reduced by 5.7% when accounting for all of the aforementioned variables as compared to predicting the error in shrink percent when these variables were not considered.

Table 18
Multi-Variate Model with Independent Variables and Dependent Variable: Shrink Percentage

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.239[a]	.057	.042	.88842	.057	3.825	17

The total regression run holding for shrink percent as the dependent variable produced some differing results from the previous models where dollar loss was the dependent variable. Most of the variables did not have a strong standardized coefficient, but the directionality of the unstandardized coefficient will still be discussed as it allows ones to makes educated inferences about shrink and to compare one variable to another. The variable with the strongest Beta was the use of a public view monitor for camera surveillance (.138). The use of a PVM also has a positive Beta indicating that as the number of stores utilizing public view monitor's increases, the shrink percentage will also increase.

The analysis of variance results seen in Figure 12 help to affirm these results as stores using public view monitors saw an increase in the mean shrink percentage suffered on an annual basis. The correlation between use of PVM and shrink percentage was mediocre at .099. It is

fascinating that in both models, using either dollar loss or shrink percentage, the directionality of the use of a PVM was positive indicating that as these tools are used more often, the loss and shrink will increase in a store. One would presume that the opposite result would be true. These findings will be discussed in more detail in the conclusion.

Table 19
Coefficients of Determination for Independent Variables and Dependent Variable: Shrink Percentage

Coefficients of Determination for Independent Variables and Shrink Percentage				
Variables	**Unstandardized Coefficients**	**Standardized Coefficients**	**T**	**Sig.**
	B	Beta		
Number of doors	0.046	0.04	1.229	0.219
# of managers 2012	-0.071	-0.094	-2.695	0.007
Management Turnover2012	0.005	0.035	1.149	0.251
StoreManagerTurnover2012	0.001	0.048	1.557	0.12
side	-0.037	-0.021	-0.189	0.85
center	0.025	0.014	0.131	0.896
Backwall	0.711	0.108	2.605	0.009
No	0.176	0.082	1.054	0.292
PVM	0.35	0.138	1.981	0.048
CCTV	0.212	0.05	1.057	0.291
Rural	-0.188	-0.09	-2.832	0.005
Metropolitan	0.213	0.09	2.792	0.005
Mallsl	-0.001	-0.001	-0.006	0.996
Outletsl	0.177	0.043	0.728	0.467
LifestyleCentersl	-0.096	-0.029	-0.399	0.69
StripCentersl	-0.341	-0.044	-1.069	0.285
Millssl	0.204	0.026	0.642	0.521

The next notable variable in the regression was the cash and wrap located on the back wall of stores with a Beta of .108. This relationship means that when a cash and wrap is located on the back wall of a store, there will be an increase in the total level of loss. These results are also supported by the analysis of variance test (Figure 8), which shows back wall cash and wraps with the highest mean shrink. The correlation for back wall cash and wrap location and shrink percent is not very impressive at a mere .110.

The variable of number of managers had a standardized coefficient value of -.094, meaning as the number of managers increased the shrink percent would decrease. These results are supported by the analysis of variance test as the number of managers increased, in general, the shrink percentage decreased (Figure 14). The correlation between number of managers and shrink percentage was not noteworthy at -.054.

The last two variables rounding out the top five are both subcategories of the store location environment variable. The rural location has a standardized coefficient of -.090 and the metropolitan location has a Beta of .090. The directionality of these variables is the key for increasing clarity. In other words, as the number of rural locations increased, the level of shrink decreased as compared to when the number of metropolitan store locations increased. These findings are supported the analysis of variance results found in Figure 6. The correlation between rural store locations and shrink percent was -.108, and the correlation between metropolitan store locations and shrink percent was .119. Overall, none of the variables are strongly correlated to the dependent variable shrink percentage.

Management variables and shrink percentage. Once again, in an effort to better understand the relationships between the independent variables and the dependent variable of shrink percentage, the groups of independent variables were separated and examined with more rigor. Initially, all other independent variables with the exception of number of managers, store manager turnover, and management turnover were removed. These three independent variables were compared to the dependent variable of shrink percent loss to inspect any changes in the unstandardized coefficient.

The R^2 was .010 for the model when accounting for shrink percent, and number of managers, management turnover, and store manager turnover. The error in predicting shrink percentage was reduced by 1% when taking number of managers, management turnover, and store manager turnover into account as compared to predicting the error in shrink percentage when these variables were not considered.

Table 20
Multi-Variate Model with Independent Variable: Personnel and Dependent Variable: Shrink Percentage

Model Summary									
				Std. Error of the Estimate	Change Statistics				
Model	R	R Square	Adjusted R Square		R Square Change	F Change	df1	df2	Sig. F Change
1	.098[a]	.010	.007	.90465	.010	3.538	3	1085	.014

The standardized coefficient for number of managers decreased in this model to - .052. The management turnover did have a slight increase to a standardized coefficient of .048, and the store manager turnover also had an increase to a standardized coefficient of .057. The directionality of each variable did not change between models. According to these results, as the amount of turnover in both management and store managers increased, the level of shrink in stores also increased. These results are not absolutely confirmed by the analysis of variance test completed earlier in the text. It would appear that an increase in shrink occurs for the median turnover in both categories. Although, the Beta strength is so weak for these variables, it is difficult to make definitive conclusions about their impact upon the shrink percentage.

Table 21
Coefficients of Determination for Independent Variables: Personnel and Dependent Variable: Shrink Percentage

Coefficients of Determination for Independent Variable: Personnel and Shrink Percentage							
	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variables	B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound
Number of Managers	-.040	.023	-.052	-1.721	.086	-.085	.006
Management Turnover	.007	.005	.048	1.543	.123	-.002	.016
Store Manager Turnover	.001	.000	.057	1.846	.065	.000	.002

Store location variables and shrink percentage. The variables comprising the locational category were examined separately from all other variables in the following model. The error in predicting loss when considering only these variables increases considerably. The R^2 for the regression model accounting for store location environment and store location type was .027. The error in predicting shrink percentage was reduced by 2.7% when taking store location environment and store location type into account as compared to predicting the error in shrink percentage when these variables were not considered.

Table 22
Multi-Variate Model for Independent Variable: Environmental and Dependent Variable: Shrink Percentage

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.163[a]	.027	.019	.89882

Although the error in explaining shrink percent for these variables increased, some of the standardized coefficients showed an increase in strength and offered some clarity in directionality of the relationship between location and shrink percent. The environmental

locational variable of metropolitan saw a slight increase in Beta strength (.101) from the total population run. The rural variable maintained the same standardized coefficient and directionality. The reader can see that the relationship between store location environment and shrink percentage does not change as these variables are unbundled.

In the total population model, none of the store location types had a powerful standardized coefficient, and this continues to be true in this model. Strip centers have the strongest Beta (-.060) of the store location type variables. This is an increase from the total run. This standardized coefficient result indicates that as the number of strip centers increases, the shrink percentage will decrease. These results have some support from the analysis of variance findings shown in Figure 4.

Street Locations have the second strongest Beta in this model for store location type with a -.059. This relationship again demonstrates as an increase in street locations occurs, it will lead to a decrease in shrink percent. This is supported by the results reported in Figure 4 from the analysis of variance test. All of the store location variables examined here, with the exception of outlets and mills locations, show a decrease in shrink in some capacity. Therefore, one may conclude that the mills locations and the omitted variable of beach store would lead to an increase in shrink percent. The date found in Figure 4 confirms these conclusions as mills locations and beach stores do have the greatest mean shrink percentage when compared to other store locations. A metropolitan mills location then would most likely see a greater level of shrink than other store location.

Table 23
Coefficients of Determination for Independent Variable: Environmental and Dependent Variable: Shrink Percentage

Coefficients of Determination for Independent Variable: Environmental and Shrink Percentage					
Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Rural	-.187	.066	-.090	-2.844	.005
Metropolitan	.240	.075	.101	3.194	.001
Mallsl	-.092	.403	-.039	-.227	.820
Outletsl	.000	.420	.000	-.001	.999
LifestyleCentersl	-.187	.413	-.057	-.452	.651
Streetlocationsl	-.460	.466	-.059	-.988	.324
StripCentersl	-.464	.465	-.060	-.999	.318
Millssl	.086	.464	.011	.184	.854

Internal structural variables and dollar loss. The R^2 for the regression model accounting for number of doors, use of camera surveillance, and cash and wrap location was .025. The error in predicting shrink percent was reduced by 2.5% when taking number of doors, use of camera surveillance, and cash and wrap location type into account as compared to predicting the error in shrink percent when these variables were not considered. In comparison to the total model, the error in predicting loss increases when these internal structural variables were examined separately.

Table 24
Multi-Variate Model for Independent Variable: Internal Structural and Dependent Variable: Shrink Percentage

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.158[a]	.025	.019	.89911

The standardized coefficients did show a slight increase in strength when the internal structural variables were examined separately from all other variables. In this model, the presence of a public view monitor (PVM) had the greatest impact upon the shrink percent. The Beta for side cash and wrap was a .152; therefore as PVMs increase in stores, the shrink percent will also increase in stores. The lack of camera surveillance had a slight decrease in Beta strength from the total population to this model. The use of closed circuit television (CCTV) saw an increase in Beta strength from the total model to the current one. Both of these categories had a positive slope meaning the presence of a CCTV or a lack of surveillance both will lead to an increase in shrink percent. Therefore, the omitted variable of stores using both public view monitors and closed circuit television will lead to a decrease in shrink percent. The analysis of variance results presented in Figure 12 support this hypothesis.

The unstandardized coefficient of the back wall cash and wrap was a .122, also demonstrating that as back wall cash and wrap locations increase, shrink percent increases. The back wall cash and wrap location had the strongest Beta strength for cash and wrap locations in this model. The side cash and wrap location had an unstandardized coefficient of .036, which indicates that as side cash and wraps increase, the shrink percent will also increase. This result is contradictory to the total model in directionality. The total model shows that as side cash and wraps increase, the shrink percent will decrease. The total model outcomes are more representative of the results found in Figure 8. The presence of a side cash and wrap leads to the second lowest mean shrink percentage.

The number of doors had a Beta strength decrease from the total population run to a .030, demonstrating again that as the number of doors increases, the level of dollar loss will also increase. This outcome is not supported by the analysis of variance (Figure 10). The number of

doors ranges from 2 through 6 and the greatest mean shrink percentage is found in store with 3 doors.

Table 25
Coefficients of Determination for Independent Variable: Internal Structural and Dependent Variable: Shrink Percentage

Coefficients of Determination for Independent Variable: Internal Structural and Shrink Percentage					
Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Numberofdoors	.034	.037	.030	.918	.359
side	.065	.179	.036	.365	.715
center	.088	.174	.048	.504	.614
No	.135	.160	.063	.848	.396
PVM	.384	.171	.152	2.245	.025
CCTV	.279	.198	.067	1.407	.160
Backwall	.808	.261	.122	3.092	.002

None of the independent variables had an impactful relationship with the dependent variable of shrink percent. The outcome of incorporating sales dollars into the dollar loss to achieve shrink percent seemingly lessened the impact of all independent variables on the model. The incorporation of sales dollars seemed to alter the dependent variable in such a way that the relationships between shrink and all examined causal factors became illogical. The potential explanations for these results will be covered further in the final chapter.

Case Results

This sample included the case files from internal theft investigations that occurred from April 2002 through May 2012. The types of internal theft studied were passing or removing of

merchandise, point of sale refund fraud, cash theft (from the point of sale system), deposit theft, and credit card or check fraud. The total number of case files for the study was 682. This is the total number of case files from the ten year period examined. These are files which contain statements as well as ones that do not. The researcher divided the total case files down further and examined the differences between those individuals who wrote statements versus those who did not. The total number of case files with statements was 396. The total number of case files without statements was 286.

The independent variables of sex, occupational position, state where the store is located and case type were analyzed as a total for all case files, and in the subsequent appropriate category of with or without a statement, for the mode and frequency as all are nominal level data. The independent variables of age, tenure of employment, and total loss were analyzed for median, mean, sum, range, standard deviation, and frequency as they are a mixture of interval and ratio level data.

Descriptive Statistics: Independent Variables

Sex. The sex of those who were caught participating in employee theft is a categorical variable of either male or female. The total case file sample was 351 (53%) male and 306 (47%) female. The number of missing cases was 25 due to a lack of gender identification in the case file report by the loss prevention personnel during the investigation. According to these findings, a male would be more likely to be caught participating in employee theft for the years 2002 through 2012 at this retailer.

Age. A total of 678 case files contained information on the age of the employee at the time of the theft. There were four cases in which this data was not available due to a lack of

collection by the loss prevention personnel at the time of investigation. The employees who committed theft during the course of work ranged in age from a minimum of 18 to a maximum of 47, with 23 as the mean age, 21 as the median age, and 20 as the modal age with 99 (14%) of the cases falling into this age group. The standard deviation for age was 4.77. An individual between the ages of 19 and 22 would be the most likely caught participating in employee theft during the years studied. (See Appendix Q for the total age frequency chart).

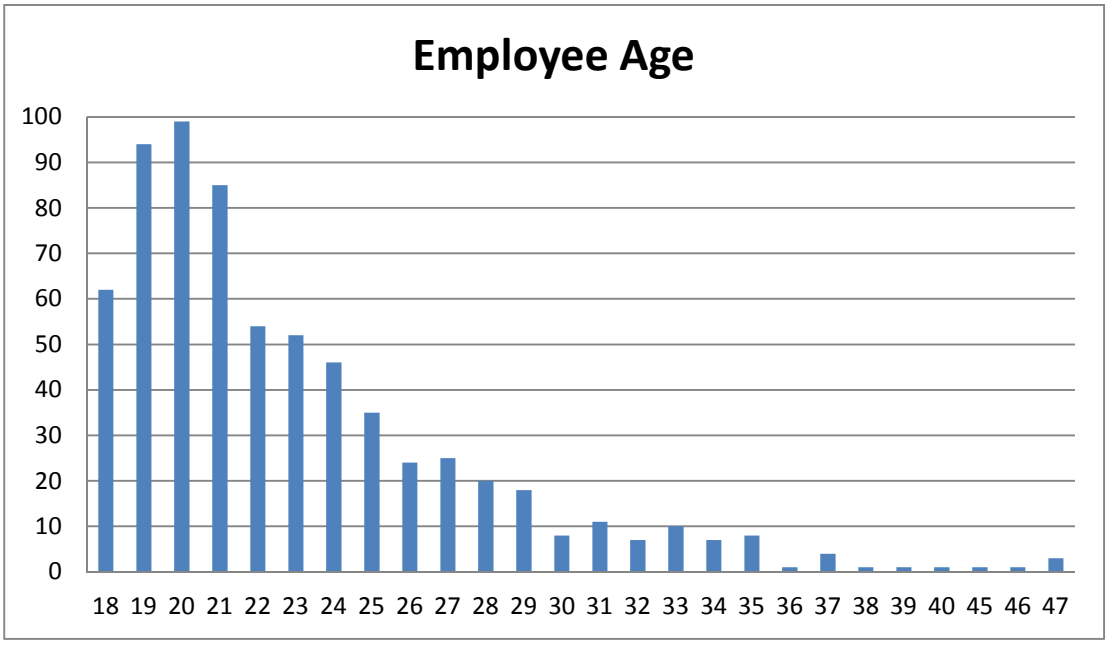

Figure 15. Employee age at the time of theft detection.

Tenure of employment. A total number of 674 cases contained information on the tenure of employment at the time of theft detection with eight cases missing due to a lack of collection. The minimum amount of time an employee worked prior to being caught committing theft was one month to a maximum time of 269 months (22.5 years). The mean tenure was 15.59 months, the median was nine months, and the modal frequency was one month (n=47). This is a variance of 370.08 and a standard deviation of 19.23. The highest frequency for tenure remained with those individuals who were employed for a brief time: two months (n=41), seven

months (n=42), five months (n=37), and nine months (n=36). Those who were employed for a longer period of time had a lower frequency in theft participation. (See Appendix R for the total frequency table).

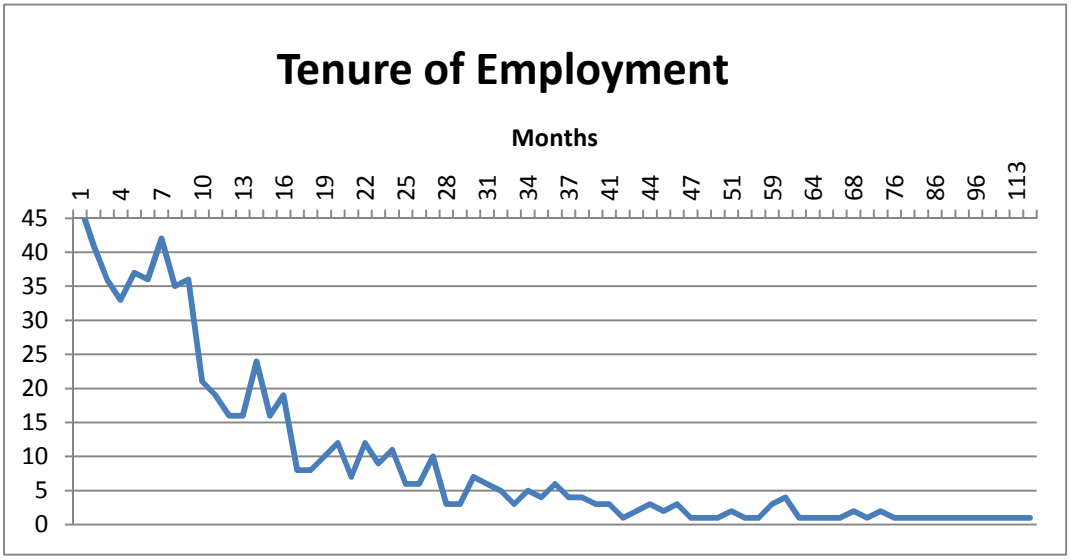

Figure 16. Tenure of employment prior to theft detection.

Occupational position. The variable of occupational position within the organization was broken down into four categories of associate, key holder, assistant manager, and store manager. The sales associate represents the most frequently occurring, both in mode and median, occupational position in the case files at 61.5%. The assistant manager is the second most frequently occurring at 25.9%. The key holder position represents 7.4% of all cases, and the store manager accounts for 5.3% of all cases.

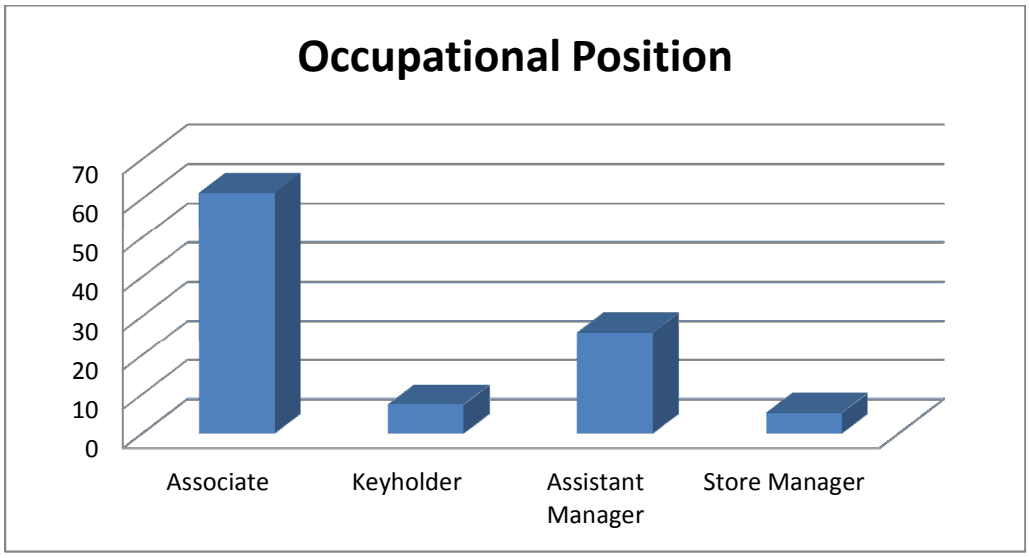

Figure 17. Occupational position at the time of theft detection.

Case type. The various types of internal theft studied range from removing merchandise from the store or passing it off to another individual to remove from the store, refund fraud, cash theft from the point of sale system, deposit theft, and credit card or check fraud. The most frequently occurring theft type was passing or removing of merchandise which comprised 52.5% of the total. Refund fraud is the second most frequent with 34.8% of all cases. Deposit theft is the least likely to occur (2.1%).

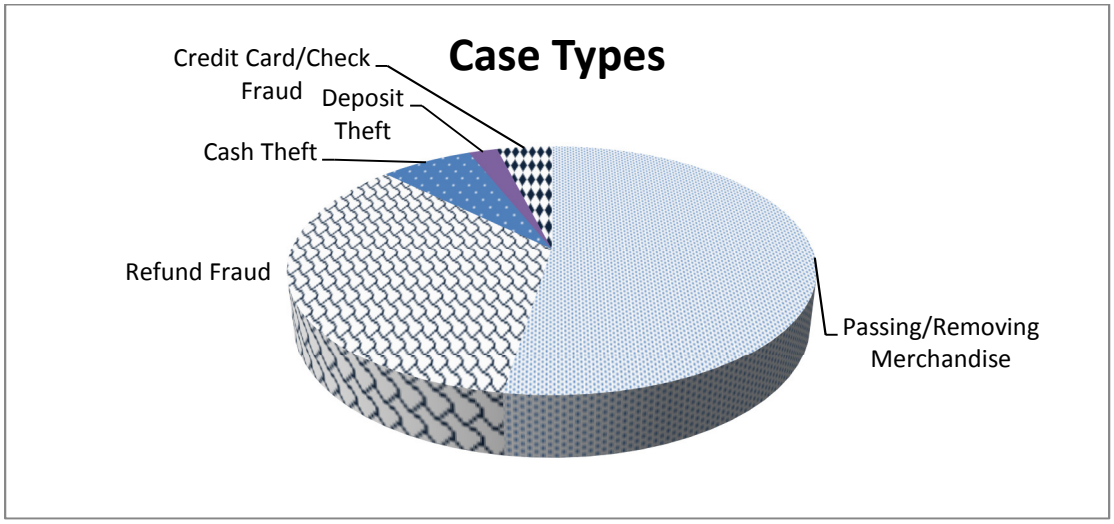

Figure 18. Case type frequency.

State. A total of 53 different states and Canadian provinces experienced an internal theft investigation from the years 2002 through 2012. New York experienced the highest number of cases with 75 (10% of the total sample). California (n=50), Texas (n=48), and Pennsylvania (n=46) represent the remaining top states to experience internal theft cases over the time period studied. (See Appendix S for the map of internal theft cases by state and See Appendix T for the total state frequency table).

Store location type. Mall locations, with a 78.7% incidence rate are by far the most frequently occurring store location type in the internal theft cases. Street locations are the second most frequently occurring location type at a markedly lower 7.8% rate. Lifestyle centers follow closely behind street locations at 6.3%. The remaining location types have few stores with internal theft cases.

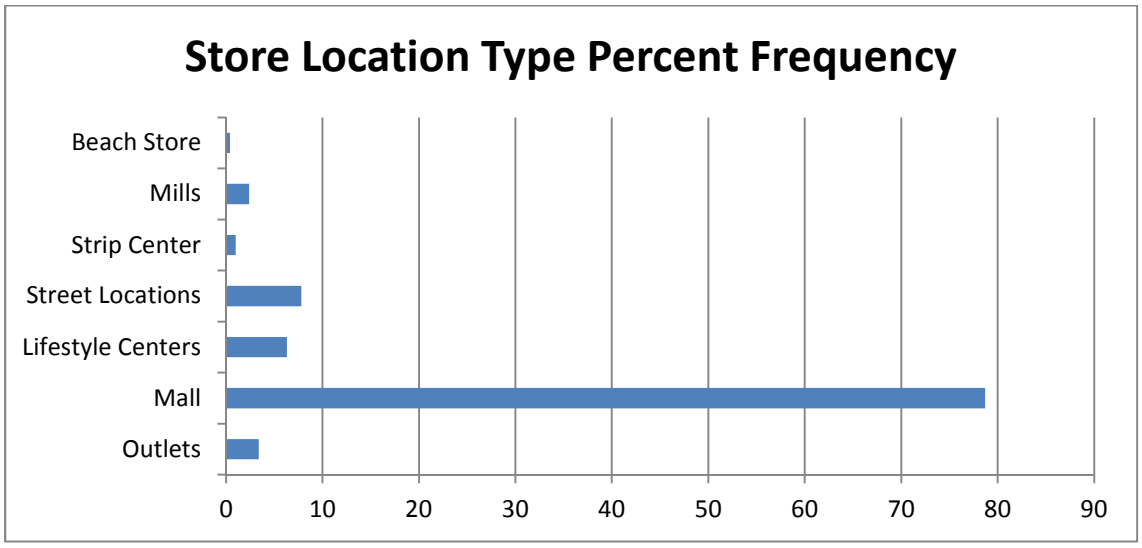

Figure 19. Frequency of store location type for case files.

