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Delving into the Heart of Victimization Risk: Examining the Interactive Relationship between

Demographic Factors and Context

by

Amy Sheena Eggers

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy Department of Criminology College of Behavioral and Community Sciences University of South Florida

Major Professor: Ojmarrh Mitchell, Ph.D. Wesley Jennings, Ph.D. Terance Miethe, Ph.D. Ráchael A. Powers, Ph.D.

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# Dedication

Overall, I want to give thanks to God who answered a prayer I made as I walked across the stage for my high school graduation, which was to attain the highest level of education possible, regardless of my field of study. Though it has taken time, patience, endurance, and hard work, I can finally say that I accomplished this aim and for that I am truly grateful.

Nonetheless, this dissertation is dedicated to my parents and siblings, who have collectively encouraged me throughout my entire academic career. My immediate family has provided me with the love, strength, and guidance needed to successfully complete the tasks and meet the expectations laid before me. Their continual support allowed me to set, strive for, and achieve my goals through each of the various stages of my graduate program. Their continued backing served to motivate me during times of physical and mental exhaustion, which kept me from losing sight of my overall objective.



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I also want to thank my committee members, Dr. Ráchael Powers, Dr. Terance Miethe, and Dr. Wesley Jennings. Dr. Powers not only aided in the completion of my dissertation, but also assisted in formulating my application for the ICPSR Summer Program, which is where my dissertation idea first emerged. Her expertise with the NCVS also made her a key component of my dissertation committee. As for Dr. Miethe, his guidance in my use of Conjunctive Analysis was pivotal and made the examination of my dissertation plausible. I am also very appreciative of his availability for questions and discussions. Lastly, I want to express my gratitude for all the help I have received from Dr. Jennings. His contributions as a committee member led to the successful completion of my dissertation. In addition, I appreciate the willingness of Dr. Jennings to work with me on projects and presentations throughout my time at USF.



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# Abstract

My dissertation sought to expand the study of victimization by examining non-linear relationships across victim, offender, and offense characteristics within a routine activities theory framework. Moreover, my goals were to assess victimization risk using a more realistic approach through the implementation of a situational perspective approach and conjunctive analysis. Conjunctive analysis is an analytical with both quantitative and qualitative properties, which allowed for interpretations that were detail oriented and summative. Utilizing data from the National Crime Victimization Survey, several victim (e.g., demographic factors), offender (e.g., victim-offender relationship), and offense (contextual factors) characteristics were analyzed. Conjunctive analysis was estimated for incidents by victimization type and by race/ethnicity. The results indicated the presence of main (linear) effects and interaction (non-linear) effects. Main effects by victimization type provided support for prior research on victimization risk, such as the majority of victims emerging as young, white, and male. Interaction effects revealed young and female victims were vulnerable to attacks from non-stranger offenders; whereas, older and male victims were prone to stranger attacks. When estimated by race and ethnicity, whites and blacks were also more likely to be attacked by someone with whom they were familiar; whereas, victims categorized as other were more likely to be attacked by strangers. Theoretical and policy implications were discussed.



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# **Chapter One:**

# Introduction

In the United States, an estimated 5.4 million violent victimizations and 15.3 million property victimizations occurred among residents aged 12 and older in 2014 (Truman & Langton, 2015). These figures make clear that criminal victimization is common in the United States. Less apparent in these statistics is the fact that crime and victimization can have serious consequences for communities, families, and the individuals victimized. Hence, victimization is a serious concern and victimization research is highly salient.

Theorists and researchers have devoted considerable attention to understanding victimization risk, which explains the current existence of several prominent theories of victimization. These theories include routine activities theory (RAT; Cohen & Felson, 1979), a theory of macro level factors explaining variation in victimization rates; lifestyles/routine activities (LSRA; Cohen & Felson, 1979; Hindelang, Gottfredson, & Garofalo, 1978), an individual level framework explaining variation in victimization risk; and integrated multilevel theories of victimization such as Wilcox, Land, and Hunt's (2003) which blends elements of RAT, LSRA, social disorganization, and social bonding theories. In essence, all of these theoretical perspectives attempt to explain variation in the *level* of crime/victimization or victimization risk.

Likewise, researchers have built a voluminous body of knowledge assessing victimization theories. Broadly, this literature establishes that the risk of victimization is



increased by a number of factors including: belonging to a disadvantaged racial/ethnic group, being male, being unmarried, living in poverty, going out frequently at night, being in contact with those involved in crime, being involved in crime, and contextual factors (e.g., see Ezell & Tanner-Smith, 2009; Lee & Hilinski-Rosick, 2012; Miethe & Meier, 1990; Sampson & Lauritsen, 1990; Tillyer, Tillyer, Miller, & Pangrac, 2011 for a review of these factors). Notably, this body of research typically employs regression analyses to identify the unique main effect of variables and sometimes examines simple (two-way) interactive effects of a limited number of variables.

Existing victimization theory and research are undoubtedly insightful but I believe that the knowledge base concerning victimization would be aided by taking a *situational perspective*. The hallmark of the "situational" perspective is its focus on the convergence of victim, offender, and contextual characteristics, typically using qualitative methods (Hart & Miethe, 2008; Hart & Miethe, 2009; Hart & Miethe, 2011; Miethe, Hart, & Regoeczi, 2008; Miethe & Regoeczi, 2004). Unlike existing victimization theories, which attempt to explain variation in the level of victimization/victimization risk, the situational perspective attempts to understand why and how certain factors come together to raise victimization risk. In the words of Luckenbill and Doyle (1989), extant "theories focus on why certain people are more disposed to violence than others, but they do not specify the situational conditions that channel such dispositions into concrete lines of action" (p. 422). Further, unlike existing empirical victimization research, which typically examines the unique explanatory power of each variable (main effects), the situational perspective encourages qualitative data analyses, such as conjunctive analysis, that is capable of addressing and assessing complex multi-way interactions.

The purpose this research is to develop a more nuanced understanding of victimization



risk by employing the situational crime perspective and conjunctive analysis. The combination of the situational crime perspective with conjunctive analysis has the potential to identify victimization profiles that put individuals at high risk for certain kinds of victimization. Specifically, this dissertation examines violent and direct contact property victimization using a situational perspective and conjunctive analysis. Further, I explore whether victimization profiles vary by race/ethnicity. Considering the strength of race/ethnicity as a viable predictor of victimization in main effects models, I believe that further examination of racial/ethnic variation is necessary. Given the often stark differences between racial/ethnic groups in neighborhood context and socio-economic status (e.g., see Massey and Denton, 1993), it would not be surprising if victimization profiles vary substantially by race/ethnicity.

This research is largely exploratory out of necessity. Existing victimization theory does not specify in clear, concrete terms how victim, offender, and contextual features interact to explain victimization. Thus, while this dissertation is loosely guided by LSRA, it is essentially exploratory. In particular, I explore three research questions in this dissertation: 1) What are the dominant situational profiles for victims of violent crime; 2) What are the dominant situational profiles for direct contact property crime; and 3) Do these victim profiles vary across race and/or ethnicity?

I believe that this application of the situational perspective will shed light on each of the victim, offender, and contextual characteristics that underlie violent and direct contact property victimization risk. Moreover, the unique manner in which these characteristics come together to affect victimization risk allows for both a broad and detailed explanation of varying levels of risk. With a situational perspective, every characteristic type is equally considered when determining what factors contribute to increased and decreased victimization risk. The



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simultaneous consideration of these attributes serves to define the diversity in the structure of victimization (Miethe, & Regoeczi, 2004, p. 9).

The remainder of this chapter discusses the field's neglect of the situation crime perspective and its potential value. I begin by discussing the situational crime perspective. Then I discuss limitations in the extant victimization research and the ways in which the situational crime perspective can remedy these limitations. Last, I conclude this chapter by providing an overall summary of this dissertation.

# **Statement of the Problem**

As mentioned above, existing victimization theory and research largely conceptualize and investigate victimization as linear, additive, and independent. I believe this conceptualization is too simplistic because victimization risk is more accurately conceptualized as interactive functions of victimization risk factors and not simply the sum of independent individual variables. To illustrate the problem, take for example LSRA. LSRA is one of the most popular theoretical perspectives. The LSRA framework consists of an intersection of elements of routine activities (i.e., motivated offenders, target suitability, and capable guardianship) and lifestyle theories (i.e., demographic, lifestyle, and contextual factors). LSRA posits that victimization is increased by risky lifestyles and routine activities (e.g., going out at night, coming into contact with offenders, being involved in crime), as risky lifestyles and routine activities increase the likelihood that an individual and/or their property will converge in time and space with a motivated offender in the absence of a capable guardian. Notably, LSRA, by omitting discussion of how risky lifestyles and routine activities interact to affect victimization risk, implies that victimization risk is a linear, additive function of independent lifestyle/routine activities factors.



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By linear, I mean each one-unit increase in a victimization risk factor has the same effect on the likelihood of victimization. By additive, I mean that victimization risk is simply the sum of each individual variable's effect on victimization risk. By independent, I mean that the effect of any one independent variable does not depend on the values of any other variables. Given this theoretical conceptualization of victimization risk being a linear, additive function of independent risk factors, it is not surprising that research testing LSRA (and other victimization theories, more generally) follow the theory's conceptualization. While this body of research has successfully identified individual factors affecting victimization risk, the research largely has under-addressed how victim, offender, and contextual factors interact to shape victimization risk.

The dependency of the victimization literature on a linear, additive approach is not only due to a lack of theoretical guidance concerning interactive relationships, but also due to a methodological reliance on regression analyses. Regression analyses typically are used to identify the unique, independent explanatory power of each variable—making regression analyses a good fit to the linear, additive, independent conceptualization of victimization risk specified by prevailing victimization theories. Of course, regression analyses can accommodate interactions between independent variables and it is not uncommon for studies to include simple, two-way interactions. However, estimating interactions in regression analyses often causes multicollinearity, which in turn reduces the statistical power of the analyses, particularly if multiple interactions are included or complex (three-way) interactions are estimated. Thus, standard data analyses employ "main effects" analyses, and as Miethe and Regoeczi (2004) note: "main effects [models expect] each variable to operate like a master status, having identical effects all combinations of other attributes" (p. 45).



I believe that the main effects approach is limited since victimization situations are complex. The victims and offenders involved in victimization situations are complex beings who represent numerous risk factors at one time. For example, when assessing gender, individuals do not cease to belong to a specific racial/ethnic group, age group, or marital status. Likewise, a person's demographic profile does not fade away when situational factors are taken into consideration. Instead, the people involved in a potential victimization situation should be characterized by all these factors at once. Yet, victimization theorists and researchers treat these characteristics as though people can step in and out of certain demographic and contextual roles when that is not the case. There is no denying the inherent complexity of victimization risk factors; yet, much of the extant victimization risk literature fails to acknowledge this complexity.

As a solution to these problems, I propose the use of a situational crime perspective and conjunctive analysis. The situational crime perspective adheres to the notion of multiple combinations of factors resulting in a specific type of victimization. In other words, there is no expectation that one single set of factors is associated with higher or lower victimization risk. A complement to this theoretical perspective is conjunctive analysis. Conjunctive analysis is an analytical tool that focuses on assembling different combinations of factors or *situational contexts*. Once the situational contexts have been identified, common and unique combinations are able to be compared in terms of differences in victimization risk and underlying factors. The simultaneous focus on all factors related to victimization risk links the theoretical argument of a situational perspective to conjunctive analysis because the latter makes testing the former possible.

Using the current body of literature as a foundation, I seek to make contributions to both theory and policy. Implementing conjunctive analysis as a viable analytical tool, I want to use



my results and findings to inform future theoretical directions for the purpose of studying victimization. By deepening the arguments inherent in LSRA, my dissertation aims to make non-linear relationships a prominent part of the criminological theory. The inclusion of this relationship makes the explanation for and tests of LSRA much more realistic. As a result, the findings that emerge from these works should align more closely with the issues policies are meant to address. Basically, the efforts being put forth here are somewhat cyclical in that the methodological tool I propose for use is meant to inform the future direction of theory, which is then meant to address policy. In other words, my research endeavors align more with inductive rather than deductive efforts.

This dissertation proposal is organized as follows. Chapter two details the theoretical and methodological limitations found in the victimization literature. Specifically, the various iterations of routine activities are presented, as well as empirical tests of the theory. Routine activities is also examined to determine its applicability and scope in terms of demographic and contextual factors. To account for methodological limitations, standard tests of non-linear relationships are further discussed, as is conjunctive analysis. Chapter three outlines the data and measures needed to further the foundation for routine activities. The measures are grouped into victim, offender, and offense characteristics to form a situational context to ensure all of the elements pertaining to an incident of victimization are gauged. Chapter four describes the analyses, the results, and their implications. The final chapter discusses my findings and their implications for theory and policy.



## **Chapter Two:**

# **Literature Review**

The overarching goal of the chapter is to review the existing theories of non-fatal victimization and the empirical evidence assessing these theories. Specifically, I focus on routine activities theory (RAT) and its derivatives (i.e., lifestyles routine activities approach (LSRA) and criminal opportunity theory) as these theories are the most widely used in explaining victimization risk. From here, I discuss limitations associated with existing theories and tests of these theories. My thesis is that while existing theories offer powerful explanations of victimization, they do not specify how the underlying risk factors simultaneously interact to explain victimization risk. In short, I believe victimization is more complex than existing theories indicate.

The remainder of this chapter is organized into three sections. The first section reviews the most prominent theories of victimization and the corresponding empirical support for the various applications of RAT. I begin this section with a discussion of RAT because this theory is the foundation for modern victimization theories. In particular, I discuss the early macro-level RAT application and progress to the more popular micro-level RAT application. For each of the RAT implementations, empirical support is assessed with an emphasis on the general propositions.

The second section highlights theoretically relevant demographic and contextual factors and their relationship to victimization risk. Discussions are dedicated to race/ethnicity, gender,



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intersectionality, and the victim-offender overlap to determine the current state of victimization patterns as they relate to each one of these elements of victimization. A common finding in this body of research is that even after taking RAT measures into account, demographic factors affect the likelihood of victimization. This finding suggests that perhaps the situational characteristics of victimization vary by demographic factors, particularly race/ethnicity.

In the third section, I discuss situational theories of victimization and existing research that utilize this approach. Moreover, I emphasize the utility of conjunctive analysis as a compatible and viable analytical tool for research embedded in situational theories. The success of combining situational perspectives with conjunctive analysis is highlighted through previous works.

#### **Theoretical Origins**

#### **Routine Activities Theory**

#### Macro-Level

Despite its overwhelming popularity as a micro-level theory, RAT was first introduced as a macro-level explanation for victimization (Cohen & Felson, 1979). Unlike other criminological theories, which tend to focus on characterizing the offender, RAT centers on the circumstances surrounding a criminal act. In their explanation, Cohen and Felson hone in on the notion of routine activities, which not only serves as the title of their theory, but their main concept in that routine activities affect the frequency in which elements converge. Routine activities are literally *activities* or *schedules* that people *routinely* engage in. Simply stated, routine activities are a catalyst that influence the overall structure needed for the successful completion of crime. In other words, criminal opportunity (or crime completion) is based on the convergence of three



elements, motivated offenders, suitable targets, and capable guardianship, which are set into motion by routine activities. Cohen and Felson (1979) explain when the three components converge at one place and time, a direct contact predatory violation can occur.

The first component of the theory is motivated offenders. Motivated offenders represent those most likely to engage in crime given a suitable situation. Motivated offenders are the least emphasized aspect of the theory, as motivated offenders are understood to be a given in most situations. It is explained that there are simply those who are drawn to preying on people and their belongings. For this reason, relatively little effort has been dedicated to this aspect of the theory; instead, Cohen and Felson have focused on pinpointing concepts that accurately portray and explain target suitability and guardianship.

The second component is target suitability. Cohen and Felson (1979) depict target suitability as a characteristic pertaining to the victim or the victim's property. For instance, qualities such as the value of an item, weight, accessibility, and physical attributes are all taken into consideration by the motivated offender to determine his/her overall success. In addition to the attractiveness of the item or person, motivated offenders also gauge target suitability by the location of the victim's routine activities, which may lead the victim to areas where a motivated offender could more confidently attack. In terms of ideal locations, street features such as isolation, time of day, and lighting (with dimly lit areas being the preference). On the other hand, the offender's confidence is likely to wane if the victim appears to be carrying a weapon or possesses the ability to fight back. Nonetheless, as important as target suitability is to a motivated offender, the determining factor as to whether or not someone or something presents a viable criminal opportunity is capable guardianship.



The third component, capable guardianship, is a construct that represents the victim's (or their property's) level of protection and the likelihood of criminal success on the part of the motivated offender. More than just guardianship, it is the capability of the guardian that sets the tone for criminal opportunity. When motivated offenders, suitable targets, and capable guardians converge at one space and time, the likelihood of success is drastically reduced, thereby decreasing the person's or item's likelihood of attack. The reduction in victimization risk is due to the motivated offender's calculation of success. When a capable guardian is present, the criminal act becomes more difficult to successfully complete, leading the motivated offender to disregard the criminal opportunity as viable. Conversely, if the same motivated offender and target converge at one space and time, but in the absence of capable guardianship, the overall likelihood of success grows, resulting in an increased risk of victimization. Explanations for the manner in which these elements converge suggest routine activities occurring far away from the home place potential victims in a vulnerable position because they are out of the capable guardian's reach (i.e., family and friends). Compounding the risk of victimization is the location where a person's routine activities takes them because depending on the locations that people regularly visit, engaging in certain activities can affect their likelihood of attack. For example, if a person frequents areas that place them in the path of motivated offenders, they may be actively (even if not knowingly) contributing to their own victimization risk. In this regard, the lack of guardianship along with regular visits to unsafe areas together can increase a motivated offender's likelihood of success.



#### Empirical Research

Below is a brief overview of the macro-level RAT literature. This section is not meant to provide a comprehensive review of the current body of literature, but a simple overview of key findings. One notable complication in reviewing this literature is the use of proxy variables as measures of RAT's central concepts. This is noteworthy because the same variable can be used to measure different RAT concepts, which complicates assessments of the empirical literature's support of RAT's three concepts.

Of the three RAT concepts, capable guardianship has received the greatest level of empirical scrutiny and empirical support. Capable guardianship has been measured with proxy variables, such as household occupancy (i.e., number of people residing in the home during the day or night; Lynch & Cantor, 1992), presence of commercial establishments (i.e., convenience stores, bars, grocery stores, fast food restaurants, and liquor stores; Lynch & Cantor, 1992), closer proximity to criminally-prone areas, owner-occupied households (Smith, Frazee, & Davison, 2000), the number of hotels, motels, and multifamily buildings (Rice & Smith, 2002; Roncek, 1981; Sampson, 1983), percentage of overcrowding, apartments, and vacancy rates (Kautt & Roncek, 2007). Research has found that many of these measures of capable guardianship have relationships to crime/victimization that are consistent with RAT. For instance, greater victimization risk was associated with greater household occupancy, a greater presence of commercial establishments, closer proximity to criminally-prone areas, owneroccupied households, and greater percentages of apartments and greater vacancy rates (Kautt & Roncek, 2007; Lynch & Cantor, 1992; Smith, Frazee, & Davison, 2000). On the other hand, other measures decreased the likelihood of victimization. Specifically, burglary rates per block decreased as the percentage of overcrowding increased (Kautt & Roncek, 2007), juvenile arrests



decreased with high unemployment (Pollock, Joo, & Lawton, 2010), and motor vehicle theft decreased as owner-occupied households increased (Rice & Smith, 2002).

Less commonly studied is the relationship between target suitability and victimization. Measures of target suitability include household leisure activities (i.e., television viewing), nonhousehold leisure activities (i.e., sports and entertainment; Messner & Blau, 1987), and land use variables (e.g., multifamily residence, youth-related places, public activities, and commercial places; Smith, Frazee, & Davison, 2000). As expected, non-household leisure activities coincided with greater victimization risk; whereas, household leisure activities coincided with lower victimization risk. Not surprisingly, measures with negative associations to victimization were centered within the home. Part of the explanation underlying RAT posits victimization risk as a function of the distance between a person's routine activities and their home. Therefore, the further away a person's routine activities takes them from their home, the more likely the person is to be victimized and vice versa (Andresen, 2006). As for the land use variables, all of them were significantly and positively associated with street robbery (Smith, Frazee, & Davison, 2000).

