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Using the Theory of Planned Behavior to Predict Intent to Report Crime

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by

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Abstract

This research uses the Theory of Planned Behavior to expand scientific knowledge about the decision by potential crime victims to report their victimization to the police. The Theory of Planned Behavior (TPB) is a social science research tool, which has been used in many diverse fields of study to determine whether certain factors (attitudes, norms, and perceived behavioral control) predict intentions to act. Since the introduction of crime reporting data and victim surveys over forty-years ago, many politicians, criminologists, and law enforcement managers have used this information to make major social and managerial decisions. More recently the “CompStat” and “Intelligence-led Policing” models have dominated the police management information circles as a way to improve performance and management of resources. These management strategies base much of the decisions in deployment of resources on the crime reports from victims and the trends in criminal incidents. Valuable information that would improve efficiency in the investigations and in police management is lost, because victims report only about half of the criminal incidents. If influential factors could be identified, it would assist in addressing the notion that victim reporting is a static decision, it would give researchers and police managers information they could use when evaluating the impact of victims’ decision-making in the community. It could also provide improvements in the approach to encouraging victims to report and enable them to engage in the justice system.

University students and members of the community participated in surveys that were provided to them manually on paper or by using a computer via the internet. These
surveys described an incident in which a small amount of money was stolen from a person. The participants were asked to assume it was stolen from them and given multiple questions regarding the incident. The participants indicated whether they would report the crime or not, and answered numerous other questions regarding their decision and attitudes towards the criminal justice system. The survey data was then transferred to a statistical software program and analyzed.

Using these surveys of self-report crime reporting questions, this research explored how well victims’ attitudes, norms, and perceived behavioral control affect their crime reporting intentions, by placing select questions into the TPB model. Two hypothesis and one research question were explored. The first hypothesis was that TPB would predict intention to report a crime. A single research question investigated which TPB factor is the strongest predictor of the reporting decision. The second hypothesis was whether an enhanced model, which included TPB factors and other variables studied in previous research, predicts intent better than the basic model with TPB factors alone. The results showed that the TPB does predict crime reporting intent, the strongest predictor was the social norms, and the enhanced model for TPB was not a significantly better model than the basic TPB model.

The success of the TPB model in predicting crime reporting intent indicates a strong tie between crime reporting intent and the three factors included in the TPB. In criminal justice research and in law enforcement performance models the low victim reporting rates should be further explored and using the TPB model can provide insight into the influences involved in victim decision making. If victim reporting rates increase, crime analysts will have more data in which they can review crime events and gain
important investigative information. Public service groups can use the information from this crime reporting intent model to influence victims who might choose not to report. This would mean that in addition to interviewing the victims, and family members, it would be important for law enforcement and others to continually encourage all citizens (neighbors, co-workers, community groups) by promoting reporting as a community responsibility. Knowing that social norms are important and relevant in victim reporting, community leaders can formulate a message that incorporates social norms. Political and police leaders can include the social norms influence and impact when interacting with citizen groups. The importance of victim reporting can be included in public service announcements, victim awareness and school educational campaigns.

By exploring this social science model, this research found the most influential factor in crime reporting intent using the TPB model was social norms. The strong predicting influence of social norms heavily overshadowed attitudes and perceived behavioral control when measuring intent to complete a crime report. Further research specifically designed to test victim reporting behavior using the TPB model should be explored.
Using the Theory of Planned Behavior to Predict Intent to Report Crime

More than forty years ago, the government began keeping track of crime by recording the number and type of crimes reported to police. At this time, the government also began conducting surveys of citizens, asking questions about whether they had been victimized. Interestingly, there are large disparities between these two measures (Catalano, 2006; Conaway & Lohr, 1994; Penick & Owens, 1976; Rand, 2006; Sparks, 1981) which indicates overall reporting in the major crime categories (violent and non-violent) only about half of the crimes are reported to the authorities. The crimes reporting rates vary per type, but typically from 40% to 70% of the crime incidents going unreported.

Researchers have investigated rational and potential influences, in order to understand why people decide not to report crime (Gottfredson & Gottfredson, 1988; Goudriaan, Lynch, & Nieuwbeerta, 2004; Skogan, 1984). Victimization research has revealed a consistent reporting model that contends the victim’s decision to report is made by utilizing a cost-benefit analysis to determine whether to contact the police and complete a crime report (Gottfredson & Gottfredson, 1988; Greenberg & Ruback, 1992; Skogan, 1984). Over time and through many research studies it has been shown that the most important factor determining whether someone reports a criminal victimization is the seriousness of the crime. The more serious the crime incident, harm, or loss experienced, the greater the motivation for reporting (Bennett & Wiegand, 1994; Felson, Messner, Hoskin, & Deane, 2002; Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004). Where the victims measure the personal cost of reporting a crime and whether it outweighs the harm or loss associated with the incident.
Researchers continue to search for other factors in crime reporting behavior because they have found the cost-benefit models does not sufficiently explain many other influences on crime reporting behavior (Goudriaan et al., 2004; Greenberg & Beach, 2004; Greenberg & Ruback, 1992). Presently studies of victim decision-making still rely heavily on the assumption that the decision to report is based on a cost-benefit decision making theory. The shortcomings of this cost-benefit logic model is that it does not provide for other combined social, personal, and cultural factors that could influence a victim’s reporting behavior. It is important to understand all the aspects of victims’ decision-making to ensure there are not actions and communication that would encourage victims to reporting crimes. This information could narrow the reporting gap. These influences will become important when dealing with crime victims and could provide police agencies with insights to improve their citizen/victim contacts. As an alternative to the cost-benefit approach to predicting and understanding crime reporting behavior, this study will explore the factors contained in a social science behavioral model, Theory of Planned Behavior. Specifically, this study will evaluate the ability of the Theory of Planned Behavior (TPB) model to predict the intent to report a crime. In addition to the TPB factors, crime reporting studies have found that other variables can influence crime reporting. These variables will be added to the traditional TPB model to determine if there is an increase in the model’s predictive power.

A multiple regression analysis will be used to test the TPB model by comparing specific answers representing the TPB factors and the intent to report a crime. The first hypothesis will test whether a regression model containing the TPB factors predicts the participants’ decision to report. A research question explores which factors in TPB model
are most predictive. Lastly, a second hypothesis will include factors from previous research (e.g., crime severity, previous victimization) to enhance the basic TPB model to improve its prediction against the model alone. This model, including the additional variables will be referred to as the enhanced TPB model. To the author’s knowledge, TPB has not been applied in this domain.

This thesis will discuss crime reporting, a review of previous research regarding influences that are involved with victim crime reporting information reliability and social science theory. Additionally, this thesis will also include a short discussion of the modern policing models that use intelligence and analysis data from mining large databases where incidents of criminal reporting are inputted and extracted. These policing models, which are gaining popularity, rely heavily on information retrieved from victim reporting. Finally, the statistical assessment of the research model and results of the multiple regression analysis will be presented, followed by a discussion of contributions and suggestions for future research.

Crime Rates and Crime Reporting

Crime rates and reporting rates are both critical measurements in the criminal justice system. This section will first provide a general discussion on crime reporting data. The next sub-section will review the research that has concentrated on victim crime reporting and decision making, followed by a short discussion of why it is important to police agencies.