Store location environment. An internal theft cases for this organization was most frequently found in a suburban store location (55%). A metropolitan area was the second most frequent environmental location to experience internal theft, followed by the rural store locations. In terms of location, a mall store located in a suburban area in New York would be the most likely location to experience an internal theft situation.

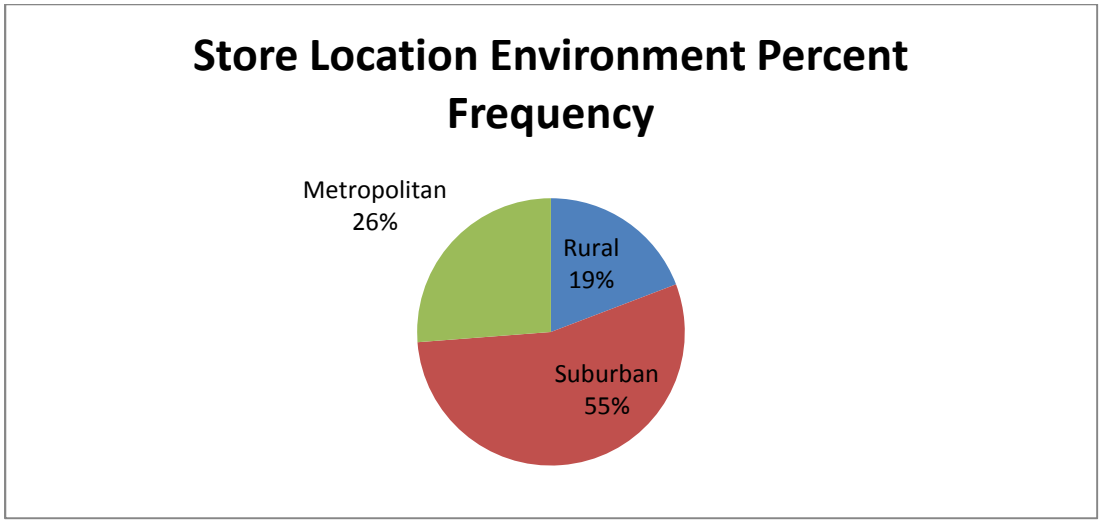

Figure 20. Frequency of store location environment for case files.

Total loss. The total loss from all internal theft cases studied during the 10 year time frame was $704,121.10. The mean loss for the 682 cases for this same time frame was $1,043.14 with a minimum loss of $0.00 and a maximum loss of $14,000.00. There were 46 cases with a loss of $0.00 dollars and 35 of these cases were the removal or passing of merchandise. In most instances, when an employee is caught removing merchandise, the items are returned or restitution is paid right away prior to the termination of the employee. The remaining 11 cases were credit card fraud where restitution was received from the credit company at the time of the case. Therefore, these cases are considered a $0.00 loss because, although, a theft occurred the organization was able to recover its loss almost immediately. These cases are included for the descriptive data they provided and are not large enough in number to skew the overall and average loss.

Descriptive Statistics: Independent Variables with Statements

As mentioned previously, there were a total of 682 internal theft cases reported between 2002 and 2012, but not all of those case files contained a written statement from the employee at the conclusion of the investigation. The researcher found that 396 of those case files were marked in the retailer database as having a statement present during the data collection. The case files were separated from the larger dataset into those marked as having a statement and those marked as not having a statement in order to determine if there was a statistical difference between these individuals. The results from the files marked as having a statement are presented below.

Sex. The differences in sex for those individuals who wrote statements were 213 (55%) male and 172 (45%) female. The number of missing cases was 11 due to a lack of gender

identification in the case file report by the loss prevention personnel during the investigation. It does appear that males are composing confession statements at a higher frequency than females.

Age. The total number of cases with statements which contained an age was 395 with 1 missing this information due to a lack of identification by the loss prevention personnel at the time of investigation. The employees who committed theft during the course of work and wrote a statement about this theft ranged in age from a minimum of 18 to a maximum of 47, with 23.27 as the mean age, and 20 as the modal age with 61 (15%) of the cases falling into this age group. The standard deviation for age was 4.65. An individual between the ages of 19 and 22 would be the most likely to write a confession about their participation in employee theft during the years studied.

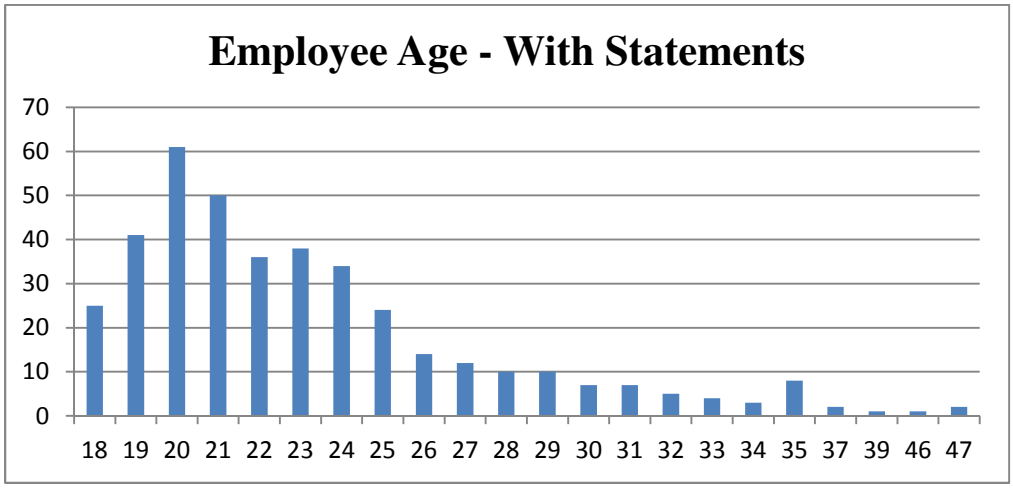

Figure 21. Employee age of those who wrote statements at the time of the theft.

Tenure of employment. The total number of cases for those who wrote confession statements for the category of tenure of employment was 392 with 4 missing due to a lack of collection. The minimum amount of time an employee worked prior to being caught committing theft was one month to a maximum time of 109 months (9.08 years). The mean tenure was 15.52 months, and the modal frequency was seven months (n=27). This is a standard deviation of

17.16. The highest frequency for tenure remained with those individuals who were employed for less than one year: five months (n=23), nine months (n=23), two months (n=21), and six months (n=21). Those who were employed for a longer period of time had a lower frequency for writing a confessional statement.

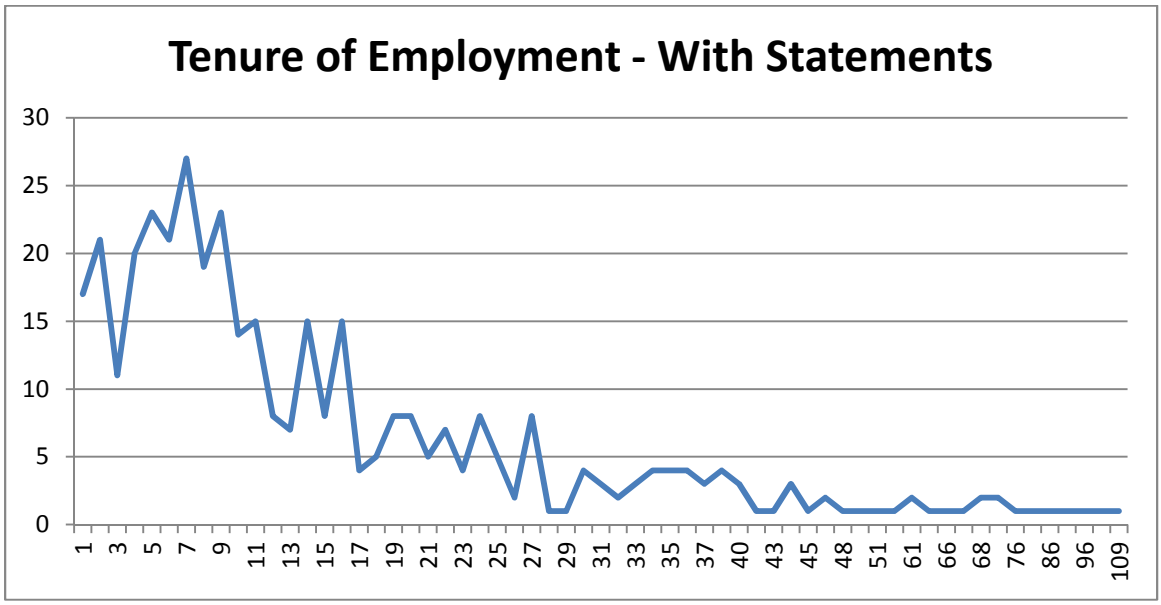

Figure 22. Tenure of employment for those who wrote statements at the time of the theft.

Occupational position. The variable of occupational position within the organization was broken down into four categories of associate, key holder, assistant manager, and store manager. The sales associate represents the most frequently occurring occupational position in the case files with statements at 56.3%. The assistant manager is the second most frequently occurring at 28.8%. The key holder position represents 9.6% of the cases with statements, and the store manager accounts for 5.3% of the cases with statements.

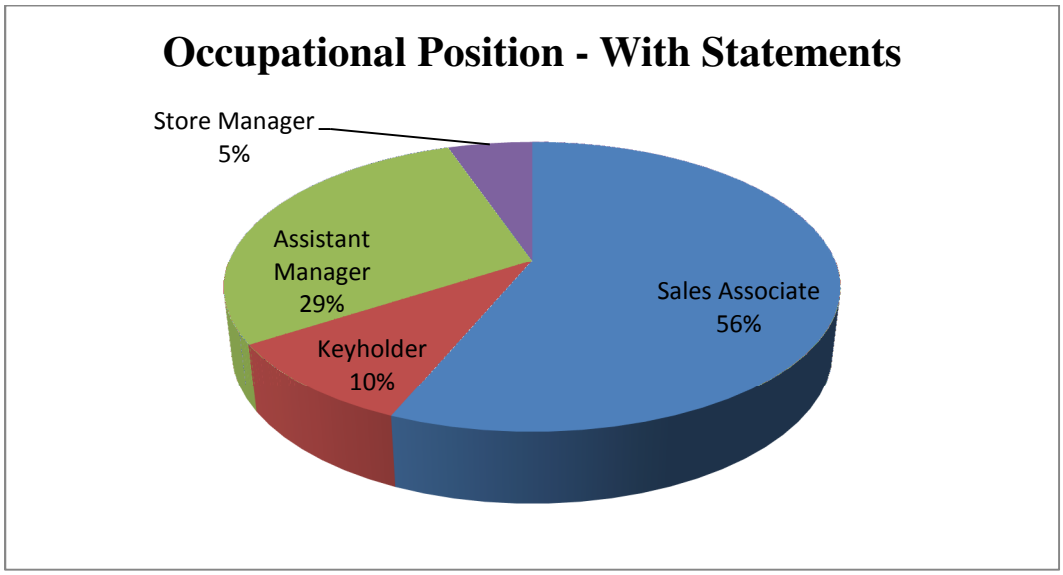

Figure 23. Occupational position of those who wrote statements at the time of the theft.

Case type. The various types of internal theft studied range from removing merchandise from the store or passing it off to another individual to remove from the store, refund fraud, cash theft from the point of sale system, deposit theft, and credit card or check fraud. The most frequently occurring theft type was passing or removing of merchandise which comprised 46.2% of the total cases where statements are present. Refund fraud is the second most frequent with 39.9% of the cases with statements. Deposit theft is the least likely to occur (2%).

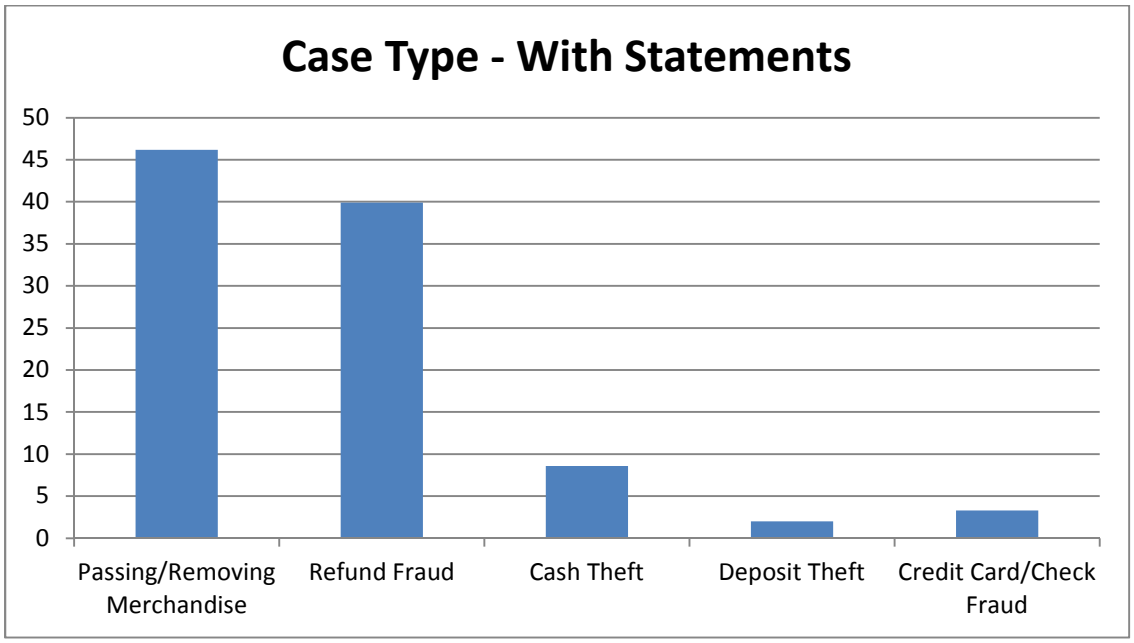

Figure 24. Frequency of case type for those who wrote statements.

State. The individuals who chose to compose statements worked in a total of 49 different states and Canadian provinces from the years 2002 through 2012. New York experienced the highest number of individuals who wrote statements for their cases with 45 (11% of the total sample) making the decision to offer an explanation for their actions. California (n=36), Texas (n=27), and North Carolina (n=20) represent the remaining top states where employees chose to write statements of confession during the course of an internal theft investigation during the time frame studied.

Total loss. The total loss from the internal theft cases where a statement was composed during the 10 year time frame was $492,935.40. The mean loss for the case files marked as containing a written statement over the time frame was $1,244.79 with a minimum loss of $0.00 and a maximum loss of $13,504.10. There were 14 cases with written statements with a loss of $0.00 dollars, and 13 of these cases were the removal or passing of merchandise. One case was credit card fraud and experienced some form of restitution.

These results indicate that there are no substantial differences between those who were willing to write a statement and the entire subset of individuals who have participated in employee theft. A young male who has worked less than one year as a sales associate is most likely going to write a statement when caught committing theft at this retailer. It is also quite probable that this young man has participated in the removal of merchandise from his employer as his crime. The following section will cover the results from those who did not write a statement at the time of their detection to determine if differences exist between these individuals and the others.

Descriptive Statistics: Independent Variables without Statements

Sex. There were 286 case files that were marked as not having a statement provided in the organizational database during the data collection. The sex differences for the individuals who chose to not write statements were 144 (52%) male and 133 (48%) female. The number of missing cases was 9 due to a lack of gender identification in the case file report by the loss prevention personnel during the investigation. It would appear that males are also not composing confession statements at a higher frequency than females, but the females are statistically closer to the males in this category than the others.

Age. The total number of cases without statements which contained an age was 283 with 3 missing this information due to a lack of identification by the loss prevention personnel at the time of investigation. The employees who committed theft during the course of work and refused to write a statement about this theft ranged in age from 18 to a maximum of 47, with 22.69 as the mean age, and 19 as the modal age with 51 (18%) of the cases falling into this age group. The standard deviation for age was 4.84. An individual between the ages of 18 and 21 would be the

most likely to refuse to write a confession about their participation in employee theft during the years studied.

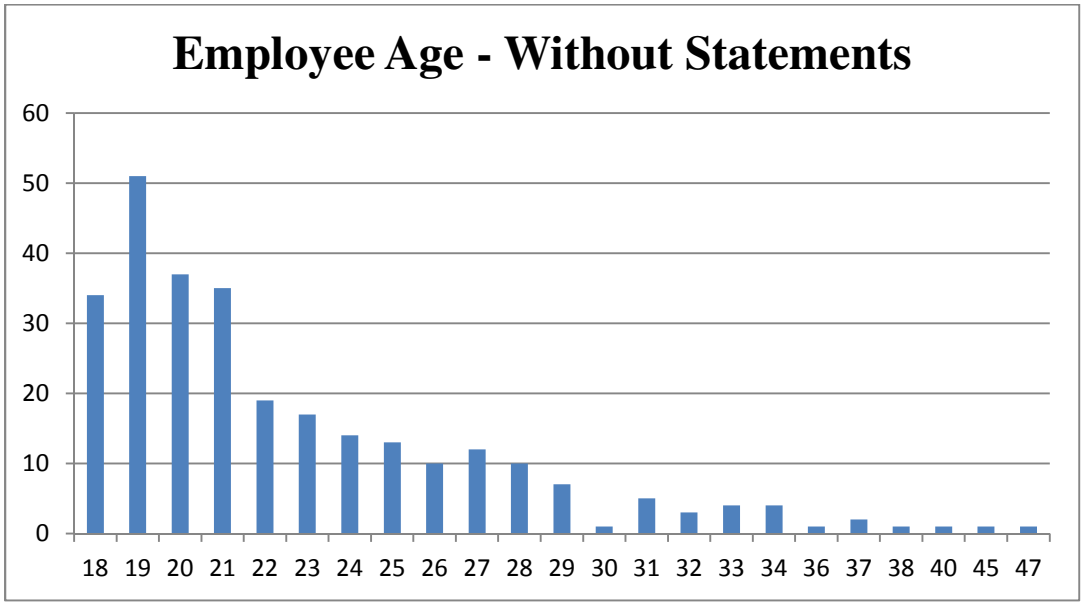

Figure 25. Employee age of those who did not write statements at the time of the theft.

Tenure of employment. The total number of cases for those who did not write confession statements for the category of tenure of employment was 281 with 5 missing due to a lack of collection. The minimum amount of time an employee worked prior to being caught committing theft was one month to a maximum time of 269 months (22.5 years). The mean tenure was 14.38 months, and the modal frequency was one month (n=30). This is a standard deviation of 21.87. The highest frequency for tenure remained with those individuals who were employed for less than ten months: three months (n=24), two months (n=22), four months (n=16), and eight months (n=15). Those who were employed for a shorter period of time had a higher frequency for refusing to write a confessional statement.

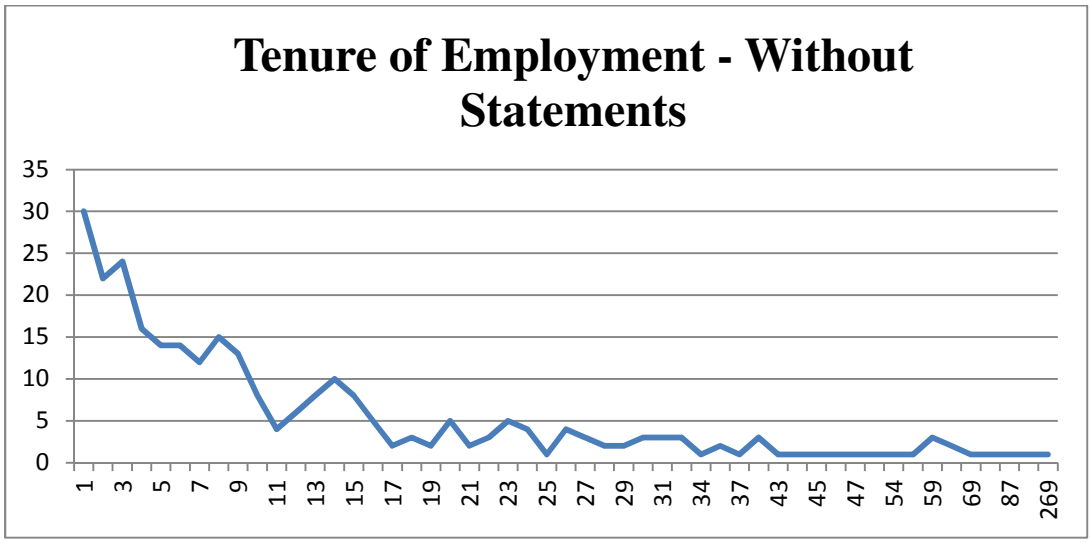

Figure 26. Tenure of employment of those who did not write statements at the time of the theft.

Occupational position. The variable of occupational position within the organization was broken down into four categories of associate, key holder, assistant manager, and store manager. The sales associate represents the most frequently occurring occupational position in the case files without statements at 64.0%. The assistant manager is the second most frequently occurring at 23.6%. The key holder position represents 7.0% of the cases without statements, and the store manager accounts for 5.3% of the cases without statements.

Case type. The various types of internal theft studied range from removing merchandise from the store or passing it off to another individual to remove from the store, refund fraud, cash theft from the point of sale system, deposit theft, and credit card or check fraud. The most frequently occurring theft type was passing or removing of merchandise which comprised 58.0% of the case files without statements. Refund fraud is the second most frequent with 29.0% of the cases without statements. Deposit theft is the least likely to occur (2.8%).

State. The individuals who declined to compose statements worked in a total of 48 different states and Canadian provinces from the years 2002 through 2012. Pennsylvania

experienced the highest number of individuals who decided against writing a statement for their case with 30 (10.5% of the total sample) individuals not composing a statement. New York (n=23), Texas (n=21), and Florida (n=21) represent the remaining top states where employees chose not to write statements of confession during the course of an internal theft investigation.

Total loss. The total loss from the internal theft cases where a statement was composed during the 10 year time frame was $250,846.30. The mean loss for those cases where the participant chose to not write a statement was $895.88 with a minimum loss of $0.00 and a maximum loss of $14,000.00. There were 32 cases without statements with a loss of $0.00 dollars. Of these cases, 22 were the removal or passing of merchandise, and the remaining 10 were credit card fraud.

The results of these analyses indicated a lack of noteworthy differences between those who were unwilling to write a statement and the entire subset of individuals who have participated in employee theft. A young male who has worked less than one year as a sales associate is most likely going to write a statement when caught committing theft at this retailer. It is also more likely that this young man has participated in the removal of merchandise from his employer as his crime.

Dependent Variable

The dependent variable for the case study is the motivational categories established through analysis of 139 confessional statements provided by employees at the time of their interview for theft from the organization. Initially, when the researcher ran a query in the retailer's database for case files with statements, 396 were marked as having a statement present in the file. Unfortunately, when the researcher physically examined the case files only 139

statements were present for use in analysis. In most cases, the issue appeared to be a lack of follow-up by the loss prevention personnel; after electronically completing all information, the individual never sent in the letter to the main office. The personnel members who were responsible for these missing files were also no longer employed by the organization, so there was no alternative for the researcher to attempt to retrieve these lost files.