Of the three components, motivated offenders have been examined the least and, instead, treated as more of a conceptual given. Again, researchers have turned to proxy measures to tap into elements related to motivated offenders. One set of proxy measures pinpoints characteristics associated with being criminally prone in order to gauge motivated offenders. For example, males and females between the ages of 15 and 18, along with males and females between the ages of 19 and 24 (Pollock, Joo, & Lawton, 2010) are some of the ways in which motivated offenders have been conceptually accounted for. Another set of proxy measures involves using variables that approximate the distance between victim and offender residence (Smith, Frazee, &



Davison, 2000). Specifically, single-parent households and distance to downtown areas represented proximity to motivated offenders. In terms of the various effects of these proxy measures, among the subsets of gender and age, the only group statistically related to juvenile arrest rates were males between the age of 19 and 24, a finding that was somewhat consistent with the theoretical model. As for the proxy measures of offender residence, greater numbers of single-parent households increased the rate of street robberies; whereas, greater distance from the center of the city decreased street robbery rates (Smith, Frazee, & Davison, 2000).

A more global view of the macro-effects of RAT are provided in Pratt and Cullen's (2005) meta-analysis in which the theory was "moderately supported." Among all macro level variables, household activity (a proxy for exposure to motivated offenders) fell into the top ten strongest effect sizes; whereas, the unemployment rate (a proxy for guardianship) had a much weaker effect size. Pratt and Cullen characterized RAT as moderately supported due in part to researchers' tendency to heavily focus on guardianship in comparison to motivated offenders and target suitability. In short, the existing literature demonstrates that measures of all three components of RAT are related to crime/victimization in theoretically consistent manners but this research primarily focuses on guardianship.

#### Micro-Level

Hindelang, Gottfredson, and Garofalo (1978) developed a theoretical framework similar to Cohen and Felson's RAT to explain victimization risk at the individual level. Hindelang and colleagues (1978) posit that higher risks for victimization are the product of lifestyles that expose individuals to dangerous people, places, and activities. Subsequently, researchers have combined the key insights from Hindelang and colleague's lifestyles perspective with RAT to more fully



explain victimization and victimization risk. This combined perspective has become known as the LSRA theoretical model. LSRA is without a doubt one of the most dominant individual level theories guiding victimization research. LSRA perspective can be explained in four key propositions (Christiansen & Evans, 2005; Miethe & Meier, 1990): 1) victimization risk is increased by living in crime-ridden neighborhoods due to closer proximity to motivated offenders; 2) victimization risk is heightened by frequenting places that bring potential victims into closer contact with motivated offenders; 3) motivated offenders are drawn to specific characteristics of the victim and/or their property (i.e., target attractiveness); and 4) the amount of time spent in the company of potential guardians can protect an individual. These four key propositions work together to explain individual differences in victimization risk.

One interesting feature of Hindelang and his colleague's work is these authors note that victimization risk varies systematically by demographic and contextual features. Hindelang and colleagues delve deeper into the risk found in specific types of lifestyles through the use of demographics and context. Demographic factors like race, age, gender, and marital status serve as proxies for the most vulnerable groups. More specifically, individuals described as young, black, male, and unmarried are known to have greater exposure to victimization risk, regardless of crime type (Lee & Hilinski-Rosick, 2012; Sampson & Lauritsen, 1990). Their vulnerability stems from increased participation in routine activities that correspond with greater target suitability, exposure to motivated offenders, and incapable guardianship. This convergence of factors is what collectively contributes to increased victimization risk.



#### Empirical Research

The following section is also meant to provide an overview of the micro RAT literature rather than an in-depth literature review. Problems associated with this body of literature include the way concepts are operationalized, in that, there is a lack of independent measures for elements of lifestyle and RAT (Miethe, Stafford, & Sloane, 1990). This also affects the interpretation of findings because measures for one component are discussed in terms of its direct effect (e.g., target suitability), while also implying it has effects on the other components (e.g., guardianship and motivated offenders).

Capable guardianship's relationship to victimization has been confirmed using a variety of measures. Examples of measures of capable guardianship include the number of household members (Miethe, Stafford, & Sloane, 1990), number of close friends and residence location (Franklin, Franklin, Nobles, & Kercher, 2012), an adult presence among juvenile activities (Bratt, 2008), and self-protection (carries mace, body alarm, gun, knife, bat/club, cell phone; Mustaine & Tewksbury, 2002; Tewksbury & Mustaine, 2001). Among the effects of these measures, reductions in the number of household members decreased guardianship, thereby increasing personal and property risk (Miethe, Stafford, & Sloane, 1990). Similarly, residence location (whether the respondents resided on- or off-campus) was a significant factor for property and personal victimization risk (Franklin, Franklin, Nobles, & Kercher, 2012).

There are also numerous studies that include various measures of target suitability. Within the micro RAT literature, there are many more measures and studies of target suitability than any other element. Measures of target suitability have included nighttime and major activity (comparison between major activities occurring outside the home to those whose major activity occurs inside the home; Miethe, Stafford, & Long, 1987), passive lifestyle versus active lifestyle



(Miethe, Stafford, & Sloane, 1990), time of day (Miethe, Stafford, & Sloane, 1990), living offcampus, being actively involved in either a fraternity or sorority, illegal drug sales (Franklin, Franklin, Nobles, & Kercher, 2012), delinquent versus non-delinquent lifestyle (Lauritsen, Laub, & Sampson, 1992), college athlete, frequent bars, and drug use (Tewksbury & Mustaine, 2001). Many of these measures have been found to be related to victimization. For example, frequency of going out at night (Miethe, Stafford, & Sloane, 1990), having an active lifestyle (Franklin, Franklin, Nobles, & Kercher, 2012; Lauritsen, Laub, & Sampson, 1992; Miethe, Stafford, & Sloane, 1990; Tewksbury & Mustaine, 2001), involvement in deviant behavior (Franklin, Franklin, Nobles, & Kercher, 2012; Miethe, Stafford, & Sloane, 1990; Lauritsen, Laub, & Sampson, 1992; Tewksbury & Mustaine, 2001), time of day (Miethe, Stafford, & Sloane, 1990), living off-campus, being actively involved in either a fraternity or sorority, college athletes, frequenting bars (Tewksbury & Mustaine, 2001) have all been repeatedly found to increase victimization risk.

Studies assessing the relationship between victimization and exposure/proximity to motivated offenders are rare. In the few studies where this component was included, exposure/proximity to motivated offenders was measured with proxy variables. For example, deviant lifestyles, such as participating in drug sales, were found to increase the risk for property, personal, and sexual assault victimization (Franklin, Franklin, Nobles, & Kercher, 2012). With the reliance on proxy variables, drawing generalizations about motivated offenders is rather complicated because the operationalization of the component is largely indirect.

To determine its overall level of empirical support, Spano and Ferlich (2009) conducted a meta-analysis of the LSRA research. Spano and Ferlich (2009) examined multivariate findings from articles published between 1995 and 2005, the results of which were tested against



hypothesized effects within the LSRA framework. For each key component of LSRA, these authors assessed the frequency with which studies found each component was negatively associated with victimization risk ("protective" factor) and positively associated with victimization ("risk" factor). To gauge each component's overall relationship to victimization, Spano and Ferlich calculated the ratio for studies finding increased to decreased victimization risk.

Specifically, those factors found to be greater protective (rather than risk) factors were guardianship and target suitability, which was five times more likely and 3 times more likely to be categorized as a protective factor, respectively. On the other hand, deviant lifestyles and exposure to potential offenders emerged as 7 times and 3 times more likely to be marked as a risk factor rather than a protective factor, respectively. All in all, the multivariate findings coincided with the hypothesized effects: (1) greater guardianship is associated with a lower likelihood of victimization; (2) targets deemed attractive are more likely to be victimized; (3) deviant lifestyles contribute to both the likelihood of victimization and criminal participation; and (4) individuals are at a greater risk for victimization and criminal participation the more they are exposed to potential offenders.

# **Victimization Risk Factors**

#### Victim Characteristics

Descriptive and explanatory research most often reveal sizeable differences in victimization risk by demographic factors. Examining demographic factors is important because each factor represents a part of the overall victimization "story." By part, I mean each factor represents its own specific risk for victimization. For example, gender is a powerful predictor of



victimization risk for many kinds of crimes with males generally having higher rates of risk than females, particularly for serious violent crimes (e.g., murder, aggravated assault, robbery). An exception to this gendered pattern is intimate partner violence, where females typically face higher likelihoods than males (Catalano, 2013; Harrell, 2007; Rennison, 2002; Truman & Langton, 2015). Likewise, blacks have considerably higher rates of victimization than whites, and Hispanics generally have victimization rates in between those of whites and blacks (Lauritsen & White, 2001; Like-Haislip & Miofsky, 2011; McNulty & Bellair, 2003; Miller, 2012; Miller and Lopez, 2014). Victimization risk is also correlated with marital status and age with married individuals having lower victimization risk than other marital statuses, and victimization risk declining systematically with age in a similar non-linear fashion as the agecrime curve.

In essence, each demographic factor contributes its own level of risk to victimization and demonstrates how different facets of potential victims can either increase or decrease their likelihood of risk. In the following subsection, I briefly and broadly discuss variations in victimization risk by race, ethnicity, and gender. In addition to discussing how victimization varies across each of these demographic factors individually, I also discuss, intersectionality research, which gauges how these demographic factors interactively affect the likelihood of risk. The final part of this section discusses the victim-offender overlap. Previous works show that victims and offenders often share many of the same demographic characteristics (Broidy, Daday, Crandall, Sklar, & Jost, 2006; Daday, Broidy, Crandall, & Sklar, 2005; Tillyer, Miller, & Tillyer, 2011). These subsections are meant to provide a background for the main issues to be examined in this dissertation.



#### **Race and Ethnicity**

Descriptive victimization reports provide evidence of race- and ethnic-specific trends and patterns. The utility of these reports is their ability to present current and historical trends in a simplistic manner. As a recent, prominent example, Truman and Langton (2015) compare victimization prevalence and rates across racial/ethnic groups using data from 2005, 2013, and 2014. These authors' analyses find that in 2014, blacks (1.4%) had greater prevalence rates of victimization than whites (1.1%) but whites and Hispanics revealed no difference in prevalence rates. Yet, this report also found that in 2013, blacks and Hispanics (1.3%) both had higher victimization prevalence rates than whites (1.1%). In terms of victimization rates (per 1,000 persons age 12 and older), the results also varied by race and ethnicity, as well as by crime type. In 2014, the rates for violent crime (i.e., rape/sexual assault, robbery, aggravated assault, and simple assault) were highest among blacks (22.5), followed by whites (20.3), and Hispanics (16.2). Yet, once again in 2013, Hispanics (24.8) fared worse than whites (22.2) in terms of higher rates of victimization and blacks (25.1) remained the most vulnerable group. As for serious violent crime (i.e., rape/sexual assault, robbery, and aggravated assault), the rates reflected somewhat similar trends to violent crime. Here, blacks (10.1) evinced the highest rate, with Hispanics (8.3) as the next highest group, followed by whites (7.0). This same trend in risk appeared in 2013 for all three groups (in the same order). Based on the results for prevalence and victimization rates, it is obvious differences exist among racial and ethnic groups. Furthermore, the greatest differences emerged for victimization rates, particularly for serious violent crime.

In terms of property crime victimization, national statistics also revealed differences in risk by race and ethnicity. Variations in risk were gauged by rates (per 1,000 households) for households that experienced a completed burglary (Walters, Moore, Berzofsky, & Langton,



2013). Rates were calculated by the head of household for 1994, 2001, and 2011. In 2011, (non-Hispanic) black heads of household reported the highest rates (32.2), followed by households headed by Hispanics (24.9), and households headed by (non-Hispanic) whites (20.8). The same patterns emerged in 2001 with households headed by blacks evincing the highest risk, then Hispanics, and whites. In addition, higher rates were reported for each group in 2001 (41.1, 32.5, and 25.7, respectively) than in 2011. Similarly, the rates for all three groups decreased by more than half from 1994 to 2011. Specifically, the rate for black heads of household decreased by 52% (67.3 to 32.2) and 57% for white heads of household (48.3 to 20.8). However, the greatest decrease appeared for Hispanic heads of household with rates dropping from 76.0 to 24.9.

Aside from descriptive reports, multivariate empirical studies also demonstrate the importance of race and ethnicity for understanding victimization. In theory, multivariate studies that include theoretically relevant variables should explain group differences and reduce these group differences to non-significance in the model. Nonetheless, prior findings often demonstrate that race- and ethnic-specific effects still emerge as statistically significant despite LSRA-related controls. In other words, victimization risk is not equally shared between race and ethnicity and not strictly accounted for by participation in different activities and lifestyles.

For serious violent victimization (i.e., having money or property taken by force; having a gun pulled on you; or having a weapon other than a gun pulled on them), non-white students were much more likely to be victims than white students (Henson, Wilcox, Reyns, & Cullen, 2010). In fact, the odds of a nonwhite student experiencing serious violent victimization was about 207% more than for white students. This finding remained statistically significant despite the authors controlling for a variety of activities, such as driving around, time spent with a significant other, church activities, and a delinquent lifestyle. Another unique outcome involved



violent dating victimization (Gover, 2004). In this study, victims who were physically beaten up (e.g., hit, kicked, or thrown someone down) were examined. Unlike prior results, blacks were less likely to report violent victimization than whites when dating, even after controlling for drug/alcohol use and engaging in sexual behavior. The difference in risk indicates the odds of blacks reporting dating violence was 52% less than whites.

Ultimately, gaining a better understanding of victimization patterns requires examining race and ethnicity. As discussed, victimization risk varies between blacks, whites, and Hispanics. These differences are especially prominent when victimization studies are disaggregated by crime type. Moreover, race- and ethnic-specific patterns continued to emerge as statistically significant predictors in models where LSRA variables were being controlled. In essence, the LSRA framework aids in reducing the effect of race and ethnicity in some cases, but the predictors still remain relevant to the outcome. It seems a single explanation for victimization does not suffice because each group faces risk levels that not only differ from one another, but across crime types. In other words, what is needed is an approach that takes variations in context and demographic factors into consideration.

#### Gender

Much like race and ethnicity, descriptive reports also provide evidence of gender-specific patterns of victimization. Truman and Langton (2015) also compared the prevalence and rate of violent crime by gender. In the most recent year (2014), males (1.2%) had a higher prevalence rate than females (1.1%). These results mirrored those for 2013. Comparisons for violent and serious violent crime rates (per 1,000 persons age 12 or older) were also included in the report. For violent victimization, the rate for males (21.1) was higher than that for females in 2014



(19.1). Males experienced higher violent victimization rates than females in 2013 (23.7 and 22.7, respectively) and 2005 (34.0 and 23.1, respectively). Similar patterns emerged for serious violent crime rates. Once again, the male rate (8.3) was higher than the female rate (7.0) in 2014 and 2013 with the male rate being 7.7 and the rate for females remaining the same as 2014 (7.0).

Similar to the research concerning race and ethnic differences in victimization, research utilizing multivariate analyses also finds that victimization risk varies by gender, even after accounting for theoretically relevant variables with males being more likely to be victimized than females. As an example, Sampson and Lauritsen (1990) found greater male victimization risk for a number of different victimization types (i.e., total victimization, personal victimization, assault, stranger-violence, and acquaintance violence) in a baseline model when compared to females. Interestingly, the results remained largely unchanged after accounting for several lifestyle indicators (i.e., spending nights out and drinking). Though the inclusion of the latter measures reduced the magnitude of the effects for gender and victimization, males were still reported as being more vulnerable in four out of the five victimization types (i.e., there was no gender effect for acquaintance violence). The fact that gender remained statistically relevant to the outcome, despite the inclusion of LSRA controls shows that something more than lifestyle and routine activities are affecting their likelihood of victimization risk. The appearance of the same finding across different crime types further cements the importance of gender for understanding victimization risk.

Gender was also a factor in the victim's appearance on a non-, low-, or high-risk violence trajectory (Jennings, Higgins, Tewksbury, Gover, & Piquero, 2010). Females were significantly more likely to be assigned to a low or moderate victimization trajectory, even after controlling for school commitment, gang participation, and delinquent peer association; whereas males were



more likely to be assigned to the highest victimization trajectory. When referring to subsets of crimes, males were more likely to report being the victim of an assault (or an attempted assault), robbery, larceny, and vandalism than females (Lauritsen, Sampson, & Laub, 1991). The greater risk for assault among males was attributed to the former's tendency to engage in offending behaviors and interact with delinquent peers.

Another important element of the gender and victimization relationship concerns IPV. In terms of risk, IPV is the only crime type where females typically fare worse than males. Gender-specific IPV relationships have been detailed in reports that utilize national data. One such report used the NCVS to gauge the nature of IPV for men and women between 1993 and 2011 (Catalano, 2013). Longitudinal trends for male and female simple assault showed the rate for females was more than triple that for males between 1994 and 1997. Similar trends emerged for serious violence differences between males and females across the same time frame. Though both genders experienced decreases in their rates during 1998 and 2005, females still fared worse than males. Additional results revealed females had greater percentages of overall injury at the hands of an intimate partner when compared to males between 2002 and 2011. Specific injury types that resulted from an intimate partner, such as sexual violence (i.e., rapes, attempted rape, and sexual assault); internal injuries, unconsciousness, broken bones; bruises, cuts, among other injuries were also greater for females than males.

Variations in IPV victimization type (i.e., severe/non-severe physical and sexual violence) also yielded results that support the notion of females being more at risk than males (Romans, Forte, Cohen, Du Mont. & Hyman, 2007). Among the various forms of IPV, women reported higher likelihoods of being threatened (5.7%), pushed/grabbed/shoved (7.1%), beaten up (2.2%), choked (1.8%), and having been attacked with (or threatened with) a gun or knife



(1.2%) than men (4.3%, 3.0%, 0.7%, 0.3%, and 0.5%, respectively). Women were also more at risk for sexual abuse (1.7%) than males (0.2%) and more likely to report more than a single incident of physical or sexual violence when compared to males.

Examining the threat for rape, physical assault, and stalking victimization, Tjaden and Thoennes (2000) concluded women were significantly more likely to be a victim of an intimate partner than men, regardless of whether the timeframe was a lifetime or the previous 12 months. In terms of specific victimization types, women were reported as being 22.5x more likely to be raped, 2.9x more likely to be physically assaulted, and 8.2x more likely to be stalked than men. Aside from type, women also faced greater frequencies and durations of victimization in comparison to males. For frequencies, the difference between genders was 7.1 incidents for females and 4.7 incidents for males. For duration, the difference between males and females was statistically significant. Specifically, women reported being a victim of physical assault for an average of 3.8 years, while men reported being a victim of physical assault for 3.3 years.

All in all, males and females face varying levels of risk similar to how race and ethnicity evince their own likelihoods of victimization. Differences in race/ethnicity and gender emphasize the existence of varying victimization patterns, which collectively form our current body of victimization. What is not derived from these findings, however, is a comprehensive understanding of the victim's overall likelihood of victimization. In other words, since all victims belong to a gender and race or ethnicity, what conclusions can be drawn from works that only focus on one characteristic of the person? How should the vast number of studies related to gender, race/ethnicity, and victimization be summarized so as to form a single comprehensive conclusion? In an attempt to answer these questions, researchers began forming and approaching victimization questions from an intersected perspective.



#### Intersectionality

It is clear a wide variety of risk patterns exist within the victimization literature. However, up until this point, the patterns discussed have focused on one set of demographic factors. Despite the insight such an approach provides, a more realistic and in-depth methodology involves looking at several demographic factors at once. Examining victimization risk via intersections of race, ethnicity, and gender allows researchers to pinpoint more general patterns about what contributes to increased or decreased risk. It is the totality of these characteristics that truly depict whether a person is more or less prone to victimization.