*Crime Rates.* The various criminal justice organizations are continually evolving, unlike the methods they use to gather information and set policies. There is research to support the gap in crime reporting and the need to evaluate the data that is provided by
crime surveys and reports (Conaway & Lohr, 1994; Levitt, 1998; Lynch & Jarvis, 2008). Currently there are two major sources of information available. The first data source used for research in this area that relies on victim surveys (e.g., National Crime Survey, National Crime Victimization Survey) of randomly selected citizens conducted by a government agency. The second source is data independently provided annually to the federal government by law enforcement agencies (e.g., Uniform Crime Report, National Incident Based Reporting System). There are also periodic independent case studies conducted, but the most commonly used data in studying crime rates is the information provided by these two sources. Because policy makers so often use this information, it is important to realize there have been criticisms of the actual data retrieved and collection sources (Addington, 2008; Cantor & Lynch, 2005; Catalano, 2006. There has been more research on the methodology of the NCVS than the UCR (Biderman & Lynch, 1981). The U.S. Census Bureau and others individuals have performed extensive methodological studies of the NCVS survey (Addington, 2005; Cantor & Lynch, 2005). On the other side, there has not been as methodological work done on the UCR survey (Poggio, Kennedy, Chaiken, & Carlson, 1985; Schneider & Wierseman, 1990).

Early victimization studies in the 1960s suggested that not all crimes were captured by the Uniform Crime Report (UCR) compiled yearly by the Federal Bureau of Investigation (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Skogan, 1984). Subsequently, the National Incident Based Reporting System was created to address the shortcoming of the UCR over twenty years ago, but has yet to be utilized because of its limitations (Addington, 2008). In response to several victimization case studies that identified a reporting gap, in 1967 the President’s Commission of Law Enforcement and
Administration of Justice suggested that a national survey would assist in learning more about victim experiences as well as crimes (Catalano, 2006). In 1973, the National Crime Survey (NCS) was implemented nationwide (Catalano, 2006) and formally documented a significant gap in what was reported to the interviewers and what was reported to the police (Catalano, 2005; Gottfredson & Gottfredson, 1988). It should be noted that a rework of the NCS survey was completed in 1992 and it was re-named the National Crime Victimization Survey (NCVS).

The rates of crime reporting have remained consistently low and in the two basic categories (violent and property) have not seen major spiking since their inceptions. But, within these major categories, they tend to change significantly. For example the rate for reporting robbery was approximately 44% (violent crime) and up to 63% for burglaries (property crime) (Skogan, 1984) in the late 1970s and early 1980s. In 2004, the reporting rate for robbery (violent crime) had increased, but was still just 50%. In contrast the rate of reporting for burglaries (property crime) dropped from 63% in 1984 to 39% in 2005 (Catalano, 2005). These statistics indicate that crime reporting rates can sometimes be disturbingly low, yet not capture significant attention in the media or policing strategies.

More disturbing is that the number of property crime incidents does not include the number of minor theft violations (a lesser criminal incident category). In general, the difference between a burglary and a property theft is the location of the items removed (burglary is typically items taken from a residence or car). This may indicate that there could have been just a shift in the type of property crimes not necessarily a decrease. In the lower level of crime severity categories the estimates are less reliable and a true number would be difficult to calculate (Penick & Owens, 1976).
NCVS. The NCVS is sponsored by the Bureau of Justice Statistics (BJS), an agency within the US Department of Justice. Data collection and processing are conducted for BJS by the US Census Bureau. The survey produces estimates of threatened, attempted and completed rape, sexual assault, robbery, aggravated assault, simple assault, personal theft, burglary, property theft and motor vehicle theft committed against people age 12 and older and their households. Self-report interviews are conducted from a stratified national sample of addresses drawn subsequent to each ten year census. Addresses remain in the sample for 3 years, and residents in the sample households age 12 or older are interviewed at 6 month intervals for a total of seven interviews (Rand, 2006). Because the survey was established using survey research methodology it was carefully constructed and scrutinized over time. A comprehensive research program resulted in an extensive survey redesign implemented in 1992, when the survey was renamed the NCVS. However, the basic methodology remains and the core parts of the NCVS have remained largely intact (Rand, 2006). Based on the NCVS data, between 1993 and 2005 the percentage of crimes reported to the police increased (with the exception of rape/sexual assault and robbery) from 42% to 47% for violent crimes and from 34% to 40% for property crimes (Catalano, 2005).

Although the methodology of the NCVS was reviewed and updated there are still limitations. Some of the limitation in the NCVS is the exclusion of child victims, ages 12 and under, who are frequently victims of violent crimes, are excluded from the survey at times the categories of crimes are not included if they do not fit into specific definitions or the matter may be a civil issues, that the victim assumes is criminal. All the victim interview information is self reported and is not verified by enforcement agencies. There
are also times when follow-up interviews cannot be conducted in a household. This occurs for a variety of reasons: no one is home during the three week interview period; or the household or persons in the household refuse to be interviewed; or the household is not reachable, for example, due to impassable roads. Typically, the no interview rate is very low (Rand, 2006).

UCR. The UCR is a voluntary program where police agencies send crime data to the FBI. Currently 47 states participate mandating their local police departments to send their data via their state programs (Barnett-Ryan & Swanson, 2008). The UCR was not originally intended to provide accurate data for use at the local level when it was published by the federal government. It was intended to create the national estimates of changes year over year at the aggregate level, but even at the national level there has been research that indicates there are large amounts of missing data (Lynch & Jarvis, 2008) which weakens its value as a research tool. In spite of this, many agencies view the information and use it for state or county purposes. Researcher Michael Maltz and his colleagues carefully studied the missing data from the UCR. This was informative, but more intended to evaluate the crime rates at the county level for specific months out of the year (Maltz, 1999; Maltz & Targonski, 2002, 2003). Typically, there is little monitoring of the quality of the UCR reporting and there is no conclusive information regarding sanctions, if any, from non-reporting (Barnett-Ryan & Swanson, 2008; Lynch & Jarvis, 2008).

Another problem with the UCR related to the sample quality is that it does not rely on a random or uniform sample. The majority of the police agencies across the nation are small local jurisdictions that typically do not have the expertise or manpower to maintain
the imputation requirements stipulated by the FBI (Lynch & Jarvis, 2008). In contrast, large jurisdictions are more likely to have the means to employ individuals or groups who are dedicated to collecting and inputting UCR data consistently. One of the most common criticisms is the over-representation of larger agencies in UCR reporting (Lynch & Jarvis, 2008). The omissions in imputation and the lack of consistency in jurisdictions’ reporting for the small local police agencies supports the new policing management trends that advocates agency specific intelligence groups that can advise police managers (Vito, Walsh, & Kunselman, 2005). In order to have reliable and realistic data, the concerns about non-reporting must be addressed and accounted for and strong recommendations to reduce omissions of data on the monthly and yearly reporting level should be made (Lynch & Jarvis, 2008). The chief concern is the natural tendency to use this data for policy decisions at a local level, which may not be a true representation of actual trends and could lead to poor policy decisions.