An analysis was completed on the 139 statements in order to assess the motivational techniques used by former employees. The researcher feels that valuable information was still gathered through these letters, even though there were less available than indicated in the retailer database. A content analysis was completed to determine the frequency of wording in each of the statements. This initial analysis led to categorical grouping of these common words into seven total types of motivations. The seven categories are financial, family, medical, personal, opportunity, organizational, and remorse. The financial category has the highest number of cases at 70. The family category has 24 cases, medical has 6, personal has 19, opportunity has 16, organizational has five, and remorse has 56. The following table is a depiction of each main motivational group and all subsequent sub-categories of motivations, and the number of statements that correspond to each category.

Table 26
Frequency of Motivational Categories from Case File Statements

Motivational Categories	Sub-categories	Total Number of Statements
Financial		70
	Divorce/Custody/Personal	5
	Abuse	1
	School	8
	Family	4
	Home	6
	Debt/Bills	16
Family		24
	Medical	4
	Financial	9
Medical		6
	Personal	2
	Financial	4
Personal		19
Opportunity		16
Organizational		5
Remorse		56

Some of the statements did not contain merely one motivational type so there are groups of statements that fall into more than one category. The majority of the statements (85) contained one motivational type. Forty-three statements were included in two motivational categories. Seven statements were in three categories, and one statement contained four motivations. Three of the statements were denials of the accusations of theft.

Table 27
Frequency of Motivational Category Use per Statement

Number of Motivational Categories	Number of statements
4	1
3	7
2	43
1	85

Financial. The total viable letters of confession was 139 with 70 of those letters containing motivations the researcher considered financial in nature. The participants provided a

variety of responses that were financial in nature. The most frequently occurring words that led to the creation of this category were “money”, “cash”, and “bills”. The majority of respondents (32) did not provide specific financial motivations; rather they simply stated the need was for money or financial in nature. One of these respondents indicated that “the money was not for drugs, gambling, etc. but to make ends meet.” Some of the motivations were extensive and fall into numerous categories, such as divorce/custody/ personal issues. A respondent from this category had an elaborate explanation for the theft behaviors which occurred over an eight month period. “I’m getting a divorce, and my wife wrote around $9,500 in bad checks and my car was repoed. I also wrecked the front of my car and did not have insurance at the time.” One respondent indicated that they were being mentally abused by someone in their life and needed the money to remove themselves from the situation.

The financial pressures from school were also cited by eight respondents as the motivation behind their theft. According to one respondent “I’m a sophomore in nursing school, and have been under tremendous pressure.” Familial financial pressures were provided by four participants as their motivation for the theft; some of these issues were medical in nature, while others were spouses attempting to rescue one another from a jobless situation. “I took the money out of desperation. I care for my grandmother who has heart problems, thyroid, diabetes, and kidney failure. I used the money to help with medical expenses, medications, and treatments. She no longer has medical coverage with her insurance and Medicare doesn’t cover all the costs. She is also the primary caregiver to my uncle who is a quadriplegic due to a car accident.” Another respondent describes her familial financial issues leading to desperation. “I recently found out that I am pregnant, my husband is out of work and doing what odd jobs he can to get money. I am about $3,000 in debt just this month alone with the rent and bills that are due. I wasn’t sure

how to handle things (especially with the news of the baby) I haven't any friends here and my family refuses to help so I had no where to turn."

The hardships of home ownership were also cited by six of the participants as their financial motivation for the theft. According to one respondent, "I also did it because bills were due and if I didn't pay them that day I would not have a place to live." One particularly interesting case was an individual who had become homeless and was squatting in various locations trying to get back on their feet. "On the 1st of May I became homeless and was forced to live in my car indefinitely. My mother is also dying from a degenerative form of Parkinson's disease."

Finally, the remaining 16 respondents claimed that their debt or bills was the primary reason for the theft. "The money was spent on bills, groceries, going out to bar, smokes, beer, gas money, and casual spending." "I needed the money because I had lost weight and didn't have the funds to provide myself with new clothes." Interestingly, the reasoning provided by these respondent's does not derive from a desperate need to help anyone else or maintain custody of their children, but to acquire material goods for their own benefit.

Family. The respondents also provided 24 responses that appeared to be familial based. Some of the commonly used words which created this category were "family", "needed", and "life". The category of family had two subcategories of family financial and family medical. The family financial category had nine letters of confession. The majority of these dealt with close family members needing or wanting money from the employee. One respondent briefly describes trying to help her sister. "I started this due to the pressure of trying to live my life and take care of my sister who has a drug addiction." Another describes an attempt to help out a

struggling parent during tough times. “The reason why I did the things I did was because hard times hit at home mom was unemployed I was left paying the bills on my own with three kids to support.”

The family medical category had four corresponding letters which describe the toll a family member’s illness can take on an individual. “I did this because my mother is very sick, she suffers from migraines and she was recently diagnosed with breast cancer.” “I did it because my grandmother is sick and she had no way to pay for all of the medication she needed.” One of the participants goes even further in their brief description of the family medical problems to claim that perhaps there was no other option available to him or her. “I did these because I needed money for my mother’s medication it was as if I had no choice.” The remaining 11 letters were a variety of general statements about family problems being the cause of the theft with no specifics about the details of those family problems.

Medical. The category of medical has six letters of confession and was created using the words “health” and “issues”. Medical was also broken down into subcategories of medical personal and medical family. The medical personal had two letters of confession describing the plight of dealing with medical expenses for one’s self. “I making a faking cash refund I’m taking the money to help me pay my medicines.” The remaining four letters of confession were descriptions of helping out family members who are experiencing illness and who cannot obtain assistance. “My father is sick he suffers from liver cancer and there’s no way he can afford his weekly treatments.”

Personal. The personal category was created based upon the common word usage of “personal”, “friends”, “going right”, and “life”. The personal category contains 19 statements

which describe various reasons in the employee's life that led him or her to participate in employee theft. The employees describe incidents of attempting to help a friend, both voluntarily and involuntarily through coercion. "My motive was this guy that have put me in an abusive state of mind for the past year or so. I thought by doing this would set me free from him." Some of the other letters mention attempts to live a better life through unethical compensation. "All I wanted was a better life. And all I have done is made my life worse." Finally, some respondents simply indicated theft participation for personal reasons. "I am sorry for the mistake I made because of personal reasons, therefore I agree to do anything to pay back the company."

Opportunity. While opportunity may not be a well thought out motivation for theft, it does occur on a regular basis, and it was cited in 16 letters of confession as the main motivation behind the illicit behavior. Some of the stories are elaborate involving a serious lack of management control over the store, while others are the individual employee noticing an opportunity in time and taking it. "… I found the bag it was sitting in the store. So it wasn't hard for me to get to it." "My goal to take cash from the registers is not specific. I took money because the opportunity presented itself."

Organizational. The organizational category of motivation only contained five letters of confession, but they were specific and contained powerful messages about perceived unfair treatment in the workplace leading to dishonest activities. Some describe conflict with the store management team, while others discuss issues with the district manager. "I guess I started to do it because I was angry and annoyed of all the new managers and at myself for not speaking out that I thought them not to care." "I can confidently say that the reason I engaged in such unethical behavior (at first) was to manipulate my statistics to avoid my DM." Finally, the remaining respondents talk about their feelings of mistreatment and unrecognized worth. "I felt

like I was over worked and under paid. I asked for more hours and nothing was done about it. I am always here everyday, stay over, never call in and just to be looked at as nothing." "I have never done anything like this before and I felt desperate because I knew I was worth more than what I was making and really disliked my job."

Remorse. Although remorse is not a motivation, it emerged as a common theme amongst the individuals writing letters of confession. The expressions of remorse were so prevalent the researcher felt it was necessary to include them as a category and describe some of the emotion expressed by the respondents. As mentioned previously, the total number of statements written was 139 with 56 of those containing some form of remorse. Some of the remorse is extensive and appears to be genuine while others seem to express it simply because it seems to be socially appropriate to apologize. "I first and foremost would like to apologize, I know that this statement or my apology doesn't compensate for my actions or behavior. I am truly, truly sorry and right now I don't know exactly what else to say. I have embarrassed myself and let down my peers and for that I am also sorry." This statement appears to be full of genuine regret and remorse for the actions taken by this individual, while the statement to follow appears to be obligatory and is not an apology for the act of theft. "I apologize for taking advantage of my manager position."

Interview Results

The researcher completed interviews with seven members of the loss prevention department and an interview with the director of loss prevention. This was 26.92% of the total number of individuals employed by the loss prevention department, other than the director. The researcher quickly established rapport with all participants through prior knowledge of loss prevention. Initially, the researcher established background on each of the participants in order to

create comfort with the interview process, as well as, to gain an understanding for extraneous factors which may have impacted the individual participant's view of theft and the causes for theft. The questions posed to the members of the loss prevention department were geared towards each of the variables measured in previous portions of this research. The researcher wanted to determine if the responses provided by loss prevention personnel would correspond to the data findings.

The respondents were asked introductory questions of: how did you get started in loss prevention, what was your background prior to working in the department, and what was appealing about loss prevention to you? Five of the respondents had worked as managers for the retailer, two of the individuals were retired Marines; one of whom had also worked at another organization as the loss prevention director and the other had been working in a store and was recommend for the loss prevention department by a superior; and one other participant worked at another company in the business department prior to the retailer. When questioned on the appeal of loss prevention at this particular organization, four of the participants indicated that they enjoyed the training aspects of the job. Some of the other responses included the accountability created by prevention techniques, the daily interaction with different people, the factual nature of the job (lack of emotion / black and white decisions), and the belief that they can make a difference in people's lives in a positive way.

The researcher moved on to questions specifically about the level of internal theft within stores. Approximately how many cases per year do you take on for refund fraud? Cash/deposit theft? Six of the participants said that on average they experienced four to six refund fraud cases per year. Two of the respondents claimed that it was more likely eight to ten. According to the director, the organization takes on approximately 30-40 refund fraud cases per year. These

estimations do appear to be consistent among the interviewees. All but one respondent indicated that deposit theft is a rare occurrence averaging two per year at the most. One participant knew that their stores had only experienced one deposit theft in eight years.

The director was also questioned on the procedures for handling internal theft cases; meaning does the organization always terminate, prosecute, attempt to collect restitution? The director indicated that the organization always terminates when a case of internal theft has been discovered. In most cases, the company does not prosecute because according to the director, "it is not worth it to go through the criminal justice system". The director indicated it is more efficient to take the individual through civil court in order to obtain restitution and then report them to a loss prevention database utilized by retailers to identify thieves.

The researcher wanted a comparison between the motivations provided by respondents in their statements and the speculated motivations provided by the personnel. In order to establish what the loss prevention personnel believed to be the logic behind individuals committing theft from the organization the researcher posed a series of questions about motivation and differences in motivations by sex and age groups. What do you feel motivates employees to commit theft? One respondent indicated that employees participate in these activities because they are feeling under-appreciated and over-worked, and these feelings compounded by personal issues leads to theft. Two interviewees responded that some individuals are motivated by a personal need such as sickness, family issues, or even death, while others are simply selfish and have a sense of entitlement.

The remaining responses create a sense with the reader that the loss prevention personnel feels the individuals are using an opportunity within their employment and then providing

themselves with a justification for their behavior. Three respondents felt the employees used justifications such as family or peer pressure, bills, drug problems, or special times of the year like holidays. Three participants felt that opportunity was the main motivation for employees caught participating in theft. These individuals felt that there was a breakdown in the store either in the follow-up by members of management or simply a total lack of procedural respect in the store by all team members. Finally, one respondent felt that the employees just do not believe they will be caught committing these acts so they benefit outweighs the cost in their mind.

The researcher hypothesized that there would be motivational differences amongst men and women, as well as, various age groups, so the question was posed to the loss prevention personnel as: Do you feel these motivations may vary between men and women, age groups? The responses provided by the personnel were interesting. Four respondents indicated that there was no variance between men and women in motivational responses, but there was a difference in motivations provided by different age groups. One individual indicated that there was no variance in any groups. Another individual responded that there was a difference in both age groups, and between men and women. One respondent indicated that most cases in his or her area were perpetrated by men so they could not speak to variance among the sexes.

Some of the respondents clarified their answers by elaborating on what motivations they felt were provided by men, women and various age groups. The one respondent who felt there was a difference in motivations between men and women indicated that men tend to cite bills and credit card debt, according to the respondent “greater pressing reasons”; whereas women tend to cite “emotionally-based reasons” such as fitting in, being accepted, and family issues. The remaining results are descriptions provided by the personnel about the age group differences. One respondent felt that younger individuals have a poor work ethic and believe that they are not

being compensated fairly for the tasks they are being asked to perform by the organization. Another individual felt younger people have college credit card debt and participate in theft to compensate for this, while older employees have debt issues because of divorce, medical bills, and life situations.

One participant said young people tend to steal for extra fun money, while older individuals take money for gambling debts, divorce, and medical bills. Another interviewee felt that young people are naïve and think that they will not get caught, and that young people are generally responding to turmoil in the home with parents or guardians, while older individuals have medical bills or want to help a friend or family member. The last respondent indicated that young people commit theft because they are trying to maintain an image, whereas older individuals are taking because of necessity due to financial responsibility, drug problems, or debts. It is clear from the responses that most loss prevention personnel believe the older individuals are motivated by financial pressure, family issues, or medical problems. There is also a sense that the personnel are giving more understanding to the older age group and their motivations as compared to the younger age group and their motivations.

In addition to gaining an understanding for the reasons provided by individuals for their theft activities, the researcher was also interested in determining what aspects of the organization the personnel believed to be responsible for loss. The loss prevention personnel were questioned on what led to loss from internal individuals versus external individuals. What factors do you believe lead to internal theft within the organization? One individual felt that issues in the economy led to people taking occupational positions that were out of their element leading to a lack of control within that store location. All of the respondents felt that either a lack of strong management or management turnover were major factor in higher levels of internal theft cases

within stores. Another respondent indicated that internal theft occurs when individuals have a lack of company loyalty and the opportunity presents itself. Two respondents felt that employees participate in theft because there are limited employee benefits, employees felt they did not get a promotion or pay that they should, and the temptation in the store is too great for them when combined with these feelings. Finally, one respondent felt that management was too trusting of the employees therefore they did not maintain proper controls.

The respondents were also questioned on what factors within the organization they believed led to external theft. All of the respondents indicated that a lack of good store personnel was the number one factor in an increase in external theft. All of the respondents indicated that when a store experiences poor customer service and a lack of presence by staff on the sales floor, then that store is more likely to see external loss. One respondent also felt that the economy in general was also leading to an increase in external theft. Another interviewee felt that the cultural connection between the lower level staff and the customer was stronger than the connection to the company leading to an unspoken rule of "looking the other way". The respondent did indicate that this finding may be dependent upon the area of the country where the stores are located. Finally, an interesting response provided by one member of personnel was in regard to the popularity of the brand. The respondent indicated that in an effort to achieve an iconic status as a brand, the organization is opening itself up to more theft because of the creation of a "have to have it" mentality by consumers.

The researcher explored the impact of location on loss with a series of questions in regards to both internal and external theft. What store locations in your area do you feel are more likely to experience internal theft? In response to this question, two respondents indicated that suburban areas are more likely to experience internal theft. The remaining respondents indicated

that metropolitan areas are the most likely target for internal theft. One respondent and the director qualified this response though by saying that really all stores are susceptible to internal theft. The respondents who indicated suburban areas felt like living in these areas created the sense of needing things, therefore individuals would participate in theft in order to support this need. One respondent who indicated metropolitan areas as the most likely candidate for internal theft felt that the areas where these stores are located are not where the associates live therefore their transiency is a factor in their ability to steal from the organization (lack of loyalty to surrounding area and economy).

The respondents were also asked about the areas they felt were most likely to experience external theft. All of the respondents indicated that metropolitan areas were more likely to experience external theft than any other locations. One of the reasons provided was easy access, meaning that organized retail crime groups can dash in and out of stores and quickly gain access to a major highway. Another general response was the higher economic pressures that exist in most metropolitan areas. Finally, two respondents indicated that metropolitan areas are more likely to see higher rates of management turnover because of the cost of living versus the available wage. According to these respondents higher turnover in management leads to poor control in the store and very little loyalty amongst staff creating an environment where external theft can thrive.

The director was questioned on what level of impact employee theft has on the business as a whole. The director's response was that most people attempt to cut employee theft and external theft into percentages and speak of the theft in those terms, but this is a mistake. According to the director, internal negligence can result in both internal theft and external theft. In most cases, should an individual be participating in internal theft he or she is not going to

guard the store in an appropriate manner and external theft may increase as well. In another instance, an individual may be partaking in gross operational negligence and opening the store up to various forms of external pilferage simply by their neglect. The team members you hire are supposed to be trustworthy and represent your organization and when they fail to do so, it hurts the entire company.

The following three questions were designed to gain a greater understanding about the kind of loss prevention awareness programs this organization has in place in an effort to reduce loss. Do you feel store employees are made aware of a loss prevention presence? All of the respondents except one indicated that they believed store employees are made aware of a loss prevention presence. The respondent who indicated no felt that there is a general lack of training and awareness provided to store employees. The respondents who felt that store employees are very aware of a loss prevention presence described a company culture that emphasizes operational control, training, and dedication to inter-departmental cooperation in an effort to control loss.

The researcher wanted to probe further to determine specifically what each member of the loss prevention department did to curb theft from their store locations. What programs do you have in place to maintain awareness of loss prevention? Speaking with store via phone or in-person visits was cited by all respondents as the primary manner in which they keep loss prevention in the forefront of the store staff's minds; in conjunction with regular communication five of the loss prevention members also indicated that it is critical to establish a good relationship with management. Five respondents said that the implementation and follow up with training was an important way to maintain awareness of loss prevention among all store employees. Three members of loss prevention told the researcher that they conduct loss

prevention workshops for management teams in their areas and place loss prevention posters in the stores. Finally, three respondents said that creating good relationships with district managers, and making reports available to management about inventory levels and loss were keys to keeping loss prevention present in the stores.

The respondents indicated that communication with the stores was a main key to keeping loss prevention present in the minds of store employees, so the researcher was interested in how frequently members of management were physically present in the stores they are responsible for overseeing. How often are loss prevention personnel (you) actually present in the stores? One member of the loss prevention personnel explained they are in their stores everyday due to a more narrow coverage area. Five of the personnel explained they are present two times per year per store unless a specific issue rises like an investigation or an inventory discrepancy. Two of these individuals clarified that these visits vary for high shrink stores; these are visited once a quarter because of their established issues with controlling loss. Finally, one member of loss prevention said they are in stores three to four times per year per stores unless an issue arises.

The researcher also posed questions to the director about the use of pre-employment screening measures such as background checks, verification of employment history, and drug screenings. According to the director, a service is utilized which conducts background checks on all store employees prior to being hired. The managers and key holders have an official background check conducted, and the sales associates are run through the database of known retail offenders prior to hiring. The management staff is subjected to multiple interviews (usually two to three) prior to being hired, and none of the store employees are drug tested.

The remaining questions were created in an effort to understand what types of loss prevention systems have been put into place by this organization and their perceived effectiveness by the loss prevention personnel. Do all of your stores have an alarm? Why or why not? Every participant indicated that their stores do have an alarm system installed in each store location. How many of your stores have CCTV or a PVM? The results here were varied, mostly along regional (environmental lines) for each loss prevention member. Two respondents indicated that approximately 25 percent of their stores had either a CCTV or PVM system present. One respondent indicated approximately 50 percent of stores had a surveillance system. The remaining participants indicated that 75 percent of their stores had a surveillance system installed.

What requirements do stores need to meet in order to have these installed at their location? All of the interviewees said that the primary reason for a system to be installed in a location that had not previously had one would be an increase in loss, therefore earning the store the classification of high risk target store. According to both the loss prevention director and all personnel members interviewed, all new and remodeled stores from this point forward will be receiving a camera surveillance system regardless of geography, previous loss level, or history of store location type.

Do all stores utilize benefit denial devices? As a brief reminder to the reader, benefit denial devices are the sensor tags one often finds on clothing that cause the beeping sound when exiting a store if not removed by store personnel. According to all loss prevention personnel interviewed and the loss prevention director, all stores are required to utilize these tags in their store locations. Of course, the concern mentioned by the interviewees was stores not following the standard and misusing these devices or not making use of them per direction. One respondent

mentioned that on occasion during a store visit it is discovered that the store is not taking the time to place these devices on the clothing. Obviously, this is a policy violation and has serious external theft consequences.

Finally, the participants were questioned on what systems (surveillance, personnel, and benefit denial devices) had the most impact on reducing or eliminating loss in stores. What systems do you feel are the most effective at deterring internal theft? All of the respondents, including the director, pointed towards closed circuit television as a helpful tool in internal theft cases; although, not as a deterrent to theft, rather as an effective aid in the investigation once the theft has occurred. Each member of the loss prevention personnel emphatically agreed that "people" are the best mechanism at deterring internal theft. Some of the participants had different perspectives on what this means. Four individuals felt that hiring and maintaining a strong and aware management team in a store is the best way to prevent internal theft. Three participants felt that the human resource policies played a big role in the deterrence of theft, meaning that the individuals who felt overworked and under compensated were more likely to participate in theft activities versus those who felt fairly treated by the company.

Lastly, the participants were asked what systems do you feel are most effective at deterring external theft? Every single respondent gave the same answer for this particular question. The three things all loss prevention personnel being interviewed felt deterred external theft were use of sensor tags, sales floor awareness by staff, and good quality customer service. Interestingly, for both internal and external theft, the personnel indicated that the human element was the key piece in deterring or stopping loss. The technological systems, while important, are only part of the puzzle when piecing together an effective loss prevention plan. "Cameras never stopped anybody" – loss prevention director.

Research Questions and Hypotheses

The following research questions and hypotheses were previously developed based upon the relevant literature and the goals of the research. The completed research and analysis provided the author with an abundance of information for these questions.

Research Question1: What is the total loss suffered by the retailer over a seven year period? The retailer had a total loss of $267,009, 958.00 for the years 2007 through 2012. The minimum loss in one store location for one year was $175, and the maximum loss in one store location for one year was $438,696.00. The mean loss for all stores for the seven year time frame was $36,209.65.

Each of the independent variables was compared to the dependent variable in two different formats. The annual loss for each store location was computed as total dollar loss, and as a percentage of the total sales dollars (shrink percentage). The greatest mean loss category for each of the independent variables is presented in the following table. The notable differences are in store location type, cash and wrap location, number of managers, and management turnover.

Table 28
Greatest Mean Comparison for Independent Variables and Dependent Variables: Dollar Loss and Shrink Percentage

Independent Variables	Shrink Dollars	Shrink Percentage
State	Delaware	Maryland
Store Location Type	Street Location	Mills
Store Location Environment	Metropolitan	Metropolitan
Cash & Wrap Location	Side/Center	Back wall
Use of Surveillance	Both	PVM
Number of Doors	4	3
Number of Managers	23	3
Management Turnover	2.14%	7.32%
Store Manager Turnover	400%	200%

The most common category for each of the independent variables can be found in Table 5.27. As one can see, the most frequently occurring category is not necessarily the category with the greatest mean loss. The state where a store is located is a stand out variable as a large state like Texas has the most stores, but small states like Delaware and Maryland are experiencing a much higher level of loss.

Table 29
Modal Categories for Independent Variables in Total Population

Variables	Modal Category
State	Texas
Store Location Type	Mall
Store Location Environment	Suburban
Cash & Wrap Location	Center
Use of Surveillance	No surveillance
Number of Doors	3
Number of Managers	4
Management Turnover	0%
Store Manager Turnover	0%

Research Question2: What variables within a store location are the most important in predicting levels of theft? A number of variables were examined during the study in an attempt to answer this question as thoroughly as possible. The researcher looked at environmental variables such as state where the store was located, the type of structure where the store was found, and the surrounding community. Variables examining the impact of internal structural components such as number of doors, location of cash and wrap, and use of camera surveillance were also collected and analyzed. Finally, the impact of personnel such as number of managers and management turnover for one year were also incorporated in an attempt to predict and explain loss for this retailer.