Previous efforts to study intersections of race, ethnicity and gender have led to more detailed understandings of victimization risk. For instance, Like-Haislip and Warren (2011) used split models to gauge differences in nonfatal violent victimization for non-Hispanic white females, non-Hispanic black females, and Hispanic females. Aside from demographic factors (age was statistically significant for all three groups), a number of LSRA variables were included in the models. None of the LSRA measures were significant across all three groups; instead, their effects on risk varied by race/ethnicity. For example, time spent shopping was significant for white and black females and time spent riding public transportation was significant for black and Hispanic females. However, spending evenings away from home was only significant for black females. On the other hand, being employed the previous year had no effect on risk for any of the three female groups.

Building upon the prior study, Like-Haislip and Miofsky (2011) later expanded the above efforts to include males (i.e., non-Hispanic black, non-Hispanic white, and Hispanic males). Using the same demographic and LSRA variables, the likelihood of victimization was examined for all three groups in a split model analysis. Unlike the comparisons between race/ethnicity and


gender, measures consisting of prior employment, time spent shopping, evenings spent away from home, and time spent riding public transportation had little to no effect on victimization for any of the male groups. The only exception was time spent shopping, which increased the likelihood of victimization for Hispanic males. Even the additional demographic variables had hardly any effect across groups (marital status was only significant for white males).

Another split model analysis also provided insight into racial/ethnic/gender intersections and victimization risk (Mustaine, 1997). Introduced into the model as a predictor for LSRA, age was significantly related to the outcome. Specifically, younger males and females (i.e., under the age of 30) were more at risk for victimization than their older counterparts. This finding was interpreted as younger people spending more time out in public places, thus increasing their likelihood of victimization. Race was not significant for either males or females. As for activities, males and females were essentially equally affected in terms of risk by home security and place of residence; whereas, the activity that the person engages in during the majority of the day was only pertinent to male risk.

Participation in deviant behaviors and activities also affected the likelihood of being a victim of assault in both the male and female models (Zaykowski & Gunter, 2013). The baseline (i.e., cross-sectional) model for assault victimization indicated violent deviance (i.e., having assaulted or threatened to assault someone in the past year) substantially increased risk for males and females. The remaining measures either had no effect or only affected one group. For example, binge drinking increased assault risk for males, but had no effect on female risk; whereas, non-prescription drug use increased the likelihood of assault for females but not for males. In the follow-up models (where the proper temporal order was established), the only



significant predictor was non-prescription drug use, which was significant for males and not females.

Similar to split model analyses, the risk for violent victimization was examined using interaction terms (Miethe, Stafford, & Long, 1987). Direct effects determined males were more likely to be violently victimized than females. There was no direct effect for race. However, a number of two-way interaction terms between demographic factors and LSRA were statistically significant. Specifically, the effect of engaging in nighttime activities outside the home was greatest for whites (in comparison to blacks) and males (in comparison to females). As for interactions with the major activity from the week prior, blacks had a greater effect than whites. Despite these results, the inclusion of the interaction terms did not improve the overall fit of the model, thereby undermining the authors' argument of LSRA mediating the risk of violent victimization for demographic factors.

Introducing intersectionality as an approach to examining victimization clearly broadens the scope of viable patterns across demographic factors. Assuming relationships between demographic factors and victimization risk are strictly dichotomous in nature is limiting. For this reason, it is imperative that researchers begin to look beyond binary associations and embrace the notion of conceptual intersections. Looking at different factors at once aligns more closely to what occurs naturally during victimization incidents because all of the victim's characteristics are simultaneously influencing the outcome in the real world. As such, I strive to get as close as possible to estimating realistic relationships for victimization risk.



### Victim-Offender Overlap

Each of the previous subsections have revolved around either one or more elements pertaining to the victim. The victim serves as the center of victimization research for obvious reasons. However, another important component of the victimization incident expands upon this knowledge by drawing from the victim-offender relationship. The demographic overlap between the victim and offender represents another necessary, and relevant, piece of empirical research. The existence of such an overlap ties back to the principle of homogamy, a concept centered on the similarities in lifestyles between victims and offenders (Cohen, Kluegel, & Land, 1981; Hindelang, Gottfredson, & Garofalo, 1978; Lauritsen, Sampson, & Laub, 1991). The principle of homogamy refers to a person's greater likelihood of victimization as a result of coming into contact with members of demographic groups that are more comprised of offenders (Cohen, Kluegel, & Land, 1981; Hindelang, Gottfredson, & Garofalo, 1978; Lauritsen, Sampson, & Laub, 1991). In essence, people of the same demographic groups are more likely to interact with one another than members of different demographic groups. For example, younger individuals and males are often victimized at a higher rate than others because they tend to associate with people involved in crime and offending. Their interactions consist of sharing many of the same behaviors, routines, and leisure activities, thereby increasing their likelihood for victimization (Miethe & Meier, 1994). Using this principle, this section presents evidence of demographic and LSRA overlap between victims and offenders to determine which elements pose the greatest threat to victims.

The victim-offender literature has been formed with the implementation of several criminological perspectives with RAT activities emerging as one of the most widely used (Jennings, 2016; Jennings, Higgins, Tewksbury, Gover, & Piquero, 2010; Jennings, Piquero, &



Reingle, 2012; Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996). Immersed within RAT, the victim-offender overlap is explained as part of the intersection between motivated offenders, suitable targets, and incapable guardianship. The likelihood of victims and offenders converging in one place and time is also attributed to risky lifestyles and participation in delinquent activities. By engaging in routines similar to offenders, victims are wont to reflect many of the same attributes and circumstances as their attackers. One of the questions raised by Jennings, Piquero, and Reingle (2012) relates to how combinations of individual and situational factors affect the likelihood of victimization, and whether these combinations appear similarly across demographic factors. Prior research indicates that victims and offenders do share many of the same demographic and lifestyle characteristics.

In forming a summative descriptive of offenders, their demographic profiles tend to consist of being male, young (typically between the ages of 15 and 25), and belonging to a racial/ethnic minority group (Braithwaite, 1979; Daday, Broidy, Crandall, & Sklar, 2005). Offenders are also said to reside in socially disorganized neighborhoods (Daday, Broidy, Crandall, & Sklar, 2005; Shaw & McKay, 1942). Similarly, victims are often described as being male, young, and of a racial or ethnic minority group living in an urban or inner city area (Daday, Broidy, Crandall, & Sklar, 2005). These comparisons of victims and offenders indicate similarities between both groups coincide with the expectations of an overlap. Further studies also describe victims and offenders as being largely non-white, male, and younger than 18 (Broidy, Daday, Crandall, Sklar & Jost, 2006). Here, the only difference between groups, in some cases, was in regard to age. Specifically, more offenders were between the ages of 18 and 29; whereas, more victims were older than 30 years of age.



Additional assessments of the victim-offender overlap reveal more of a divergence between groups. In one study, specific demographic groups were compared to determine their likelihood of being categorized as a victim or offender for a variety of different crime types (Daday, Broidy, Crandall, & Sklar, 2005). In cases of aggravated assault, the odds of being an offender versus a victim were greater for males than for females. Aside from gender, race and ethnicity also aligned with certain roles within the victimization incident. For example, Hispanics and blacks were more likely to emerge as offenders rather than victims of aggravated battery when compared to whites. Similar results were also reported when context and victimization were gauged. For incidents that occurred in residential areas, males were significantly more likely than females to be categorized as offenders rather than victims; whereas, Hispanics and blacks had greater odds of being an offender than whites. Interestingly, differences in race appeared for non-residential areas, but not between genders. With the former, blacks appeared as offenders more so than victims in comparison to whites.

The stability of the victim-offender overlap is evinced by its appearance across different samples. For example, a sample of black, white, and Hispanic males and females were utilized to distinguish between offending and victimization trajectories. The results indicated trajectory membership for offending and victimization were differentiated by gender, parental monitoring, and school commitment (Jennings, Higgins, Tewksbury, Gover, & Piquero, 2010). Another full sample study pointed to some lifestyle differences between victims and offenders (Mustaine & Tewksbury, 2000). Among victims of assault, greater risk was associated with a variety of measures, such as frequent visits to festivals, spending time alone, spending time with strangers, and getting drunk. In terms of assault offending, being male, living on campus, and engaging in deviant behavior (e.g., vandalism and trespassing) were all statistically significant. As for assault



victim-offender risk, being male along with participation in pro-social and deviant activities also influenced the outcome. A study on Puerto Rican youth also revealed evidence of an overlap between covariates related to offending and victimization. Covariates with positive relationships to offending included gender (i.e., being male) and sensation seeking; whereas, gender (i.e., males), age (i.e., being older), and sensation seeking were positively related to victimization (Maldonado-Molina, Jennings, Tobler, Piquero, & Canino, 2010).

Each of the aforementioned subsections emphasize the relevance of victim characteristics for studying victimization. As discussed above, each demographic factor offers its own set of victimization patterns, which makes synthesizing risk more difficult. Building upon this knowledge, intersectionality research shows the utility of viewing victims as complex beings. Estimations derived from intersections of demographic factors bring researchers closer to identifying detailed patterns of increased or decreased risk. Another aspect of the relationship targets the overlap between victims and offenders, which further outlines the importance of demographic and lifestyle factors. Upon having highlighted the various victimization patterns in the literature, I now turn to LSRA to determine how well the theory accounts for these differences in risk.

# LSRA Explanations of Victim Characteristics

A major thrust of the LSRA literature has been explaining demographic differences in victimization risk, especially racial/ethnic differences in risk. In this section, I focus on reviewing studies that examine demographic differences in victimization risk using the LSRA perspective. Broadly the findings of this body of research fall into three distinct categories: 1) some research finds that demographic differences are explained by measures of LSRA; 2) other



research finds that demographic differences in victimization risk are not well explained by LSRA measures, in that, after accounting for LSRA variables, demographic variables are no longer salient predictors of victimization risk; and 3) still other research finds that the effect of LSRA predictors on victimization risk vary by demographic factors (e.g., gender, race/ethnicity). Findings falling into these last two categories suggest that not only does the LSRA perspective fail to fully explain demographic differences in victimization risk but it also suggests that the situational factors underlying victimization may vary by demographic factors like race/ethnicity.

Notably, some studies do find that demographic differences in victimization risk are explained by LSRA measures. For example, Henson, Wilcox, Reyns, and Cullen (2010) found that gender differences in minor victimization were explained by time spent with a romantic partner, though this measure was only marginally significant (p < .10) in a sample of high school students. In other words, once this variable was taken into account, gender no longer was a statistically significant predictor of victimization. In a subsequent model, the effect of gender was further reduced with the inclusion of a delinquent lifestyle, which was both strongly and positively related to minor victimization. This finding suggested gender was indirectly related to victimization (Henson, Wilcox, Reyns, & Cullen, 2010). When the sample was split on gender, the findings did not differ much between models, which provided modest support, at best, for gender-specific effects. Osgood, Wilson, O'Malley, Bachman, and Johnston (1996) also determined that differences in age, gender, and social status were largely accounted for by routine activities. Specifically, riding in a car for fun, visiting with friends, going to parties, and spending evenings out were significantly related to higher risks of victimization. Examinations of general and serious sexual assault risk among women also found that demographic indicators (e.g., ethnicity, age, marital status, social class, and employment status) were not influential,



once controls for routine activities were included in the model (Mustaine & Tewksbury, 2002). However, leisure activities had the capacity to increase (hanging out with friends and going out at night) and decrease (going to the movies) female's likelihood of sexual assault.

A more common finding is that demographic factors continue to be salient predictors of victimization risk even after accounting for LSRA variables. As an example consider Mustaine (1997), she examined LSRA's ability to explain victimization risk in a sample of female and male adults aged 18 and older. Even after controlling for LSRA measures, the full model indicated persons younger, unmarried, unemployed, and working in the service sector remained statistically significant predictors of personal victimization. When the sample was split by gender, some findings emerged that overlapped both models. The overlap consisted of unmarried and younger males and females having higher risks of victimization in comparison to their unmarried and older counterparts. Males and females residing in metropolitan areas were also more likely to be violently victimized than those living outside of the city. In terms of predictor strength, marital status (i.e., being unmarried) was the strongest for males and location of residence (i.e., residing in metropolitan area) was the strongest for females. In another study of just males, their risk for general and serious sexual assault was also assessed with measures of LSRA (Tewksbury & Mustaine, 2001). For both general and serious sexual assault, white and married men were less likely to be victimized than non-white and unmarried males. Frequent visits to bars and participation in drug use also increased the likelihood of a male being sexually assaulted. The statistical significance of demographic and LSRA factors lends credence to the importance of both sets of measures in understanding victimization risk.

One last study somewhat supported the notion that the relationship between demographic factors and victimization is mediated by routine activities (Bunch, Clay-Warner, & Lei, 2015). In



a sample of adults (i.e., over the age of 18), the authors examined the direct and indirect relationships between demographics, routine activities, and two types of victimization (violent victimization and theft). Direct relationships with violent victimization were statistically significant for age, gender (male), and marital status (not married and never married); whereas, only age, income, and marital status (not married and never married) were significant for theft. Indirect relationships indicated shopping partially mediated the effect of age, gender (male), income, and marital status (never married) with violent victimization. As for theft, night activity partially mediated its relationship with age, gender (male), income, and marital status (not married and never married). These findings suggest greater time spent shopping and going out at night accounted for differences in victimization risk. Despite the significance of these relationships, routine activities only fully mediated the relationship between gender (i.e., male evinced a higher risk) and theft.

Some research has also found that the effect of LSRA variables vary by salient demographic factors. For instance, Like-Haislip and Warren (2011) found that the effects of time spent shopping and riding public transportation had statistically different effects for white, black, and Hispanic females. Specifically, time spent shopping increased the risk of violent victimization for white females, but decreased the risk for black females. On the other hand, riding public transportation decreased the likelihood of victimization for white females, while increasing the likelihood of victimization for black and Hispanic females. Black females who frequently spent evenings away from home were also more likely to be victimized. Similar findings emerged for context. It seems each group of females had their own specific form of context that resulted in higher violent victimization risk. For white females, perceived disorder was positively and significantly related to greater violent victimization risk, however, this was



not the case for black or Hispanic females. Instead, black females faced greater risk in areas with greater residential stability; whereas, Hispanic females fared the worst with greater perceptions of homeless/transient persons in the neighborhood.

Additional support for demographic-specific effects were found in another piece that assessed victimization risk among non-Hispanic white, black, and Hispanic males and females (Like-Haislip & Miofsky, 2011). To better capture any demographic-specific effects, the sample was split by gender. With the male model, routine activities (e.g., evenings spent away from home, time riding public transportation, and employment) had no significant effect on the victimization risk of white or black males once age and marital status were accounted for. As for Hispanic males, time spent shopping was the only activity that significantly increased their risk for violent victimization. Disparate findings also appeared when examining the effects of context. Here, none of the neighborhood conditions affected the risk of victimization for white males. Interestingly, residential stability and perceived disorder were both significant predictors for black and Hispanic males. However, the relationships were in contrast to one another. In other words, residential stability increased the likelihood of victimization for black males, but decreased risk for Hispanic males. As for perceived disorder, black and Hispanic males were at risk for victimization, so much so that it was the strongest predictor for both groups.

Effects for the female model differed because there were significant findings related to routine activities and context, though they appeared disparately across race and ethnicity (Like-Haislip & Miofsky, 2011). For example, time spent shopping served to protect white females from violent victimization but placed black females at higher risk. Black females also fared worse when spending the evening away from home and riding public transportation, however, victimization risk for Hispanic females also increased with the latter activity. Context also



revealed unique relationships across groups with risk. Residential stability increased risk for black females, but had no effect on white or Hispanic risk. Instead, perceived disorder was the strongest predictor for white females and perception of homeless/transient persons had the greatest impact on Hispanic female risk. In sum, the authors concluded 1) there was within and between gender differences for race and ethnicity and 2) that routine activities served as a better explanation of female risk than male risk.

Mustaine's (1997) work also showcased differences among the interrelationships between gender, routine activities, and context by using split models. In the male model, support for the LSRA model varied. Partial support and support were found in the service occupation type and time spent at home, respectively. Specifically, men employed in the service sector were more likely to be victimized than men employed in other occupation types; whereas, risk for men who spent more time in the home decreased. A contradictory finding surfaced with educational status in that men who were more highly educated had greater likelihoods of being victimized than males with a high school diploma. The nature of the relationships also differed by domain (i.e., work, home, leisure/public domains). Men living in a metropolitan area had higher risks of victimization in both the work and home domains. Nevertheless, men who had at least one form of security were more at risk in the home domain, but at a lower risk in the work domain. In both domains, this predictor was the strongest. In the leisure/public domain, younger and unmarried males had the highest risk of victimization, alongside men who spent most of their time outside of the home.

On the other hand, females who were unemployed had a higher risk for victimization than females who were employed or in the labor force (Mustaine, 1997). There were also numerous variations across domains. In the home and leisure/public domains, younger,



unmarried, and unemployed females were more likely to be victims of personal crime. The effect of living in a metropolitan area was also seen in the home and leisure/public domains. Another interesting finding showed females living with more people in a household were more likely to be victimized in the home domain, which was unexpected based on the protection of guardianship. Lastly, in the work domain the only significant routine activity was educational status with greater education coinciding with increased risk. Interestingly, another study indicated employed females faced higher risks of IPV than unemployed females for a time until the mid-2000s (Powers & Kaukinen, 2012). Furthermore, when gender and race were taken into consideration, employed white females faced slightly higher risks of IPV than non-white females who were employed. Once again, the nature of these trends varied over time with the differences becoming almost indistinguishable.

These findings suggest that victimization risk is more complicated than suggested by LSRA. Victimization risk is clearly not a function of just routine activities and lifestyles, but a constellation of demographic and contextual factors that together form a myriad of possibilities for increasing and decreasing vulnerability to crime. Support for LSRA extends from full, partial, to none of all, which makes establishing a general consensus about variations in victimization risk difficult. Adding to the difficulty are those findings that simply do not "fit" into any of the predetermined categories discussed above and, thus, serve as anomalies. For example, age had the most pronounced effect on violent victimization and theft (Bunch, Clay-Warner, & Lei, 2015), yet it was not accounted for by any of the routine activities measures (lifestyles and delinquency; Henson, Wilcox, Reyns, & Cullen, 2010). Another issue stems from the type of victimization being assessed, which seems to affect the relationships that emerge for demographic factors. For instance, household income was partially mediated in regard to theft,



but not mediated in its relationship to violent victimization (Bunch, Clay-Warner, & Lei, 2015). Likewise, non-white students were more likely to be victims of serious violent crime when compared to whites, however, there was no significant difference between groups in terms of minor victimization (Henson, Wilcox, Reyns, & Cullen, 2010). Other unique findings include the apparent inability for routine activities to explain variations in risk as they pertain to comparisons between previously married individuals and married people (Bunch, Clay-Warner, & Lei, 2015). Similarly, home security was statistically significant for both males and females, but in the wrong (unexpected) direction (i.e., home security actually served to increase risk, which counters LSRA's argument for guardianship). All in all, there is a wide variety of findings relating to demographic factors, LSRA, and victimization. Unfortunately, there does not seem to be a general understanding as to how these constructs work in relation to one another. Even previous works have pointed out that support for and the implications of LSRA are mixed (Henson, Wilcox, Reyns, & Cullen, 2010; Like-Haislip & Miofsky, 2011; Mustaine, 1997).

## **Critique of Victimization Research**

The existing victimization literature is undoubtedly insightful in many regards. In the abstract, the extant research focuses on explaining differences in the level of victimization risk and which factors distinguish those at low and high levels of risk. Obviously, this is very useful information. However, this approach emphasizes the actions and characteristics of individuals, while downplaying the influence of situational and offender characteristics. Stated differently, part of the problem is the fact that the bulk of existing victimization research uses the individual victim as the unit of analysis, instead of the victimization event.