Retrieving Federal Bureau of Investigation UCR data for 2008 from the electronic government websites, it shows the trends of crime rates are holding steady with historical data. The violent crime rate in 2008 was decreased by 2.7 percent from 2007 and the property crime rate was decreased by 1.6 percent from 2007 (FBI, 2009). Data from the BJS lists victimizations for violent crime rates in 2008 as 19.3 victimizations per 1,000 persons (age 12 or older) which was statistically unchanged from the previous year’s estimate of 20.7 per 1,000 persons. The property victimization crime rates of 135 victimizations per 1,000 households in 2008, was lower than the rate of 147 per 1,000 households in 2007 (BJS, 2009). Many individuals have predicted a serious increase in the crime rates because of the serious economic downturn recently experienced in
America. The statistics do not follow that trend. Looking globally the lack of victim reporting is not only occurring in American. Research shows that only half of the incidents of six types of crimes in 17 other industrialized countries are reported to the police (Bouten, Goudriaan, & Nieuwbeerta, 2002). The most recent crime data and all the historical data convincingly show victims are making the choice not to report crimes. It is important that all aspects of the factors in decision making be carefully explored. Crime reporting is becoming the key to future crime and intelligence analysis.

**Crime Analysis.** The crime analysis data gathered daily, weekly, monthly, and yearly typically includes types of crimes committed, where and when a crime occurred, details on the injury or loss, possible suspects and other incidental details (Harris, 2005; Ratcliffe, 2008). Misinformation in policy and resource decisions can be associated with using traditional crime indicators on a national level, such as the UCR and applying them to addressing crime on a local level to identify trends that affect a particular jurisdiction.

Smaller police organizations can identify successful criminal operational methodology by investigating local victim reporting. They typically input data into a basic spreadsheet type of software and sort the information manually. The larger law enforcement agencies use entire departments of intelligence and crime analysts to mine crime data residing in large agency and jurisdictional databases more or less, in the same manner (Ratcliffe, 2008; Willis et al., 2004). This crime information is then provided to investigators and administrators in order to deploy resources in anticipation of an event. By updating information during staff briefings, which occur several times a day in some jurisdictions, it can enable agencies to be more proactive and predictive as opposed to reactive to criminal events. In some significant criminal offense categories, crime analyst
are only receiving half of the information they need to conduct proper investigations and manage resources related to criminal activities (Ratcliffe, 2008; Willis et al., 2004). Therefore, it is important to discover what affects the decision to report. Once researchers know what factors influence reporting, they can explore these factors. When the critical influences are known, it can increase the percentage of crimes reported and subsequently improving the data available to crime analyst and police managers (Vito et al., 2005).

*Crime Victim Reporting Research*

Since the late 1960’s, it is well established that victim reporting accounts for the majority of criminal incidents that come to the attention of the criminal justice system (Conaway & Lohr, 1994; Goudriaan et al., 2004; Greenberg & Beach, 2004; Gottfredson & Gottfredson, 1988; Skogan, 1984; Warner, 1992). Victim reporting is commonly referred to as the “gatekeeping” of the criminal justice system. It provides the vast majority of investigative information for police and the subsequent processing through the court system (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Greenberg & Beach, 2004; Skogan, 1984; Warner, 1992). Approximately 95% of all criminal incidents come to police attention through victim crime reporting, as opposed to self-initiated activities by the police, and non-victim reporting. The victim’s decision to report is pivotal to all subsequent actions by the criminal justice system (Bennett & Wiegand, 1994; Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Greenberg & Beach, 2004; Skogan, 1984). Despite criticisms of the national survey and crime reporting methods and limitations, they have been instrumental in identifying the problem of underreporting.
The reasons for non-reporting may vary significantly based on the type of crime and in what manner the individual was victimized. Crime victims often do not always feel the need to report a crime to the police because victims use different types of rational for reporting. For example they can feel that their victimization is a private matter or too small to involve the police or courts (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Greenberg & Beach, 2004; Skogan, 1984). This contributes to the difficulty in finding the critical variables that influence victims and determine whether a person will report a crime. Victim reporting surveys typically break down the reason for not reporting into categories, such as, “it was a personal matter and did not need to involve the police; it could be handled in another manner,” “there was nothing that could be done,” or “it was my fault the incident occurred.” Victims also confront potential harm of reporting crimes to police. Important disincentives include fear of reprisal from offenders, embarrassment at having been victimized, disapproval from others in groups in which cooperation with governmental officials is frowned on, and fear of prosecution for victims themselves who have engaged in illegal activities. In addition, victims may incur nontrivial opportunity costs, especially if victims are required to participate in a prolonged adjudication process (Felson et al., 2002; Harlow, 1985).

In addition to the given traditional rationales there is an “other category” selected when a specific reason for not reporting is not provided in the selection of answers. It has been the continuing goal of victim reporting survey administrators to better identify the factors in this “other” category and explore them. It can provide insight for other social problems or important contextual factors for other victims (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Greenberg & Beach, 2004). Most researchers have found
that there are still a significant number of answers placed into the “other” category (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Greenberg & Beach, 2004).

In reviewing the many victim reporting studies, there are groups of variables that are involved in victim reporting that can be placed into three general categories for ease of discussion. The categories are 1) victim-specific (individual or household), 2) incident-specific, and 3) environment-specific variables (Bennett & Wiegand, 1994; Goudriaan et al., 2004; Zhang, Messner, & Liu, 2007).

**Victim-Specific.** Victim specific variables that affect crime reporting include most of the major demographic characteristics such as gender, age, race, and educational level. There are also household factors such as how many are in the family, the household income level, and previous victimization. In early studies these factors were thought to be significant but over time researchers have determined that individual variables having a small influence, if any, in determining crime reporting (Bennett & Wiegand, 1994; Goudriaan et al., 2004; Skogan, 1984; Zhang et al., 2007).

Briefly discussed below is a particularly interesting finding, even though victim specific variables have consistently not been found to be significantly predictive in victim reporting. In 2002, Baumer reported a curvilinear relationship between the socioeconomic status of the neighborhood and the reporting of simple assaults to the police. The reporting was lower in wealthy and poor areas and higher in the middle-income areas. He theorized that the pattern occurred because of the higher levels of informal social control among the very rich and very poor. The level of social control being a stronger sense of what others would do in the social group and what the expected behavior should be depending on the criminal act. The vast majority of studies have
found these factors to have some small influence, but not major influences in reporting (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Greenberg & Beach, 2004; Skogan, 1984).

There has been research on cross-national studies showing that nation and victim characteristics had relatively little effect on reporting to the police (Bouten et al., 2002; Sparks, 1976; Skogan, 1984; Zhang et al., 2007). In the study specifically designed to address property crime victims, Greenberg & Beach (2004) conducted a community phone survey of crime victims. They tested processes which were known to affect victim reporting. One of the processes tested was effect driven (such as, personal anger or fear). In this study effect driven processes positively influenced reporting. This thesis will test individual variables for significance in the enhanced TPB model.

**Incident-specific variables.** Incident specific variables that influence reporting include all the information about the crime incident, such as the type of crime, physical injury, monetary loss, and the victim-offender relationships. These variables are often the strongest predictors of victim reporting. In 1976 Skogan identified crime seriousness as the most influential factor and many studies have replicated this finding (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Singer, 1988; Skogan, 1984).

There are mixed findings on the relationship between victim and offenders. Spousal rape and child abuse victims have increasingly varied rates of reporting (Bachman & Coker, 1995; Felson et al., 1999; Singer, 1988). This body of research has been influenced by changes in domestic violence legislation and mandatory reporting by organizations like the public schools and hospitals because of changes in child protection
laws. Outside of these two topic areas, victims are generally more likely to report an act of violence by a stranger than a family member.