Table 30
Standardized Coefficients and Correlations between Independent Variables and Dependent Variable: Dollar Loss

Variables	Standardized Coefficients	Correlation to Dollar Loss
	Beta	
Number of doors	0.121	0.240
# of managers	0.356	0.454
Management Turnover	-0.062	-0.087
Store Manager Turnover	0.009	0.021
side cash and wrap	-0.122	-0.214
center cash and wrap	-0.024	0.141
Backwall cash and wrap	-0.027	-0.006
No camera surveillance	-0.034	-0.156
PVM	0.042	0.119
CCTV	-0.040	-0.011
Rural	-0.074	-0.114
Metropolitan	0.120	0.227
Mallsl	-0.104	-0.075
Outletsl	-0.035	0.095
LifestyleCentersl	-0.134	-0.062
StripCentersl	-0.013	0.015
Millssl	-0.070	0.007

Table 5.29 depicts the standardized coefficients of the independent variable categories and their correlation to the dependent variable of dollar loss. These results are derived from the total regression run discussed previously. When the independent variables were compared to the dependent variable of shrink dollar loss, the independent variables with the greatest impact were the number of managers, the store location of lifestyle center, the side cash and wrap location, the number of doors, and the metropolitan environment. The strength of each of the variable categories was not the only element in predicting the relationship between independent and dependent variables; the directionality of each of the variables was also an important component as this study is a total population, and the researcher is looking for answers about what is most impactful on the level of loss in stores.

The stores with 10 or more managers were comprised mostly of multi-floor street locations with a combination of back wall and center cash and wraps and were found in metropolitan areas. These stores are located in high sales volume store locations (upwards of $12 million annually) and in high profile cities where the appeal of the brand would be greater. The location of lifestyle center had an impact on the dependent variable of loss in the other direction; it led to a decrease in loss. Lifestyle centers were predominantly located in suburban store locations; 67% of all lifestyle centers were found in the suburbs. In addition, the majority of lifestyle center locations had 3 doors and a center cash and wrap location. All of which are variables indicative of a decrease in dollar loss from the organization.

In general, there is a lack of association between the independent variables and the dependent variable shrink percentage. The relationship between the dollar loss and the most of the independent variables appears to be more impactful. In stark contrast to the previous results, the most impactful independent variable on the shrink percentage is the use of a public view monitor. A cash and wrap located on the back wall was the second most impactful variable followed by number of managers and rural and metropolitan store locations.

The stores utilizing public view monitors are split almost evenly down the line with center and side cash wraps; a mere three stores have a back wall cash and wrap and a public view monitor. The majority of stores (57.5%) with a public view monitor in place are also located in a suburban area. Of the stores that have 10 or more managers in place, a mere one utilizes a public view monitor for camera surveillance. It appears that while these variables have impact on the dependent variable shrink percent, they are not additive in terms of compiling a most likely store to experience a greater level of shrink percent.

Table 31
Standardized Coefficients and Correlations between Independent Variables and Dependent Variable: Shrink Percentage

Variables	Standardized Coefficients	Correlation to Dollar Loss
	Beta	
Number of doors	0.040	0.041
# of managers	-0.094	-0.054
Management Turnover	0.035	0.064
Store Manager Turnover	0.048	0.065
side cash and wrap	-0.021	-0.031
center cash and wrap	0.014	0.003
Back wall cash and wrap	0.108	0.110
No camera surveillance	0.082	-0.080
PVM	0.138	0.099
CCTV	0.050	0.022
Rural	-0.090	-0.108
Metropolitan	0.090	0.119
Mallsl	-0.001	0.010
Outletsl	0.043	0.020
LifestyleCentersl	-0.029	-0.016
StripCentersl	-0.044	-0.044
Millssl	0.026	0.030

H1: The higher the number of managers at a single store location the higher than normal the dollar loss and shrinkage percentage will be at that store location. It can be concluded that the stores with higher number of managers do tend to have higher levels of loss both represented as dollar loss and shrink percentage. In terms of dollar loss, the highest mean, $303,500.00, occurred in stores with 23 managers (n=1). This store location is a street location in a metropolitan area with multiple floors; the cash and wrap locations in this store are back wall and center cash and wraps, six doors, 2.14% management turnover, and 0% store manager turnover.

Although this example may be a single store location, the standardized coefficient results offer evidence that the number of managers is the most impactful variable on dollar loss. This variable had the greatest Beta strength of .356; meaning that for every 35.6% increase in the

number of managers, the level of loss also increased. This variable also had a correlation of .454 to the dependent variable of dollar loss.

The shrink percentage results do not seem to support this hypothesis as the standardized coefficient for this variable is a -.094, meaning that as the number of managers increased, the shrink percentage decreased. The strength of the variable in this model is insignificant when compared to the strength when dollar loss is the dependent variable. The correlation between number of managers and shrink percentage was also less than inspiring at a -.054. In conclusion, an increase in number of managers does appear to lead to an increase in dollar loss, but does not lead to an increase in shrink percentage.

H2: Management turnover at a higher percentage at a single store location will result in a higher than normal dollar loss and shrinkage percentage at that store location. Management turnover for all positions except store manager ranged from 0% (zero turnovers in management for that fiscal year) to 75% in 2011-2012. The store with 2.14% turnover experienced the greatest mean level of loss ($303,500.00) during that year. This store was located in a metropolitan area, has 23 managers, multiple floors and multiple cash and wrap locations, six total doors, and is a street location. The store location with 75% turnover in management had a mean loss of $3186.00. This store was located in a suburban mall with a side cash and wrap, no surveillance, two managers, and two doors.

The management turnover variable had a low unstandardized coefficient of -.062 and a low correlation (-.087) to the dependent variable of dollar loss. The directionality of this variable also indicates that as the level of management turnover increases, the dollar loss will decrease. This is in direct opposition to the researcher's hypothesis. The conclusion here is that the hypothesis was incorrect, and management turnover on a higher level does not lead to a higher

level of loss. The variable of management turnover, in fact, was not impactful on the dependent variable of dollar loss for this model.

Store manager turnover for 2011-2012 ranged from 0% (no turnover) to 400% (4 store managers in one fiscal year). In2011- 2012, one store experienced 400% manager turnover with a mean loss of $57,193.00. This store also experienced 6.25% turnover in the remainder of management, is located in a metropolitan area, does not utilize surveillance, has three doors, and a side cash and wrap. The stores with 300% store manager turnover had the second largest mean loss and were located either in metropolitan or suburban areas. The stores with higher levels of turnover in management will see an increase in the amount of loss experienced in the store. This variable does not have a great deal of Beta strength (.009) and has a weak correlation of .021 to the dependent variable of dollar loss; therefore it is not the best variable for making predictions about the level of loss in stores.

Research Question3: What is the cost of known employee theft, specifically refund fraud, within the specialty retailer? The total cost of employee theft for the years of 2002 through 2012 was $704, 121.10. The total cost for passing or removing merchandise was $102,386.56 with a mean of $284.41. The total cost of refund fraud was $408,897.24 with a mean of $1,850.21. The maximum loss for refund fraud is $14,000, which is also the maximum loss for all internal theft. The organization experienced three refund fraud cases over $10,000 in the ten year period examined. The total loss for cash theft was $61,552.23 with a mean of $1,398.91, and a maximum loss of $10,925.50. Although deposit theft had the lowest incidence of all case types, the financial impact was significant. The total loss from deposit theft was $66,648.73 with a mean of $6,058.98. Deposit theft had a maximum loss of $13,470.74, two other cases over

$11,000.00 and no cases less than $1,000.00. Finally, the total loss from credit card or check fraud was $28,824.79 with a mean of $1.067.58.

Research Question 4: Who is being caught committing internal theft (sex, age, tenure with organization, position within the store)? The characteristics of an individual caught committing theft within the retailer studied would be a young male who has worked for the organization as a sale associate for approximately one month. The theft is most likely going to occur in New York and will be the removal of merchandise.

H3: Women are more likely to be caught committing internal theft than men. According to the total number of case files with gender identification, males are actually more likely to be caught participating in internal theft than females as 53% of those who were caught for theft from the years 2002 through 2012 were males. These results would appear to indicate that the original hypothesis was incorrect.

H4: Individuals between the ages of 20 and 25 are more likely to be caught committing internal theft than other age groups. The mean age for those who have been caught committing theft at this retailer was 23. The median age for these individuals is 21, and the modal age is 20. The results found in Figure 15 offer support to the conclusion that individuals between the ages of 20 and 25 are the most likely to be found participating in employee theft.

H5: Individuals who have been employed by the retailer for one year or less are more likely to be caught committing internal theft than those employed for more than one year. The mean number of months for this variable was 15.59. The median number of months was nine and the modal number was one month. The variance on this variable is extensive. The most frequently occurring time periods for employment prior to being caught for employee theft were

one month, seven months, two months, nine months, and eight months. The researcher can conclude in frequency (see Figure 16) alone that the individuals who are most likely to have been caught committing internal theft for the time period of 2002 through 2012 would have been employed for less than one year.

H6: Individuals in the Assistant Manager position are more likely to be caught committing internal theft than other management positions. Assistant Managers were the most likely member of management to be caught committing theft. Assistant Managers had the highest frequency (n=176) amongst other managers. The category with the highest frequency for theft participation was associates (n=418). The associates are most likely going to participate in the removal or merchandise which is the case type category with the highest frequency; therefore these results make logical sense in terms of in store theft activity. (See Figure 17 and 18)

Research Question 5: What are the motivations for those individuals who have been caught for committing this theft? Overwhelmingly, the most common motivation cited in the statements was financially-based. These individuals who were caught committing theft provided a justification that centered on the need to correct some sort of financial situation. The financial situations ranged from debt, bills, school, and family to home, abuse, and divorce.

The second most frequently cited motivation was family and within this category family medical issues and family financial issues. Medical was also given as a motivation in some cases and could be sub-divided into medical personal and medical financial. Personal reasons were given by 19 individuals versus organizational reasons, which were provided by five people. Finally, 16 individuals claimed that their theft occurred because the opportunity presented itself during the course of employment.

Table 32
Motivational Categories from Case File Statements

Motivational Categories	Sub-categories	Total Number of Statements
Financial		70
	Divorce/Custody/Personal	5
	Abuse	1
	School	8
	Family	4
	Home	6
	Debt/Bills	16
Family		24
	Medical	4
	Financial	9
Medical		6
	Personal	2
	Financial	4
Personal		19
Opportunity		16
Organizational		5
Remorse		56

Research Question 6: Are there clear motivational differences between men and women, age groups, job positions, length of time with the organization? In order to answer this research question, the author had to extrapolate the results from the descriptive statistics to the results from the qualitative analysis of the confessional statements. In order to maintain confidentiality, the researcher had the organization remove any identifying markers from the letters prior to collection and analysis. Therefore, the sex, age, occupational position, and tenure with the organization of the individuals cannot be determined from the letters alone. The previous statistical analysis of the case files was used in conjunction with the results from the letter analysis to approximate the answers to the following hypotheses.

H7: Women will cite personal motivations more often than men.

H8: Men will cite organizational motivations more often than women.

Most of the motivational categories are relatively similar in terms of their sex breakdown. The majority of individuals did not list organizational motivations and those who did were men who barely edging out women in this category, as can be seen in table 5.32. The personal motivation category was also rather small in number and had the men just above the women by one letter. The majority of the motivations provided were in the category of financial with 39 of those letters estimated as being composed by men and 31 being composed by women. Women and men were estimated to be evenly split on six of the subcategories, as can be seen in table 5.32. Overall, the categories of financial and expressing remorse were the only ones with a modest differential between women and men. The majority of motivational categories showed women and men to be fairly even on their expressions of justifications.

Table 33
Motivational Categories by Sex from Case File Statements

Motivational Categories	Sub-categories	Total Number of Statements	Males	Females
Financial		70	39	31
	Divorce/Custody/Personal	5	3	2
	Abuse	1	0	1
	School	8	5	3
	Family	4	2	2
	Home	6	3	3
	Debt/Bills	16	9	7
Family		24	13	11
	Medical	4	2	2
	Financial	9	5	4
Medical		6	3	3
	Personal	2	1	1
	Financial	4	2	2
Personal		19	10	9
Opportunity		16	9	7
Organizational		5	3	2
Remorse		56	31	25

H9: Individuals between the ages of 20 and 25 are more likely to cite personal motivations than older age groups.

H10: Individuals aged 26 years and older are more likely to cite organizational motivations than the younger age group.

Individuals within the ages of 20 to 25 were the largest category of employees who were caught committing internal theft during the study at this retailer. According to the results presented in table 5.33, individuals in the age group 20 to 25 were more likely to cite a personal motivation when caught committing theft. Individuals from this age group were also slightly more likely to cite organizational motivations than older respondents. Mostly these young individuals provided financial motivations for their participation in internal theft at the organization, which coincides with the purported motivational reasons provided by the members of the loss prevention department.

Table 34
Motivational Categories by Age from Case File Statements

Motivational Categories	Sub-categories	Total Number of Statements	20-25	26 and up
Financial		70	43	15
	Divorce/Custody/Personal	5	3	1
	Abuse	1	1	0
	School	8	5	2
	Family	4	2	1
	Home	6	4	1
	Debt/Bills	16	10	3
Family		24	15	5
	Medical	4	2	1
	Financial	9	5	2
Medical		6	4	1
	Personal	2	1	1
	Financial	4	2	1
Personal		19	12	4
Opportunity		16	10	3
Organizational		5	3	1
Remorse		56	34	12

H11: Individuals who have been employed by the retailer for 12 months or less are more likely to cite organizational motivations than those employed for more than 12 months.

H12: Individuals who have been employed by the retailer for more than 12 months are more likely to cite personal motivations than those employed for 12 months or less.

Although organizational motivations were identified infrequently in the research, those who have been employed for less than 12 months at the organization did cite these reasons at a slightly higher frequency than those who have been employed longer. The researcher also projected that those who have been employed for 12 months or less also cited personal motivations at a somewhat higher frequency. The financial family, family medical, medical

family and medical financial have equal representation from both those who have been employed for less than 12 months and those who have been employed longer.

Table 35
Motivational Categories by Tenure from Case File Statements

Motivational Categories	Sub-categories	Total Number of Statements	12 months or less	> 13 months
Financial		70	40	30
	Divorce/Custody/Personal	5	2	3
	Abuse	1	1	0
	School	8	5	3
	Family	4	2	2
	Home	6	3	3
	Debt/Bills	16	9	7
Family		24	14	10
	Medical	4	2	2
	Financial	9	5	4
Medical		6	3	3
	Personal	2	1	1
	Financial	4	2	2
Personal		19	11	8
Opportunity		16	9	7
Organizational		5	3	2
Remorse		56	32	24

H13: Individuals in the Assistant Manager position are more likely to cite organizational motivations than other management positions.

H14: Individuals in the Store Manager, Keyholder or Associate position are more likely to cite personal motivations than the Assistant Manager position.

Assistant Managers comprised the second largest grouping of occupational positions in the study and the largest grouping from management positions. An assistant manager was more likely to cite organizational motivations than store managers and key holders, but less likely than sales associates to indicate organizational troubles as a justification for theft activities. Store

managers were most likely to claim financial issues in regards to the home or bills as a motivation, family troubles, personal problems, and opportunity provided by the organization. Sales associates and assistant managers were more apt to name financial school or financial family as reasons for theft participation as compared to store managers.

Table 36
Motivational Categories by Occupational Position from Case File Statements

Motivational Categories	Sub-categories	Total Number of Statements	Sales Associate	Assistant Managers	Store Managers
Financial		70	40	27	3
	Divorce/Custody/Personal	5	3	2	
	Abuse	1	1		
	School	8	5	3	
	Family	4	2	2	
	Home	6	3	2	1
	Debt/Bills	16	9	6	1
Family		24	14	9	1
	Medical	4	2	2	
	Financial	9	5	4	
Medical		6	3	3	
	Personal	2	1	1	
	Financial	4	2	2	
Personal		19	11	7	1
Opportunity		16	9	6	1
Organizational		5	3	2	
Remorse		56	32	21	3

Research Question 7: What prevention techniques is the organization employing in an attempt to curb theft from occurring? The organization employs a combination of technological surveillance and theft deterrent systems and training tools to create internal consonance among employees about the perils of theft. Specifically, the organization has some form of camera surveillance in 28% of all stores at this point, but is moving towards 100% coverage in all new and remodeled stores. All stores within the organization utilize benefit denial devices. The management personnel are subjected to background checks and multiple screenings prior to

being hired. The loss prevention department also focuses on maintaining a clear presence of importance within the store culture, and offers training on a regular basis to reduce internal negligence and maintain a sense of ownership about the company amongst all store employees.

CHAPTER VI

DISCUSSION

In attempting to establish the importance of this topic and the need to study it; one of the primary items the researcher wanted to exam was the total amount of loss this single retailer was experiencing over a specified time frame. As a reminder to the reader, the retailer in this study is considered a specialty retailer, meaning the focus of this retailer is men's and women's clothing and accessories for a targeted age group. In comparison to box retailers which do not carry a specific focus. This specialty retailer had 1,068 store locations at the time of data collection. The results of this study found a total loss in all stores over a seven year period from 2005 through 2012 of $267,009, 958.00. This represented about 1.62% of their total sales volume.

These losses translated to an average annual loss, during those seven years, of just over $53 million. During those seven years, the total average loss per store per year would be approximately $36,209.65. These results seem to point to the detrimental effect that theft has on this retailer, may have on other retailers who experience it, and perhaps even the economy surrounding all specialty retailers. Hollinger and associates (2005 & 2007) also found in their studies an average shrink percentage within specialty retailers ranging from 1.88% to 1.92% of their total sales. The results of this study demonstrate that this particular specialty retailer may be slightly below the average on shrink percentage within specialty retail with the average of 1.62% of total sales. A number of factors could explain this finding: popularity of the brand leading to higher sales volume or an effective loss prevention department where an environment conducive to theft has not been created. Quite possibly, a third option may be a combination of these two factors leading to a reduction in shrink percentage within this specialty retailer.

Individual Store Results

In order to determine the impact of loss at the retailer in this study, the researcher collected data on losses in two different forms: dollar loss per store per year and shrink percentage per store per year. Initially, loss was classified as dollar loss and gathered in terms of the actual dollar amounts lost from each individual store location for the specified time frame. The dollar loss is the purest determination of losses within an organization. The reason for this is that these raw numbers are not affected by store sales volume. Store sales volume is the total dollar amount that a particular store has made in one fiscal year. This data is collected yearly and is based upon all sales once expenditures have been paid. For example, a store may have a sales volume of $20 million for last year and a dollar loss of $200,000. The impact of this relationship on a store's shrink percentage will be further explored in the following paragraph.

Secondly, loss was classified as shrink percentage for each individual store location. The shrink percentage is calculated for each store using the dollar loss and sales volume. Therefore, the sales volume of a store can greatly impact, even skew, the shrink percentage. Using the example from above; the $20 million dollar store has losses of $200,000, which translates to a 1.00% shrinkage. Now, reporting a shrink of 1.00% makes the store location seem as though they are doing an excellent job controlling loss. When, in fact, the store is losing almost a quarter of a million dollars in one year. The high sales volume is obscuring the level of actual dollar loss.

The potential differences in loss when examined via dollar loss and shrink percentage were the catalyst for collecting both sets of data and utilizing each type for the dependent variables in this study. Subsequently, results of the research did turn out differently for dollar

loss and shrink percentage when compared to the various factors used as independent variables. The shrink percentage results seemed to be murky in the search for clarity on factors that lead to loss in specialty retail. The pre-inclusion of sales volume into the dollar loss to create shrink percentage seemed to lessen the impactfulness of the independent variables on the shrink. Although the relationships between the independent variables and dollar loss were much stronger, the directionality of the relationship between shrink percentage and all independent variables should not be discounted.

It was not simply sufficient to examine the level of loss within the specialty retailer in this study. How can loss be controlled if the causes of that loss are not determined? The researcher looked at several factors believed to potentially lead to loss within a specialty retailer. These factors were then categorized into headings based upon their purpose. It is important to obtain the whole picture of loss at a retailer, capturing variables that could lead to both external and internal loss. The three categories of variables were environmental, internal structural, and personnel. The environmental variables were items such as state where the store was located, the type of structure where the store was found, and the surrounding community. Variables examining the impact of internal structural components were items such as number of doors, location of cash and wrap, and use of camera surveillance. Finally, the impact of personnel such as number of managers, management turnover, and store manager turnover for one year were also incorporated in an attempt to predict and explain loss for this retailer. Some of the more interesting findings for both dollar loss and shrink percentage and these variables will be explored further in this chapter.

Personnel Variables

Employee turnover. The relevant research showed employee turnover as a strong predictor of loss (Hollinger & Langton, 2005; Hollinger & Adams, 2007). In addition, each loss prevention member cited management turnover as a major factor in loss during their interviews. The researcher wholeheartedly believed this would be one of the most impactful variables on loss. According to all analysis, the level of management and store manager turnover had little to no impact on the level of dollar loss or shrink percentage at this retailer for the time period of July 2011 through July 2012. Management and store manager turnover were two of the variables included in the personnel category.

When looking at the impact of management turnover on dollar loss, the relationship between these two variables is not strong and the researcher found that as management turnover increased, the dollar loss decreased. These results are contradictory to the conclusions presented by the loss prevention members, and the results found in the reviewed literature. Interestingly, when management turnover was compared to shrink percentage, while the relationship continued to be weak, the association inverted to the predicted one of turnover increases leading to increases in shrink percentage. Store manager turnover had no substantial impact on either dependent variable, but did have the predicted directionality; meaning as the turnover increased in just the position of store manager, the level of loss and shrink also increased.

Number of managers. Although turnover was found to be insignificant in the personnel category, the number of managers was an impactful variable on both dependent variables. The number of managers was the most meaningful variable when dollar loss was the dependent variable. As predicted, as the number of managers in a store location went up, so did the level of

the dollar loss. The stores with 10 or more managers were located in high sales volume store locations; most of these stores having a sales volume of more than $12 million annually. These stores were also located in high profile cities, such as New York, San Francisco, and Orlando, where the appeal of the brand may be greater. Brand popularity could lead to both internal and external theft in various forms as individuals struggle to obtain the latest trends in fashion.

A lack of cohesion amongst management and the brand popularity could be important components in an explanation for increased loss in stores with more managers. As the loss prevention personnel indicated in their interviews, store cohesion and loyalty are important components to minimizing both external and internal loss. Should these components be reduced or lost, employees are more likely to feel justified participating in employee theft, or looking the other way when external theft is occurring. These larger store locations with numerous managers are inherently less likely to see cohesion by their very nature. Some of these store locations have three to four floors with management teams responsible for each floor. Each floors' management team may have unity amongst the members, but there is a greater possibility for disorganization from team to team. The members of management therefore may not feel the requisite loyalty needed to deter internal theft. In addition, in stores with multiple floors and large customer bases, the employees are more likely to be temporary and marginal leading to a potential lack of loyalty from sales associates and management to the organization. The results of these feelings may be an increase in both minor levels of theft, such as merchandise removal, to more extensive types of theft, such as refund fraud.

Now, the results of the relationship between number of managers and shrink percentage needs to be explored. A rather fascinating finding for this relationship between the number of managers and shrink percentage was the relative lack of importance between these variables, in

stark contrast to dollar loss. In addition the number of managers and shrink percentage had an inverse relationship to number of managers and dollar loss; meaning as the number of managers went up, the shrink percentage went down. These differences between the two dependent variables can be explained using some of the other independent variables and additional data collected on the store locations with higher numbers of managers. In general, the higher the number of managers in one store location, the higher the level of sales volume will be at that location. As demonstrated previously, a high sales volume can skew the shrink percentage results making it appear as if a store has a lower level of loss than the reality. The stores with more managers on staff commonly generate more revenue, potentially resulting in lower levels of shrinkage.

Ironically, it does make logical sense that more managers at one store location could lead to higher levels of dollar loss, but lower shrink percentages. These findings offer support to the importance of examining loss from multiple angles, not only in research but at the organizational level as well. In terms of personnel, the results of this research were: management turnover and store manager turnover were not meaningful variables in predicting loss or shrink percentage, but were useful in discussing the expectation of a decrease or increase in loss or shrink; number of managers was a meaningful variable in predicting dollar loss, but not shrink percentage; and finally number of managers was a valuable factor when examining the increases and decreases in dollar loss and shrink percentage.