Further, because the existing body of research typically focuses on examining individual level risk factors for victimization, the usual analytic strategy employs regression analyses. Regression analyses are well suited for this task, as regression analyses are very good at estimating the unique, additive effect of each variable on the risk of victimization. Yet, regression's focus on independent, additive and typically linear relationships appears unrealistic. This approach is not a realistic portrayal of victimization because victimization risk is not determined one risk factor at a time; rather, it is all the individual risk factors working together simultaneously that drive a victimization event. Simply stated, it seems more than likely that predictors of victimization risk interact, perhaps in complex ways, and may vary by key demographic factors like race/ethnicity.

What's needed is a perspective that examines criminal events holistically by using features of the victim, offender, and offense as well as an analytic technique that examines interactions between these features. I believe that a fuller picture of victimization events would be obtained by addressing these issues. Fortunately, recent research has adopted a situational perspective that attempts to assess the influence of victim, offender, and offense characteristics on the structure of victimization situations and utilizes new analytic strategies that do not focus on the independent, additive, linear effect of each variable.

## **Situational Perspectives on Criminal Victimization**

Situational perspectives have a long history in criminology. Though his work has mainly focused on criminality, it appears that Edwin Sutherland (1947) was the first criminologist to mention the situational perspective. Throughout his work, Sutherland noted that theoretical explanations of crime are either "situational" or "historical." Sutherland stated that, in contrast to



historical explanations, which focus on understanding the root causes of individual criminality, situational explanations focus on understanding the contextual characteristics surrounding crime events. Viewed in this way, it is clear that the vast majority of criminological theory and research take a historical approach.

This neglect of situational perspectives is unfortunate, as the situational perspective in many ways complements historical approaches. For example, historical approaches are useful in identifying the risk factors for criminality, but many scholars have noted that understanding the risk factors for criminality is not a sufficient condition for a criminal event to occur (see e.g., Birkbeck & LaFree, 1993; Luckenbill & Doyle, 1989). These scholars have also noted that understanding criminality does not explain why those prone to offending are likely to follow social conventions in most situations but break the law in others. Thus, by itself historical perspectives focusing on criminality are incomplete explanations of crime. Both historical and situational approaches are necessary to gain a deep and complete understanding of crime.

Existing situational approaches have various focal points. Some focus on physical, temporal, and spatial features of criminal acts (Lynch, 1987; Sherman, Gartin & Buerger, 1989). Others focus on organizing types of crimes by characteristics such as motive and circumstances surrounding the crime (Block, 1976; Decker, 1996; Miethe & Drass, 1999; Wolfgang, 1958). A third type of situational perspective focuses on examining criminal/victimization situations holistically by utilizing characteristics of the victim, offender and offense simultaneously. To be clear, this dissertation is concerned with this third type of situational perspective. In this dissertation, I define the situational perspective as research employing criminal events as the unit of analysis and examine victim, offender, and contextual variables to understand these criminal



events. Most often, this situational perspective employs analytic techniques capable of assessing non-linear and interactive relationships between variables.

While situational perspectives of various types have a long history, this perspective has largely been neglected. Recently, however, situational victimization research has re-emerged. Perhaps most notable in this re-emergence of the situational perspective has been the work of. Miethe and his colleagues, who have combined the situational perspective with conjunctive analysis—an analytic approach that combines elements of qualitative and quantitative data analyses and is capable of examining many interactions between variables, even complex interactions. Miethe and Regoeczi (2004) utilized this combination of the situational perspective and conjunctive analysis in *Rethinking Homicide*. In this book, the authors apply QCA, a specific form of conjunctive analysis to the Supplementary Homicide Report data to determine what victim, offender, and offense characteristics underlie variations in the structure of situational contexts for fatal victimizations (i.e., homicide). Measures related to each component of the situational context included gender, age, and race (i.e., victim characteristics), victim's familiarity with offender, offender race, and offender age (i.e., offender characteristics), gun use; urbanicity; and whether the homicide situation was expressive, instrumental, or other (i.e., offense characteristics).

Through their findings, Miethe and Regoeczi (2004) were able to conclude that there was not one instance in which any variable had the same effect across a variety of contexts, a finding that contradicts the expectations and essence of main effects models. Instead, every victim, offender, and offense component in the case configuration suggested the existence of subtypes of homicide situations. As for specific findings, homicide situational contexts were not found to change much over the course of three decades. However, the dominant characteristics of contexts



were comprised of intraracial and intra-age group shootings that involved non-stranger victimizations by single male adults in urban areas. Delving into homicide types, expressive and instrumental homicides were the most prevalent, with each homicide motive representing its own type of situational context. Expressive homicides were characterized as interracial and intra-age attacks on non-stranger victims by single offenders who were over 30 years of age. Instrumental homicides consisted of stranger attacks by multiple offenders. Turning the focus away from main effects models, conjunctive analysis was able shed light on the nuances of homicide situations that would not have otherwise been identified.

Miethe and his colleagues also applied the situational perspective and conjunctive analysis to various forms of non-fatal victimization with the NCVS. One of their earlier uses of conjunctive analysis and the NCVS explored the effects of bystander intervention on non-fatal violent victimization (i.e., rape/sexual assault, personal robberies, and physical assaults) and the extent to which their presence helped or hurt the crime situation (Hart & Miethe, 2008). The authors used combinations of the following characteristics to identify the most dominant situational contexts: type of violent crime, presence of a dangerous weapon, location of the offense, time of occurrence, and victim-offender relationship. Among the 41 dominant situational contexts that emerged, findings related to bystander presence varied greatly. For example, 83% of stranger assaults that occurred in public places at night and did not involve a dangerous weapon were witnessed by bystanders; whereas, only 14% of weaponless rapes/sexual assaults that took place in private areas during the day were committed in the presence of a bystander. Generally speaking, bystanders were most likely to witness situations where assaults were being committed in public places and least likely to come across situations of rape or sexual assault occurring in private locations. Using standard deviations as a reference, 37 combinations



in which a bystander was present were assessed to determine the extent to which they helped or hurt the situation. As such, bystanders were found to be most helpful in situations that involved sexual assault without a dangerous weapon and stranger robberies in public places. On the other hand, bystanders were least helpful in situations related to non-stranger robberies within the home.

Another study used conjunctive analysis and the NCVS to look at situational contexts in which a firearm was used as a form of self-defense and those situations that benefitted most and least from the use of a firearm (Hart & Miethe, 2009). To make these determinations, the following characteristics were used to frame the situational contexts: type of crime, whether an offender was armed with a firearm, the location of the offense, time of occurrence, and whether an offender was under the influence when committing the offense. In the end, 42 situational contexts were identified, however, incidents that involved self-defensive gun use were quite rare overall (2.4%). Using the results of means and standard deviations, the use of guns for self-protection was deemed more helpful than hurtful in essentially all situations (92%), nonetheless. Further, in situations where self-defensive gun use was considered low, about 75% of the victims still found value in their gun use.

Turning to college students, Hart and Miethe (2011) implemented conjunctive analysis to examine which situational contexts reflected greater likelihoods of violent victimization for students. Once again, situational contexts were based on numerous measures related to the crime, however, in this study they were categorized as pertaining to the offense, victim, or offender. Offense-related measures included the location of incident, type of violent offense, whether the incident occurred between the hours of 6 p.m. and 6 a.m., and whether a bystander was present during the incident. Victim characteristics consisted of gender, whether an injury occurred, and



whether or not the victim was familiar with the offender. Lastly, the offender was assessed with measures related to whether they were under the influence of drugs/alcohol during the incident and their gender. The sum of these combinations resulted in 180 situational contexts being observed in the data, with 68 emerging as dominant situations. Though there were 180 distinct profiles, the findings indicated evidence of situational clustering. In other words, 86% of all of the violent incidents committed against college students were accounted for in the 68 dominant situations. The specifics of the most dominant situational context for college students involved an off-campus location, male offenders, and crimes other than sexual assaults. As for victim characteristics, the dominant situations demonstrated that most victims were not injured, male, had a bystander present, and did not know the offender. Drug or alcohol use, on the part of the offender, was not limited to either high or low prevalence situations.

To summarize, Hart and Miethe (2008; 2009; 2011) managed to examine widely researched topics and still make unique contributions to each body of literature by delving deeper into every situational context and gauge whether and how all the respective elements affected the outcome. Essentially, they were able to "break ground" by broaching these topics with the assumption that variables are context-specific rather than constant across contexts, an assumption that is inherent to conjunctive analysis. Prior research has often sought to gain wide-ranging understandings of topics. These efforts have resulted in literature related to intersectionality and interaction/split models<sup>1</sup>; however, these endeavors have not been able to capture all of the details and nuances that comprise situational contexts. The nuances I refer to consist of a more detailed, qualitative look into the underlying characteristics that result (or do not result) in specific outcomes. For example, the use of conjunctive analysis allowed. Hart and Miethe to successfully broaden our understanding of bystander presence, self-protective gun use, and



violence towards college students by identifying those characteristics that differentiated high risk combinations from low risk combinations. Without conjunctive analysis, such a specific comparison between risk levels would not be possible. The attention paid to detail inherent in conjunctive analysis is what sets this analysis apart from others.

# **Current Study**

In this dissertation, I apply the situational perspective and conjunctive analysis to examine non-fatal, direct contact victimization using NCVS data. I seek to answer the following research questions: 1) What are the dominant situational profiles for victims of violent crime; 2) What are the dominant situational profiles for direct contact property crime; and 3) Do these victim profiles vary across race and/or ethnicity? Serving as the driving force of my dissertation, I rely on the research questions to gain knowledge about victimization, however, I proceed without any hypotheses because I do not have a theory or findings to guide me in terms of interactive relationships. Theoretically speaking, there are no grounds for hypothesizing how demographic and contextual factors relate to one another when analyzed as a single unit because this aspect does not truly exist in any of the dominant victimization theories. As such, I proceed with a largely exploratory approach but one that utilizes LSRA measures known to predict victimization risk like distance from home. The exploratory aspects of this research speak to the lack of nuanced theory development and not the nature of the analysis, for conjunctive analysis is both an exploratory and confirmatory analytic tool. Similar to prior conjunctive analysis efforts, the answers to the above research questions will also provide a more detailed look into which victim, offender, and offense characteristics mark the difference between high, medium, and low victimization risk. Unlike previous works, my research questions take all three incident-related



characteristics into consideration at once to better identify victimization patterns that are more general and realistic in nature.

## **Summary**

In conclusion, the study of victimization has largely centered on and benefitted from the RAT/LSRA perspective. The implementation of LSRA has provided researchers with a wealth of information regarding risk factors, ranging from demographic to contextual factors. The applicability of LSRA has been tested across numerous studies to determine the reach of LSRA's propositions when explaining variations in victimization risk across different victim characteristics. Nonetheless, the LSRA framework is limited in its explanation. Though it is touted as a general explanation of victimization, empirical findings tend to vary in terms of providing support for LSRA.

These findings suggest that refocusing victimization research in several ways would broaden our understanding of victimization. First, victimization should be gauged from a situational perspective, which looks at the crime event as the unit of analysis. The extension to situational perspectives broadens the scope of victimization by not strictly focusing on the individual, but by incorporating other components related to the outcome. Second, aside from widening the scope of theoretical explanations for victimization, situational perspectives are also compatible with conjunctive analysis. The combination of situational perspectives and conjunctive analysis make overcoming the present theoretical and methodological obstacles more feasible. The success of this empirical combination is evinced in its many uses by Miethe and colleagues across various datasets and victimization-related issues. As such, I move forward with my dissertation using this more dynamic and nuanced foundation.



# Endnotes

<sup>1</sup> Efforts to overcome the limitations of main effects models consist of interaction terms and split models. Interaction terms represent "the effect of one independent variable [as] a function of the values of one or more other independent variables" (McClendon, 1994, p. 271). In essence, interaction terms are meant to determine whether the effect of one variable on the outcome is dependent on its relationship with another independent variable. Interaction terms are calculated by multiplying the independent variables of interest to assess non-additive relationships. Included with additive variables, a variety of (two-way and three-way) interaction terms have been incorporated into statistical models (Miethe, Stafford, & Long, 1987; Miethe, Stafford, & Sloane, 1990). The often lack of statistically significant interactive effects comes as no surprise because of the statistical hurdles main effects models need to surmount, especially in regression analyses. Issues, such as measurement error, multicollinearity, and heterogeneity all make finding significant interactive effects quite difficult.

One of the largest problems associated with interaction terms is the lack of statistical power, which leads to an interaction term not emerging as statistically significant, thereby leading to a type I error (Smith, Frazee, & Davison, 2000). Not only is it difficult for interaction terms to attain statistical significance, but even when statistical significance is achieved, the interpretation is not always very meaningful. Interaction terms reveal that its inclusion goes above and beyond the additive terms, but when drawing conclusions there is not much that interaction terms are contributing. In addition, there are only so many groups that can be included in an interaction term. Researchers have utilized two-, three-, even four-way interaction terms. However, if interpreting a two-way interaction is difficult enough, then a three- or four-way interaction would have even less meaning for researchers.

With the shortcomings of interaction terms, split models have also been utilized. Split models require dividing the sample on a certain variable(s). For example, a sample can be split on gender, so that separate analyses are estimated for males and females. Split models are meant to achieve the same goal as interaction terms in that relationships dependent on gender would be expected to surface in the respective models. With the separate analyses, researchers can monitor whether the determinants of victimization vary between the split models. Split models need not be limited to one variable or characteristic. For example, race/ethnicity and gender can be used to split a model (Like-Haislip & Miofsky, 2011). With the added layer of disaggregation, a clearer picture of victimization risk is, at times, provided. All in all, split models have more to offer (statistically) than interaction terms when it comes to delving deeper into the data. Nevertheless, the data can only be disaggregated on so many characteristics. Without an infinite sample to draw from, researchers would eventually run out of cases and undermine any attempts for statistically significant findings. Even with a sufficient number of cases, the number of models needed to capture all of the combinations of factors would prove too cumbersome. Any comparisons across models would be quite limited, if at all possible.



# **Chapter Three:**

# Methodology

The aim of this research is to identify profiles that distinguish victims of violent crime from victims of direct contact property crime and to examine variation in violent victimization profiles across racial/ethnic groups. More formally, this dissertation addresses three research questions: 1) What are the dominant situational profiles for victims of violent crime?; 2) What are the dominant situational profiles for direct contact property crime?; and 3) Do these victim profiles vary across race and/or ethnicity?

To address these questions, this research utilizes a situational crime perspective and conjunctive analysis. The previous chapter described the situational crime perspective. In this chapter, I detail the research methodology with a special focus on conjunctive analysis, as conjunctive analysis is an emerging, innovative method of identifying dominant situational profiles of victimization. Specifically, in this chapter I begin with a general discussion of conjunctive analysis. A background on conjunctive analysis is a relevant starting point because the use of this technique has implications for variable measurement. Then I discuss the National Crime Victimization Survey (NCVS), the data set to be analyzed in this research, and the key variables of interest from this data set. Last, I outline how these variables will be specifically analyzed to address the above research questions.



# **Conjunctive Analysis**

"Conjunctive analysis" is a broad term encompassing several related methods of categorical data analysis (Miethe, Hart, & Regoeczi, 2008). Originally, Ragin (1987) developed one form of conjunctive analyses called "qualitative comparative analysis" (QCA) as a means to combine elements of quantitative variable-focused analyses and qualitative case-focused analyses. QCA, like variable-based analyses, assesses the general effect of a categorical variable regardless of the level of the other categorical variables (i.e., main effects). QCA, like case-based analyses, also attempts to assess the interactive effects of several categorical variables simultaneously, in order to examine more complex effects.

QCA, and conjunctive analyses more generally, achieve this combination of variable- and case-centered approaches by extending the basic logic of bivariate contingency table analysis to include more than two variables. Like bivariate contingency table analysis, conjunctive analyses count the number of cases with a specific combination of attributes. Then conjunctive analysis measures the proportion of these cases that exhibit the outcome of interest (e.g., violent victimization as opposed to direct contact property victimization). Thus, there are three elemental features of conjunctive analysis: 1) specific configurations of categorical attributes; 2) a count of the number of cases with the specific configuration of interest; and 3) the proportion of cases in each configuration exhibiting the outcome of interest. All three of these elemental features are recorded in the data matrix table of case configurations, which is commonly referred to as a "truth table."

To gain a better understanding of these elements imagine that one is interested in predicting whether or not some dichotomous outcome of interest occurs (Y = 1) and we have five dichotomous independent variables (this example is a modified version of the example provided



in Miethe, Hart, & Regoeczi, 2008). Given this number of independent variables, there are 32 unique possible configurations (combinations) of these independent variables  $(2^5 = 32)$ . Each of these configurations becomes a numbered row in the truth table, and each combination of attributes is identified by the pattern of 0s and 1s in the row of interest. For example, the truth table below (Table 1) is a depiction of the research scenario described above (i.e., 5 dichotomous independent variables predicting one dichotomous outcome). The first configuration listed in this mock truth table refers to the combination in which all of the independent variables have scores of 0. Likewise, the second row in the mock truth table refers to the combination in which all of the independent variables of interest have values of 0 except the last variable. Thus, each line of the truth table represents a different combination of the independent variables or a different configuration. The column labeled "N of Cases" on the right side of the truth table counts the number of cases with each configuration. And finally, the right most column, "Y," measures the portion of cases within each configuration exhibiting the outcome of interest (Y=1). Thus,  $y_1/nc_1$ is the proportion of cases in the first configuration that exhibited the event of interest. This last column, Y, in many regards is the most important element of the truth table, as it reveals specific configurations with relatively high proportions cases exhibiting the outcome of interest. In other words, configurations with relatively high proportions cases exhibiting the outcome of interest are "profiles" indicating increased risk of the outcome of interest occurring; conversely, configurations with relatively low proportions are "profiles" at the lowest risk (protective) of the outcome of interest occurring.

Truth tables are useful in depicting configurations with relatively high/low risk and in depicting both main and interactive effects. The truth table below is arranged to cluster configurations that differ on only one independent variable. When arranged this way the



difference in the proportion of cases exhibiting the event of interest between adjacent rows is a measure of the varying independent variable's (main) effect on the outcome of interest. Notably, truth tables are commonly rearranged by rank ordering the values of column *Y*. This rearrangement facilitates the identification of configurations at the highest and lowest risk of the outcome of interest. Further, a truth table can facilitate the examination of complex multi-way interactive relationships by examining Y across specific combinations of variables.

Table 1. Mock Data Matrix of Case Configurations (Mock "Truth Table")							
ID	<b>X</b> <sub>1</sub>	$\mathbf{X}_2$	<b>X</b> <sub>3</sub>	<b>X</b> <sub>4</sub>	<b>X</b> 5	N of Cases	Y
1	0	0	0	0	0	nc <sub>1</sub>	$y_1/nc_1$
2	0	0	0	0	1	$nc_2$	$y_1/nc_2$
3	0	0	0	1	0	nc <sub>3</sub>	$y_1/nc_3$
4	0	0	1	0	0	$nc_4$	$y_1/nc_4$
5	0	1	0	0	0	nc <sub>5</sub>	$y_1/nc_5$
6	1	0	0	0	0	nc <sub>6</sub>	$y_1/nc_6$
7	1	0	0	0	1	nc <sub>7</sub>	$y_1/nc_7$
8	1	0	0	1	0	nc <sub>8</sub>	$y_1/nc_8$
9	1	0	1	0	0	nc <sub>9</sub>	$y_1/nc_9$
32	1	1	1	1	1	nc <sub>32</sub>	$y_1/nc_{32}$

This general discussion of conjunctive analysis makes clear that this technique has considerable benefits in identifying situational profiles with varying risks of the outcome of interest. One benefit of conjunctive analysis is the truth table provides a simple, yet powerful means of summarizing a tremendous amount of information. Another benefit of conjunctive analyses is its ability to examine not only the main effect of each variable but also complex multi-way interactions between variables. These features make conjunctive analysis well suited



for the situational crime perspective that I emphasize in this research.