Environment-specific variables. Environment specific variables include neighborhood characteristics, such as neighborhood disadvantage, social control, and seeking advice from others and social cohesion. There is a recent study involving the level of victim reporting associated with community orientated policing (COP) (Schnebly, 2008). The study showed that in areas with more COP trained officers victims had lower police reporting levels to police and higher to non-police organizations. Non-police organizations are groups such as, secret witness hot lines and domestic violence shelters, and will typically assist in reporting or represent victims. This supports the theory that changes in police management and social groups can directly affect victim reporting.

In some studies, social cohesion and environmental influences have been shown to affect crime control. In their summary of work on neighborhood collective efficacy and crime, Bursik and Grasmick (1993, p. 18) determined:

“The private, parochial and public networks capable of social control do not develop instantaneously. Rather, they slowly emerge through interaction among the residents over a period. Therefore the greater the level of residential stability that exists in a neighborhood, the less likely it is that such networks are able to control the threat of crime in an area since... ongoing instability makes it difficult to establish informal and formal organizations that can be maintained over time. In short, over time social ties accumulate and allow for more collective efficacy.”

There is limited information available regarding neighborhood disadvantage that can be generalized. Many of the studies are in specific cities and are not aggregated. In general, it is theorized the more stable the neighborhood the more the citizens are engaged with the criminal justice system (Taylor, 2002).
Several studies on confidence and/or trust in police have shown on one hand, attitude towards police have little or no influence on reporting (Bennett & Wiegand, 1994; Hindelang, 1973). In contrast other studies show more of an influence in reporting (Goudriaan, Wittebrood, & Nieuwbeerta, 2006; Laub, 1980, Taylor, 2002; Xie, Pogarsky, Lynch, & McDowall, 2006). For example Xie et al., reviewed the NCVS data and found that whether police made and arrest in a case it was not a positive or negative influence in reporting behavior. It was also not influential if the police had responded to victimization of another member of the household.

In 1999, Ruback, Menard, Outlaw and Shaffer conducted an experiment on a college campus to identify norms that affect reporting. From this study, reporting was perceived as more appropriate for women than men, for older rather than younger victims and for victims who were not drinking than ones who were. This study demonstrates that situational norms can influence the decision to call the police in certain settings (Ruback et al., 1999). However, these variables were weaker predictors of reporting than seriousness of the incident, or harm.

Organizational contexts such as various workplaces (locations) or job categories (delivery of goods, contact with the public) have not been studied in depth in victims reporting decisions (Collins, Cox & Langan, 1987; Lynch 1987) other than status of employment (employed, less likely to be victimized or unemployed, more likely to be victimized) (Collins et al., 1987). Reporting behaviors of neighborhood or communities have not been studied largely because the victim surveys do not gather the data at the aggregate levels. Researchers have tried to use case specific studies, such as single police jurisdiction studies conducted in specific geographic locations, but the information is
difficult to generalize, in that there are not large enough samples of victims in specific neighborhoods to properly measure influences in reporting to the police (Goudriaan et al., 2004).

After reviewing much of the victim survey data, researchers have focused on the characteristics of crimes and victims and the relationships of victims and offenders as it relates to victim reporting. Not as much work has been done on how norms, resources and policies in the community, jurisdictional and nation levels influence the decision to report. The social contexts are not typically incorporated into the models of crime reporting (e.g., cost-benefit theory).

Importance of Crime Reporting for Victims

Controlling crime and deviant behavior is one of the main responsibilities that citizens expect of the governing bodies (Sutherland, Cressey & Luckenbill, 1992). In addition to maintaining social boundaries and managing conflict, criminal justice systems need to support the victims. There is a pivotal connection between victim and support services in this country and the majority of the programs depend on police reporting to begin securing services to the victims. Reporting also impacts the investigative power of the criminal justice system where the majority of the information to act on criminal events is gathered from the victims.

Many studies have found that serious crimes are more likely to be reported than crimes deemed as not as serious (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Skogan, 1984). If victim decision-making is viewed only in this very simplistic manner, it undermines other important factors that may influence the decision to report criminal events. This may lead citizens to feel the criminal event should be recognized
only if serious injury occurred. The unintended effect of over focusing on serious crime could change our understanding and knowledge of criminal offenders. For example, the police may reduce their focus to only serious crimes, increase the hiring of detectives for homicides and sexual assaults, thus biasing the profiles of offenders apprehended. This would also leave fewer resources in other programs, such as cyber crime investigations or community policing officers who assist with non-emergency criminal incidents. These non-emergency incidents are much more likely to affect a greater portion of the community (Harlow, 1985; Southerland et al., 1992). It can also reduce the staff available to assist with local programs that provide other services to citizens (e.g. education programs, neighborhood and personal safety outreach (Goudriaan et al., 2004)). The information brought forth by reporting is becoming increasingly more important as police and correctional agencies use the raw data for systematic planning, workload forecasting and budget development (Ratcliffe, 2008).

Importance of Crime Reporting for Police Management

The information systems in the technology driven society of today can provide rapid data collection and distribution of information from victim reporting. These information systems are pivotal in advancing the latest policing management models such as CompStat (Willis et al., 2004; Vito et al., 2005) and Intelligence-led Policing (Ratcliffe, 2008). Recent trends show many police agencies are retrieving victim reporting information from internet websites, which immediately flows directly into local criminal databases with minimal law enforcement contact. This information is accessed using crime analysis software to assist in investigations and intervention (Willis et al., 2004). The continued lack of reporting will increasingly impact the effectiveness of law
enforcement agencies. Police managers must rely heavily on criminal reporting data to direct responses and staffing to crime events in the communities they serve (Vito et al., 2005; Vito et al., 2005; Willis et al., 2004).

The majority of intelligence data and statistical trending used by crime analysis on the law enforcement management level is retrieved from information recorded by law enforcement officers and the civilian equivalent, from interviews of victims on an agency specific crime incident/report (Ratcliffe, 2008). Creating reliable incident information databases is relatively easy at this time, but it is sometimes difficult to obtain clear and specific details regarding crime incidents after they have occurred. For example, there may be eight to ten victims of vehicle burglaries in a neighborhood by one offender during a holiday weekend. If only one victim notices, the crime occurred and reports it to the police it will look like a single event. The other victims may be out of town or only notice when they get in the car on the way to work 24-48 hours later, if they decide to report at all. But, if all four victims report within 12 hours, a clear picture of the offender’s modus operandi and selected victims can be accurately determined. In addition, forensic and investigative evidence can be quickly obtained and tested, providing better intelligence regarding how and what the offender targeted. There are also other challenges in data mining that crime analyst much overcome. Often times there are many different crime databases utilized by a single agency. The records and dispatch databases do not always interface with the reporting databases, so analyst must obtain the information by independently accessing the raw data independently and combining it manually which contributes to inefficiencies (Ratcliffe, 2008).

Even with the technological challenges reporting data is valuable because it can be
quickly and accessed by police, detectives and crime analyst in real time, and information obtained can be used in subsequent events, and deploy resources in the future. Having more information can improve investigations and provide better organizational efficiency in law enforcement agencies (Ratcliffe, 2008; Vito et al., 2005; Weisburd, Mastrofski, McNally, Greenspan, & Willis, 2003).