Environmental Variables

Store location type. The store location type of lifestyle center was also an impactful variable when using dollar loss as the dependent variable. Recall that the store location type

variable held the sub-categories of mall, outlets, street locations, mills locations, lifestyle centers, strip centers, and beach store locations. The outcome for this category was a decrease in the amount of dollar loss when a store is located in a lifestyle center. Once again the strength of the relationship between a variable, lifestyle centers, and shrink percentage was not as strong as the relationship to dollar loss. Although the relationship was weak between these variables, the researcher found that a decrease in shrink percentage also occurred when a store was located in a lifestyle center.

A few reasons may explain why lifestyle centers are more strongly associated with dollar loss than the other store location types. Lifestyle centers for this retailer were predominantly located in wealthier suburban areas. Suburban store locations and their specific importance on loss and shrink will be discussed in further detail at a later point in the chapter. At this juncture, it is important to establish their potential impact upon the relationship between loss and stores located in lifestyle centers. In addition to the physical location of lifestyle centers reducing their likelihood of loss, there are also internal structural variables which may reduce the opportunity for loss and shrink. For example, lifestyle center locations predominantly had less external doors, therefore limiting the potential for external theft. It becomes clear how each of the variables examined in this research interact with one another to either help or hinder the ability to control loss at this retailer.

The remaining store location types were not simply discounted as unimportant variables due to their lack of statistical meaningfulness to this research. Interestingly, all store location types with the exception of beach stores point to a decrease in the level of dollar loss. In contrast, the outlets and mills locations saw an increase in shrink percentage. An explanation for this difference would lie once again in the sales volume of the store type. As the reader may surmise,

outlet and mills locations were designed for the bargain shopper; therefore the cost of the clothing starts at a lower price point. These location types are not going to generate as much sales volume throughout the year due to lower costs in general. As an example, a mall location and an outlet location may lose $10,000 per year in dollar loss, but the mall location makes $4 million in sales, while the outlet location makes $1.5 million in sales. These two different locations have lost the same amount in pure dollars, but due to increased sales at the mall location, their shrink percentages are vastly different.

Store location environment. The surrounding community of the store location type was also hypothesized to be an important variable in the prediction of loss. As predicated, metropolitan locations were the most meaningful variable to dollar loss. Stores located in metropolitan areas were also more likely to see an increase in dollar loss. When metropolitan locations were compared to shrink percentage, the variable was also impactful and led to an increase in shrink percentage. These results are fairly self-explanatory as one would expect to see higher rates of loss and shrink in metropolitan locations for most retailers. Perhaps individuals tend to lack a sense of cohesion and community when residing in more urban areas resulting in greater chances for all types of theft. In addition, the cost of living is generally higher in urban areas perhaps leading to feelings of strain. Finally, these stores tend to be close to major highways which may allow the organized crime groups, discussed in the literature, to escape quickly and efficiently.

None of the store location environment types were insignificant to this research. Some variation in their impact on dollar loss and shrink percentage did exist. Suburban store locations did not experience dollar loss at the rate that metropolitan store locations did in this study, nor did these locations have shrink percentages as high as metropolitan stores. Finally, rural store

locations were actually more meaningful to shrink percentage than dollar loss. This is one of the few variables where this occurred. Rural store locations are most likely to experience less dollar loss and less shrink on an annual basis. Some of the reasons for this may be the elements generally present when residing in a rural location: individuals have a greater sense of community, cost of living is perhaps lower and therefore creates less financial strain, and these store locations are also less likely to be near major highways.

Internal Structural Variables

Cash and wrap location. The placement of the cash and wrap was deemed as a variable worth studying due to the implications this factor has on both internal and external theft. The side cash and wrap location was the most impactful, of all cash and wrap locations, on the dependent variable of dollar loss. The results of this study showed that when stores have placed a cash and wrap on the side of the store, there is a decrease in the level of dollar loss. The side cash and wrap placement also led to a decrease in shrink percentage.

These results are contradictory to the prediction of the researcher. Constructing a cash and wrap on the side of the store seemingly would limit the view of the store for the employees working behind the counter, therefore increasing the chance of external theft. In addition, the researcher surmised this cash and wrap location would lead to an increase in employee theft as those individuals only had to hide their larcenous activities from fellow employees to the left or the right. These assumptions were incorrect as the construction of side cash and wraps does appear to predict less dollar loss and shrink percentage.

The center and back wall cash and wrap locations also showed an inverse relationship to dollar loss indicating that the front corner cash and wrap locations were the only ones which led

to an increase in dollar loss. In contrast, while a side location led to a decrease in shrink percentage, the center and back wall locations both show an increase in shrink percentage. The reasons for this change are not as transparent to the researcher and may require further exploration in a future project. Further investigation into the relationship between these locations and other variables did not offer much clarity. For example, the majority of center cash and wraps were found in mall locations, which have a lower dollar loss and shrink percentage. In the pursuit of an explanation, the researcher dug further into these variables only to find more confusion. The store location environment was layered into the analysis, and the discovery was that the majority of stores with center cash and wrap locations in malls were found in suburban locations, which have lower levels of both shrink and dollar loss. It would seem the only strong conclusion that can be made in regards to cash and wrap location is the lack of obvious relationships with the other variables, especially the environmental variables.

Number of doors. Number of doors was not only a meaningful variable for both dollar loss and shrink percentage, but analysis results show that as the number of doors at a store location increases, so does the dollar loss and the shrink percentage. Some of the other independent variables may be explanatory in describing this relationship between the number of external doors and loss. Some commonalities that exist between the stores that have five and six doors are predominantly center located cash and wraps in a mall location within a metropolitan area. When these factors are considered together, it becomes clearer why dollar loss and shrink percentage would increase in stores with more exits.

Inherently, malls have more traffic in and out of the stores than other store types, now add more potential exits on to that, and it becomes more difficult for employees to monitor the activity around the front of the store. In addition, more doors also mean more chances for

employees to take part in merchandise removal. The employee may be able to sneak around management when leaving their shift, or perhaps place goods outside of an external door for one of their friends to pick up. The metropolitan environment in which these stores are located may also contribute to a greater loss. The organized crime groups may prefer locations close to highways where they can make a quick get away without detection. An increase in the number of doors provides these groups with more opportunity to enter and exit without drawing as much attention to themselves. By the time the store personnel realize what has happened; these external thieves are long gone. In terms of internal theft, the increase in doors in a metropolitan store location has the same potential impact as mentioned previously; employees do not feel connected to the store or management and when opportunities present themselves in the form of more exits these individuals take them.

Use of camera surveillance. Interestingly, the use of camera surveillance had a greater impact in general on the dependent variable of shrink percentage rather than dollar loss. The analysis results were that the stores without any form of camera surveillance saw a decrease in the dollar loss; in contrast, these stores had an increase in the shrink percentage. The relative lack of strength in these relationships and the lack of camera surveillance utilization in most stores (77%) may explain the differential in these results. The most frequently occurring store type is a mall location, which is also the most likely location to not use camera surveillance of any form. These stores are less likely to experience large differentials between sales dollars and dollar loss, leading to a slightly higher shrink percentage.

The stores that utilized closed circuit television also had varying results between dependent variables. These stores had a decrease in dollar loss, but an increase in shrink percentage. The stores that used a public view monitor had an increase in both dollar loss and

shrink percentage. The use of camera surveillance, either CCTV or PVM, at the time of the study was limited to a mere 20 percent of stores. The majority of these stores were located in high profile locations e.g. street locations in metropolitan areas. These areas were identified as high risk by the loss prevention department prior to implementing the surveillance, so it was a logical result to see a greater level of loss in stores utilizing surveillance.

According to the Director of Loss Prevention, Safety, and Security the organization has begun to move away from this practice of selecting stores for surveillance based upon the pre-existing conditions in the location. Rather the organization has moved towards installing camera surveillance in all new and remodeled locations regardless of any external issues. In a future research project, it would be beneficial to compare and contrast any remodeled stores pre and post camera installation, and to compare similar locations with and without camera surveillance in order to re-examine the impact of surveillance on stores. The very nature of the historical decision making process for use of camera surveillance within this organization may have contributed to the lack of significance for this variable in the model. The director also mentioned that the organization has made the strategic decision to only install public view monitor (PVM) systems on the go forward, rather than closed circuit television (CCTV); this may be another factor to consider in future research.

Numerous factors impact the potential for loss at retailers and any researcher would be remiss in not recognizing these variables and attempting to identify what they are and how they impact the level of loss within stores. This research project was an attempt at gathering a variety of variables surrounding and within stores, and determining the big picture of loss within one specialty retailer in the hopes that these results could be extrapolated to others. The results of this study seem to indicate that loss cannot be explained by one variable alone; rather it is a

combination of factors that contribute to a store being more or less vulnerable to both external and internal losses.

Based upon the available data collected in this study the ideal store would be a lifestyle center, in a suburban area with three doors, three managers and either side or center cash and wraps. These are the characteristics of stores based upon the research with a decrease in dollar loss. In contrast, the stores which would see an increase in loss would be those with 10 or more managers consisting mostly of multi-floor street locations with a combination of back wall and center cash and wraps, five or six doors, and found in metropolitan areas. The reader should note that none of the noteworthy variable relationships discussed here included the use of camera surveillance. In stark contrast to what the researcher would have predicted the use of camera surveillance had underwhelming influence on the dependent variables.

Case Results

In addition to the factors that may lead to total loss at the specialty retailer, the researcher was also interested in studying the individuals who have chosen to participate in some level of internal theft from the same retailer. Internal theft can be damaging to a single retailer, as such it seemed crucial to try and estimate the level of this activity at this retailer; as well as determine a general idea about the characteristics of those who are committing theft. The important characteristics to be analyzed were identified using the relevant research and the experience of the researcher.

Almost immediately into data collection, the researcher determined that while there were 682 total internal theft cases for the ten year time period being investigated; not all of those case files also had a written confessional statement. The decision was made to analyze all case files,

then to do a separate analysis of those with a statement and those without to determine if any major differences existed. The determination was that the available statistics for the case files without statements (n=286) were not much different from those with statements (n=396). As such there is no reason to believe that the confessional statements to be discussed in a latter section are not representative of most employees who took part in theft.

Most researchers conducting studies on the level of participation differences between men and women in property offenses found that women are committing property crimes at a rate similar to men. The results of this study were that women and men do commit internal theft within this specialty retailer at similar rates, but men outweighed women slightly in being caught for internal theft activities. Unfortunately, the human resources department was unwilling to share the overall sex breakdown within stores at the organization so the researcher has no way of knowing how these results compare to the total number of men and women employed at this retailer.

Age and occupational position were also identified in the reviewed research as variables which predict levels of loss within organizations. Often those who were hired for more marginal positions were younger individuals. The younger, marginal employees were frequently expected to do as much work as those in higher positions, but with less compensation and benefits (Tucker, 1989; Ghisell & Ismail, 1998). Therefore, these individuals become the most likely candidates to take part in employee deviance and theft. In the research, these employees were also more frequently considered short term personnel to the organization, therefore inherently lessening their feelings of loyalty to the organization (Tucker, 1989; Ghisell & Ismail, 1998).

The results of this study seemed to echo the results from the relevant literature. The majority of employees caught committing theft were male, young (18-25), marginal (sales associates), and short term employees (employed for less than one year). Furthermore, the justifications provided in the confessional statements and some of the responses provided by the loss prevention department lend support to the conclusions from the reviewed research about the factors that lead these demographic groups to commit theft at their retailer. One respondent wrote "I knew I was worth more" indicating that he or she was unhappy with their level of compensation for the duties performed. Another indicated that there was conflict with the management team at the store. These statements support the notion that marginal, young employees with short tenures are likely to express frustration with their compensation and benefits.

Some of the individuals from the loss prevention department, including the director, echoed this information. The respondents felt that younger individuals had a poor work ethic, believed that they are not being compensated fairly for the tasks they are being asked to perform by the organization, and that these same individuals are bringing college and credit card debt to the workplace. In order to compensate themselves for perceived injustices and to pay for these pre-existing debts, young people took short-term marginal positions and quickly began to steal.

Other loss prevention participants believed young people tended to steal for extra fun money believing they would never be caught by the organization, while older individuals took money for gambling debts, divorce, and medical bills. Yet another respondent indicated that younger individuals commit theft because they are trying to maintain an image, and use the brand (and subsequent theft from the brand) to maintain that image, whereas older individuals are taking because of necessity due to financial responsibility, drug problems, or debts. It is clear

from the responses that most loss prevention personnel believe that younger individuals are motivated by fun, maintenance of an image, credit card debts, and a general contention against hard work.

The total cost of employee theft for the ten years examined in the case files (n=682) was $704,121.10. The mean for internal loss for this ten year period was $1,043.14. The researcher was also interested in determining the percentage of total loss derived from internal theft. In order to compute this amount, the loss from internal theft cases from the years 2005 through 2012 was calculated separately as these were the years gathered from the total population. The cost of known employee theft from 2005 through 2012 was $569,602.47 with a mean loss of $1,099.62. Therefore, the cost of known internal theft was .21% of the total dollar loss from this particular retailer. In other words, it appears that this retailer is doing a good job of maintaining a low level of internal theft if we are to believe that the known theft is equitable to all internal theft. On the other hand, it is possible that the majority of internal theft is not being detected by the loss prevention department resulting in a lower level of internal dollar losses. Both options must be considered as it is difficult to truly tease out the differences between external and internal losses when there is no way of knowing the actual amount of internal theft that has occurred at the retailer.

Monetary costs were not the only organizational damages expressed by the loss prevention department personnel; some of the social costs of internal theft were also identified by the loss prevention members during their interviews with the researcher. According to the director, the organization puts time, money, and trust into employees and finding out they have been stealing from your organization can lead to imbalances within that individual store as well as the organization as a whole. The lack of commitment from an internal thief also leads to a lack

of diligence surrounding the stoppage of external theft. As an individual, especially a manager, spends their time focused on covering up their own discretions they cannot be focused on maintaining the policies and procedures of the organization. In general, internal theft is quite damaging to a retailer both internally and externally.

Motivational Statements

The last piece of the puzzle for this research study was the confessional statements provided by employees at the time of their final interview after being caught committing theft. The collection of the characteristics of these individuals was important in order to gain a clearer understanding of those who are more likely to steal from this employer. In addition, it was also important to establish the cost of these losses in order to clarify the effect of internal theft at the retailer. The last piece needed to establish clarity in the picture of internal theft was the identification of the reasons these individuals began to steal. As discussed in the previous sub-section, while 396 internal theft cases with statements were identified by the retailer for the ten year period studied; a mere 138 actually had a physical statement present when the researcher got into the file. The statistics from the case files are such that there really is no reason to believe that the statements are not representative of other employees who partook in larcenous activity.

A common theme throughout the reviewed literature was dissatisfaction among employees leading to a greater likelihood of theft. In contrast, this was not a common theme in the present research project. Although a few individuals identified a level of dissatisfaction in their statements, the majority of respondents did not expressly state a lack of satisfaction with their workplace. In fact, a great majority of individuals expressed remorse for their actions and adamantly indicated that the employer was not to blame for their participation in theft.

A few factors could explain this general lack of dissonance expressed by theft participants. It is possible that the employees at this organization feel that they are treated fairly and equitable, therefore making it harder to steal from the organization, or rather making it difficult to blame the organization for the pilferage. Another consideration for this lack of expressed organizational dissatisfaction may be that the individuals who were disgruntled did not compose statements for the loss prevention department. The demographic characteristics of those who chose to complete statements versus those who did not were similar, but one must still consider that the motivational differences for these individuals could vary.

In the reviewed literature, the researcher identified various motivational themes purported for internal theft participation. Some of those themes were present in the statements from the former employees when reviewed. According to Hogsett & Radig (1994), theft becomes an attractive way to handle personal financial problems. Individuals convince themselves that they will pay back the debt they have sustained while at work, but much like the rest of their financial issues they cannot stop and get in over their head (Hogsett & Radig, 1994). This type of theme emerged in the research in a majority of the statements. Almost 50 percent of the statements contained a financial theme for theft. The financial theme had six sub-categories for individuals who further elaborated on life details which led to participation in occupational theft.

In addition to the statements, several loss prevention members also discussed the financial pressures which lead employees into theft from work. Two member of the loss prevention department felt that some individuals are motivated by a personal financial need such as sickness, family issues, or even death. These factors are found within the letters composed by employees at the time of the investigation. Nine letters contained justifications whereby an individual's family financial needs had created some sort of strain. These individuals discussed

life events such as siblings with drug addictions and parents who are unemployed and in need of extra help. Six of the letters were personal medical issues or family medical issues, such as overpriced medications, parents having cancer, and grandparents who have numerous medical conditions like heart disease and diabetes. One respondent explained the difficulties of life after the death of a grandparent. This grandparent had a lot of debt from medical bills, and this debt fell onto the grandchild. The suggested motivations of the loss prevention members do appear to coincide with the justifications provided by some respondents.

Some of the other stressors that exist outside of the workplace environment identified in the research for theft involvement were debt, gambling, alimony, drugs, and both personal and familial medical bills (Hogsett & Radig, 1994). Approximately 11 percent of the total letter respondents indicated some level of debt or bills as the primary motivation for their theft participation at this retailer. These individuals cited a wide range of items as the source of their debt and/or bills. Some examples of these expenditures were bills, groceries, attending social functions (bar or nightclub), purchasing cigarettes or alcohol, gas money for a car, and the need for all new clothes due to weight loss. In general, these individuals did not appear to express remorse in their written statements at the time of the interview.

One loss prevention department member felt that the employees just do not believe they will be caught committing these acts so the benefit outweighs the cost in their mind. Sixteen of the employees caught for theft participation did indicate that their reason was simply an opportunity arose within the store and they made the decision to take it. Employees saw various incidents within the store as an opportunity for easy money. Opportunities such as a deposit bag full of cash being left unattended or a re-print of a charge approval slip for a customer. Others may have had the opportunity present itself in the form of a manager or co-worker explaining

how to commit fraudulent returns or a friend pressing the employee into overriding prices on items to create larger returns. Once these initial opportunities presented themselves and the employee was not caught right away, they seemed to rationalize that the behavior was acceptable and continued to participate in the theft.

Routine Activities Theory

Although the researcher did not test any one specific criminological theory in this study, some of the motivations provided in the case file confessional statements aligned with both the routine activities theory and the techniques of neutralizations discussed in chapter III. The components of the routine activities theory can be seen in the motivations coded as opportunity. A few respondents really narrow down onto the elements in their letters needed for crime to occur per the routine activities theory. An example from one letter has a former employee describing his family's poor financial situation creating a need for money (motivated offender), a management staff that often takes unauthorized breaks away from the store (lack of a capable guardian), and subsequently leaves their register keys with the sales associates to make managerial financial authorizations within the store (suitable target).

Another example from one of the letters of confession involves a sales associate describing an incident with a customer credit application. This particular associate described opening a credit account for a customer, printing two copies of the approval slip, keeping one of these copies, and using it to purchase a gift card at the store (suitable target). The employee then used the gift card to buy new clothes for him or herself online with an employee discount (motivated offender). A lack of follow-up by management was once again identified by the

associate, which led to this employee participating in theft due to opportunity (lack of a capable guardian).

One letter of confession details quite an elaborate scheme of refund fraud that went on for four months at one store location. This particular associate describes a scenario that began by happenstance and moved to a regular game of cat and mouse with the management at the store. This former employee explains that the first instance of theft was more of an accident when the register was over by five dollars. The associate did not want to get into trouble from management for the overage so it was pocketed; once this occurred said associate realized that fake returns could be completed at any time during a shift because the management team was leaving their register keys with the associate during an entire shift (lack of a capable guardian). The associate goes on to describe how this process became like a game; there was no financial strain, merely an individual who was looking to one up the management team and themselves each day at work (motivated offender). Finally, the store location became a suitable target for several reasons: the management team was not following up on refunds; they were leaving the office door open, and allowing sales associates to make crucial financial decisions at the register without guidance.

Techniques of Neutralization

While analyzing the statements for the motivations provided, the researcher also noted that numerous statements contained phrases and descriptions that could be categorized into the some of the techniques of neutralization. The "appeal to higher loyalties" neutralization materialized in several different statements. One respondent explained that the refund fraud was not occurring because of a need for money; rather this associate was attempting to improve the conversion rates within the store and help out the management team in increasing numbers. The

associate claim then is the deception was all for the greater good of the store, not for personal gain. Several other former employees claimed in their letters that the theft was not occurring for their own personal gain, but rather in an effort to help out a friend or a loved one. Once again, these individuals are insisting that the theft was not for them or about them, but for the greater good of someone they care about.

The "denial of responsibility" was also alluded to in a few letters by the writers. A poignant example of this neutralization came from one letter in particular. The writer of this letter expresses right from the beginning that this crime is a result of the bad economy citing that "desperate times, calls for desperate measures". This respondent continues on with the denial of responsibility by explaining that "my parents, when I was young used my social security number to get by either getting loans or filing their taxes". The associate claims that by the time this infraction was realized, the debt was already piled up with no sign of relief. Now, the individual is unable to ascertain a loan neither from a reputable bank nor from a friend. Therefore, this individual is not responsible for their subsequent actions while at work; perhaps there was no choice in the matter – the theft was inevitable.

Although a "denial of injury" is not explicitly stated in any of the letters; various letters without expressions of remorse do seem to allude to the writer's feelings that no one was truly hurt by his or her actions. For example, one respondent explains that the bank bag full of money was taken because someone else left the bag open and available. The individual further explains that once this money has been procured, then some merchandise is also taken, along with some money left on the counter. The individual realizes once in a car that perhaps this was wrong and returns the bag, but not before removing several hundred dollars from it. Implicitly the individual

does not see that anyone was hurt by these actions; the associate merely has a minor moral attack in regards to the bank bag.

The neutralizations of "denial of victim" and "condemnation of condemners" were not identified by the researcher during the statement analysis. These neutralizations would seem to coincide more with organizational motivations, which the researcher found very few of in the composed letters. It is plausible that these neutralizations would have been seen more from those individuals who chose to not write a statement of confession at the time of their interview. Perhaps those who would have offered condemnation of a superior felt that this was a pointless action given the circumstances at the time of their interview and subsequent termination.

Policy Implications

Obviously, it is impossible for this retailer to only construct lifestyle centers in suburban areas. The metropolitan market needs to be supplied with merchandise as there is a demand via geographical size and population density. The organization can focus on altering internal structural variables, such as the number of doors, use of camera surveillance, and location of cash and wrap. The organization may want to consider limiting the number of external doors on the high risk locations identified in this research. So, multi-floor stores in street locations within metropolitan areas would be target rich stores for internal structural changes.

Organizations should identify ways to reduce the norm of theft within their business, such as implementing prevention policies which reduce the physical opportunity for theft, create the sense that loss prevention is a top priority within the organization, and create workplace benefits which keep most employees satisfied with their current occupational position. One conclusion that the results of this research could lead to is that this particular retailer is doing an effective

job of controlling internal theft. The specific recommendations in regards to internal theft then would be to continue maintaining a strong presence from loss prevention in stores, and perhaps implement a stronger training program for management in stores which would further weed out potential deviants, and instruct management on how to identify changes in their associates which may lead to deviant behaviors.

The researcher recommends that retailers drill down into the relationships between environmental and structural variables and make the appropriate changes within areas where those alterations are possible. An example of this would be the relationship between the cash and wrap location and level of loss. A center located cash and wrap and a side cash and wrap were fairly similar in their impact upon dollar loss. Retailers who construct a variety of cash and wrap types should examine these variables, and the environment in which they are located to determine if there is more of a distinction between them. This determination would provide support for constructing either the center or side cash and wrap locations in stores to prevent subsequent loss.

The data collected in this study has implications in both the world of academia and in the business world, especially within loss prevention departments of specialty retailers. This is a relatively under-studied topic in the field of Criminology, and has the potential to be explored in further detail. Hopefully, this study is the catalyst for further research into other types of employee theft, employee deviance, workplace cultures and norms, and workplace ethics.

The results from this study could be used to create policies which greatly increase the effectiveness in the prevention of internal theft within specialty retail. This study could also provide tangible information for loss prevention personnel in specialty retail to use when

establishing hiring practices, and when trying to work with human resources on improving the culture of the business.