Yet it is important to note that conjunctive analysis also has its drawbacks. One chief drawback with conjunctive analyses is that all of the independent variables are required to be categorical. (Above I demonstrated conjunctive analysis using dichotomous independent variables but categorical variables with a larger number of categories can be utilized.) Variables measured continuously (or more broadly with many observed values) cannot be meaningfully used in conjunctive analysis, as the use of such variables would invariably produce many cells with no cases (empty cells) or very few cases. Another, related drawback of conjunctive analysis, is that configurations with relatively small numbers of cases need to be omitted, because such configurations are prone to idiosyncratic results. To remedy this problem researchers establish a "minimum frequency rule," which dictates the minimum number of cases needed for a configuration to be considerable viable.

# Data

To assess my research questions, data from the National Crime Victimization Survey (NCVS) were used. The NCVS is a primary source of victimization data. Every year data are collected from a nationally representative sample comprised of around 90,000 households to gather information about "the frequency, characteristics, and consequences of criminal victimization in the United States" (Bureau of Justice Statistics, 2016). Households participating in the survey are interviewed twice a year about any experiences with victimization that transpired during the prior six months. Using the results from these interviews, the Bureau of Justice Statistics is able to calculate national estimates for a variety of crimes (e.g., rape/sexual assault, robbery, simple assault, theft, among others) across a larger segment of victims (i.e.,



women, elders, Hispanics, employed, and widowed). Aside from inquiring about the victim's characteristics, the NCVS also provided information about the impact of the crime and a description of the offender.

One advantage of the NCVS was its detailed information on victimization. Of particular interest to this research were the 1992 to 2014 incident-level files from the concatenated NCVS data. Current available NCVS data included household-, person-, and incident-levels files. The concatenated files were unique because all of the data for these years were combined together, eliminating the need to merge individual data files. These data were more condensed than the standard NCVS files that contain cases and information relating to both victims and non-victims. Since my interest is in the situational contexts of victims, the cases contained in the concatenated files were the most relevant for the analyses. Throughout the twenty-two years of data collection, some of the variable coding changed, such as for race. The differences in coding were accounted for by aligning the categories accordingly so that they matched for all years (i.e., blacks with blacks, whites with whites, etc.). Further, during the 2006 data collection numerous methodological changes took place. However, since these changes were only relevant when calculating and comparing victimization rates, the goals for my dissertation were unaffected. As such, the subsequent comparisons include all twenty-two years of data. The NCVS also included data that involved series incidents and multiple offenders, however, these cases were excluded. Instead, I chose to focus on victimization incidents that represented the majority of those reported to the NCVS, which consisted of single incident and single offender victimization. Table 2 demonstrates the extent of missing data that resulted from each of the victim, offender, and offense measures used in the dissertation. Specifically, the values in the table reflect the percentages of missing data along with the corresponding number of missing cases. In addition,



the percentage of cases excluded as a result of cases being related to either series incidents or multiple offender incidents were also reported.

Table 2. Missing Cases in NCVS Sample						
	Sexual Assault/Rape	Robbery	Physical Assault	Personal Theft		
	Percent Missing	Percent Missing	Percent Missing	Percent Missing		
	(No. Missing)	(No. Missing)	(No. Missing)	(No. Missing)		
Original N	1,912	5,686	25,089	489		
Race/Ethnicity	0%	0%	0%	0%		
Gender	0%	0%	0%	0%		
Age	0%	0%	0%	0%		
Marital Status	.5% (10)	.4% (23)	.4% (107)	.4% (2)		
Offender Type	18.7% (357)	50.0% (2,842)	31.3% (7,858)	44.2% (216)		
Same Race/Ethnicity	13.3% (255)	46.9% (2,669)	24.5% (6,157)	48.1% (235)		
Same Gender	9.2% (175)	44.6% (2,534)	21.8% (5,475)	41.5% (203)		
Same Age	14.0% (268)	48.1% (2,736)	24.6% (6,160)	50.5% (247)		
Public Area	77 7% (1 485)	72 3% (4 111)	60 3% (15 129)	55 4% (271)		
Distance from Home	1.4%(27)	7% (41)	9% (231)	1 2% (6)		
Time of Day	7 5% (143)	4 0% (230)	4.8%(1.207)	2.2%(0)		
Completion	0%	0%	0%	0%		
Series Incidents	6.2% (119)	3.4% (195)	6% (1,513)	.2% (1)		
Multiple Offenders	8.7% (167)	44.3 (2,517)	21.1% (5,290)	38.4% (188)		
Final N	252	669	5,515	73		

Note: The percentages do not sum to 100% due to cases missing data for more than one variable.

### Measures

The NCVS offers numerous potential measures, however, I chose those consistent with opportunity theories and the situational crime perspective, which are the focus of this research. The chosen measures were categorized as dependent and independent variables. However, the independent variables were sorted into three distinct groups: victim, offender, and offense characteristics. It is the totality of these characteristics that form the crime situation and potentially yield a comprehensive victimization profile. For this reason, the cases included in the



analyses were those that had data for each of the variables mentioned below. Any cases with missing data were excluded. Each characteristic embodied an important aspect of victimization risk that has typically been studied individually and without any regard for the remaining factors (i.e., main effects variable-focused approaches). The specific measures in each group are presented below. Notably, because conjunctive analysis requires categorical data and works best with limited variable categories several variables have been are recoded.

## **Dependent Variables**

The outcome of interest was victimization. I implemented a variety of victimization types with the purpose of examining them in the analysis. They included violent (i.e., rape, sexual assault, robbery, aggravated and simple assault) and property crimes (e.g., personal theft/purse snatching) that were either attempted or completed (i.e., threatened acts were not included in the sample). Though a broader range of property crimes were available, victimization incidents that did not involve direct interaction between the offender and victim were not included. For example, burglary and motor vehicle theft did not lend themselves to detailed answers about offenders because the victim and offender do not typically interact with one another. As such, this measure was recoded so that sexual assault/rape equaled "1," robbery equaled "2," physical assault equaled "3," and personal theft equaled "4." Table 3 provides descriptive information for each of the victimization types included in the analysis. There were a total of 6,509 victimization incidents. Of those, physical assault comprised 84.7% of the total. The next largest victimization consisted of robbery (10.3%), followed by sexual assault rape (3.9%), and personal theft/purse snatching (1.1%).



Table 3. Descriptive Statistics for Victimization Incidents (n=6,509)				
Variable	Percent			
Victimization Types				
Sexual assault/rape	3.9			
Robbery	10.3			
Physical assault	84.7			
Personal Theft	1.1			
Victim Characteristics				
Race/ethnicity				
White	86.5			
Black	9.5			
Other	4.0			
Male	57.6			
Age				
Under 17	30.8			
18-29	29.3			
30+	39.9			
Marital Status				
Married	27.3			
Not (currently) married	14.8			
Never married	57.9			
Offender Characteristics				
Victim-Offender Relationship				
Stranger	42.2			
Known, but not intimate	53.3			
Intimate	4.4			
Same race/ethnicity as victim (Yes)	68.9			
Same gender as victim (Yes)	69.3			
Same age as victim (Yes)	66.6			
Offense Characteristics				
Location Type (Public)	67.4			
Distance from home				
Less than 5 miles	60.3			
50 miles or less	34.3			
More than 50 miles	5.4			
Night	38.0			
Crime Completed (Yes)	86.2			



#### **Independent Variables**

### Victim

The victim characteristics I focused on included race/ethnicity, gender, age, and marital status. In terms of race and ethnicity, victims of various races and ethnicities were included in the study. Whites were coded as "1", blacks as "2," and all others (which consisted of all the remaining categories) were coded as "3." Hispanic and non-Hispanic blacks and whites are not uniquely categorized because these groups were created to parallel the data available for offender race and ethnicity. Whites comprised the largest groups of victims with 86.5% of the sample. Blacks made up just under 10% (9.5%) and other consisted of 4.0% of the sample. Gender was accounted for by distinguishing between male (i.e., 1) and female (i.e., 0) victims. More than half of the sample was male (57.6%).

Age was unique because it is measured continuously, unlike the other variables which were measured categorically. To preserve the integrity of the measure, age was recoded into three subgroups: under 17 (i.e., 1); 18-29 (i.e., 2); and 30 plus (i.e., 3). Coding the data in this fashion made the variable conducive to conjunctive analysis, while respecting the existence of victimization prone age groups. The breakdown of the age groups was based on life events typically associated with each age range (Laub & Sampson, 2003; Piquero & Mazerolle, 2001; Sampson & Laub, 1993). For example, younger teens (i.e., 12-17) are typically in middle and high school and coincide with the age-crime curve as the most at-risk group; individuals between the ages of 18 through 29 are usually in college or seeking employment during which time their risk for victimization has diminished some; while those 30 and older are representative of a more established or stable lifestyle and lower risk (Klaus & Rennison, 2002; Perkins, 1997). The



youngest group of victims represented 30.8% of the sample; the next group (i.e., 18 - 29) made up 29.3%, while the oldest group comprised the largest portion of victims (39.9%).

As for marital status, respondents of the NCVS were categorized as never married, married, widowed, divorced, and separated. To capture any potential differences in victimization risk among marital statuses and to keep from overwhelming the results with too many categories, the data were recoded as married (i.e., 1), not (currently) married (i.e., 2), and never married (i.e., 3). The not (currently) married group consists of widowed, separated, and divorced victims; whereas, the never married and married groups are self-explanatory. The majority of victims were never married (57.9%), while the next largest group was married victims (27.3%). The smallest group was comprised of not (currently) married with 14.8%.

### Offender

There were two types of characteristics related to the offender that were pertinent to the analysis: the victim-offender relationship and the demographic overlap between the offender and the victim. The relationship between the offender and the victim was gauged by whether a) the former was known by the latter and b) whether the victim was intimate with the offender or not. For this reason, the variable was recoded as not known (i.e., 1), known but not intimate (i.e., 2), and known as well as intimate (i.e., 3). Relationships characterized as known (but not intimate) included: parents/step-parents, children/step-children, siblings, other relatives, friends/ex-friends, roommates, schoolmates, neighbors, customers/clients, other nonrelatives, patients, supervisors, employees, co-workers, or teachers/school staff. Intimate relationships consisted of a spouse/ex-spouse, boyfriend/girlfriend, or an ex-boyfriend/ex-girlfriend.

Several descriptive reports highlight the threat strangers pose for victimization risk (Harrell, 2012; Tillyer & Wright, 2014), however, IPV reports suggest there is a much greater



threat of victimization from acquaintance and intimate offenders (Catalano, 2013; Rennison & Welchans, 2000). Previous empirical victimization studies have also examined the victimoffender relationship to determine the extent of risk from known and unknown offenders (Finkelhor & Asdigian, 1996; Hart & Miethe, 2009; Zaykowski & Gunter, 2013). As such, this measure is meant to gauge the prevalence of known and unknown offenders across the various victimization incidents. Most victims reported the offender as someone who was known, but not intimate (53.3%). Offenders described as strangers or with whom the victim was unfamiliar consisted of 42.2% of the sample and another 4.4% reported the offender as known and with whom they were intimate.

In addition, specific characteristics, such as the offender's race, sex and age, were identified by the victims and used to pinpoint any similarities in demographic factors between the two. Previous articles attest to demographic similarities, which serve as evidence of the principle of homogamy (Carbone-Lopez & Kruttschnitt, 2010; Daday, Broidy, Crandall, & Sklar, 2005; Hindelang, Gottfredson, & Garofalo, 1978; Schreck & Fisher, 2004). The inclusion of the following measures specify how well the principle of homogamy applied to the sample. Offender race/ethnicity was measured as white (i.e., 1), black (i.e., 2), and all others (i.e., 3). Once again, no distinction was made for Hispanic and non-Hispanic black and white offenders because such a comparison was not possible within all the years of data collection (i.e., offenders were not categorized as Hispanic until 2012). The race and ethnicity measures for victims and offenders were coded the same to ensure a parallel comparison across groups. More than two-thirds of victims were of the same race or ethnicity as the offender (68.9%). Similarly, offender sex (i.e., males=1 and females=0) and age (i.e., under 17=1; 18-29=2; and 30 plus=3) are coded so as to match the coding for victims. About seventy percent of victims (69.3%) reported being of the



same gender as the offender, while two-thirds (66.6%) of victims belong to the same age range as offenders.

## Offense

There were also aspects about the offense I aimed to examine with conjunctive analysis. They pertained to contextual factors derived from where the victimization incident transpired. The importance of contextual factors was driven by the reality that some locations are more favorable to crime than others (Cohen & Felson, 1979; Shaw & McKay, 1942; Tillyer, Miller, & Tillyer, 2011). The purpose of including contextual factors in the analysis was to provide a sense of the victim's immediate surroundings to determine whether any general patterns exist that affect victimization risk. One such element referred to the specific location in which an incident occurred (i.e., public versus restricted areas). Past studies have utilized this measure as a way to contextually characterize the victimization event and pinpoint areas more prone to victimization (Lauritsen & White, 2001; Mustaine, 1997; Tillyer, Miller, & Tillyer, 2011). In addition, several measures such as evenings and time spent away from home have pointed to an existing relationship have between being outside of the home and greater victimization risk exists (Chen, 2009; Giblin, 2008; Like-Haislip & Warren, 2010; Melde, 2009; Osgood, Wilson, O'Malley, Bachman, and Johnston, 1996; Sampson & Lauritsen, 1990; Tseloni, 2000; Tseloni & Pease, 2004). The location of the incident was therefore included in the analysis because it helped to pinpoint what kind an environment the victim was in during the incident. Purposing to identify victimization locations aided in gaining a more detailed understanding of the situational context. As such, the location of the incident was coded as public (i.e., 1) and restricted (i.e., 0). In the current sample, the majority of victimization incidents were reported as having taken place in a public (67.4%) rather than restricted area (32.6%).



Aside from factors related to being outside of the home, previous literature has also pointed to the belief that a person's home serves a safe haven from victimization. In other words, the time spent outside of the home is when individuals are most prone to victimization (Bunch, Clay-Warner & Lei, 2012; Carbone-Lopez & Kruttschnitt, 2009; Chen, 2009; Cohen & Felson, 1979; Henson, Wilcox, Reyns & Cullen, 2013; Hindelang, Garofalo, & Gottfredson, 1978; Lauritsen & White, 2001; Meier & Miethe, 1993; Miethe & McDowall, 1993; Miethe, Stafford, & Long, 1987; Miethe, Stafford, & Sloane, 1990; Miller & Lopez, 2014; Mustaine, 1997; Tewksbury & Mustaine, 2003; Zaykowski & Gunter, 2013). Complementing the justification for measuring victimization location types, determining how far an incident occurred from the home was utilized to gauge whether the likelihood of being victimized was a function of how far the person was from their place of residence. In the NCVS, the distance from home variable included five categories (i.e., at or near the respondent's home; a mile or less; five miles or less; fifty miles or less; and more than fifty miles), but were reduced to three. Specifically, the variable was recoded as: whether the incident occurred five miles or less from the victim's home (i.e., 1), whether the incident occurred 50 miles or less from the victim's home (i.e., 2), and whether the incident occurred more than 50 miles away from the home (i.e., 3). Most incidents occurred less than 5 miles away from home (60.3%); while the least number of incidents occurred more than 50 miles away (5.4%). Another relevant element of victimization was time of day. Since the time frames for the incidents changed across data collections periods in the NCVS, the data were recoded as either having occurred during the day (i.e., 0) or night (i.e., 1). Most of the victims reported their incident took place during the day (62.0%), while 38.0% of the victims reported their incident occurred at night.


Lastly, though previously mentioned, another aspect of the offense that formed part of the analysis related to whether the crime was completed or not. This variable was coded as completed (i.e., 1) and attempted (i.e., 0). Distinguishing between completed and attempted crimes allowed for the examination of factors that resulted in offenders being able to seize a criminal opportunity and either a) successfully complete their criminal objective or b) end up thwarted. Crimes coded as threatened were not included in the sample<sup>3</sup>. Most victimization incidents were reported as completed (86.2%) rather than attempted (13.8%).

In sum, the aforementioned subsections represented each of the elements (i.e., victim; offender; and offense characteristics) that together form a situational context of victimization that resulted in either violent or direct contact property victimization. As in previous chapters, a situational context is a broad term used to refer to the key elements that affect the risk of victimization. The utility of situational contexts stems from its capability to provide a broad and in-depth examination of victimization risk.

## **Analytic Strategy**

Until this point, I discussed conjunctive analysis in general terms, but here I detailed how conjunctive analysis was applied to the data described above. To address the first and second research questions concerning the dominant situational profiles for violent and direct contact property crimes, I used the twelve independent variables discussed above to predict the dependent variable. These twelve independent variables included seven dichotomous and five trichotomous variables; thus, these variables had the potential to yield 31,104 (2<sup>7</sup> x 3<sup>5</sup>) unique configurations. To prevent configurations with small numbers of cases from distorting the analysis, I applied a minimum frequency rule of .1% of the total sample (i.e., each combination



needed a minimum of 6 cases to be considered dominant). The use of a percentage rather than a specific number of cases limits the rule's appearance as an arbitrary threshold for the analysis. In addition, the utility of a .1% minimum frequency rule has been shown to be successful in a previous study of violent victimization (Miethe & Regoeczi, 2004). As such, the rule was implemented to pinpoint specific configurations or profiles that distinguished characteristics resulting in violent victimization and direct contact property victimization.

The version of conjunctive analysis utilized in my dissertation varied slightly from previous studies in that the dependent variable was not dichotomous. Therefore, each category of the outcome was broken down by mean prevalence for every situational combination observed in the data. Essentially, the results were reported similarly as in Table 1 with the combination's prevalence of the outcome and case frequency in separate columns. The only difference that emerged was in reference to the display of the four categories of the dependent variable. In the present iteration, every category in the dependent variable was assigned a column in the output rather than summarized in one single column as in the mock truth table.

To draw more conclusive findings from the analysis, I categorized the situational profiles as either unique or common by using the 10% difference rule, a method that has been developed by Miethe. Previous tests of conjunctive analysis have used the 10% difference rule by turning to the mean of all the combinations to establish a baseline (Hart & Miethe, 2008; Hart & Miethe, 2009). From here, combinations that exceeded the mean of victimization risk by 10% or more were deemed a high risk; whereas, combinations that fell more than 10% below the mean were deemed a low risk. All profiles that fell between these two thresholds were categorized as medium risk. For example, if 60% of the situational profiles resulted in physical assault, then profiles that emerged with a prevalence rate of 71% or higher would be identified as high risk



profiles and unique to physical assault; whereas, profiles that emerged with prevalence rates less than 50% would be categorized as low risk and unique to crimes other than physical assault. Any profiles that were to fall between 71% and 49% would be considered common for all crime types.

To address the third research question concerning variation in situational profiles by race/ethnicity, I reran the analysis using race/ethnicity as the dependent variable and specific crime type as an independent variable. In other words, I estimated another truth table. The benefits of estimating the second truth table were related to the identification of combinations pertaining to specific race and ethnic groups. The same minimum frequency rule of .1% was applied. The profiles resulting from this analysis were compared across each of the underlying components of the situational context to determine whether dominant situational profiles were similar or distinct across racial/ethnic groups. The overall distribution of the three race/ethnic groups determined what combinations were categorized as either unique or common with the implementation of the 10% difference rule.

### Summary

In order to gauge the dominant situational profiles of victims of violent and direct contact property victimization and those profiles specific to race and ethnicity, conjunctive analysis was utilized. With this analytical tool's ability to extend the structure of a bivariate contingency table, all of the elements underlying a dominant situational profile (i.e., victim, offender, and offense) were assessed together. The broad, and yet, detailed results provided in the truth table allowed for a general assessment of the profiles to identify those characteristics that contributed to high levels of violent and direct contact property victimization risk among victims. However, these



results were also examined to determine which situational profiles were unique or common on the basis of specific crime types and race/ethnicity with the implementation of the 10% difference rule. The categorization of unique and common profiles shed more light on the nuances underlying risk and aided in the identification of combinations that coincided with high, medium, and low victimization risk.

# Endnotes

<sup>3</sup> Crime types that were excluded include threatened assault with weapon, verbal threat of rape, verbal threat of sexual assault, and verbal threat of assault.