**Social Science models of Crime Reporting Behavior**

Social scientists have developed few scientific decision-making models that explain the process of deciding whether to report a crime. This section will review some of the areas that have been explored in social science to promote the use of a social science theory to explain victim reporting behavior.

How individuals respond to societal expectations is to measure the level of social control (Sutherland et al., 1992). Using social psychological models for explaining or predicting crime reporting behavior can provide insight into the specific influences of social control and provide critical information needed in predicting behavior. Social psychology generally evaluates how a person’s thoughts, feelings, and behaviors are influenced by others (Sutherland et al., 1992). When it comes to law and order, many sociologists have studied the individual’s behaviors and actions in response to law, as a measure of social control. Social control can also refer to the way people respond to criminal behavior as victims (Black, 1983). Typically, researchers in the 1940’s who were studying behavior began with the assumption that there are different causes for different behaviors. For example, the causes of political behavior are different than sexual behavior or consumer behavior (Ajzen & Fishbein, 1980). To explain each of these behaviors different variables had to be explored (Ajzen & Fishbein, 1980).
Victim surveys mostly focus on the attributes of the specific crimes while ignoring other potential contextual factors (Harlow, 1985). This has not always been the case, however. Prior to the narrow focus on the victim surveys there was more attention devoted to contextual factors that could influence victim reporting (Goudriaan et al., 2004; Rossi, Waite, Bose, & Berk, 1974). Some contextual factors have an influence in crime reporting behavior such as whether residents are willing to assist each other in maintaining order or whether there is confidence in the justice system (Latane & Nida, 1981).

Social psychological research on victimization commonly explored the victims of disease and accidents, rather than victims of crimes. There has been some research on crime reporting, but the focus was on bystanders and the decisions to intervene in emergencies (Latane & Nida, 1981).

In summary, past research has not adequately established a full model which could be used for predicting whether an individual will report being victimized. Social psychological models can help fill this void. The Theory of Planned Action and subsequent Theory of Planned Behavior introduced by Ajzen and Fishbein (1980) and advanced by Ajzen (1991) advocated that it is possible to predict behaviors by using a few concepts in a single theoretical framework. Using this model from the social and behavioral sciences improvements can be made in prediction and understanding crime reporting behavior.

Theory of Planned Behavior Model

In the previous section, the framework was laid to support the exploration of a social science model to assess victim reporting behavior. Applying the TPB model to the
variables associated victim reporting, it may be possible to better forecast and predict crime reporting behavior. The Theory of Reasoned Action (TRA) introduced by Ajzen and Fishbein (1980) advocated that it is possible to account for various behaviors by using a few concepts in a single theoretical framework.

Early theories explored conventional notion that there was a strong connection between attitudes and behaviors. After research tested these theories, they found there was not a significant correlation between attitudes and behaviors (Aiken, 2002). After further exploration, there were findings that attitudes could be predictors of behavior if they are measured at the same level of specificity (Aiken, 2002). A person’s attitude regarding a general subject may be positive or negative which relates to the measure of their attitude. But, in order to know more accurately whether a person will actually engage in a certain behavior the person must evaluate a specific element, context, and period when engaging in a behavior (Aiken, 2002).

From these foundations and others, the Theory of Reasoned Action (TRA) was conceptualized by Ajzen and Fishbein (1975, 1980). These elements are volitional behavior, intention to perform the behavior, attitude toward the behavior, normative beliefs about what other people think and the motivation to comply with the expectation. Past studies had shown that attitudes were poor predictors of behavior. By reviewing the results of several dozens of studies Ajzen and Fishbein found there can be a strong relationship between attitudes and behaviors, but contextual conditions apply.

After the introduction and testing of this theory (TRA) Fishbein and Ajzen (1975) began reviewing results of studies in this area they concluded that attitudinal and behavioral entities consisted of basic elements, but important considerations must be made. One of
the keys to improving the existing model was to make sure the attitudes are specifically directed at a single behavior. The theory contends there are important attitudinal and normative components in predicting behavioral intentions and these intentions are related to observable behaviors (Ajzen, 1991). The Theory of Planned Behavior (TPB) modifies the TRA framework into three distinct components. These components are behavioral attitudes, social norms, and perceived behavioral control (PBC) and the relationship of these with intentions and subsequently intentions with behavior.

TPB suggests that behaviors can be predicted and the most effective way to predict behavior is to measure the individual’s intent to perform (or not to perform) a behavior as the determinant of the action. According to TPB, intentions, rather than just beliefs and attitudes, are the best predictors of actual behaviors, when other constraints on behavior (such as opportunity to act) are taken into account. Intention in this theory is separated into three basic factors. The current study will measure each of the TPB factors in order to assess their relationship to intent to report. The three factors are described below.

**Attitude.** Attitude toward behavior is the measured by the extent a person regards crime reporting behavior positively or negatively. The more positive a person’s attitude is toward crime reporting, the more likely it is that the person will complete a crime report for law enforcement; conversely the more negative a person’s attitude about crime reporting, the less likely the person will complete a crime report (Hansen, 2008).

**Social norm.** Social norms are understood to be the perceived social pressure to perform or not to perform a behavior. The more favorable the person feels crime
reporting is to others and the more acceptable reporting a criminal act is perceived to be, the more likely a person will complete a crime report (Hansen, 2008).

*Perceived behavioral control.* Perceived behavioral control concerns a person’s belief in his or her ability or inability to engage law enforcement and complete a crime report. It is this perception that is a reflection of the individual’s past experience as well as the obstacles or impediments to performing the behavior (Hansen, 2008).

*Past TPB Studies*

TPB has been shown to be a good model in predicting different behaviors, including exercise behavior, condom use, and testicular or breast self-examination (Aiken, 2002). In the recent past it was used as a model to predict in on-line shopping behavior (Hansen, 2008), exercise (Nigg, Lippke, & Maddock, 2009) and downloading music from the internet (Morton & Koufteros, 2008). Historically studies have shown that TPB has predicted a variety of behaviors across social and individual characteristics (Armitage & Conner, 2001). For instance, Nigg et al. (2009) tested personal and social demographics in a study involving over 3,533 individuals exercise levels. His contention was that health behavior theories were basically developed using middle class white populations and the models could be heavily biased based on the population sample. One of the objectives explored during his study was to make sure there were no such biases contained in the TPB model. He found that the inter-correlations between attitude, subjective norm and behavior control were equal across gender, age and ethnicities. Thus no bias existed in the model (Nigg et al., 2009).

If the testing of the TPB model shows that it accurately predicts intent to report crime, this model can serve as a tool for understanding and measuring the extent to which
a person’s attitudes, perceived behavioral control and social norms are related to crime reporting behavior. The probability a person will engage in a behavior has been shown to relate positively their intent to perform a behavior (Ajzen, 1991). If the TPB model is effective in predicting intent to report crime, it could enhance understanding of actual victim reporting and provide important information for the criminal justice and modern social science researchers. Specifically, it could be used to increase knowledge of factors that affect intentions to report crime. Victim crime reporting intentions are the best predictor of crime reporting behavior according to the TPB model. Researchers can develop programs to encourage crime reporting by better understanding what factors truly encourage or discourage crime reporting. This could assist in reducing the gap between the number of crimes that occur and the number of crimes that are reported.