Limitations

Every study has limitations. The key is to identifying those limitations, and addressing them in the most efficient manner possible. The primary limitation of this study is the use of a single retailer for data collection. Ideally, one would collect data on various retailers for comparative analysis, as well as, to ensure validity and reliability of the findings. Although this data was derived from only one retail organization, the researcher feels that the information collected in this study is invaluable to understand factors which predict levels of loss within specialty retail. In addition, the researcher collected data on variables which are not unique to just this retailer; locations of cash and wraps, number of external doors, and the use of camera surveillance are all variables which can be gathered from any retail location. The popularity of the brand and the impact of that reputation on sales dollars is the only major factor which would lead to serious variance between retailers. The researcher attempted to address this issue by gathering both dollar loss and shrink percentage for analysis purposes.

The lack of access to more than one year of data on management turnover also created limitations in the study. The inability to compare stores from year to year on rate of turnover and to assess the impact of this turnover limits the conclusions one can draw about the importance of management turnover on loss within the retailer. The lack of statistical strength for these variables cements the need for multiple years of data from the same retailer. The author was cautious in interpreting this data due to the lack of multiple years and would have been even more vigilante should the data have produced more meaningful results for these variables.

Ideally the researcher would have been able to ascertain management turnover data for the same number of years as the remaining variables.

The variable, use of camera surveillance, was expected to have more of an impact on the dependent variable of loss prior to data collection. The strength of this variable was disappointing and may be linked to the lack of information on when, or if, remodeled store locations moved from no camera surveillance to a form of surveillance. The inability to compare stores from year to year on the installation of CCTV or PVM was also a limitation.

Additionally, not all internal theft cases had a statement present which could be leading to marked differences in the motivational categories established. The demographic characteristics were not significantly different between those who chose to write a statement and those who did not. As discussed previously though, it is still possible that there are substantial differences in the motivations or justifications that would have been provided by the outlying employees. Finally, the researcher was unable to ascertain data on the demographics of all store employees in general in order to compare it to those who have been separated from theft. Therefore, it is impossible to determine if the demographics of those who have been caught committing theft are representative of the total population of store employees.

Future Research

Any good piece of research should answer all of the proposed questions and hypothesis and leave the reader and researcher asking even more questions. Future research would include data collection and analysis from other specialty retailers in order to compare the results found in this study to other organizations. The examination of all management variables for multiple years would be a primary focus of a future research project. In order to gain a clearer picture of

the impact of management turnover on dollar loss and shrink percentage, it is important to gather several years of data for comparison.

In addition, future research in this subject area would include a comparison between the stores that did not have any form of camera surveillance initially and those same stores once a PVM was installed. It would be interesting to determine the difference in loss between the years without any surveillance versus the subsequent years with surveillance. Gathering this data would also allow the researcher to determine the level of strength the use of surveillance has as a variable in a more complete way.

Furthermore, future research would include interviews with individuals who have been caught committing theft at the time of separation. Ideally, the researcher would propose a project that includes presence at the interviews conducted by the loss prevention department at the time of an investigation. In order to gain a clearer understanding about the motivations of offenders, the researcher believes it would be better for her to be present at the time of the questioning by the loss prevention department. This would allow the researcher to control for specific questions in regards to motivations and to probe further should the need arise. This type of research would contribute greatly to the already existing literature on attitudes and beliefs of those who commit theft from their employee.

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Appendix A

Code Sheet for Variables

	Unit of Analysis1: Individual Stores	
Number	Variable Name	Value label
1	Store	Assigned number
2	Store Location	State
3	Store Location Type	0= Outlets 1= Malls 2=Lifestyle Centers 3=Street Location 4=Strip Center 5=Mills 6=Beach Store
4	Store Location Environment	0=Rural 1=Suburban 2=Metropolitan
5	Yearly Loss	$0.00
6	Yearly Shrinkage percent	0.00%
7	Number of managers per store per year	1,2,3, …23
8	Management Turnover	0-100%
9	Store Sales Volume	$0.00
10	Cash & Wrap location	0=Side 1= Center 2= Front Corner 3= Backwall
11	Number of doors (front and back)	1,2,3,…6
12	CCTV/PVM	0 = No 1 = PVM 2= CCTV 3= Both
	Unit of Analysis2: Individual Cases	
1	Sex	0 = Female 1= Male
2	Age	Years
3	Tenure of employment	Months
4	Position	0 = Associate 1 = Keyholder 2 = Assistant Manager 3 = Store Manager
5	Total Loss as a result of fraud	$0.00
6	Year of theft	Year

7	Store (Year of theft only)	Assigned number
8	Store Location (Year of theft only)	State
9	Shrink percentage the year(s) of theft	0.00%
10	Total Loss in dollars (Year of theft only)	$0.00
11	Number of managers in store in yr of theft	1,2,3,
12	Management Turnover (Year of theft only)	0-100%
13	Store Sales Volume (Year of theft only)	$0.00
14	Cash & Wrap location (Year of theft only)	0=Side 1= Center
15	Number of doors (front and back) Year of theft only	1,2,3,
16	CCTV/PVM (Year of theft only)	0 = No 1 = Yes
17	Statement	0 = No 1 = Yes
18	Organizational Motivations	Pay Benefits Feeling like I matter Any other response as they arise
19	Personal Motivations	Financial Family aka Divorce Health problems Drug/Alcohol Problems Any other response as they arise

Appendix B

Interview Guides

The following will serve as a guide for conducting interviews with the loss prevention director. The questions will be posed in a general, probative fashion in order to illicit lengthy responses from the director.

The researcher may forego introductions and ice breaker exercises as she has had prior contact with the director of the loss prevention department.

How did you get started in loss prevention? (Should this not compel the responses the researcher is looking for follow-up questions will be asked such as what year did you begin working for the department? What was your background prior to working in the department?)

In what year was the loss prevention department implemented?

How many individuals are currently employed in the department?

Approximately how many cases per year does the department take on for refund fraud?

What are the procedures for handling internal theft cases? (Follow-up questions if necessary: Does the department always terminate? Prosecute? Attempt to receive restitution?)

What level of impact do you feel employee theft has on the business? (Follow-up questions if necessary: What is the dollar loss from internal theft for each year the department has been in existence? What is the shrink percent for each year? How much does internal theft impact the overall shrink percentage?)

What factors do you believe lead to internal theft? External theft? (Why? How?)

What store locations do you feel are more likely to experience internal theft? External theft? (Why? How?)

==========

Following these questions, the researcher will be posing questions in regards to specific types of prevention techniques that may or may not be employed by the department. The specific groupings will not be identified to the participants; rather they are intended as a guide for the researcher.

The following are designed to gain an understanding about the use of Pre-employment Integrity Screening Measures.

Do you complete total background checks on potential store employees? (Follow-up questions if necessary: Do you complete criminal conviction checks on all store employees? Is there a

universal verification of employment history for all store employees? Does the organization complete reference checks on all store employees? Who completes these checks? Do all store employees have an education verification completed prior to hiring?)

Are store employees subjected to multiple interviews?

Are all store employees subjected to drug screenings?

The following are designed to gain an understanding about the use of Loss Prevention Awareness Programs.

Do you feel store employees are made aware of a loss prevention presence?

What programs do you have in place to maintain awareness of loss prevention?

How often are loss prevention personnel actually present in stores?

The following are designed to gain an understanding of the use of Asset Controls.

Describe the policies put into place in all stores? (Follow-up questions if needed: Do you have uniform refund controls put into place in stores? What are the tenets of these controls? Are there void controls as well? What are the specifics of these controls?)

Do you use an exception reporting software to monitor all control systems i.e. refunds and voids? If so, please describe how this works.

The following are designed to gain an understanding of the Loss Prevention Systems in place.

Describe the type of surveillance used by the organization. (Follow-up questions if needed: Does every store have an alarm? Why or why not? How many stores have CCTV or PVM? What requirements do stores need to meet in order to have these installed at their location? Where are these devices located?)

Do all stores utilize benefit denial devices?

What systems do you feel are the most effective at deterring internal theft?

Interview Guide for loss prevention personnel

The following will serve as a guide for conducting interviews with the loss prevention personnel for the various regions across the United States and Canada. The questions will be posed in a general, probative fashion in order to illicit lengthy responses from each individual.

The researcher may forego introductions and ice breaker exercises as she has had prior contact with the members of the loss prevention department.

How did you get started in loss prevention? What was your background prior to working in the department? What was appealing about loss prevention to you?

Approximately how many cases per year do you take on for refund fraud? Cash/deposit theft?

What do you feel motivates employees to commit theft? Do you feel these motivations may vary between men and women, age groups?

What factors do you believe lead to internal theft within the organization? External theft? (Why? How?)

What store locations in your area do you feel are more likely to experience internal theft? External theft? (Why? How?)

==========

The following are designed to gain an understanding about the use of Loss Prevention Awareness Programs.

Do you feel store employees are made aware of a loss prevention presence?

What programs do ***you*** have in place to maintain awareness of loss prevention?

How often are loss prevention personnel (you) actually present in stores?

==========

The following are designed to gain an understanding of the Loss Prevention Systems in place.

Do all of your stores have an alarm? Why or why not? How many of your stores have CCTV or PVM? What requirements do stores need to meet in order to have these installed at their location?)

Do all stores utilize benefit denial devices?

What systems do you feel are the most effective at deterring internal theft? External theft?

Appendix C

Interview Informed Consent Form

Voluntary Informed Consent Form
Individual Interviews

I would like to invite you to participant in a research study. I ask that you please review the following information so that you can make an informed decision in regard to your participation in this project. If you choose to participate, please keep in mind that if you have any questions, about this study at any time, please do not hesitate to ask. You are eligible to participate because you are a member of the loss prevention department and you are at least 18 years old.

The purpose of this study is to examine loss within specialty retail and the factors that may lead to or prevent that loss. The interview is expected to last between 60-90 minutes. However, this is only an estimate. The interview may be broken into several shorter interviews if there is a scheduling conflict with your participation.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators or IUP. Your decision will not result in any loss of benefits to which you are otherwise entitled. You will receive two copies of this consent form. One will be signed by you and kept on file with the researcher, and one copy you will keep for your personal records. There are no known risks associated with this research. The information gained will help raise awareness about loss in specialty retail, and will add to the current literature and aide in future research on this topic.

I will be making notes during the interview session. Following the interview all notes will be transcribed on a computer and will exclude any information that can be used to identify you. After transcription, all field notes will be destroyed. I will use quotes in my dissertation, but no identifying information will be used in the dissertation or future publications. To protect the participants, information will be stored under lock and key for a period of three years. This is procedure under federal law.

If you are willing to participate please sign and date the attached form. If you do now wish to proceed with participation in this study, I would like to thank you for your time and consideration of this matter.

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Email: dgiever@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724-357-7730).

After reviewing the following information provided by the researcher, I volunteer to participate in this research study. I understand that information I provide will be kept confidential and no indentifying information will be used. I understand that my participation is completely voluntary and that I may withdraw from participation in this study at any time without adversely affecting my relationship with the investigators or IUP.

Name (Please Print): _____

Signature:_____

Date:_____

I hereby certify that I have explained to the participant the nature of this study, potential benefits, and possible risks associated with participation. I have given the opportunity for questions to be asked and answered in regard to this study.

Signed:_____

Date:_____

Contact information:

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Appendix D

IRB Protocol

Log Number _____

Indiana University of Pennsylvania Institutional Review Board

for the Protection of Human Subjects

Human Subjects Review Protocol

1. Principal Investigator

Name Dana N. Baxter Department Criminology

Position/Rank Doctoral Candidate E-Mail Address: d.n.baxter@iup.edu

Address 416 Ten Point Ln

Cranberry Twp, PA 16066

Phone where you can be reached during the day 814-574-1502

Date of Submission May 11,2012

2. Co-Investigator (e.g. thesis/dissertation committee chair; use a second sheet for any additional names):

Name Dr. Dennis Giever Department Criminology

Position/Rank Professor Office Phone 724-357-6941

Address G-12 Wilson Hall E-Mail Address dgiever@iup.edu

3. Project Title: Who is Stealing the Shirt off of your back? A multi-method analysis of theft in specialty retail

4. Check one: Thesis Dissertation X Faculty Research

Student Research Staff Research

Dates during which project will be conducted: From May 2012 To Aug 2012

5. A. Project Funding Source: Check as many as apply:

External Grant: Agency name: IUP Grant

X Non-funded research

Other

B. If grant funded, application deadline or date of transmitted_____
(Please submit one copy of grant proposal as soon as it is available).

6. Consider each of the following separately and place an X next to each to indicate that the information is complete. PLEASE NUMBER ALL PAGES!!!

_X_ A. PURPOSE, RESEARCH VARIABLES, AND POPULATION

Purpose of the study-State concisely and realistically what the study is intended to accomplish.

The purpose of this study is to explore both internal and external theft at one specialty retailer. The research will be conducted at the corporate offices of the specialty retailer using a loss prevention database with information on all stores, case files from terminated employees, and interviews with loss prevention personnel. The population for this study will be a specialty retailer with locations across the United States and Canada with a loss prevention department that has been in place for a little over 15 years. The initial phase of research will be a total population design including all store records for the 15 year time period of the department. The second phase will be a non-probability sample of case files gathered by the department on individuals who have been caught and admitted to employee theft. These files contain details of the cases such as the birth date and name of the former employee; how long they were employed and what position they held; as well as, the total dollar loss and a statement of confession composed by the individual at the time of their integrity interview. Finally, qualitative interviews will be completed with specific loss prevention personnel to gain additional insight into the losses that occur at this particular specialty retailer. The ultimate goal is not only to add to the limited research in this area, but also understand this behavior to determine future policy recommendations.

Background-Briefly state the background of the study, including some relevant references and identify the main questions the current study is intended to address.

Currently, business crime costs the United States approximately $186 billion annually (Kuratko, Hornsby, Naffziger & Hodgetts, 2000). Most individuals spend the majority of their adult lives at their workplace; making the study of occupational deviance and theft critical in the field of criminology, as the inclination towards criminal activity does not disappear once an individual enters into the workplace. Employee theft is one of the most rampant and costly issues faced by today's public and private business owners (Kane & Lybarger, 2002).

At this time there is no other type of larceny that costs the American public more than employee theft (Hollinger & Adams, 2007). The estimated cost of employee theft on business at the end of fiscal year 2006 was $19 billion (Hollinger & Adams, 2007). This is a large amount of revenue that has to be made up by retailers in some way, and in most cases the consumer pays the price with an increase in the cost of goods and services (Hollinger & Clark, 1983; Rosoff, Pontell & Tillman, 2002). Employee theft can be up to ten times as costly as street crime (Hollinger & Adams, 2007; Kulas, McInnerney, DeMuth, & Jadwinski, 2007). According to Hollinger & Adams (2007), retailers can credit 47% of the company's total losses to employee theft (p.7). Employee theft may not be as visible to the public and may not garner the kind of attention from the news media that street crimes do, but it creates a serious financial

burden on the public. The study of this crime and the motivations for committing this crime are critical to gaining a greater understanding of criminal activity as a whole.

Shoplifting has become much more problematic in recent years due to the surge of crime groups known as organized retail crime (ORC) rings targeting specialty retailers. Retailers not only have to be concerned about those within their organization but the individuals outside as well who may be devising a plan to remove large amounts of merchandise from various store locations. The estimated cost of shoplifting for retailers in 2006 was $13 billion dollars (Hollinger & Adams, 2007). The losses suffered by retailers from shoplifting is approaching similar levels to the losses suffered by victims of all personal property crimes combined (Hollinger & Adams, 2007). Shoplifting contributed to 32% of total losses for organizations in 2006 (Hollinger & Adams, 2007).

The lack of widespread interest in retail theft, in general, and especially with examining the variables which lead to loss is the catalyst for the proposed study. In general, most research focused on the socioeconomic status of the offender, their position within the organization, and offender motivations (Hollinger & Clark, 1983; Tucker, 1989; Walsh, 2000; Kane & Lybarger, 2002). The results of this research often found that those with a marginal position and short tenure felt dissatisfied with their current situation within the work environment (Hollinger & Clark, 1983; Tucker, 1989; Walsh, 2000; Kane & Lybarger, 2002). These feelings of dissatisfaction often led to employee theft and deviance. The research reviewed did not contain any studies where a multitude of characteristics of individuals were taken into account to determine what may shape their motivational choices. In addition, there was a general lack of studies on both environmental and internal factors within individual store locations that could lead to an increase in loss for that particular location.

It is expected that the current study will significantly contribute to the literature on loss among specialty retailers, especially in consideration of the lack of research on both internal and external variables which may lead to loss and the motivational choices of those caught participating in internal theft. The proposed research project will attempt to address five major points; how much theft is occurring, what factors at an individual store level are the most significant at predicting theft at one particular specialty retailer, who is being caught committing internal theft, what are the motivations for the internal theft, and what kind of opportunity for the theft exists. It is expected that the results of the proposed study should lead to a greater understanding of loss and the factors that contribute to loss at specialty retailers.

Characteristics of the Subject Population-The following information should be provided:

a. Age Range-What is the age range and why was it chosen?

The age range for the study will be individuals at the age of 18 and beyond. This is due to the group of individuals being examined via the case files. Most of these individuals are former managers at the retailer and no one under the age of 18 is permitted to be appointed to a management position.

b. Sex-What is the sex of the subjects? If there is a restriction, provide the rationale.
Male and female former employees will be used.

c. Number-What is the estimated number of subjects?

The estimated number of individual case files is 130. The number of interview participants should be a random sample of 8 (director and several loss prevention managers/personnel).

d. Inclusion Criteria-What are the specific inclusion criteria?

The inclusion criterion for the study is that the participants must have a case file on site with the loss prevention department at the retailer. These individuals should have been terminated at this point. The researcher will not examine any "open" case files for individuals who have not been terminated at the time of collection. The researcher should not require the individuals' consent as these are official records maintained by the loss prevention department on internal theft cases. The loss prevention personnel will also be included in interviews as they are the experts on loss and factors associated with loss at this retailer.

e. Exclusion Criteria-What are the specific exclusion criteria? Clear rationale should be provided for the exclusion of any particular population group, unless the title of the study reflects the restricted population range.

N/A

f. Vulnerable Subjects-If vulnerable subjects will be included (children, pregnant women, fetuses, prisoners, mentally disabled persons), provide justification of the need to use these subjects in research.

N/A

X B. METHODS AND PROCEDURES

Method of Subject Selection-Describe the study's method(s) of identification and recruitment of prospective subjects. Provide a copy of any planned advertisements.

The proposed research study will include three phases of data collection and therefore various subjects and subject selection. The initial collection will be a total population design with a non-probability sample as the researcher is looking to compare all stores at the retailer for the variables that predict loss on a yearly basis. This portion does not involve the use of human subjects as the researcher is examining stores at the company and their external and internal attributes.

The researcher also wants to examine a specific subgroup of individuals for their participation in internal theft in the form of refund fraud. This portion will be completed using case files on individuals who have been caught and terminated from the retailer for internal theft. A purposeful sampling strategy will be utilized for the individual case files as the researcher feels that each case file will be critical for establishing the cost of internal theft, the motivation behind that theft, in addition to answering the demographic research questions about who is committing internal theft at this particular retailer.

Finally, the researcher will be conducting interviews with the director of loss prevention, as well as, other members of the loss prevention department. The participants of the proposed research will be selected using simple random sampling. A group of 8 will be selected from the entire department personnel population. These interviews will be used to provide the researcher with details on the various techniques utilized by the organization to prevent theft from occurring in their stores. The effectiveness of these techniques will be discussed in terms of overall loss and loss on an individual store basis.

Study Site-State the location(s) where the study will be conducted. Include letters of approval to conduct the study from all non-IUP sites.

The site of this study is a specialty apparel retailer. This particular retailer has been in business for over 30 years, specializes in young women's and young men's specialty brand apparel, and has store locations all across the United States, Canada and Puerto Rico. The retailer has case files spanning the past 15 years on former employees who have been caught committing theft. These case files contain demographic information on the terminated employees such as birth date, names, tenure with organization, occupational position, type of theft, store location, etc. In addition to this valuable information, the case files also contain confession statements composed by the former employee at the time of the investigation. The director of the loss prevention department has provided the researcher with specific access to all case files from 1995 through 2011. In addition to the case files, the department director has also provided access to all store datasets which are relevant to theft in any way.

Methods and Procedures Applied to Human Subjects-Describe in detail the study design and all procedures (sequentially) to be applied to subjects. Attach copies of any instruments to be used, such as surveys, rating scales, or questionnaires.

The data collection design for the proposed study will be a total population design. The majority of the research will be nonreactive in the form of store attribute analysis, individual case analysis and narrative studies. The remainder of the research will be done via qualitative interviews with experts in the loss prevention field.

In the initial phase of the proposed research, the researcher will be examining all of the store locations for the specialty retailer for the loss incurred at each individual location. The retailer has a total of 1095 stores located in the United States, Canada and Puerto Rico. The researcher will be reviewing these stores throughout the 15 year period the loss prevention department has been in existence, therefore there is a potential for the researcher to have almost 15,000 cases. It is important to note that not all of these stores have been in existence over the entire 15 year period as stores are constantly being built and remodeled meaning the total case number will not be known until the data collection is complete. Each store will have an entry in the dataset for each year it has been in existence since 1995. The researcher will gather store characteristics that will be used to predict a level of theft per store location and to verify which characteristics are the most important in determining theft within stores. The characteristics will be the state in which the store is located, the type of mall location, the type of environment around the store, location of registers for checkout, use of surveillance equipment, number of doors, number of managers and management turnover.

In the second phase, the researcher has access to approximately 131 case files which contain both demographic data and a confession statement. The review of the case files of individuals who have been caught committing theft and terminated from the retailer over the time period of 1995 through 2011 should allow the researcher to determine who the most likely individual to be caught committing theft would be, their motivation behind the theft and whether this motivation varies amongst the demographic categories being collected in the research process. These individual case files contain the necessary demographic information that will allow the researcher to group them into categories based upon age, sex, position and tenure within the organization. The primary 131 case files also contain the statements of confession, which the researcher hopes will detail the motivations behind the theft. These case files are official records maintained by the loss prevention department at the retailer.

The final phase of the proposed research will be qualitative interviews with members of the loss prevention department and the director of loss prevention. The members of the loss prevention department chosen as participants will be randomly selected from the total work group at the retailer. The researcher will randomly select 8 participants to interview via phone as they are located in various regions across the country. The qualitative interviews with the loss prevention personnel and the director of loss prevention will be instrumental in determining the amount of internal theft the organization has experienced on a yearly basis since 1995. The case files will contain data on the dollar loss for each individual theft which the researcher can extrapolate to a total sum. This information coupled with the interviews will provide the dollar loss from theft as well as the frequency of theft i.e. shrinkage percent for the whole organization. The interviews will also provide the researcher with details on the various techniques utilized by the organization to prevent theft from occurring in their stores. The effectiveness of these techniques will be discussed in terms of overall loss and loss on an individual store basis. The interview guide for the director of loss prevention can be found in Appendix B. The interview guide for the other members of the loss prevention department can be found in Appendix D.

X C. RISKS/BENEFITS

Potential Risks-Identify the potential risks of the study. Specify the types and levels of risk.

No known harm or risk should occur as a result of participating in this study.

Protection Against Risks-For all studies involving greater than minimal risk, specify the procedures for preventing or minimizing any potential risks.

No known harm or risk should occur during/after participation in the study.

Potential Benefits-Describe any potential non-monetary benefits of the study, both for subjects and for society in general.

Employing nonreactive research methods has several benefits especially in regards to the researcher/subject relationship. The nonreactive data collection is cost effective and allows the researcher to gather and transform data without any harm to participants (Brewer & Hunter, 2006). The data can be collected unobtrusively to avoid subject reaction as the participants are unaware the research is occurring (Brewer & Hunter, 2006). Also, nonreactive data collection helps to reduce reactivity as the researcher is merely analyzing existing data rather than interacting with human subjects. The researcher is trying to achieve a certain level of interdependence among the data collection methods in order to determine if there is a level of theoretical significance for who commits theft and why they do it within this organization. The researcher is creating a new perspective in regards to employee theft by combining variables that have previously been examined separately into a three prong approach to determine the who, the why and the opportunity for theft within an organization. This multi-method approach encourages creativity and openness in this process of theory creation (Brewer & Hunter, 2006).