### **Chapter Four:**

## Results

This chapter provides a discussion of the analysis and its corresponding results, which were estimated to determine the nature of the existing victimization patterns within the data. Since my dissertation was not explicitly driven by LSRA or specific hypotheses, I utilized conjunctive analysis to gain a general understanding of the victim, offender, and offense characteristics underlying victimization incidents. To address each of my research questions, I estimated a truth table to determine whether certain combinations of characteristics were specific to violent or property crime victimization. Similarly, I proceeded to estimate a second truth table to assess whether these combinations varied by race and ethnicity for violent and property crime victimization.

### **Baseline Analysis**

Before proceeding with conjunctive analysis, I estimated a multinomial logistic regression analysis as an example of what a standard (or main effects) model would provide in terms of results. The model was estimated by using victimization type as the dependent variable with physical assault serving as the reference category. All of the victim, offender, and offense characteristics were included as factors due to their categorical nature. Table 4 provides the results of the analysis. The model fit statistics indicated the measures included in the model significantly predicted the dependent variable ( $\chi^2(51) = 1859.816$ ; p < .001). As for the



likelihood ratio tests, the following independent variables were reported as statistically significant: victim race, victim gender, marital status, offender type, same race, same age, same gender, location of incident, distance from home, time of day, and completion status.

The first set of coefficients compared the likelihood of sexual assault/rape to physical assault. Among the statistically significant variables, females were more likely to be a victim of sexual assault/rape than physical assault when compared to males holding all other variables constant. Similarly, victims were more likely to be sexually assaulted/raped than physically assaulted by someone they knew (rather than someone with whom they were intimate). On the other hand, married victims were less likely to be sexually assaulted/raped rather than physically assaulted when compared to never married (i.e., single) victims. As for offense characteristics, individuals were less likely to be sexually assaulted or raped than physically assaulted when the incident occurred during daytime rather than nighttime hours. Furthermore, incidents occurring closer to home were more likely to result in a physical rather than sexual assault in comparison to incidents that occurred further away from home.

The second set of coefficients compared robbery incidents to physical assault. Unlike sexual assault and rape, younger victims were more likely to be robbed rather than physically assaulted in comparison to older victims. As for the victim-offender relationship, stranger attacks were more likely to result in robbery rather than physical assault incidents when compared to intimately known offenders. Incidents committed in restricted areas (rather than public areas) were also more likely to be robbery-related than physical assault-related incidents. Much like sexual assault, incidents occurring closer to home were more likely to result in physical assault rather than robbery in comparison to incidents that occurred further away from home.



The last set of coefficients compared personal theft to physical assault. This model varied from the prior two in that there were vast differences in sample size. The stark differences led to extremely large odds ratios, which is often an indicator of very small comparison sizes within the analysis. The emergence of such large odds ratios are often deemed imprecise and uninterpretable. The lack of viable results relating to personal theft offers credence to the argument for conjunctive analysis. While main effects models require a comparable sample size in order to draw substantive conclusions, conjunctive analysis is able to capitalize on victimization incidents that are both small and large in number. Moreover, the multinomial logistic regression did not provide much insight into racial or ethnic differences. The subsequent subsection illustrates the utility of conjunctive analysis and provides further detail into the linear and non-linear relationships between victim, offender, and offense characteristics.

Table 4. Results from	Multinomial Logistic Re	gression (n=6,509)	
	Sexual Assault/Rape <sup>a</sup>	Robbery <sup>a</sup>	Personal Theft <sup>a</sup>
	Odds Ratio (Std. Error)	Odds Ratio (Std. Error)	Odds Ratio (Std. Error)
Race/Ethnicity			
White	1.032 (.421)	.813 (.200)	4.265 (1.036)
Black	1.029 (.468)	1.263 (.237)	8.742 (1.096)*
Other	R	R	R
Gender			
Male	R	R	R
Female	3.091 (.271)***	1.069 (.130)	18.567 (.808)***
Age			
Under 17	1.349 (.258)	1.574 (.170)**	.758 (.593)
18-29	1.287 (.209)	1.083 (.127)	.762 (.364)
30+	R	R	R
Marital Status			
Married	.509 (.235)**	1.037 (.139)	.997 (.381)
Not Married	.741 (.236)	1.420 (.155)*	1.064 (.419)
Never Married	R	R	R
Offender Type			
Stranger	1.601 (.270)	2.435 (.248)***	512878395.5 (.540)***
Known	3.270 (.264)***	.737 (.258)	28079726.27 (.000)
Intimate	R	R	R
Same Race/Ethnicity			
Yes	R	R	R



Table 4 (Continued)			
	Sexual Assault/Rape <sup>a</sup>	Robbery <sup>a</sup>	Personal Theft <sup>a</sup>
	Odds Ratio (Std. Error)	Odds Ratio (Std. Error)	Odds Ratio (Std. Error)
No	.858 (.167)	2.253 (.095)***	2.525 (.264)***
Same Gender			
Yes	R	R	R
No	21.907 (.281)***	1.738 (.136)***	6.630 (.489)***
Same Age			
Yes	R	R	R
No	1.001 (.151)	1.454 (.096)***	1.883 (.265)**
Public Area			
Public	R	R	R
Restricted	.930 (.159)	.487 (.124)***	.351 (.426)*
Distance from Home			
Less than 5 miles	.348 (.265)***	.702 (.177)*	.438 (.403)*
50 miles or less	.503 (.267)**	.592 (.184)**	.330 (.438)*
More than 50 miles	R	R	R
Time of Day			
Night	R	R	R
Day	.327 (.163)***	1.128 (.102)	2.359 (.289)**
Completion			
Yes	R	R	R
No	2.447 (.187)***	7.705 (.098)***	5.282 (.279)***

\*p <.05; \*\*p <.01; \*\*\*p<.001

<sup>a</sup>Reference category is physical assault **B**-**B**-forence category

R=Reference category

## Violent and Direct Contact Property Victimization

Though there were 31,104 possible combinations identified, a total of 2,146 combinations were observed in the data (without missing data). However, 1,911 combinations were excluded once the minimum frequency rule of .1% was implemented. Despite the exclusions of these combinations, more than half of all cases were retained in the analysis (i.e., 3,347 of the 6,509 cases are represented in the dominant combinations). The results of the 235 dominant situational contexts for both violent and property crime are provided in the appendix (see Table A1). The first column in the subsequent tables depicts the identification numbers assigned to each dominant profile, which were based on the frequency of cases found within the combination. When organized by the number of cases, the most prevalent profiles indicated the majority of



individuals were victims of completed physical assaults. Specifically, the first two combinations were comprised of 235 and 229 cases, respectively. Greater counts of cases within specific combinations is indicative of situational clustering. The presence of situational clustering within emerging combinations suggest potential substantive insight because of the overlapping similarities underlying the victimization incident (Miethe, Hart, & Regoeczi, 2008). More specifically, most victims were white, young males who had never been married and had been attacked by known (but not intimate) offenders who were of the same race, gender, and age as the victim. As for contextual factors, many incidents were described as occurring during the day and in public areas that were close to home.

Combinations with lower frequencies depicted greater variety across victim, offender, and offense characteristics than high frequency combinations. In regard to victimization type, variability was also greater with robbery emerging with some of the greatest means. For these profiles, more of the victims were female, older, and married or not (currently) married. The offender also varied between being a stranger and someone who was known but not intimately so. There was also support of the victim-offender overlap with both groups sharing the same race, gender, and age. As for offense characteristics, the incidents were reported as taking place more so during the day in a public area, and less than 5 miles away from their homes. The nature of the incident also revealed greater numbers of attempted rather than completed victimization.

Before delving into the dominant combinations specific to each outcome, the underlying characteristics related to the victim, offender, and offense were summarized by victimization type in Figures 1-3, respectively. The purpose of these figures was to provide background information for patterns that emerged in the combinations. In Figure 1, whites were the largest group of victims for each crime type (more than 80%), while other victims were the smallest



group of victims (less than 10%). Males comprised more than half of the victims for physical assault and robbery, but made up a small portion (less than 10%) of sexual assault/rape and personal theft/purse snatching. The victim's age also varied by crime type. Older victims (30+) were the most prone to physical assault (38.8%), robbery (47.4%), and personal theft/purse snatching (69.9%), however, 18- to 29-year-old victims comprised the largest group for sexual assault/rape (42.5%). Similarly, victims who were never married reported the highest percentages of physical assault (59.1%), robbery (49.0%), and sexual assault/rape (63.9%); whereas, married victims reported the most incidents of theft (43.8%).



Figure 1. Victim Characteristics by Victimization Type

The offender measures utilized in the conjunctive analysis are outlined in Figure 2. Looking at the nature of the victim-offender relationship, physical assault (57.2%) and sexual assault/rape (61.1%) were characterized by offenders with whom the victims were familiar (but not intimate). On the other hand, robbery (72.5%) and personal theft/purse snatching (94.5%) were reported to have been completed by strangers. In this sample, intimate offenders did not represent much of a threat. In terms of the victim-offender overlap, physical assault was shown to be largely committed by offenders who reflected the same race, gender, and age as the victim.



More than half of robbery victims were attacked by offenders of the same gender and age as the victim; whereas, sexual assault/rape and personal theft/purse snatching victims shared the same race and age as the offender.



Figure 2. Offender Characteristics by Victimization Type

Offense characteristics were the last set of measures broken up by victimization type, which shed light on the contextual factors that coincided with the victimization incident. In terms of completion status, at least half of the victims indicated the attack was completed. Physical assault had the highest completion rate (90.7%); whereas, robbery had the lowest completion rate (53.5%). Based on the victim's account, most incidents occurred in public areas and during daytime hours. The only exception for time of day was sexual assault/rape, for which most incidents occurred at night. As for the risk associated with the proximity to the victim's homes, most incidents transpired near the victim's home (5 miles or less).





Figure 3. Offense Characteristics by Victimization Type

## **Physical Assault**

The presentation of the figures provides a glance into the differences that underlie the victimization incident. Though there was some overlap, the specific variable categories were shown to vary by victimization type. In order to gain a better understanding of victimization, the results of the truth table were rearranged by crime type, in descending order, based on their frequency of occurrence in the sample. The discussions were limited to the first 25 dominant combinations so as to determine whether similar profiles emerged by victimization type. This practice has been used in the past to discuss and compare results across victimization and demographic type (Miethe & Regoeczi, 2004). The first crime type assessed was physical assault. To clarify the manner in which interpretations were made regarding the truth table, there were two types of effects discussed: main effects and interaction effects. Main effects consisted of comparisons made across individual combinations (i.e., by column). These interpretations parallel the results of main effects models, such as regression analyses. Comparisons made within combinations (i.e., by row) were indicative of interaction effects. Within-combination



comparisons reflect dependent relationships between varying victim, offender, and offense characteristics, which mirrored the purpose behind split models and interaction terms.

After rearranging the 235 dominant profiles, the first 109 profiles revealed the physical assault mean was 1.00. In other words, the first 109 profiles contained characteristics that resulted in physical assault 100% of the time (not shown). Almost all of these profiles consisted of white victims, however, the gender of the victim varied between male and female when rearranged by mean risk. Interestingly, the profile with the largest frequency involved female victims; whereas, the second highest frequency combination involved males. When comparing the two profiles, they both shared several demographic characteristics, such as race (i.e., white), age (i.e., under 17), and marital status (i.e., never married). The offender was also reported as being known (not intimate), and of the same race, gender, and age. In terms of offense characteristics, both combinations involved incidents that occurred during the day and in a public area. However, female victims reported incidents as close to home (i.e., 5 miles or less); whereas, male victims were attacked further away from home (i.e., less than 50 miles away from home or less).

The next 15 profiles ranged from .99 to .95 (see Table 5). This categorization of combinations was determined by looking at the mean of physical assault incidents for the entire sample. Earlier, I mentioned 84.7% of the sample reported having been the victim of physical assault (see Table 3). Using the 10% difference rule, this translates into combinations with means of 95.0% or higher coinciding with greater risk. The main effects in the data illustrated white victims comprised 93% of the high risk combinations (14/15 combinations); whereas, Figure 1 reported 87.2% of general physical assault victims were white. For gender, male victims made



Tab	le 5. <b>Hi</b>	<b>gh</b> Risk (	(Unique)	Profiles f	or Physica	al Assau	lt (n=15)										
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
2	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	.00	.01	.99	.00	229
4	White	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.01	.99	.00	73
1	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.02	.98	.00	235
7	White	Female	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	.00	.02	.98	.00	58
10	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	.00	.02	.98	.00	50
14	White	Male	18-29	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.03	.97	.00	35
15	White	Male	30+	Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	.00	.03	.97	.00	31
3	White	Male	Under 17	Never Married	Known	No	Yes	Yes	No	5 miles or less	Yes	No	.01	.03	.96	.00	77
22	Black	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	.00	.05	.95	.00	22
11	White	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	.05	.00	.95	.00	42
24	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.05	.95	.00	21
6	White	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	.00	.05	.95	.00	60
13	White	Male	Under 17	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.05	.95	.00	39
27	White	Male	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.05	.95	.00	19
8	White	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.05	.95	.00	56

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault

up 87.0% of the high risk combinations (13/15 combinations), but only 60.6% of physical assault victims (see Figure 1). Most victims were also adolescents under the age of 18 (60%).

Interaction effects showed evidence of patterns related to the victim and offender relationship. Nine out of the 15 high risk combinations (60.0%) involved a known offender and a victim that was less than 18 years of age. Moreover, combinations comprised of adolescent victims and known offenders overlapped in 8 combinations (IDs #2, # 1, #7, #10, #3, #22, #11, and #8). With the exception of ID #15, older victims (i.e., 18 and older) were more susceptible to physical attacks from strangers. Furthermore, most combinations that consisted of known offenders coincided with incidents occurring in restricted areas (40% of combinations); while combinations with unknown offenders also tended to occur during the day (67.0% of combinations); whereas, stranger attacks occurred at night. As far as completion status, all of the high risk combinations were reported as completed rather than attempted.

Of the 15 high risk profiles, only one combination involved black victims (7.0%). Aside from race, these victims were also young, male, and single. Similar to other combinations, black victims also faced known offenders who were of the same race, gender, and age. Offense characteristics indicated incidents occurred less than 5 miles from home and during the day. A comparison between ID #2 and ID #22 showed, despite sharing all of the same demographic (except for race), offender, and offense characteristics, the mean risk (.99) for the former combination (involving white victims) was greater than the mean risk (.95) for the latter combination (involving blacks).

On the other hand, there were 46 low risk combinations that ranged from .73 to .22 (see Table A2). Low risk combinations were categorized as such if the mean of physical assault fell



more than 10% below the mean (84.7%). In other words, combinations in which physical assault was 73% or lower were deemed low risk. The top 25 low risk combinations indicated risk ranged from .73 to .56 (see Table 6). Much like high risk combinations, white victims (88.0%) were the most represented group within the low risk combinations, however, males only comprised 48.0% of the combinations. Moreover, combinations containing both young victims (under 17) and known offenders constituted 28.0% of the combinations. As expected, the introduction of older victims coincided with a greater number of married victims and stranger attacks. Unlike high risk combinations, about a quarter of the combinations did not result in completed attacks. Of the six combinations with attempted attacks, two-thirds of them involved offenders known to the victims. In essence, unknown offenders were more successful in their physical attacks (84% of combinations with unknown offender coincided with a completed attack). The two exceptions (IDs #225 and #180) in which the physical attack was not completed and involved strangers only differed from one another in terms of when the attack occurred (night versus day, respectively). Nonetheless, being attacked during nighttime hours coincided with a 10% increase in mean risk when compared to daytime hours.

Overall, examinations of high risk and low risk combinations pertaining to physical assault revealed different patterns underlying mean risk. For high risk combinations, the main effects showed victims consisted of young, white, single, males. Furthermore, the victimoffender relationship was almost evenly split between known and unknown offenders. Interaction effects highlighted the relationship between age and offender type. Specifically, younger victims were shown to be victimized by known offenders and older victims were shown to be attacked by unknown offenders (or strangers). Another interaction effect that emerged with offender type was in relation to the incident location. For these combinations, stranger incidents



Tabl	e 6. Top	25 Low	Risk (U	nique) Pro	ofiles for l	Physical	l Assault										
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
47	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	.00	.27	.73	.00	15
72	White	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	.18	.09	.73	.00	11
30	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	.00	.28	.72	.00	18
167	White	Female	30+	Not Married	Known	Yes	No	Yes	No	50 miles or less	Yes	Yes	.29	.00	.71	.00	7
175	White	Male	18-29	Never Married	Known	No	Yes	No	Yes	5 miles or less	Yes	No	.00	.29	.71	.00	7
148	White	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	Yes	.00	.14	.71	.14	7
179	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	No	.00	.29	.71	.00	7
182	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles or more	Yes	Yes	.00	.29	.71	.00	7
103	Black	Female	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.30	.00	.70	.00	10
97	White	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.30	.70	.00	10
43	Black	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	.31	.00	.69	.00	16
191	White	Female	Under 17	Never Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.33	.00	.67	.00	6
202	White	Female	30+	Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.33	.00	.67	.00	6
213	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	Yes	.00	.33	.67	.00	6
225	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	No	Yes	.00	.33	.67	.00	6
235	Black	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.33	.67	.00	6
75	White	Female	30+	Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.27	.64	.09	11
76	White	Female	30+	Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	No	.09	.27	.64	.00	11



Tabl	e 6 (Cor	tinued)															
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
91	White	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.40	.60	.00	10
172	White	Male	Under 17	Never married	Known	Yes	Yes	Yes	Yes	50 miles or less	No	No	.00	.43	.57	.00	7
164	White	Female	30+	Not Married	Stranger	No	No	No	Yes	5 miles or less	Yes	No	.00	.29	.57	.14	7
180	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	No	No	.00	.43	.57	.00	7
186	White	Male	30+	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.43	.57	.00	7
107	White	Female	18-29	Never Married	Known	Yes	No	No	Yes	50 miles or less	Yes	No	.44	.00	.56	.00	9
105	White	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	Yes	.22	.22	.56	.00	9

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault



coincided with victimization occurring in public areas; whereas, known offender incidents resulted in victimization occurring in restricted areas. Most of the interactive patterns were related to victim characteristics and the victim-offender relationship. More than simply representing a type of relationship, this characteristic showed how the offender influenced other elements of the victimization incident.

Low-risk combinations also showed evidence of various main and interactive effects. Victims with lower risks of physical assault evinced greater demographic variability with race (i.e., whites) serving as the only constant. Not surprisingly, there was greater representation of female, older, and married victims among the lower risk combinations. The victim-offender relationship, once again, offered a look into the appearance of interactive patterns in the data. The existence of similar patterns for both low and high risk combinations is referred to as causal asymmetry. In other words, the same underlying patterns can emerge for combinations and result in different outcomes. First, younger victims tended to be attacked by people with whom they were familiar. Nevertheless, the presence of familiarity also corresponded with less success in completing the attack; whereas, strangers tended to have more success. In fact, there were more attempted incidents (than completed) among low risk combinations, while all high risk combinations were completed.

## Robbery

Turning to robbery, the same truth table was rearranged so that the combinations were in descending order according to mean robbery risk. From the original 235 dominant combinations, there were 41 high risk combinations for robbery (see Table A3). Using the 10% difference rule, high risk was determined by combinations that reflected means greater than .20. The results for



the top 25 dominant high risk combinations revealed mean robbery risk ranged from .78 to .29 (see Table 7). For robbery incidents, 96% of combinations reflected white victims; whereas, 81.3% of general robbery victims were reported as white (see Figure 1). Almost two-thirds of combinations reported males as the victim (Figure 1 reported 57.7%) and one-third as young victims (under 17; Figure 1 indicated 20.9%). Unlike physical assault, robbery incidents were less likely to be completed (56.0%). As for distance, most incidents occurred within 5 miles or less of the victim's home. Another difference between physical assault risk and robbery risk stemmed from the victim-offender relationship for which strangers defined the latter. In fact, almost three-quarters of the offenders were unknown.