Methods

Procedure and Participants

The data used for this thesis was collected by researchers for another study. The data was received directly from the researchers. Data collected from a questionnaire survey given to 985 participants was used to measure attitudes, subjective norms and perceived behavioral control for crime reporting intention. Using factors in the Theory of Planned Behavior, a model for intentions to report a crime was developed. The structural model is displayed in Appendix A (see figure 1). The following hypotheses and research question will be tested in this thesis.

Hypothesis 1: The TPB model (including attitude, norms and perceived behavioral control factors) will significantly predict the intent to report a crime.
Research Question: Out of the TPB factors (attitude, social norms or perceived behavioral control) which factor is most predictive?

Hypothesis 2: Enhancing the TPB model with other variables measured in victim reporting increases the model’s ability to predict the intent to report a crime.

Participants first read a 120 word scenario, in which they were instructed to imagine themselves as the victims of a non-violent crime. Specifically, they were to imagine that a criminal snuck up behind the victim and stole their purse or wallet. Participants then answered several questions measuring factors that would influence their decision whether to report the crime. The survey was administered by researchers in the University of Nevada, Reno Interdisciplinary PhD program in Social Psychology and the Criminal Justice Departments between 2004 and 2009 using Survey Monkey, an on-line data collection website. The survey was also available in paper form if participants did not have internet access or preferred not to take it on a computer. The survey data was downloaded and transferred to PASW Statistics Data Editor for analysis. The average age was 29.9 and the median age was 21.0 (N=882). Approximately 80% of the participants were students. The other 20% were community members recruited from community groups and the community centers. The gender breakdown was 40% male and 60% female participants. The ethnic breakdown was 5% African-American, 3.1% Asian-American, 7.9% Hispanic, 14.2% Native American, 68.7% white and 1.1% other. Participants were from various communities in different rural, suburban, and urban areas in Nebraska, Kansas, New York and Nevada. The survey was conducted in different
cities and towns so as to include a variety of states and settings (i.e., rural, suburban, east coast, west coast and mid-west).

**Measures**

The majority of the questions were based on 5 or 9 point Likert Scales. The questions selected to represent attitudes are listed in Appendix B. The questions used to represent social norms are listed in Appendix C and the questions selected to represent perceived behavioral control are listed in Appendix D. The questions regarding social norms and PBC were answered on a 5 point Likert Scale from “strongly disagree” to “strongly agree.” For two the questions asked in regard to attitudes (see Appendix B) a 9 point Likert Scale from “not likely” to “very likely” was used. All the questions for attitude were reverse coded so that all the measures would give high scores for positive attitudes towards reporting. The questions used for social norms (which have the subheadings of female and male in Appendix C) were taken from a three part question series that ask the participant to imagine that the incident occurred to a female/male friend instead of the participant. By measuring how likely the participant would encourage a male/female friend to report was a measure of the social norms the participant has in regards to intent to report criminal incidents. All the scales that were modified are noted in the appendices.

The second step tested the expanded TPB model which included additional variables added to the TPB factors. Past research has indicated that seriousness of the crime is one of the most important predictors of reporting (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Skogan, 1984). The variable selected to measure the severity is listed as variable 1 in Appendix E. The second variable used was based on a
study by Greenberg & Beach (1992), which investigated whether anger or fear induced victims to notify the police this is variable 2 in Appendix E. The next variables were selected because they have been asked during victim surveys to explore potential reasons for not reporting. The variable 3 was how much the victim felt at fault for the crime. The variable 4 addressed how much reporting would make an impact in whether it would contribute to the crime being solved. The variable 5 was how foolish the victim felt and whether it would be and influence in reporting. The sixth variable was if the victim knew the offender, and if the relationship would encourage or discourage them from reporting. This has been explored in most of the victim reporting studies (Bennett & Wiegand, 1994; Goudriaan et al., 2004; Zhang et al., 2007). The last variable was asked in a yes or no format and addressed whether the participant had been a previous victim of a crime, which is frequently seen as an important reporting variable (Bennett & Wiegand, 1994; Goudriaan et al., 2004; Zhang et al., 2007).

Several existing criminal justice attitude scales were explored from the survey questions. After some preliminary testing of several attitude scales, only one attitude scale was found to be reliable enough (Wrightsman, Batson, & Edkins, 2004). This attitude scale was broken down into three different subscales, which were designed to measure different attitudes relating to the criminal justice system. Each of the three subscales was tested for inter-correlation and only the subscale measuring the attitude towards integrity of the criminal justice system was selected. The first test of the integrity subscale did not have high enough inter-correlations with all the questions included, as the Cronbach’s Alpha was only 0.4. After eliminating several questions with low correlations (specifically numbers 92,104, 112, 113) the Cronbach’s Alpha increased to
0.70. The remaining subscale question (96, 107, 109, 115, 121) were reverse coded and averaged to create the “integrity the justice system” subscale variable. The questions used for this subscale are listed as variable 8 in Appendix F. The categorical scale for gender was adjusted so male = 1 and female = 0, and race was adjusted so white = 1 and non-white = 0.

Results

The first test of the TPB model involved performing a factor analysis of the variables selected from the survey questions (see Appendix B-D). These questions represent the TPB factors. A confirmatory factor analysis was conducted using principal component analysis and varimax rotation in PASW. The variables loaded into 3 components as expected; with the exception of question number 72 which measured whether is was important to report a crime. It was originally intended to measure attitudes, but it loaded with the social norms factors. The social norm questions (see Appendix C) all loaded between .625 and .887. The attitude questions loaded between .838 and .897. The questions for the social norms were averaged together, the questions used for the attitude were averaged together, and perceived behavioral control was a single question. The factors of attitudes and social norms were mean values used in the regression. The Cronbach’s Alpha was .869 for the social norms scale and .774 for attitude scale. A one tailed test was used to assess significance as the directions of the variables were recoded to create a positive result.

A two-step linear regression model was conducted, with the TPB factors in the first step and the enhanced TPB (original factors and additional variables) in the second
step. Please see Table 1 for uni-variate details. The regression model for the first step was found to significantly predict participants’ intent to report crime ($R^2 = .509$; adjusted $R^2 = .507$; $F [3, 877] = 303; p < .001$). The strongest predictor was the social norms ($\beta = .702, t [881] = 26.8, p < .001$) which was the most influential in the model and accounted for the majority of the model fit, indicated positive response when intent to report was positive. The attitude factor ($\beta = .057, t [881] = 2.1, p < .05$) showed a positive correlation when intent to report was a positive. The last factor was PBC ($\beta = -.054, t [881] = -2.16, p < .05$) which showed to be negative and significant when all the factors were run in the model. The PCB variable changing polarity when the full model was tested was a curious result. Upon further investigation, reviewing the model fit results for PCB and attitude factors each regression indicated a very small value for model fit ($R^2$) when they were run independently with the intent to report. This indicates that their relationships were significant, but in the case of PCB potentially non-linear. The social norm variables r-squared was extremely robust as a single variable, and the most predictive when all three factors were included.

The next step in the regression included the enhanced TPB. The enhanced TPB model only marginally improved the basic model ($R^2 = .514$; adjusted $R^2 = .507$; $F [10, 867] = 70.5; p < .001$) which showed to positively predict intent to report the crime incident. Consistent with the previous basic model social norms accounted for the majority of the model fit ($\beta = .664, t [881] = 20.46, p < .001$) which was positive and significant when predicting intent to report. The attitude factor was significant and positive as intent to report was positive ($\beta = .063, t [881] = 2.3, p < .05$). The last factor
was PBC ($\beta = -0.073, t [881] = -2.22, p < .05$) which showed to be negative with intent to report and significant.