All of the methods employed will contribute to determining how much theft is occurring, what variables are leading to this theft, who the most likely individual to be caught committing theft will be, what the motivations of this individual are and the opportunity for theft that exists within this retail organization. These results are not only beneficial to the organization participating in the study, but to the entire field of criminology in gaining a better understanding of crime in the retail sector. The results should contribute to better policies on practices within the retailer to prevent and control theft in the future. In addition, the results may be used to assist other retailers in gaining a clearer understanding of how their policies should change to prevent theft. While these policy implications are important, the contributions that the proposed research would make to the overall field of criminology are critical to establishing an understanding of retail theft and the factors that contribute to this theft, as well as, the cost that this type of behavior has on society.

Compensation for Participation-Describe any monetary or other forms of compensation which will be provided to subjects, and any conditions which must be fulfilled to receive compensation.

There will be no compensation to participate in the current proposed research study.

Alternatives to Participation-Describe any alternatives to participation in the study which might be advantageous to the subject. If the subjects are to receive academic credit for research participation, describe the alternatives available to earn equivalent academic credit.

There is no alternative to participation in the study.

Information Withheld-Identify the nature of any information to be purposely withheld from subjects, and provide justification for the non-disclosure.

N/A

Debriefing-Describe the procedure for post-study debriefing of subjects.

N/A

_X_ D. CONFIDENTIALITY

Describe explicitly how confidentiality of data will be maintained. If any information with subject identifiers will be released, specify the recipients. Include a statement that all data will be retained for at least three years in compliance with federal regulations.

All research materials will be kept in a locked, secure location for a time no less than five years in order to be compliant with federal regulations. In order to protect confidentiality in the first portion of the data collection, the researcher will be coding all variables

collected on the stores using a code sheet. Once all data has been collected, the researcher will destroy the code sheet so the individual stores cannot be identified.

In the second phase of collection, the notes of the researcher which will contain identifying information of the former employees (in the case files) will be destroyed once the dataset is complete so no one else gains access to this information. The case files will be coded for identification purposes to the researcher. The case files contain the birth date of each individual caught committing theft, which will be used to determine the age of the former employee at the time of the incident. Once the actual age has been calculated by the researcher, the birth date will be destroyed. In addition, the case files do not implicitly state the sex of the former employee, but they do contain the names of the individuals and details in regards to the case which will allow the researcher to infer the sex of the individual. After the researcher has established the sex of all individuals from the case files, the names will be destroyed from all datasets. The tenure of employment will be calculated using the date of hire and date of the case file. In similar fashion to the birth date, once this has been determined the hire date will be destroyed from the dataset. At the conclusion of the data collection, all of the identifying information will be destroyed and only the coded data will remain. This is done to protect the terminated employees from any further legal action, consequences at a new employer, or from being identified in the research in any way. The researcher will take all necessary precautions to ensure the identity of those included in the case files is protected.

Finally, the researcher will be providing the participating members of the loss prevention department with a consent form prior to their interviews which explains that while the information provided will be detailed in the final dissertation, the names and specific identifiers will be removed. In addition, the researcher has developed two separate interview guides eliminating all questions from the personnel interview guide that could potentially indentify who the respondent is. The researcher will once again take notes on all conversations with these individuals and destroy all identifiers once the interviews have been concluded.

COPY OF CONSENT FORM

See Appendix C for individual interview consent form

7. <u>Protected Populations and Sensitive Subjects</u>: If <u>any</u> Human Subjects from the following list would be involved in the proposed activity, place an X next to the category.

__minors __fetuses __pregnant women

__test subjects for __abortuses _X_illegal behavior __new drugs or clinical devices __incarcerated __mentally disabled

__educationally or economically disadvantaged persons

8. <u>Nature of Risk</u>. In your judgment, does your research involve more than minimal risk? "Minimal risk" means that the risk of harm anticipated in the proposed research is not more likely than those risks encountered in daily life, or during routine physical or psychological examinations/tests.

____Yes **___X__No**

9. **In your judgment, does your research fall under one of the six exempt categories? (List of Exempt Categories attached.) If you believe it does, indicate the number of the category under which you are claiming an exemption.**

   No

10. **Does your project fall under one of the categories eligible for expedited review? (List of Expedited Review Categories attached.) If you believe it does, indicate the number of the category under which you are claiming expedited review.**

    Yes, category 3: study of existing data, documents, records, etc

11. **Additions to or changes in procedures involving human subjects as well as any problems connected with the use of human subjects once the project has begun must be brought to the attention of the IRB.**

    I agree to provide whatever surveillance is necessary to ensure that the rights and welfare of the human subjects are properly protected. I understand that I cannot initiate any contact with human subjects before I have received approval/or complied with all contingencies made in connection with the approval. I understand that as the principal investigator I am ultimately responsible for the welfare and protection of human subjects and will carry out the project as approved.

    _____

    Signature of Principal Investigator/Program Director **Date**

12. **Approval by Faculty Sponsor <u>(REQUIRED FOR ALL STUDENTS</u>**

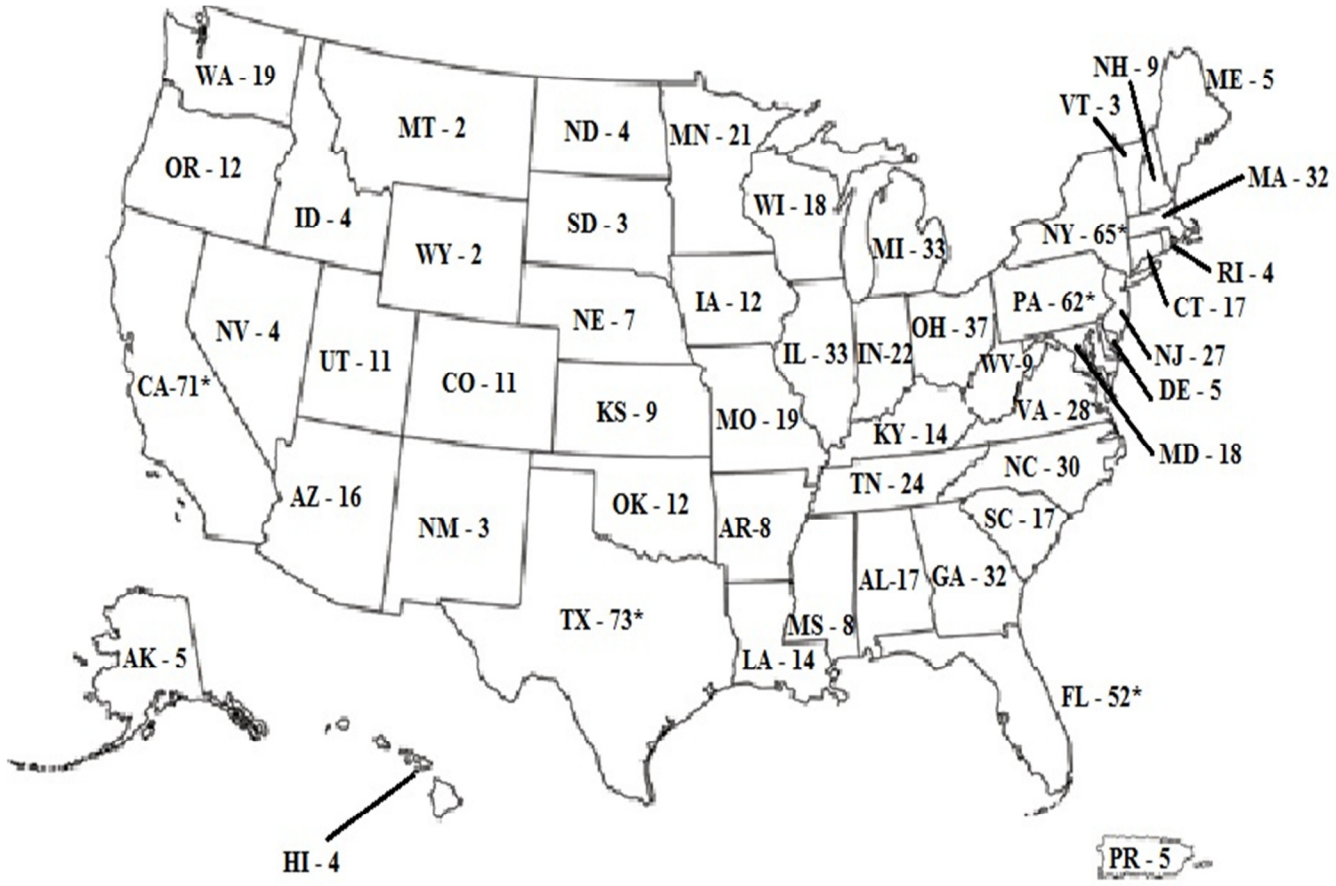
I affirm the accuracy of this application, and I accept the responsibility for the conduct of this research and supervision of human subjects as required by law. THE PROPOSED PROJECT HAS BEEN APPROVED BY THE THESIS/DISSERTATION COMMITTEE.

_____

Signature Date

Appendix E

Map of Stores



*= the top five states in number of store locations

Appendix F

Store Location Frequency

Store Location		
State	Frequency	Percent
AB	13	1.2
AK	5	.5
AL	17	1.6
AR	8	.7
AZ	16	1.5
BC	13	1.2
CA	71	6.6
CO	11	1.0
CT	17	1.6
DE	5	.5
FL	52	4.9
GA	32	3.0
HI	4	.4
IA	12	1.1
ID	4	.4
IL	33	3.1
IN	22	2.1
KS	9	.8
KY	14	1.3
LA	14	1.3
MA	32	3.0
MB	2	.2
MD	18	1.7
ME	5	.5
MI	33	3.1
MN	21	2.0
MO	19	1.8
MS	8	.7
MT	2	.2
NB	4	.4
NC	30	2.8
ND	4	.4
NE	7	.7
NH	9	.8
NJ	27	2.5
NL	1	.1
NM	3	.3
NS	3	.3
NV	4	.4
NY	65	6.1
OH	37	3.5
OK	12	1.1
ON	49	4.6

OR	12	1.1
PA	62	5.8
PR	5	.5
QC	9	.8
RI	4	.4
SC	17	1.6
SD	3	.3
SK	2	.2
TN	24	2.2
TX	73	6.8
UT	11	1.0
VA	28	2.6
VT	3	.3
WA	19	1.8
WI	18	1.7
WV	9	.8
WY	2	.2
Total	1068	100.00

Appendix G

Dollar Loss by State or Province

Shrink Dollars			
State	Mean	N	Std. Deviation
AB	30204.38	13	21388.50
AK	31363.00	5	14527.16
AL	28355.88	17	15867.58
AR	25235.63	8	12445.14
AZ	28248.31	16	14306.41
BC	28632.08	13	16244.85
CA	38737.14	71	18222.74
CO	29042.45	11	10753.30
CT	34132.00	17	20918.20
DE	50136.00	5	16856.40
FL	35957.48	52	22367.12
GA	34452.84	32	17485.24
HI	39776.50	4	10236.03
IA	19536.83	12	9369.94
ID	17509.50	4	14554.79
IL	33691.49	33	20537.99
IN	31182.90	22	16516.14
KS	23788.89	9	16786.41
KY	38507.21	14	31233.35
LA	35294.36	14	16279.93
MA	36991.78	32	20505.42
MB	27381.00	2	2834.08
MD	42313.56	18	19343.37
ME	29601.80	5	19297.23
MI	27316.91	33	14097.14
MN	29475.38	21	17605.40
MO	29023.37	19	13969.49
MS	34162.00	8	8982.80
MT	23187.50	2	5859.79
NB	30094.50	4	15529.62
NC	29746.83	30	16953.73
ND	19173.50	4	15529.62
NE	19872.29	7	9803.17
NH	38806.00	9	26856.66
NJ	37824.14	27	19030.81
NL	40071.14	1	
NM	32198.33	3	15296.19
NS	31602.33	3	25951.47
NV	26046.00	4	4625.85
NY	46477.34	65	35960.78
OH	33951.08	37	16720.06
OK	33306.42	12	19877.84
ON	34730.43	49	23514.47

OR	29404.75	12	11423.34
PA	28597.39	62	17183.54
PR	43074.80	5	23228.98
QC	23137.56	9	12915.06
RI	37322.75	4	25122.25
SC	28808.41	17	13602.21
SD	24508.00	3	21861.85
SK	11207.07	2	3094.30
TN	34949.21	24	20562.81
TX	46733.17	73	39461.31
UT	27256.64	11	13521.31
VA	33876.18	28	13813.29
VT	22712.33	3	7924.51
WA	30445.05	19	13523.82
WI	31396.67	18	15182.88
WV	27025.00	9	19734.02
WY	12007.64	2	3840.30
Total	36209.65	1068	26835.72

Appendix H

Shrink Percentage by State or Province

Shrink Percent			
State	Mean	N	Std. Deviation
AB	1.28	13	.56
AK	1.55	5	.26
AL	1.44	17	.47
AR	1.23	8	.32
AZ	1.73	16	.64
BC	1.36	13	.61
CA	2.17	71	.78
CO	1.65	11	.35
CT	2.04	17	.77
DE	2.24	5	.17
FL	1.65	52	.52
GA	1.65	32	.50
HI	2.12	4	1.13
IA	1.18	12	.62
ID	.83	4	.32
IL	1.49	33	.52
IN	1.45	22	.50
KS	1.08	9	.31
KY	1.68	14	.60
LA	1.57	14	.59
MA	1.76	32	.41
MB	1.04	2	.13
MD	2.28	18	1.28
ME	1.10	5	.42
MI	1.28	33	.40
MN	1.33	21	.43
MO	1.31	19	.42
MS	1.55	8	.44
MT	1.08	2	.35
NB	1.25	4	.41
NC	1.43	30	.37
ND	.76	4	.28
NE	1.32	7	.29
NH	1.71	9	.46
NJ	1.62	27	.44
NL	1.26	1	
NM	1.80	3	.31

NS	1.21	3	.54
NV	1.61	4	.32
NY	1.67	65	.69
OH	1.53	37	.57
OK	1.68	12	.33
ON	1.61	49	.76
OR	1.69	12	.47
PA	1.31	62	.40
PR	1.49	5	.44
QC	1.24	9	.73
RI	1.63	4	.26
SC	1.38	17	.30
SD	1.04	3	.34
SK	.60	2	.24
TN	1.48	24	.67
TX	1.74	73	.57
UT	1.51	11	.42
VA	1.65	28	.28
VT	1.79	3	.26
WA	1.40	19	.40
WI	1.25	18	.46
WV	1.21	9	.38
WY	.95	2	.49
Total	1.57	1068	.62

Appendix I

Analysis of Variance for Dollar Loss and Management Turnover

Shrink Dollars and Management Turnover			
Management Turnover	Mean	N	Std. Deviation
0.00%	39627.66	307	35973.336
1.45%	82679.00	1	
1.61%	53135.00	2	35327.055
1.72%	73595.00	1	
1.78%	129950.00	1	
1.82%	64002.00	2	37553.027
1.85%	98666.00	1	
1.96%	59505.00	2	3282.390
2.00%	50015.50	2	30581.661
2.04%	97192.00	2	70197.319
2.13%	75686.50	2	3635.236
2.14%	303500.00	1	
2.17%	77625.33	3	38657.079
2.22%	58469.67	3	23282.101
2.27%	87540.67	3	39117.524
2.32%	54289.00	2	11760.600
2.38%	36232.00	1	
2.50%	44281.00	1	
2.56%	71061.00	3	6683.040
2.63%	80007.00	3	23764.776
2.70%	65576.27	11	31638.931
2.78%	52681.00	1	
2.85%	51759.50	2	4410.225
2.86%	52153.24	21	21474.766
2.94%	52144.54	13	24011.411
2.98%	36439.00	1	
3.03%	37578.75	4	17809.219
3.12%	42293.60	5	32913.156
3.13%	39784.50	2	10324.466
3.22%	74668.67	3	16324.559
3.23%	44685.67	3	20989.084
3.33%	61761.50	4	34301.274
3.39%	97683.00	1	
3.45%	39094.20	5	15882.855

3.57%	53408.50	4	28318.800
3.64%	35118.00	1	
3.70%	43017.36	14	22895.947
3.85%	30799.86	7	22378.169
4.00%	36606.64	36	18753.390
4.16%	44694.00	1	
4.17%	39298.80	5	40335.568
4.25%	47292.00	1	
4.35%	32014.67	43	18125.719
4.41%	147855.00	1	
4.44%	67776.50	2	8019.298
4.54%	44042.77	30	34203.853
4.55%	57152.33	3	25414.943
4.65%	111733.40	5	69414.223
4.76%	41152.88	25	38370.058
4.90%	154875.00	1	
5.00%	37172.26	19	21279.167
5.13%	36958.00	3	37786.185
5.19%	193367.00	1	
5.26%	47882.50	16	25812.811
5.41%	49756.00	1	
5.48%	31526.00	1	
5.55%	33029.25	8	16890.111
5.56%	81987.00	1	
5.71%	61518.60	5	39147.987
5.77%	126549.50	2	65102.614
5.88%	41081.06	16	22273.610
6.06%	43949.38	8	18491.711
6.12%	95124.00	1	
6.25%	30073.75	8	21688.694
6.45%	53093.15	13	22442.159
6.67%	38379.07	15	23616.783
6.82%	71002.00	1	
6.89%	28230.00	1	
6.90%	63083.67	6	25378.813
6.98%	70937.00	1	
7.14%	31202.56	9	24072.418
7.32%	53792.50	2	33871.122
7.40%	34621.00	1	
7.41%	71425.25	4	22192.258
7.50%	51625.00	1	

7.55%	74697.00	2	17442.910
7.69%	35629.41	37	18601.644
7.86%	125516.00	1	
7.89%	61617.00	4	13580.078
8.00%	39365.25	4	24409.520
8.10%	95150.00	1	
8.11%	69064.86	7	55288.544
8.16%	92219.50	2	540.937
8.33%	47370.73	15	13314.130
8.51%	25818.00	1	
8.57%	70838.67	3	48538.760
8.69%	44115.29	7	26235.573
8.70%	46776.00	2	3187.637
9.09%	37046.63	24	28453.702
9.30%	64321.00	1	
9.37%	43295.00	4	21200.150
9.52%	32528.69	16	16967.415
9.67%	31043.00	1	
9.68%	90238.33	3	41134.389
9.76%	42380.00	1	
10.00%	41221.07	15	28206.694
10.34%	55774.50	4	14941.866
10.52%	15135.50	2	9440.583
10.53%	27841.75	8	18925.337
10.71%	34266.00	2	11514.527
10.81%	28048.50	2	10386.692
11.11%	39784.45	29	36988.954
11.50%	72220.00	1	
11.54%	67385.50	2	5567.052
11.76%	27435.33	3	11558.317
12.00%	38693.45	11	22078.571
12.12%	89045.50	2	48250.845
12.19%	48017.25	4	19165.006
12.50%	30098.90	10	14101.158
12.82%	148665.00	1	
12.90%	77447.50	2	28108.202
13.00%	35162.50	4	12357.896
13.33%	37886.58	12	27733.676
13.63%	39093.00	1	
13.79%	33135.00	3	19427.414
13.95%	67622.00	2	13799.896

14.28%	31122.07	15	20029.886
14.70%	52788.00	1	
15.00%	46381.63	8	25265.969
15.38%	48719.25	4	25625.895
15.79%	75480.00	1	
16.00%	35646.50	4	7843.143
16.13%	50928.00	2	14574.885
16.67%	35335.07	15	26290.838
17.24%	33300.00	3	13861.778
17.39%	22745.00	1	
17.65%	24372.00	1	
18.18%	29391.25	4	17460.622
18.52%	19794.00	1	
18.75%	16715.00	1	
19.04%	33193.00	1	
20.00%	22139.00	9	15961.315
20.83%	12324.00	1	
22.22%	31179.00	3	25197.028
23.08%	7582.00	1	
23.53%	35598.00	1	
25.00%	17286.75	8	14387.203
27.78%	32728.00	1	
28.57%	32663.00	2	11124.204
30.00%	38730.00	2	23648.479
50.00%	16845.50	2	4992.881
75.00%	3186.00	1	
Total	43307.35	1091	32666.614

Appendix J

Analysis of Variance for Shrink Percentage and Management Turnover

Shrink Percent and Management Turnover			
Management Turnover	Mean	N	Std. Deviation
0.00%	1.5567	307	.74825
1.45%	1.0500	1	
1.61%	1.0850	2	.82731
1.72%	1.2700	1	
1.78%	1.3800	1	
1.82%	1.0300	2	.67882
1.85%	1.5000	1	
1.96%	1.0350	2	.45962
2.00%	1.8850	2	.21920
2.04%	2.0250	2	.94045
2.13%	2.2250	2	.75660
2.14%	.9900	1	
2.17%	2.7033	3	1.39163
2.22%	1.2000	3	.28583
2.27%	1.5433	3	.29738
2.32%	1.4150	2	.03536
2.38%	1.3000	1	
2.50%	1.0100	1	
2.56%	1.7467	3	.23072
2.63%	1.8667	3	.70925
2.70%	1.6382	11	.64702
2.78%	1.3200	1	
2.85%	1.5700	2	.42426
2.86%	1.4271	21	.52227
2.94%	1.7315	13	.51386
2.98%	1.1000	1	
3.03%	1.1800	4	.31038
3.12%	1.0080	5	.24304
3.13%	1.7200	2	.11314
3.22%	2.0700	3	.43347
3.23%	1.5733	3	.65684
3.33%	1.9375	4	1.39414
3.39%	2.2800	1	
3.45%	1.3200	5	.69011

3.57%	2.0225	4	.76426
3.64%	.9200	1	
3.70%	1.6129	14	.52850
3.85%	1.4600	7	.16833
4.00%	1.6319	36	.66946
4.16%	1.2000	1	
4.17%	1.6480	5	.85958
4.25%	.9700	1	
4.35%	1.6684	43	.72431
4.41%	1.1800	1	
4.44%	1.3750	2	.23335
4.54%	1.8590	30	.97094
4.55%	2.3667	3	1.16243
4.65%	1.7800	5	.27964
4.76%	1.8920	25	1.62109
4.90%	1.0300	1	
5.00%	1.6642	19	.78098
5.13%	1.3033	3	1.10817
5.19%	.9600	1	
5.26%	1.6563	16	.56631
5.41%	1.1900	1	
5.48%	.6200	1	
5.55%	1.6625	8	.83867
5.56%	1.9700	1	
5.71%	1.6420	5	.51495
5.77%	2.3750	2	1.06773
5.88%	1.3531	16	.54434
6.06%	1.5275	8	.55662
6.12%	1.5500	1	
6.25%	1.3875	8	.60679
6.45%	1.7054	13	.39836
6.67%	1.5687	15	.91212
6.82%	1.4700	1	
6.89%	1.6800	1	
6.90%	1.9533	6	.77156
6.98%	2.1100	1	
7.14%	1.4667	9	.66492
7.32%	2.9600	2	2.40416
7.40%	2.1600	1	
7.41%	2.6875	4	1.72225
7.50%	1.7300	1	

7.55%	1.5500	2	1.23037
7.69%	1.5697	37	.57019
7.86%	.9300	1	
7.89%	1.8625	4	.56553
8.00%	1.7325	4	.81061
8.10%	1.8400	1	
8.11%	1.3857	7	.28395
8.16%	1.5650	2	.14849
8.33%	1.8127	15	.52513
8.51%	1.1800	1	
8.57%	2.0133	3	.39929
8.69%	1.5857	7	.60335
8.70%	1.6700	2	.05657
9.09%	1.5971	24	.60351
9.30%	1.7200	1	
9.37%	1.4025	4	.28849
9.52%	1.6856	16	1.06827
9.67%	.8100	1	
9.68%	2.5333	3	1.03467
9.76%	1.0500	1	
10.00%	1.6340	15	.72738
10.34%	1.4150	4	.63585
10.52%	1.4450	2	.02121
10.53%	1.6675	8	.65170
10.71%	1.6450	2	.45962
10.81%	1.4200	2	.36770
11.11%	2.2603	29	2.80650
11.50%	1.8200	1	
11.54%	1.7700	2	1.37179
11.76%	1.2267	3	.39209
12.00%	1.7127	11	.81357
12.12%	2.1200	2	.73539
12.19%	1.5975	4	.56911
12.50%	2.1070	10	1.24278
12.82%	2.9300	1	
12.90%	2.8500	2	.04243
13.00%	2.5675	4	1.27330
13.33%	2.0617	12	1.53334
13.63%	2.3500	1	
13.79%	1.4000	3	.20809
13.95%	1.4250	2	.13435