Interaction effects showed a number of patterns related to the victim-offender relationship. Among unknown offenders, there was less of a demographic overlap with victims, while there was more commonality in demographic factors among known offenders. Of the nine combinations consisting of female victims, only two reported being familiar with the offender (IDs #124 and #189). Interestingly, females familiar with the offender were under the age of 17; whereas, female victims whom reported the offender as a stranger were all 18 and older. The same pattern appeared for males in that they were more susceptible to robbery attacks from known offenders during their adolescent years. The only exception was situation #175, where these male victims were between the ages of 18 and 29 when attacked by a known offender. This specific combination presented another anomaly in that it was the only incident with a known offender that resulted in a successful robbery. Every other combination that reported a successful robbery involved an unknown offender.



Tabl	е 7. Тор	25 High	Risk (U	Jnique) Pr	ofiles for	Robber	у										
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
117	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	No	No	.00	.78	.22	.00	9
209	White	Male	Under 17	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	No	No	.00	.67	.33	.00	6
222	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	No	Yes	.00	.67	.33	.00	6
168	White	Male	Under 17	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	No	.00	.57	.43	.00	7
83	White	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.55	.45	.00	11
74	White	Female	30+	Married	Stranger	No	No	No	Yes	5 miles or less	Yes	No	.00	.55	.36	.09	11
124	White	Female	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	.00	.50	.50	.00	8
136	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	50 miles or more	No	No	.00	.50	.50	.00	8
132	White	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	.00	.50	.38	.13	8
210	White	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	No	No	.00	.50	.50	.00	6
189	White	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	No	No	.17	.50	.33	.00	6
172	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	No	No	.00	.43	.57	.00	7
180	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	No	No	.00	.43	.57	.00	7
186	White	Male	30+	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.43	.57	.00	7
147	White	Female	18-29	Never Married	Stranger	No	No	No	Yes	5 miles or less	Yes	Yes	.00	.43	.43	.14	7
165	White	Female	30+	Not Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	.14	.43	.29	.14	7
91	White	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.40	.60	.00	10
110	White	Female	30+	Married	Stranger	Yes	No	No	Yes	50 miles or less	Yes	No	.00	.33	.56	.11	9



Tabl	e 7 (Con	tinued)															
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
213	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	Yes	.00	.33	.67	.00	6
225	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	No	Yes	.00	.33	.67	.00	6
235	Black	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.33	.67	.00	6
199	White	Female	30+	Married	Stranger	No	No	No	Yes	5 miles or less	Yes	Yes	.00	.33	.50	.17	6
97	White	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.30	.70	.00	10
175	White	Male	18-29	Never Married	Known	No	Yes	No	Yes	5 miles or less	Yes	No	.00	.29	.71	.00	7
179	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	No	.00	.29	.71	.00	7

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault

Another interesting finding revealed the underlying victim, offender and offense characteristics for three combinations (IDs #124, #136, and #210) resulted in equal mean risk for robbery and physical assault. In essence, the characteristics outlining these combinations were just as likely to result in robbery or physical assault. There was quite a bit of overlap between the combinations with the victims emerging as white, under the age of 17, single, familiar with their offender, and of the same gender and age as the offender. All three combinations also were attempts (i.e., attempted robberies and attempted physical assaults) that took place during the day. Two out of the three combinations involved male victims, who were of the same race as the offender, and reported the incidents as occurring 5 miles or less from home in a public area. As for low risk combinations, there were none to report due to the low frequency of robbery victimizations in the overall sample. About 10% of the sample reported being the victim of a robbery. In this case, low risk combinations would be defined as profiles with a robbery mean of .00. However, since the outcome has four categories, the absence of a robbery incident would not be meaningful to this subsection. Similarly, the remaining combinations (with means >.00) were all "common" profiles and not unique to robbery. In other words, common profiles were just as likely to have resulted in any one of the four victimization types.

In sum, rearranging the truth table so as to focus on robbery highlighted the different situational characteristics that resulted in high risk combinations. First, many of the robbery incidents were attempted rather than completed. Second, there were a number of gender differences that emerged, which suggested the combination's risk level was tied to age and the victim-offender relationship. Specifically, younger victims (both male and female) tended to report knowing their attacker, which was also tied to successful completions of robbery. On the other hand, older victims were more vulnerable to unknown offenders. The nature of the victim-



offender overlap also coincided with the location of the victimization incident and its completion. For example, robberies committed by strangers tended to occur in public areas rather than restricted areas. The latter location was more prominent among incidents with known offenders. Moreover, the report of a completed or attempted robbery incident was also tied to the victim's relationship with the offender. Unknown offenders appeared to result in more completed robberies; whereas, combinations with known offenders were largely reported as attempted.

### Sexual Assault/Rape

The following crime type to be examined in the truth table was sexual assault/rape, which resulted in the combinations being rearranged in descending (mean risk) order (see Table 8). Since 4% of the sample reported being the victim of a sexual assault or rape, high risk profiles were defined as combinations with a mean order of .15 or greater. Using this threshold, 19 high risk combinations emerged in the truth table. Unlike victims of physical assault and robbery, females were the only gender to appear in all 19 high risk combinations. As with the prior victimization types, most of the victims were white (89%). The majority were also never married (74%) and attacked by a male they were familiar with (68%). In most combinations, the offender was of the same race and age as the victim (79%). In terms of the incident's surroundings, most attacks occurred in a public place not too far from the victim's home (i.e., 5 miles or less). A little more than half of the incidents were reported as taking place during the day. Almost all of the combinations reported the crime as having been completed.

The combination with the greatest risk of sexual assault/rape (ID #197) was also equally likely to result in physical assault (.50). The characteristics that comprised this combination included adult (18-29), white, single females. These victims knew the male



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offender, who was of the same race and age as the victim. Completed incidents occurred in a public place, at night, 5 miles or less from the victim's home. Interestingly, black victim combinations were almost identical to one another (IDs #43 and #103), with the differentiating factor being the incident's location. Nonetheless, there was only a 1% difference in mean risk between them. When compared to white female victims of the same age, marital status, and offender type (ID # 72), the difference in mean risk was about 13% (IDs #43 (.31); #103 (.30); and #72 (.18)). Aside from the victims being black and white, the former were also attacked closer to home; while the latter were attacked further away (50 miles or less from home).

Unlike physical assault and robbery, there was no interaction effect between the victim's relationship to the offender and the location of the incident. However, there was an interaction effect between victim age and offender type. Specifically, all victims under the age of 17 were attacked by offenders who were known to them; whereas, unknown offenders preyed on older females (18 and older). There were also no low risk combinations to report since sexual assault/rape was reported by such a small portion of the sample (3.9%). In this case, low risk combinations would be defined as profiles with a sexual assault/rape mean of .00, which would not pertain to this subsection, but one of the other three victimization types. The remaining combinations, ranging from .14 to .00, were all common profiles and also did not pertain to sexual assault/rape, specifically.

All in all, the findings pertaining to sexual assault/rape confirmed some of what is known regarding risk. In regard to gender, females were clearly more at risk for sexual violence than males and were also more likely to be victimized at the hands of a male. Furthermore, females were also more at risk for sexual violence from men with whom they were familiar than strangers. Nonetheless, the differences seemed to end there. Regardless of the victim-offender



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Tab	le 8. <b>Hi</b>	<b>gh</b> Risk (	(Unique)	Profiles f	for Sexual	Assault	/Rape (n=	:19)									
ID	Race	Male	Age	Marital	Off	Same	Same	Same	Public	Home	Comp <sup>1</sup>	Night	Rane	Roh	Phv <sup>2</sup>	Theft	N
	muce	maic	1150	Status	Туре	Race	Gender	Age	i uone	Home	comp	11911	nupe	Rob	I IIy	Incre	11
197	White	Female	18-29	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.50	.00	.50	.00	6
107	White	Female	18-29	Never Married	Known	Yes	No	No	Yes	50 miles or less	Yes	No	.44	.00	.56	.00	9
152	White	Female	18-29	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	.43	.14	.43	.00	7
191	White	Female	Under 17	Never Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.33	.00	.67	.00	6
194	White	Female	18-29	Never Married	Stranger	Yes	No	Yes	Yes	50 miles or more	Yes	Yes	.33	.17	.50	.00	6
202	White	Female	30+	Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.33	.00	.67	.00	6
43	Black	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	.31	.00	.69	.00	16
103	Black	Female	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.30	.00	.70	.00	10
145	White	Female	18-29	Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	.29	.29	.43	.00	7
167	White	Female	30+	Not Married	Known	Yes	No	Yes	No	50 miles or less	Yes	Yes	.29	.00	.71	.00	7
128	White	Female	18-29	Never Married	Intimate	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	.25	.00	.75	.00	8
133	White	Female	30+	Not Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	.25	.00	.75	.00	8
105	White	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	Yes	.22	.22	.56	.00	9
92	White	Female	30+	Not Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.20	.00	.80	.00	10
72	White	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	.18	.09	.73	.00	11
65	White	Female	18-29	Never Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.17	.08	.75	.00	12



Tabl	le 8 (Co	ntinued)															
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
189	White	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	No	No	.17	.50	.33	.00	6
195	White	Female	18-29	Never Married	Known	No	No	No	No	5 miles or less	Yes	No	.17	.00	.83	.00	6
196	White	Female	18-29	Never Married	Known	Yes	No	No	Yes	50 miles or less	Yes	Yes	.17	.00	.83	.00	6

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault



relationship, most incidents were committed by offenders who were of the same race and age as the victim. The location of the incident was largely in a public space and took place during the day. One interactive effect that emerged in the data indicated females under the age of 17 were consistently preyed upon by known offenders; whereas older females varied between known and unknown offenders.

### **Personal Theft/Purse Snatching**

The last victimization type, personal theft/purse snatching, had the smallest number of victims in the sample (1.1%). For this reason, when the truth table was rearranged, dominant profiles consisted of mean risk levels that were greater than or equal to .12. The application of the 10% difference rule resulted in the identification of 8 dominant combinations in the data. In table 9, the dominant profiles showed victims of personal theft/purse snatching were all female. The victims were also all white, older (18 and up), and attacked by an unknown male in a public area, who completed the theft. All but one of the combinations indicated the victim and offender were not of the same race (ID #132). Most combinations occurred near the victim's home (75%), however, half of the combinations occurred at night and the other half during the day. The majority of female victims were also either never married (33%) or not currently married (38%; consisted of widowed, divorced, or separated). Considering the nature of the crime (i.e., purse snatching) and its relationship to offender characteristics, it makes sense for females to have emerged as the sole victim.

The highest risk combination (ID #109) was also the profile with the greatest number of cases; whereas, the next highest combination (by frequency of cases) had the lowest risk (ID #132). This shows the level of victimization risk should not be driven by the number of cases,



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but by the characteristics underlying the incident. Combinations #109 and #132 differed in regard to marital status (married versus not married, respectively), overlap in age (yes versus no, respectively), overlap in race (no versus yes, respectively), and time of day the incident occurred (day versus night, respectively). Though such differences may appear superficial in terms of the outcome, the mean risk levels for the two combinations varied by almost 10%. Such findings lend support to the argument that the totality of the situation is what shapes a potential victim's level of risk rather than any one element of the incident.

Even combinations with more overlap between victim, offender, and offense characteristics evinced differences in mean risk. For instance, the location of the incident for IDs #109 and #155 indicated the former combination had occurred near the victim's home (5 miles or less) and the latter occurred farther away (50 miles or less), yet there was an 8% difference in mean risk. Other interaction effects highlighted the relationship between slightly younger victims (18-29 versus 30 plus) and marital status (i.e., being single). In addition, married victims who were attacked closer to home (5 miles or less) also evinced higher risks for theft than married females who were attacked further away from their home (50 miles or less).

Since the percentage of personal theft/purse snatching only accounted for 1.1% of the sample, there were no low risk combinations to report. Similar to robbery and sexual assault/rape, low risk combinations would be defined as profiles with a personal theft/purse snatching mean of .00. The remaining combinations, ranging from .11 to .00, were all common profiles and did not help to highlight unique combinations specific to personal theft/purse snatching.

Due to the manner in which property victimization was measured (i.e., only direct contact property victimization reports were included in the model, such as purse snatching), the truth



table revealed 8 high risk combinations. Similar to sexual assault/rape, the results consisted of strictly female victims and male offenders. The results also indicated there was an interactive relationship between marital status and the location of incident (relative to the victim's home) in terms of mean risk. Specifically, combinations with the highest mean risk showed married females were more likely to be attacked closer to home (5 miles or less) rather than farther away (50 miles or less). Comparisons between combinations with overlapping characteristics were also found to vary in mean risk in spite of depicting several similarities in situational contexts, which provided evidence of the existence of causal asymmetry. Once again, there were no low risk combinations to report.



Tabl	e 9. Hig	<b>gh</b> Risk (	Unique)	Profiles f	or Persona	al Theft/	Purse Sna	atching	(n=8)								
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
109	White	Female	30+	Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	.00	.22	.56	.22	9
199	White	Female	30+	Married	Stranger	No	No	No	Yes	5 miles or less	Yes	Yes	.00	.33	.50	.17	6
155	White	Female	30+	Married	Stranger	No	No	No	Yes	50 miles or less	Yes	No	.14	.29	.43	.14	7
165	White	Female	30+	Not Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	.14	.43	.29	.14	7
147	White	Female	18-29	Never Married	Stranger	No	No	No	Yes	5 miles or more	Yes	Yes	.00	.43	.43	.14	7
148	White	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	Yes	.00	.14	.71	.14	7
164	White	Female	30+	Not Married	Stranger	No	No	No	Yes	5 miles or less	Yes	No	.00	.29	.57	.14	7
132	White	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	.00	.50	.38	.13	8

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault



## **Race/Ethnicity and Victimization**

Similar to how victimization risk was examined, I estimated another truth table using race/ethnicity as the outcome and victimization type as a control variable. In other words, the outcome displayed the mean prevalence for white, black, and other victims across each of the various combinations. Using the same sample, the truth table indicated 2,178 combinations were observed in the data. The combinations were reduced in number upon introducing the .1% minimum frequency rule. With a sample of 6,509 cases, any combinations with 6 or more cases were deemed dominant while the remaining combinations were excluded from the analyses. As such, the final number of dominant combinations was 212 for white, black, and other victims (see Table A4 in the appendix). As with the combinations by crime type, the race- and ethnic-specific combinations also evinced situational clustering. The first two combinations coincided with 260 and 248 cases, respectively. Moreover, whites comprised the largest proportion of victims for both combinations and provided insight into how these victimization events unfolded.

Once again, the measures used in the subsequent conjunctive analysis were summarized in Figures 4 through 6 so as to provide a foundation for the dominant combinations. These figures differed from Figures 1 through 3 in that the characteristics were broken up by race and ethnicity. Among the remaining demographic characteristics, males comprised more than half of white, black, and other victims (see Figure 4). White and other victims were largely older (40.5% and 42.9%, respectively), while black victims were largely adolescent (38.0%). Most victims were also single (i.e., never married), regardless of race.





Figure 4. Victim Characteristics by Race/Ethnicity

In Figure 5, the offender characteristics revealed black and white victims were more prone to attacks from known offenders. Other victims reported being attacked by known and unknown offenders almost equally. Evidence of a demographic overlap also appeared for black and white victims with almost two-thirds of the victims sharing the same race, gender, and age as the offender. Other victims also shared overlap in terms of gender and age among almost 70% of incidents. Unlike black and white victims, other victims did not report being attacked by offenders of the same race; instead, they were more vulnerable to attacks from offenders unlike themselves.





Figure 5. Offender Characteristics by Race/Ethnicity

The last set of characteristics are presented in Figure 6. Here, the vast majority of whites, blacks, and other race were victims of physical assault. The vast majority of victims (regardless of race) also reported the attack as completed, having happened in a public area, and during daytime hours. Victims also appeared to be most at risk when close to home, with almost 60% of white, black, and other victims reporting the approximate distance between the incident and their residence.



Figure 6. Offense Characteristics by Race/Ethnicity



### White Victims

The first race/ethnicity to be assessed among victims was white. Sorting the truth table by the proportion of white victims across the dominant combinations revealed 77 combinations had a mean of 1.00 (see Table A5). Essentially, the first 77 combinations were all related to incidents that involved white victims, however, only the top 25 profiles were discussed (see Table 10). In terms of main effects, all of the high prevalence combinations for white victims involved physical assault. Of the 25 combinations, 96% of them involved an incident of physical assault that was completed. As for gender, almost three-quarters of the combinations involved male victims. The results also showed older individuals (18 and older) were more vulnerable to victimization (88%) than younger individuals (under 17). Many of the victims were married (48%) and familiar with their attacker (64%). The majority of attacks took place during the day (60%) and in a public area (76%), 5 miles or less from the victim's home (60%).

Interactive effects revealed males only experienced physical assault at the hands of other males as well as most females (86%; 6/7 combinations). All female victims were attacked by people they were familiar with; whereas, half of males were attacked by known offenders. Only 3 combinations emerged with victims that were under the age of 17 (and all of them male). Of these 3, two of them involved unknown assailants (IDs #87 and #88). Interestingly, the incident with the known offender was the only combination to result in an attempted (rather than completed) physical attack (ID #61). Other than offender type, the only other difference in the combination was the time of day in which the incident occurred. In essence, adolescent male victims fared better when attacked by someone they knew during daylight hours (ID #61) than adolescent males attacked by a stranger at night.



ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
8	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	57
26	Male	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	20
32	Female	30+	Married	Known	Yes	No	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	18
40	Female	30+	Married	Known	No	No	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	16
50	Female	30+	Married	Known	Yes	No	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
52	Male	18-29	Never Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	14
54	Male	18-29	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
55	Male	30+	Married	Known	Yes	Yes	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
56	Male	30+	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
58	Female	30+	Married	Known	Yes	No	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	13
61	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	Phy <sup>2</sup>	1.00	.00	.00	13
64	Male	30+	Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	13
67	Female	30+	Married	Known	Yes	No	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	12
70	Male	30+	Not Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	12
71	Male	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	12
74	Female	30+	Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11


Tabl	e 10 (cor	ntinued)														
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
77	Male	18-29	Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	11
78	Male	18-29	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	11
80	Male	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11
81	Male	30+	Married	Known	Yes	Yes	No	Yes	50 miles or less	Yes	No	Rob	1.00	.00	.00	11
83	Male	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11
86	Female	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	10
87	Male	Under 17	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	10
88	Male	Under 17	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	10
90	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	No	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	10

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault

Due to the vast majority of victims being white, low prevalence combinations were defined as those whose mean was .75 or lower. The mean for white victims in the overall sample was 86.5%. As such, even though whites may represent more than half of the mean prevalence in many of the combinations found in Table 11, according to the 10% difference rule they constituted low prevalence. There were 33 low prevalence combinations for whites that ranged from .75 to .29 (see Table A6), but only the top 25 combinations were discussed. Similar to the high prevalence combinations, the majority of low prevalence combinations were related to physical assault. However, three combinations involved robbery (IDs #131, #190, and #127). Combinations related to robbery all occurred close to home (5 miles or less), regardless of gender and age differences. These results differed for combinations associated with physical assault where the distance between the victim's home and the incident varied. Other main effect patterns revealed there were more low prevalence combinations for males than females (68%). Moreover, six combinations with the highest prevalence of white victims (i.e., .75) were comprised of mainly older single males who were physically attacked by an unknown offender during the day, in a public area, 5 miles or less from the victim's home. Comparing the highest low prevalence combinations (ID #43) with the lowest (ID #128) showed differences in victim age, distance from home, and time of occurrence resulted in a mean prevalence difference of .12. In other words, fewer whites were victimized when the incident occurred close to home and at night.