In the enhanced TPB model the following variables were not significant: gender, race, how foolish the victim felt, if they knew the offender, were a previous victim were angry about the incident, felt at fault, thought the case would be solved or not, and a subscale which represented integrity of the justice system. The seriousness of the incident showed to nearly be significant and positively correlated to victim reporting, ($\beta = 0.054, t [881] = 1.733, p < .10$).
Table 1

*Multiple Regressions of TPB models*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
<th></th>
<th></th>
<th>Step 2</th>
<th></th>
<th></th>
</tr>
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<tr>
<td></td>
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<td>t</td>
<td>β</td>
<td>B</td>
<td>t</td>
<td>β</td>
</tr>
<tr>
<td>Attitude scale</td>
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<td>2.1</td>
<td>.057</td>
<td>.093*</td>
<td>2.258</td>
<td>.063</td>
</tr>
<tr>
<td>Social Norms</td>
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<td>26.8</td>
<td>.702</td>
<td>1.013***</td>
<td>20.461</td>
<td>.664</td>
</tr>
<tr>
<td>PBC</td>
<td>-.070*</td>
<td>-2.16</td>
<td>-.054</td>
<td>-.073*</td>
<td>-2.222</td>
<td>-.057</td>
</tr>
<tr>
<td>Gender</td>
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<td>-.36</td>
<td>-.009</td>
<td>-.041</td>
<td>-.284</td>
<td>-.007</td>
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<tr>
<td>Race</td>
<td>-.041</td>
<td>1.038</td>
<td>.030</td>
<td>.205</td>
<td>1.455</td>
<td>.036</td>
</tr>
<tr>
<td>Feel foolish</td>
<td>.016</td>
<td>.560</td>
<td>.014</td>
<td>.036</td>
<td>.117</td>
<td>.003</td>
</tr>
<tr>
<td>Knew offender</td>
<td>.016</td>
<td>.560</td>
<td>.014</td>
<td>.036</td>
<td>.117</td>
<td>.003</td>
</tr>
<tr>
<td>Previous victim</td>
<td>.016</td>
<td>.560</td>
<td>.014</td>
<td>.036</td>
<td>.117</td>
<td>.003</td>
</tr>
<tr>
<td>Belief in the system scale</td>
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<td>-.697</td>
<td>-.017</td>
<td>-.078</td>
<td>-.697</td>
<td>-.017</td>
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<tr>
<td>Seriousness</td>
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<td>1.733</td>
<td>.054</td>
<td>.071</td>
<td>1.733</td>
<td>.054</td>
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<tr>
<td>Angry</td>
<td>-.004</td>
<td>.117</td>
<td>.003</td>
<td>-.004</td>
<td>.117</td>
<td>.003</td>
</tr>
<tr>
<td>Feel at fault</td>
<td>.003</td>
<td>.066</td>
<td>.002</td>
<td>.003</td>
<td>.066</td>
<td>.002</td>
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<tr>
<td>How likely case will be solved</td>
<td>.026</td>
<td>.549</td>
<td>.014</td>
<td>.026</td>
<td>.549</td>
<td>.014</td>
</tr>
</tbody>
</table>

$R^2 = .507$ (Step 1), $R^2 = .514$ (Step 2)
N =881, *** $p < .001$, ** $p < .01$, * $p < .05$

Discussion

The main purpose of the study was to investigate whether the TPB predicts intent to report a crime and whether it can be improved by adding other factors which previous research indicates might be influential. The first hypothesis was supported: the TPB model was shown to positively predict intent to file a crime report. A research question exploring which factor in the TPB model was most predictive identified social norms to
be the most influential with regards to intent to report a crime incident. When all three variables were initially run in the TPB regression model it was observed the social norms scale accounted for the majority of the predictive association with willingness to report. When each factor was compared to intent to report separately, they positively predicted the intent to report and were significant. It was un-anticipated that social norms would account for such a strong majority of the influence, with only slight contributions from attitudes and PBC. Because of the strong positive predictive weight of social norms when the other factors were included, they became much less important to the model fit.

The second hypothesis tested was whether expanding the TPB model to include other variables explored in victim reporting research would create a more robust model with higher predictive statistics associated with intent to report. The expanded model proved to be significant in predicting intent to report, but when additional variables that have been shown to influence reporting were added to the basic model, there was only a slight increase in the model fit. The expanded TPB model from the second hypothesis was expected to show a significant increase the effect on reporting, but only demonstrated a marginal positive influence on the model. Historically, the most consistent finding is that victim’s decision to report is dependent on the seriousness of the crime, or the harm that was involved in the crime incident. Previous studies have explored other variables such as, attitude toward police and the justice system, individual demographics, advice from others, previous victimizations and some environmental factors (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Greenberg & Beach, 2004; Hindelang & Gottfredson, 1976; Skogan, 1984). Demographic variables at one time were thought to be important in victim reporting (e.g. age, sex, race). This thesis
supports the findings that show demographic variables lack any predictive influence (Goudriaan et al., 2004; Greenberg & Beach, 2004). In reviewing the additional variables considered in the expanded TPB model. The only additional variable that showed to be slightly significant was if the incident was considered more serious it increased the likelihood of willingness to report the crime.

These results help to expand the arenas which TPB model can be used. The TPB model has been frequently used in the health field to explain the intention to engage in prevention behaviors in regards to HIV/AIDS. Previous studies expanding the TPB model into other behavior areas has been increasing recently. These areas include predicting on-line shopping behavior (Hansen, 2008), exercise (Nigg et al., 2009) and downloading music from the internet (Morton & Koufteros, 2008). The results of this study indicate that TPB also predicts intent to report, thus expanding the utility of the model.

There are also several interesting implications based on the results of this study. Most importantly is that in this crime incident scenario, social norms significantly impact intent to report and are positive contributing factors in victim reporting. Previous studies have indicated advice from family and friends to be marginally influential in victim reporting (Ruback et al., 1999), but this finding is consistently overshadowed by the level of seriousness being the most important consideration (Gottfredson & Gottfredson, 1988; Goudriaan et al., 2004; Greenberg & Beach, 2004; Skogan, 1984). The results of this thesis indicate that the TPB model can be used to design a program that more specifically measures attitudes, social norms and perceived behavioral control and crime reporting.
The information obtained from this testing supports the theory that a media campaigns can be created to encourage reporting relying on social norms, creating more positive societal message to encourage reporting can influence victim reporting. Television campaigns and public service announcements encouraging all members of the community and local organizations to reprioritize the importance of reporting are supported by these finding and should be further explored. Other venues could include a social network sites that would function in the same manner as a secret witness call centers have worked in the past. These sites could encourage young adults to report, or provide incentives to reporting criminal incidents, and allows safety for bystanders who would otherwise not get involved. Outreach could also involve having victim advocacy groups engage with political candidates stressing the importance of victim reporting. It would bring attention to the common interest of crime control and promote and alternative to the “tuff on crime” stance intended to increase citizen participation and promote buy-in.