14.28%	1.8213	15	.89259
14.70%	1.4400	1	
15.00%	2.1638	8	.75309
15.38%	2.3050	4	.53600
15.79%	2.5100	1	
16.00%	1.6075	4	.70287
16.13%	1.3850	2	.50205
16.67%	1.5867	15	.64591
17.24%	1.1067	3	.25007
17.39%	.8100	1	
17.65%	1.4500	1	
18.18%	2.0350	4	1.39161
18.52%	1.3900	1	
18.75%	1.9500	1	
19.04%	1.1800	1	
20.00%	1.3600	9	1.33920
20.83%	.7900	1	
22.22%	2.1667	3	.27154
23.08%	.6000	1	
23.53%	1.4900	1	
25.00%	1.3988	8	1.01897
27.78%	1.6900	1	
28.57%	2.6850	2	1.70413
30.00%	2.8750	2	2.17082
50.00%	1.5150	2	.41719
75.00%	.5000	1	
Total	1.6549	1091	.90768

Appendix K

Correlations for Environmental Variables (prior to creation of dummy variables)

Correlations							
		Shrink Dollars	Shrink Percent	Number of Doors	Store	Store Location Environment	Store Location Type
Shrink Dollars	Pearson Correlation	1		0.281***	-0.257	0.292***	0.04
	Sig. (2-tailed)			0.000	0.000	0.000	0.197
	N	1068		1068	1068	1066	1066
Shrink Percent	Pearson Correlation		1	0.054	-0.101	0.259***	-0.017
	Sig. (2-tailed)			0.078	0.001	0.000	0.588
	N		1068	1068	1068	1066	1066
Number of Doors	Pearson Correlation	0.281***	0.054	1	-0.218	-0.003	0.011
	Sig. (2-tailed)	0.000	0.078		0.000	0.935	0.728
	N	1068	1068	1068	1068	1066	1066
Store	Pearson Correlation	-0.257	-0.101	-0.218	1	.121***	.118***
	Sig. (2-tailed)	0.000	0.001	0.000		0.000	0.000
	N	1068	1068	1068	1068	1066	1066
Store Location Environment	Pearson Correlation	0.292***	0.259***	-0.003	.121***	1	.138***
	Sig. (2-tailed)	0.000	0.000	0.935	0.000		0.000
	N	1066	1066	1066	1066	1066	1066
Store Location Type	Pearson Correlation	0.04	-0.017	0.011	.118***	.138***	1
	Sig. (2-tailed)	0.197	0.588	0.728	0.000	0.000	
	N	1066	1066	1066	1066	1066	1066

Appendix L

Correlations for Personnel Variables and Dependent Variables

Correlations				
		Number of managers	Management Turnover	Store Manager Turnover
Shrink_Dollars	Pearson Correlation	.454**	-0.087	0.021
	Sig. (2-tailed)	0.000	0.004	0.494
	N	1089	1091	1089
Shrink_Percent	Pearson Correlation	-0.054	0.064	0.065
	Sig. (2-tailed)	0.073	0.035	0.031
	N	1089	1091	1089
Numberofmanagers	Pearson Correlation	1**	-0.088	0.039
	Sig. (2-tailed)		0.004	0.194
	N	1089	1089	1089
ManagementTurnover	Pearson Correlation	-0.088	1*	.214**
	Sig. (2-tailed)	0.004		0.000
	N	1089	1091	1089
StoreManagerTurnover	Pearson Correlation	0.039	.214**	1
	Sig. (2-tailed)	0.194	0.000	
	N	1089	1089	1089
Numberofdoors	Pearson Correlation	.189**	-0.045	-0.017
	Sig. (2-tailed)	0.000	0.142	0.58
	N	1089	1091	1089
side	Pearson Correlation	-.189**	0.076	.089**
	Sig. (2-tailed)	0.000	0.012	0.003
	N	1089	1091	1089
center	Pearson Correlation	0.065	-0.067	-0.084
	Sig. (2-tailed)	0.033	0.026	0.005
	N	1089	1091	1089
Backwall	Pearson Correlation	-0.013	-0.01	-0.049
	Sig. (2-tailed)	0.678	0.736	0.109
	N	1089	1091	1089
No	Pearson Correlation	-.136**	-0.046	-0.051
	Sig. (2-tailed)	0.000	0.132	0.089
	N	1089	1091	1089
PVM	Pearson Correlation	0.034	0.032	0.035
	Sig. (2-tailed)	0.268	0.297	0.254
	N	1089	1091	1089
CCTV	Pearson Correlation	0.014	0.024	0.046
	Sig. (2-tailed)	0.652	0.419	0.132

	N	1089	1091	1089
Rural	Pearson Correlation	-0.062	-0.094	-0.12
	Sig. (2-tailed)	0.04	0.002	0.000
	N	1089	1091	1089
Metropolitan	Pearson Correlation	0.195	0.058	0.078
	Sig. (2-tailed)	0.000	0.054	0.01
	N	1089	1091	1089
mallsl	Pearson Correlation	-0.157	0.057	0.046
	Sig. (2-tailed)	0.000	0.059	0.126
	N	1089	1091	1089
outletsl	Pearson Correlation	0.164	-0.037	-0.026
	Sig. (2-tailed)	0.000	0.22	0.384
	N	1089	1091	1089
LifestyleCentersl	Pearson Correlation	-0.072	-0.054	-0.046
	Sig. (2-tailed)	0.018	0.076	0.129
	N	1089	1091	1089
StripCentersl	Pearson Correlation	-0.016	-0.007	-0.02
	Sig. (2-tailed)	0.592	0.806	0.507
	N	1089	1091	1089
Millssl	Pearson Correlation	0.089	0.02	0.028
	Sig. (2-tailed)	0.003	0.508	0.348
	N	1089	1091	1089

Appendix M

Correlations for Internal Structural Variables and Dependent Variables

Correlations					
		Number of doors	**side**	**center**	**Backwall**
Shrink_Dollars	Pearson Correlation	.240**	-0.214	.141*	-.006**
	Sig. (2-tailed)	.000	.000	.000	0.84
	N	1091	1091	1091	1091
Shrink_Percent	Pearson Correlation	0.041	.031	0.003	0.11
	Sig. (2-tailed)	0.172	0.301	0.918	.000
	N	1091	1091	1091	1091
Numberofdoors	Pearson Correlation	1	.376**	0.319	0.003
	Sig. (2-tailed)		.000	.000	0.933
	N	1091	1091	1091	1091
@.ofmanagers2012	Pearson Correlation	.189**	.189**	0.065	-.013**
	Sig. (2-tailed)	.000	.000	0.033	0.678
	N	1089	1089	1089	1089
ManagementTurnover2012	Pearson Correlation	-0.045	.076	-.067	-0.01
	Sig. (2-tailed)	0.142	0.012	0.026	0.736
	N	1091	1091	1091	1091
StoreManagerTurnover2012	Pearson Correlation	-0.017	0.089	-.084*	-0.049
	Sig. (2-tailed)	0.58	0.003	0.005	0.109
	N	1089	1089	1089	1089
Side	Pearson Correlation	-.376**	1**	-0.912	-.126**
	Sig. (2-tailed)	.000		.000	.000
	N	1091	1091	1091	1091
Center	Pearson Correlation	.319**	.912**	1	-.142**
	Sig. (2-tailed)	.000	.000		.000
	N	1091	1091	1091	1091
Backwall	Pearson Correlation	0.003	-0.126	.142*	1
	Sig. (2-tailed)	0.933	.000	.000	
	N	1091	1091	1091	1091
No	Pearson Correlation	-.116**	.033	-.001	.030
	Sig. (2-tailed)	.000	0.272	0.974	0.329
	N	1091	1091	1091	1091
PVM	Pearson Correlation	.115**	.005	-.027	-.003
	Sig. (2-tailed)	.000	0.879	0.368	0.914

	N	1091**	1091	1091*	1091**
CCTV	Pearson Correlation	-0.018	0.015	-0.011	-0.032
	Sig. (2-tailed)	0.557	0.624	0.723	0.291
	N	1091	1091*	1091	1091
Rural	Pearson Correlation	0.034	-0.068	0.078	0.026
	Sig. (2-tailed)	0.266	0.025	0.01	0.393
	N	1091	1091*	1091	1091
Metropolitan	Pearson Correlation	0.031	-0.065	0.007	0.074
	Sig. (2-tailed)	0.309	0.031	0.811	0.015
	N	1091**	1091**	1091	1091**
mallsl	Pearson Correlation	-0.031	0.183	-0.143	0.031
	Sig. (2-tailed)	0.314	.000	.000	0.309
	N	1091	1091*	1091*	1091
outletsl	Pearson Correlation	0.029	-0.051	0.014	-0.033
	Sig. (2-tailed)	0.346	0.09	0.638	0.282
	N	1091	1091	1091*	1091
LifestyleCentersl	Pearson Correlation	0.007	-0.143	0.157	0.006
	Sig. (2-tailed)	0.81	.000	.000	0.83
	N	1091**	1091*	1091	1091**
StripCentersl	Pearson Correlation	-0.022	-0.043	0.054	-0.017
	Sig. (2-tailed)	0.471	0.153	0.075	0.585
	N	1091**	1091*	1091	1091**
Millssl	Pearson Correlation	0.028	-0.027	0.038	-0.017
	Sig. (2-tailed)	0.363	0.364	0.208	0.585
	N	1091	1091	1091*	1091

Appendix N

Correlations for Surveillance and Dependent Variables

Correlations				
		No	**PVM**	**CCTV**
Shrink Dollars	Pearson Correlation	.156**	0.119	.011**
	Sig. (2-tailed)	.000	.000	0.704
	N	1091	1091	1091
Shrink Percent	Pearson Correlation	-0.08	.099**	0.022
	Sig. (2-tailed)	0.008	0.001	0.477
	N	1091	1091	1091
Number of doors	Pearson Correlation	.116**	.115**	-0.018
	Sig. (2-tailed)	.000	.000	0.557
	N	1091	1091	1091
@.ofmanagers2012	Pearson Correlation	-0.136	.034**	0.014
	Sig. (2-tailed)	.000	0.268	0.652
	N	1089	1089	1089
ManagementTurnover2012	Pearson Correlation	.046**	.032**	.024*
	Sig. (2-tailed)	0.132	0.297	0.419
	N	1091	1091	1091
StoreManagerTurnover2012	Pearson Correlation	-0.051	0.035	.046*
	Sig. (2-tailed)	0.089	0.254	0.132
	N	1089	1089	1089
side	Pearson Correlation	.033**	.005**	0.015
	Sig. (2-tailed)	0.272	0.879	0.624
	N	1091	1091	1091
center	Pearson Correlation	-.001*	.027**	-0.011
	Sig. (2-tailed)	0.974	0.368	0.723
	N	1091	1091	1091
Backwall	Pearson Correlation	0.03	-0.003	.032**
	Sig. (2-tailed)	0.329	0.914	0.291
	N	1091	1091	1091
No	Pearson Correlation	1**	.768**	.415**
	Sig. (2-tailed)		.000	.000
	N	1091	1091	1091
PVM	Pearson Correlation	-0.768	1**	.096**
	Sig. (2-tailed)	0		0.001

	N	1091**	1091	1091**
CCTV	Pearson Correlation	-0.415	-0.096	1
	Sig. (2-tailed)	.000	0.001	
	N	1091	1091**	1091
Rural	Pearson Correlation	0.17	-0.099	-0.094
	Sig. (2-tailed)	.000	0.001	0.002
	N	1091**	1091**	1091
Metropolitan	Pearson Correlation	-0.197	0.11	0.07
	Sig. (2-tailed)	.000	.000	0.021
	N	1091	1091**	1091
mallsl	Pearson Correlation	0.111	0.018	-0.113
	Sig. (2-tailed)	.000	0.561	.000
	N	1091**	1091**	1091*
outletsl	Pearson Correlation	-0.099	0.053	0.062
	Sig. (2-tailed)	0.001	0.083	0.041
	N	1091	1091	1091*
LifestyleCentersl	Pearson Correlation	-0.001	-0.052	0.039
	Sig. (2-tailed)	0.973	0.085	0.197
	N	1091**	1091**	1091
StripCentersl	Pearson Correlation	0.009	-0.028	0.009
	Sig. (2-tailed)	0.768	0.358	0.758
	N	1091*	1091**	1091
Millssl	Pearson Correlation	-0.047	0.038	0.046
	Sig. (2-tailed)	0.121	0.209	0.132
	N	1091	1091	1091**

Appendix O

Correlations for Environment Variables and Dependent Variables

Correlations			
		Rural	**Metropolitan**
Shrink Dollars	Pearson Correlation	.114**	.227**
	Sig. (2-tailed)	.000	.000
	N	1091	1091
Shrink Percent	Pearson Correlation	-0.108	0.119
	Sig. (2-tailed)	.000	.000
	N	1091	1091
Number of doors	Pearson Correlation	0.034	.031
	Sig. (2-tailed)	0.266	0.309
	N	1091	1091
@.ofmanagers2012	Pearson Correlation	.062**	0.195
	Sig. (2-tailed)	0.04	.000
	N	1089	1089
ManagementTurnover2012	Pearson Correlation	-0.094	.058
	Sig. (2-tailed)	0.002	0.054
	N	1091	1091
StoreManagerTurnover2012	Pearson Correlation	-0.12	0.078
	Sig. (2-tailed)	.000	0.01
	N	1089	1089
side	Pearson Correlation	.068	-.065
	Sig. (2-tailed)	0.025	0.031
	N	1091	1091
center	Pearson Correlation	.078**	.007*
	Sig. (2-tailed)	0.01	0.811
	N	1091	1091
Backwall	Pearson Correlation	0.026	0.074
	Sig. (2-tailed)	0.393	0.015
	N	1091	1091
No	Pearson Correlation	.170**	-.197**
	Sig. (2-tailed)	.000	.000
	N	1091	1091
PVM	Pearson Correlation	.099**	0.11
	Sig. (2-tailed)	0.001	.000

	N	1091	1091
CCTV	Pearson Correlation	-0.094	0.07
	Sig. (2-tailed)	0.002	0.021
	N	1091	1091
Rural	Pearson Correlation	1	-0.271
	Sig. (2-tailed)		.000
	N	1091	1091
Metropolitan	Pearson Correlation	-0.271	1
	Sig. (2-tailed)	.000	
	N	1091	1091
mallsl	Pearson Correlation	0.075	-0.081
	Sig. (2-tailed)	0.014	0.008
	N	1091	1091
outletsl	Pearson Correlation	0.075	0.011
	Sig. (2-tailed)	0.013	0.723
	N	1091	1091
LifestyleCentersl	Pearson Correlation	-0.098	0.034
	Sig. (2-tailed)	0.001	0.261
	N	1091	1091
StripCentersl	Pearson Correlation	-0.069	-0.035
	Sig. (2-tailed)	0.023	0.254
	N	1091	1091
Millssl	Pearson Correlation	-0.032	0.027
	Sig. (2-tailed)	0.284	0.371
	N	1091	1091

Appendix P

Correlations for Mall Location and Dependent Variables

Correlations						
		mallsl	**outletsl**	**LifestyleCentersl**	**StripCentersl**	**Millssl**
Shrink Dollars	Pearson Correlation	-0.075	.095**	-.062	.015	0.007
	Sig. (2-tailed)	0.014	0.002	0.039	0.614	0.829
	N	1091	1091	1091	1091	1091
Shrink Percent	Pearson Correlation	.010**	0.02	-0.016	-0.044	.030**
	Sig. (2-tailed)	0.744	0.50	0.603	0.142	0.321
	N	1091	1091	1091	1091	1091
Number of doors	Pearson Correlation	.031**	0.029	0.007	-.022	.028
	Sig. (2-tailed)	0.314	0.346	0.81	0.471	0.363
	N	1091	1091	1091	1091	1091
# of managers	Pearson Correlation	.157**	0.164	-.072	-0.016	.089**
	Sig. (2-tailed)	.000	.000	0.018	0.592	0.003
	N	1089	1089	1089	1089	1089
Management Turnover	Pearson Correlation	.057	-.037	-0.054	-.007	.020
	Sig. (2-tailed)	0.059	0.22	0.076	0.806	0.508
	N	1091	1091	1091	1091	1091
Store Manager Turnover	Pearson Correlation	0.046	-.026*	-0.046	-0.02	0.028
	Sig. (2-tailed)	0.126	0.384	0.129	0.507	0.348
	N	1089	1089	1089	1089	1089
side	Pearson Correlation	.183**	-0.051	-.143**	-.043	.027
	Sig. (2-tailed)	.000	0.09	.000	0.153	0.364
	N	1091	1091	1091	1091	1091
center	Pearson Correlation	.143**	0.014	.157**	.054*	.038**
	Sig. (2-tailed)	.000	0.638	.000	0.075	0.208
	N	1091	1091	1091	1091	1091
Backwall	Pearson Correlation	0.031	-.033**	0.006	-0.017	-0.017
	Sig. (2-tailed)	0.309	0.282	0.83	0.585	0.585
	N	1091	1091	1091	1091	1091
No	Pearson Correlation	.111**	-.099**	-.001	.009	.047
	Sig. (2-tailed)	.000	0.001	0.973	0.768	0.121
	N	1091	1091	1091	1091	1091
PVM	Pearson Correlation	.018	.053	-.052	-0.028	.038

	Sig. (2-tailed)	0.561	0.083	0.085	0.358	0.209
	N	1091	1091	1091	1091	1091
CCTV	Pearson Correlation	-0.113	0.062	0.039	0.009	0.046
	Sig. (2-tailed)	.000	0.041	0.197	0.758	0.132
	N	1091	1091	1091	1091	1091
Rural	Pearson Correlation	0.075	0.075	-0.098	-0.069	-0.032
	Sig. (2-tailed)	0.014	0.013	0.001	0.023	0.284
	N	1091	1091	1091	1091	1091
Metropolitan	Pearson Correlation	-0.081	0.011	0.034	-0.035	0.027
	Sig. (2-tailed)	0.008	0.723	0.261	0.254	0.371
	N	1091	1091	1091	1091	1091
mallsl	Pearson Correlation	1	-0.497	-0.641	-0.252	-0.252
	Sig. (2-tailed)		.000	.000	.000	.000
	N	1091	1091	1091	1091	1091
outletsl	Pearson Correlation	-0.497	1	-0.07	-0.027	-0.027
	Sig. (2-tailed)	.000		0.021	0.365	0.365
	N	1091	1091	1091	1091	1091
LifestyleCentersl	Pearson Correlation	-0.641	-0.07	1	-0.035	-0.035
	Sig. (2-tailed)	.000	0.021		0.243	0.243
	N	1091	1091	1091	1091	1091
StripCentersl	Pearson Correlation	-0.252	-0.027	-0.035	1	-0.014
	Sig. (2-tailed)	.000	0.365	0.243		0.646
	N	1091	1091	1091	1091	1091
Millssl	Pearson Correlation	-0.252	-0.027	-0.035	-0.014	1
	Sig. (2-tailed)	.000	0.365	0.243	0.646	
	N	1091	1091	1091	1091	1091

Appendix Q

Employee Age Frequency

Employee Age			
	Frequency	Percent	Valid Percent
18	62	8.3	9.1
19	94	12.6	13.9
20	99	13.2	14.6
21	85	11.4	12.5
22	54	7.2	8
23	52	7	7.7
24	46	6.1	6.8
25	35	4.7	5.2
26	24	3.2	3.5
27	25	3.3	3.7
28	20	2.7	2.9
29	18	2.4	2.7
30	8	1.1	1.2
31	11	1.5	1.6
32	7	0.9	1
33	10	1.3	1.5
34	7	0.9	1
35	8	1.1	1.2
36	1	0.1	0.1
37	4	0.5	0.6
38	1	0.1	0.1
39	1	0.1	0.1
40	1	0.1	0.1
45	1	0.1	0.1
46	1	0.1	0.1
47	3	0.4	0.4
Total	678	90.6	100

Appendix R

Tenure of Employment Frequency

Tenure of Employment (months)			
	Frequency	Percent	Valid Percent
1	47	6.3	7
2	41	5.5	6.1
3	36	4.8	5.3
4	33	4.4	4.9
5	37	4.9	5.5
6	36	4.8	5.3
7	42	5.6	6.2
8	35	4.7	5.2
9	36	4.8	5.3
10	21	2.8	3.1
11	19	2.5	2.8
12	16	2.1	2.4
13	16	2.1	2.4
14	24	3.2	3.6
15	16	2.1	2.4
16	19	2.5	2.8
17	8	1.1	1.2
18	8	1.1	1.2
19	10	1.3	1.5
20	12	1.6	1.8
21	7	0.9	1
22	12	1.6	1.8
23	9	1.2	1.3
24	11	1.5	1.6
25	6	0.8	0.9
26	6	0.8	0.9
27	10	1.3	1.5
28	3	0.4	0.4
29	3	0.4	0.4
30	7	0.9	1
31	6	0.8	0.9
32	5	0.7	0.7
33	3	0.4	0.4
34	5	0.7	0.7
35	4	0.5	0.6
36	6	0.8	0.9
37	4	0.5	0.6
39	4	0.5	0.6
40	3	0.4	0.4
41	3	0.4	0.4
42	1	0.1	0.1
43	2	0.3	0.3

44	3	0.4	0.4
45	2	0.3	0.3
46	3	0.4	0.4
47	1	0.1	0.1
48	1	0.1	0.1
49	1	0.1	0.1
51	2	0.3	0.3
54	1	0.1	0.1
57	1	0.1	0.1
59	3	0.4	0.4
61	4	0.5	0.6
63	1	0.1	0.1
64	1	0.1	0.1
66	1	0.1	0.1
67	1	0.1	0.1
68	2	0.3	0.3
69	1	0.1	0.1
75	2	0.3	0.3
76	1	0.1	0.1
78	1	0.1	0.1
80	1	0.1	0.1
86	1	0.1	0.1
87	1	0.1	0.1
94	1	0.1	0.1
96	1	0.1	0.1
102	1	0.1	0.1
109	1	0.1	0.1
113	1	0.1	0.1
269	1	0.1	0.1
Total	674	90.1	100

Appendix S

Map of Internal Theft Case Frequency by State

Appendix T

Internal Theft Case Frequency by State

Store State		
	Frequency	Percent
Closed	66	8.8
AB	4	0.5
AK	3	0.4
AL	11	1.5
AR	6	0.8
AZ	12	1.6
BC	5	0.7
CA	50	6.7
CO	11	1.5
CT	12	1.6
DE	8	1.1
FL	37	4.9
GA	18	2.4
HI	4	0.5
IA	6	0.8
ID	1	0.1
IL	21	2.8
IN	9	1.2
KS	5	0.7
KY	4	0.5
LA	5	0.7
MA	24	3.2
MD	25	3.3
ME	2	0.3
MI	15	2
MN	18	2.4
MO	10	1.3
MS	5	0.7
MT	1	0.1
NB	1	0.1
NC	24	3.2
NE	4	0.5
NH	4	0.5
NJ	30	4
NL	1	0.1
NM	11	1.5
NV	2	0.3
NY	75	10
OH	15	2
OK	4	0.5
ON	17	2.3
OR	3	0.4

PA	46	6.1
PR	3	0.4
QC	7	0.9
RI	2	0.3
SC	7	0.9
TN	12	1.6
TX	48	6.4
UT	5	0.7
VA	15	2
WA	2	0.3
WI	7	0.9
WV	4	0.5
WY	1	0.1