Other implication of the use of TPB modeling in victim crime reporting could be in the areas of survey design and to facilitate easier victim reporting to police agencies. TPB could be explored when analyzing survey questions used for victim decision-making research. The TPB model would be used create questions and scales specifically on each of the TPB factors in detail, further exploring and validating the model. The other area of use for information based on the TPB model would be to increase the focus in police management for creating improved system for victim reporting that does not involve outdated victim reporting systems. By embracing the social aspect of reporting and the popularity of the new technologies in the world of communication, programs can be
explored to ease the transfer of crime incident information. New police management strategies should minimally include initiatives that would increase commitment for citizen reporting of all criminal events and technology should be designed to minimize responding officer’s reliance on paper only records and allow citizens to submit incident/information reports electronically for speed and convenience. With more criminal incident information agencies will improve investigations and crime analysis functions. If these programs are successful, it may cause significant changes to information technologies in police management as it has in the private sector.

Limitations

The survey used to test this model contained several limitations. The first limitation is problems with generalization. The survey was given to mostly college age students and members of community groups, so a true random sample of participants was not obtained. This would hinder expansion of the results to all the polity. The second limitation was the surveys only measured intent to report a crime based on a single scenario. This is a limitation because it is not measuring actual crime reporting, just the anticipated intent to report, which may or may not become the act of reporting. Another limitation was that no actual crime reporting data was gathered, as there were no real victims. This study only measured intent to report not the actual crime reporting associated with this criminal incident. Since the majority of the citizens experience misdemeanor offensives in greater numbers than the violent felony offenses, the scenario was chosen because it was more representative of the average crime incident. However this study may not generalize to more serious offenses. The final limitation is the use of
secondary data analysis from existing research surveys. Despite these limitations, the study is valuable and future research can address these limitations.

Conclusion

The purpose of this thesis was to explore what are the critical influences that contribute to victim reporting. A social science model that has proven to be successful in predicting behavior primarily in the health behavior field was chosen. The primary role of victim and crime surveys is to examine victimization and to more fully understand the incidence and distribution of unreported crime (Skogan, 1984). Over the years, all the research and studies of the population have consistently found there is a great deal of unreported crime. This non-reporting has been shown to flow across various demographics and locations even where cooperation with the police is considered high (Bennett & Wiegand, 1994; Goudriaan et al., 2004; Skogan, 1984; Zhang et al., 2007).

The decision to report has shown to be more complicated and fraught with implications the initially theorized. Victim reporting is still considered the “gatekeeper” in criminal justice system, but has not been a serious focus of criminal justice policy recommendations. Federal initiatives should go beyond recognizing the low reporting levels and mandate minimum reporting levels in order to receive federal funding for criminal justice programs at the local law enforcement jurisdictional level. Victim reporting levels of a little over half of the criminal acts committed means important information is being lost for investigations and criminal analysis. Further research using the TPB model to explore important factors in victim reporting decision-making will improve police management, victim assistance programs, victim decision-making research and investigations.
Appendix A
Figure 1. - Structural Model

Subjective Norms

Attitudes

Perceived Behavioral Control

Crime Reporting Intention
Appendix B
Questions associated with Attitude

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Neutral</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

74. ____ Reporting crimes is a waste of my time (re-scaled)

75. ____ Reporting crime is not useful because police rarely solve crimes (re-scaled)
Appendix C
Questions associated with Social Norms

Instructions: Imagine that this incident occurred to a **FEMALE FRIEND** of yours (instead of happening to you). Please answer the following questions:

**FEMALE:**

39. How likely is it that you would encourage her to report the incident to police?

1-----2-----3-----4-----5-----6-----7-----8-----9
Not likely              somewhat likely              Very likely

Instructions: Imagine that this incident occurred to a **MALE FRIEND** of yours (instead of happening to you). Please answer the following questions:

**MALE:**

43. How likely is it that you would encourage him to report the incident to police?

1-----2-----3-----4-----5-----6-----7-----8-----9
Not likely              somewhat likely              Very likely

Instructions: The following statements examine how certain factors influence your likelihood of reporting a crime **in general** (not specific to the incident above). Please indicate the number that corresponds to how each factor would influence whether or not you report a crime to police.

47. ____ If a friend told me that I should report the crime

1-----2-----3-----4-----5-----6-----7-----8-----9
DISCOURAGE                                               ENCOURAGE
ME FROM REPORTING                                      ME TO REPORT

72. ____ It is important to report all crimes to the police

73. ____ It is my duty as a citizen to report crimes to the police
Appendix D
Question associated with Perceived Behavioral Control

77. ____ It is easy to contact the police to report a crime

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
<th>6</th>
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<th>8</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Neutral</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

____
Appendix E
Questions associated with other variables

Variable 1:
How serious is the crime?

Variable Question Used:
34. How serious do you feel this incident is?

1-----2-----3-----4-----5-----6-----7-----8-----9
Not serious somewhat serious very serious

Variable 2:
Does anger motivate victims to report?

Variable Question Used:
28. How angry are you about this incident?

1-----2-----3-----4-----5-----6-----7-----8-----9
Not Angry somewhat angry very angry

Variable 3:
It was my fault

Variable Question Used:
32. How much do you feel at fault for the incident?

1-----2-----3-----4-----5-----6-----7-----8-----9
No fault some fault very much at fault

Variable 4:
Nothing could be done

Variable Question Used:
36. How likely is it that the police will solve this case?

1-----2-----3-----4-----5-----6-----7-----8-----9
Not likely somewhat likely very likely
Variable 5:

I was embarrassed or foolish

Variable Question Used:

31. How **foolish** do you feel as result of this incident? (re-scaled)

1-----2-----3-----4-----5-----6-----7-----8-----9

Not at all foolish      moderately      very foolish

Variable 6:

Victim-offender relationship

Variable Question Used:

55. ____ If I know the criminal personally

1-----2-----3-----4-----5-----6-----7-----8-----9

DISCOURAGE                     ENCOURAGE
ME FROM REPORTING               ME TO REPORT

Variable 7:

Previous victimization

Variable Question Used:

66. Have you ever reported a crime? ___Yes___ No (re-scaled)

Variable 8:

Integrity of the justice system
Variable Questions Used:

**Instructions:** Each of the following reflects an opinion about the legal system and the courts. Please indicate how much you agree or disagree with each statement by circling the appropriate number below the statement. Use the following scale:

\[
\text{SD} = \text{STRONGLY DISAGREE}, \text{ D} = \text{DISAGREE}, \text{ U} = \text{UNDECIDED}, \text{ A} = \text{AGREE}, \\
\text{SA} = \text{STRONGLY AGREE}
\]

96. Defense attorneys are dishonest if it means they can win a case. (re-scaled)
   \[
   \text{SD}-----\text{D}-----\text{U}-----\text{A}-----\text{SA}
   \]

107. Lots of police are corrupt and hypocritical. (re-scaled)
    \[
    \text{SD}-----\text{D}-----\text{U}-----\text{A}-----\text{SA}
    \]

109. Judges are easily “bought off” by corrupt politicians. (re-scaled)
    \[
    \text{SD}-----\text{D}-----\text{U}-----\text{A}-----\text{SA}
    \]

115. Because lawyers can pick jury members, juries can no longer be trusted. (re-scaled)
    \[
    \text{SD}-----\text{D}-----\text{U}-----\text{A}-----\text{SA}
    \]

121. Prosecuting attorneys are dishonest if it means they can win a case. (re-scaled)
    \[
    \text{SD}-----\text{D}-----\text{U}-----\text{A}-----\text{SA}
    \]
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