Interactive patterns pointed to relationships between gender and the location of the incident. One such relationship consisted of two female combinations with mostly parallel characteristics (IDs #72 and #167). However, one incident occurred in a restricted area and the other in a public area, which resulted in a 6% mean prevalence difference. A similar finding



Tabl	le 11. Toj	p 25 Lov	w Prevale	nce Profil	es for <b>W</b>	hite Vict	ims									
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
43	Male	30+	Married	Stranger	No	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.75	.06	.19	16
124	Male	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.75	.25	.00	8
125	Male	Under 17	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.75	.25	.00	8
116	Female	30+	Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.75	.00	.25	8
130	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.75	.00	.25	8
131	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Rob	.75	.00	.25	8
6	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.75	.15	.10	71
46	Female	18-29	Never Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.73	.27	.00	15
47	Female	18-29	Never Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.73	.27	.00	15
48	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	Phy <sup>2</sup>	.73	.27	.00	15
72	Female	Under 17	Never Married	Known	Yes	No	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.73	.27	.00	11
79	Male	30+	Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.73	.00	.27	11
33	Male	Under 17	Never Married	Stranger	Yes	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.72	.17	.11	18
162	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.71	.14	.14	7
84	Female	18-29	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.70	.10	.20	10
68	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.67	.25	.08	12



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Tabl	e 11 (cor	ntinued)														
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
111	Male	30+	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.67	.33	.00	9
177	Female	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.67	.33	.00	6
190	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Rob	.67	.33	.00	6
199	Male	18-29	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.67	.33	.00	6
167	Female	Under 17	Never Married	Known	No	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.67	.00	.33	6
211	Male	30+	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.67	.00	.33	6
120	Female	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.63	.38	.00	8
127	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	Rob	.63	.38	.00	8
128	Male	18-29	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.63	.00	.38	8

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault

emerged among male combinations (IDs #6 and #68), but with varying distances from home, and resulted in an 8% mean prevalence difference. Another pattern related to offender type emerged for victim age and marital status. First, combinations with victims under the age of 17 were shown to be more familiar with their attacker than older victims (IDs #124, #125, #6, #48, #72, #68, #190, #167, and #127). Secondly, married victims were found to be victimized by unknown offenders in comparison to victims who were not/never married.

Overall, combinations sorted by white mean prevalence indicated a wide spread of characteristics underlying main and interaction effects. Combinations associated with high mean prevalence were unique due to being strictly associated with white victims. The appearance of such combinations were the result of such a large presence of white victims in the sample. Further evidence of this was provided in the low mean prevalence combinations, where whites comprised more than half of the victims in most of the combinations, however, following the threshold for the 10% difference rule, these combinations were representative of low mean prevalence. Support for gender differences was found in both main and interactive effects in that males were more likely to be victimized than females and also offend more than females. The high mean prevalence profiles only included victims of physical assault; whereas, the low mean prevalence profiles included robbery. Interaction effects revealed offender type was related to the victim's age and marital status. Specifically, younger victims were found to be attacked by people that they knew; whereas, older victims were preyed upon on more so by strangers. Similarly, married victims were often attacked by strangers, while not/never married victims were attacked by a greater variety of offenders.



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## **Black Victims**

The second race/ethnicity to be assessed through the truth table was black victims. Using the same analytical format, the truth table was rearranged by the highest ranking mean prevalence combinations for black victims. Black victims comprised 9.5% of the sample, which meant combinations with a mean prevalence of .21 or greater would be deemed high prevalence. The results indicated there were 22 high prevalence combinations related to black victims (see Table 12). Across these combinations, mean prevalence ranged from .71 to .21. However, the frequencies within the combinations indicated there was not as much situational clustering among black victims. With less situational clustering, the smaller combination frequencies suggested attacks on black victims were more random than those reported for white victims (for which there was greater situational clustering).

Fourteen of the combinations were related to male victims (64%). Nonetheless, the combination with the greatest prevalence (.71) was comprised of young, single females who were victims of rape (ID #137). These victims were also familiar with the offender (who was of the same race and age as the victim), and attacked 5 miles or less from the victim's home, in a public area, during the day. Interestingly, this same exact combination of characteristics also resulted in physical assault (ID #11) for a lower prevalence of black victims (.21), which provided further support of causal asymmetry. It appears the totality of these specific factors were quite conductive to victimization for blacks.

The highest mean prevalence for males was related to physical assault and differed from the highest prevalence for females in terms of age, location of incident, and time of day, which resulted in a mean prevalence of .67 for males (ID #202). Overall, black females comprised 36% of the combinations, with 63% of those combinations involving adult victims (18 and older).



Male victims, on the other hand, were split on age with 50% of victims categorized as adolescents and the other half adults (18 and older). More than two-thirds of combinations consisted of known offenders, while all stranger attacks occurred in public areas. 82% of incidents occurred 5 miles or less from the victim's home, regardless of demographic factors.

Much like white victims, younger black victims were also prone to being attacked by known offenders; whereas, older offenders were more vulnerable to both known and unknown offenders. As for the three combinations involving robbery (IDs #151, #127, and #190), two of the three consisted of male victims. Female victims evinced higher mean prevalence (.43) than male victims (.38 and .33, respectively). Other variations across robbery combinations for males and females revealed the latter group was older (30 plus versus under 17), not married (versus never married), and attacked by a stranger (versus a known offender) of a different age (versus the same age). Female victims of robbery were also attacked at night; whereas, male victims were attacked during the day. In terms of the victim-offender relationship, offenders unknown to the victims committed their acts in public places, while offenders known to the victim varied between public and restricted places.

Black victims varied from white victims in that there were no high prevalence combinations that spoke strictly to blacks. Instead, combinations that were more than 10% higher than the sample mean were identified as high prevalence. Combinations involving completed rape had the highest mean prevalence of black female victims. This finding differed from whites because males emerged within the highest prevalence combinations. In contrast to white victims, there were no low prevalence combinations to report since the percentage of black victims only accounted for 9.5% of the sample. With the percentage so low, the 10% difference rule was not applicable.



Tabl	le 12. Hig	gh Preva	lence (Un	ique) Pro	files for	Black Vi	ctims (r	n=22)								
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
137	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	Rape	.29	.71	.00	7
202	Male	18-29	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.33	.67	.00	6
104	Male	Under 17	Never Married	Known	No	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.56	.44	.00	9
151	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	Rob	.57	.43	.00	7
155	Male	18-29	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or more	Yes	No	Phy <sup>2</sup>	.57	.43	.00	7
89	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.60	.40	.00	10
120	Female	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.63	.38	.00	8
127	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	Rob	.63	.38	.00	8
111	Male	30+	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.67	.33	.00	9
177	Female	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.67	.33	.00	6
190	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Rob	.67	.33	.00	6
199	Male	18-29	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.67	.33	.00	6
72	Female	Under 17	Never Married	Known	Yes	No	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.73	.27	.00	11
46	Female	18-29	Never Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.73	.27	.00	15
47	Female	18-29	Never Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.73	.27	.00	15
48	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	Phy <sup>2</sup>	.73	.27	.00	15



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Tabl	e 12 (Co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
68	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.67	.25	.08	12
124	Male	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.75	.25	.00	8
125	Male	Under 17	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.75	.25	.00	8
107	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.78	.25	.00	9
53	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	No	Yes	Phy <sup>2</sup>	.79	.21	.00	14
11	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.77	.21	.02	52

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault

#### **Other Victims**

The last race/ethnicity assessed was *other* victims. Victims categorized as other represented the smallest group in the sample with 4.0%. With the application of the 10% difference rule, combinations identified as having a mean prevalence of .15 or greater were categorized as high prevalence. Within the truth table, 17 combinations emerged as high prevalence for other victims and ranged from .44 to .15 (see Table 13). The last race/ethnicity assessed was *other* victims. Victims categorized as other represented the smallest group in the sample with 4.0%. With the application of the 10% difference rule, combinations identified as having a mean prevalence of .15 or greater were categorized as high prevalence. Within the truth table, 17 combinations identified as having a mean prevalence of .15 or greater were categorized as high prevalence. Within the truth table, 17 combinations emerged as high prevalence for other victims and ranged from .44 to .15 (see Table 13). All but two combinations involved victims of physical assault. In addition, combinations for other victims were characterized by slightly more males (53%) than females (47%) and older (30+; 59%) rather younger individuals. As for the victim-offender relationship, almost three-quarters of other victims did not know their attacker. The few incidents where victims were familiar with the attacker all involved females.

Similar to black victims, the combination with the highest mean prevalence consisted of females. Specifically, these victims were older married females, who had been physically attacked by a male stranger (of the same age as the victim), close to their home, and in a public area (ID #97). In comparison to ID #59, which mirrored many of the same characteristics found in ID #97, these victims were attacked by offenders with whom they were familiar, but farther away from home (50 miles or less), in a restricted area. The difference in offender type and incident location resulted in a mean prevalence difference of .29. In other words, married females were more vulnerable to stranger attacks than "friendly" attacks.



Interactive effects demonstrated some of the same patterns found in other rearrangements of the truth table. For example, unknown offenders committed their attacks in public places during daytime hours. In addition, younger victims tended to be female and preyed upon by known offenders. Victims of robbery were limited to males in the other race sample (IDs #131 and #192). The characteristics underlying these combinations were almost identical (i.e., causal symmetry). The only real difference was in the victim's age, which was 30 and older for one (ID # 131) and 18-29 for the other (ID #192). Despite the overall similarities between combinations, there was an 8% difference in mean prevalence, with the older victims making up the larger group.

Since other victims represented the smallest portion of the sample (4.0%), the 10% difference rule was not applicable. The lack of applicability stemmed from the fact that any combinations with a mean prevalence of .00 would not speak to *other* victims, but to black and white victims. As such, the interpretation of the results were limited to high prevalence combinations.

In total, the smaller subsample of other victims translated into a smaller number of high prevalence combinations. Nonetheless, there was a variety of main and interactive patterns that emerged in the truth table. They included females having the greatest mean prevalence, which ran contrary to most of the combinations previously discussed, where male victims and physical assault incidents were the most prominent. Relationships between offender type and victim age/marital status also provided further evidence of interactive effects.

In summary, the results indicated several main and interactive patterns existed across victimization type and race/ethnicity. As expected, the most common demographic factors found in the victimization literature appeared in the majority of the dominant combination across



victimization type. For instance, white, young, single, males comprised most of the victim profiles for physical assault and robbery. High risk combinations for physical assault and robbery also incorporated elements of the victim-offender overlap, such as younger victims being preyed upon by known offenders and older victims being attacked by strangers. Similar relationships between the victim and offender also surfaced for robbery risk. The results for sexual assault/rape indicated females were the most likely victims and males the most likely offenders. The findings for personal theft/ purse snatching were relatively new because most research on property crime has been looked at aggregately. Nonetheless, females also made up all of the victims in high risk combinations.

In assessing dominant combinations by race and ethnicity, some of the patterns specific to victimization type overlapped with those for race and ethnicity. Specifically, evidence of the victim-offender relationship dictated many of the interactions with the victim's demographic profile and the location of the incident. Certain demographic factors, such as marital status, varied across race and ethnicity as well as victimization type. Therefore, there were both common relationships and specific patterns that were revealed by the truth table.

These results have implications for bodies of literature beyond just race and ethnicity. For example, gender, intersectionality, and the victim-offender relationship also served as influences for framing this dissertation. For this reason, each of these sections are discussed in more detail in the subsequent chapter. Theoretical and policy implications are discussed as well.



Tab	le 13. Hig	gh Preva	lence (Ur	nique) Pro	files for	Other Vi	ctims (r	n=17)								
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
97	Female	30+	Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.56	.00	.44	9
128	Male	18-29	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.63	.00	.38	8
167	Female	Under 17	Never Married	Known	No	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.67	.00	.33	6
211	Male	30+	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.67	.00	.33	6
57	Female	Under 17	Never Married	Known	No	No	Yes	Yes	5 miles or more	Yes	No	Phy <sup>2</sup>	.54	.15	.31	13
79	Male	30+	Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.73	.00	.27	11
116	Female	30+	Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.75	.00	.25	8
130	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.75	.00	.25	8
131	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Rob	.75	.00	.25	8
95	Female	Under 17	Never Married	Known	No	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.78	.00	.22	9
84	Female	18-29	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.70	.10	.20	10
43	Male	30+	Married	Stranger	No	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.75	.06	.19	16
184	Female	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.00	.17	6
192	Male	18-29	Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	Rob	.83	.00	.17	6
203	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.83	.00	.17	6
209	Male	30+	Not Married	Stranger	No	Yes	No	Yes	5 miles or less	No	Yes	Phy <sup>2</sup>	.83	.00	.17	6



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Tabl	e 13 (Con	ntinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
59	Female	30+	Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.77	.08	.15	13

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault



### **Chapter Five:**

## Discussion

This purpose of this dissertation was to determine what interactive relationships existed between victim, offender, and offense characteristics. Moving beyond standard theoretical and methodological frameworks for examining victimization, a situational perspective and conjunctive analysis were utilized to delve deeper into the underlying components that resulted in a victimization incident. For this reason, the research questions guiding the dissertation were 1) What are the dominant situational profiles for victims of violent crime?; 2) What are the dominant situational profiles for direct contact property crime?; and 3) Do these victim profiles vary across race and/or ethnicity? In order to address the research questions, conjunctive analysis was used to estimate truth tables for direct contact violent and property victimization; and race/ethnicity.

## Main Effects by Victimization Type

For both sets of outcomes, main and interaction effects appeared throughout the various truth tables. Main effects were those findings that resulted from comparisons made across columns (much like a regression analysis); whereas, interaction effects arose from comparisons made within rows. The first set of truth tables depicted the mean risk level for physical assault, robbery, sexual assault/rape, and personal theft/purse snatching. For the purpose of organization,



the main effects related to victim, offender, and offense characteristics are discussed separately, and is followed by a discussion of the interaction effects (see Table 14).

#### **Demographic Factors**

For race, whites emerged as the largest group of victims among all four victimization types. Though race remained a constant across victimization type, the remaining demographic factors varied. In terms of physical assault risk, the age of the victim varied for high and low risk. High risk combinations indicated younger victims (under the age of 18) were the most vulnerable age group to physical assault. In this sense, conjunctive analysis served as a confirmatory tool because the findings on age aligned with the results of prior studies and reports on age and victimization, where younger individuals had higher rates of violent victimization than older individuals (Bunch, Clay-Warner, & Lei, 2012; Klaus & Rennison, 2002; Perkins, 1997). Much like the age-crime curve, victimization risk tends to be highest throughout the teenage years, peak around age 20, and decrease from there on out (Perkins, 1997). Following this pattern, the results found high risk combinations for physical assault provide further support of the relationship between age and victimization.

According to RAT, age differences in risk are accounted for by the lifestyles of younger victims (Bunch, Clay-Warner, & Lei, 2012; Cohen & Felson, 1979; Like-Haislip & Miofsky, 2011; Like-Haislip & Warren, 2011). Specifically, younger victims tend to participate in more routine activities than their older counterparts, thereby increasing their likelihood for encountering motivated offenders. The nature of this relationship was reinforced with the results of low risk combinations for physical assault, where older victims comprised the majority of profiles. With the change in age across high and low risk combinations, it is clear that



demographic factors influence the underlying situational context. Another factor with similar patterns to physical assault was gender. Higher risk combinations largely consisted of males (particularly single males); whereas, (single) females were the dominant group in low risk combinations. Higher victimization risk among males has been consistently documented in the victimization literature (Bunch, Clay-Warner, & Lei, 2012; Henson, Wilcox, Reyns, & Cullen, 2010; Like-Haislip & Warren, 2011; Mustaine & Tewksbury, 2000; Zaykowski & Gunter, 2013). Much like age, RAT explains differences in gender risk via lifestyles and encounters with motivated offenders.

Unlike physical assault, robbery risk was highest for older, white males. Though race and gender aligned with the expectations of routine activities, the vulnerability usually associated with youth was not applicable. Instead, high risk combinations revealed most victims were adults rather than adolescents. The susceptibility of adulthood is likely a result of having greater possessions, which makes them good candidates for robbery. In its original form, Cohen and Felson (1979) spoke of the suitability of targets stemming from either the attractiveness of the person or their possessions. Following this explanation, the possession of attractive items is an attribute more applicable to older rather than younger victims.

While males emerged as the most vulnerable group to physical assault and robbery, females comprised all of the dominant high risk combinations for sexual assault/rape and personal theft/purse snatching. Though the majority of female victims were older (18+), there were also younger victims. As stated within the victimization literature, females are the most prone to sexual attacks. Males have consistently evinced higher risks of victimization than females across a number of violent crime types, however, sexual attacks have remained the exception. For example, reports on sexual attacks tracked and highlighted differences between



1995 and 2010, where males had lower rates than females (Planty, Langton, Krebs, Berzofsky, & Smiley-McDonald, 2013). Once again, routine activities explained gender differences through different lifestyles. For example, Mustaine and Tewksbury (2002) noted exposure to potential offenders through participation in activities, such as alcohol and drug use. Interestingly, Mustaine and Tewksbury (2002) concluded younger women were most at risk for sexual assault; however, the results of the truth table indicated females between the ages of 18 and 29 were most at risk.

The results related to personal theft/purse snatching were enlightening because much of the literature on property crime is based on aggregate data. In the past, household data have been utilized to create national estimates by using the black, white, and Hispanic head of household for comparison (Walters, Moore, Berzofsky, & Langton, 2013). These estimates involved property crimes with no contact between the victim and offender; whereas, my dissertation focused on direct contact property victimization. Since the two parties made direct contact at some point for the incident to have transpired, the layout for theft resembled that for robbery. The similarities between the two victimization types extended to high risk combinations where victims were described as white, older, and single, with the differentiating factor being gender (females were the sole victims in the high risk combinations for theft). Nonetheless, the appearance of white and older victims in the output aligned with the results found for high risk robbery combinations. In this sense, the explanation put forth by Cohen and Felson (1979) regarding the attractiveness of items and the likelihood of success are also applicable to personal theft/purse snatching.



## **Offender and Offense Characteristics**

The remaining elements of the situational context referred to the victim-offender relationship, the victim-offender demographic overlap, and the incident's contextual factors. One of the biggest misconceptions of crime and victimization has to with the belief most incidents are committed by strangers or unknown offenders. However, prior studies report strangers are responsible for a smaller percentage of nonfatal violence than known offenders (Harrell, 2012). The trend associated with greater victimization risk stemming from known offenders was documented between 1993 and 2010, during which time attacks from both known offenders and strangers decreased, but the former remained a greater threat than the latter. As for the results of conjunctive analysis, dominant combinations suggested the type of victim-offender relationship most related to risk varied by crime type. For example, high risk combinations for physical assault and sexual assault/rape pointed to known offenders as the greatest threat to victims. The physical nature of these crime types implied greater success in their attacks when an established relationship was involved.

On the other hand, low risk physical assault, as well as high risk robbery and personal theft/purse snatching combinations all reflected stranger relationships. Low risk physical assault served to counter the results of high risk combinations; whereas, robbery and personal theft represented a different type of crime (i.e., material-focused crime). Though these crime types consisted of direct interaction with the victim, the nature of the situational context for property driven crime included a greater threat from strangers. Reports on offender types and non-fatal victimization revealed 24.1% of sexual assaults/rapes, 51.7% of robberies, and 42.3% of aggravated assaults were committed by strangers between 2005 and 2010 (Harrell, 2012). The higher and lower percentages in the above report align with the findings in the dissertation.



Specifically, less than one-quarter of sexual assault victims were attacked by strangers, meaning the majority of victims were attacked by people with whom they were familiar. Another element of the situational context highlighted demographic differences (i.e., race, gender, and age) between the victim and offender. Not surprisingly, combinations with stranger attacks revealed less of a demographic overlap (i.e., low risk physical assault, high risk robbery, and high risk theft), while known offender combinations had much more of an overlap (i.e., high risk sexual assault and high risk physical assault).

As for offense characteristics, there was much overlap across all four victimization types. For instance, the contextual elements of high risk physical assault, low risk physical assault, and high risk robbery indicated the incidents took place close to home (i.e., 5 miles or less), during the day, and in public areas. The threat related to being close to home is interesting because RAT points to a person's home as a safe haven. In fact, the theory explains greater participation in activities as a catalyst for the convergence of motivated offenders, suitable targets, and incapable guardianship. For this reason, being farther away from home would be expected to coincide with greater risks of victimization. Nonetheless, that was not the case for several forms of violent victimization. In terms of high risk sexual assault/rape, almost all of the combinations showed victims reporting being attacked at night (as well as close to home and in a public area). Nighttime hours are typically associated with greater victimization risk (Bunch, Clay-Warner, & Lei, 2015; Bunch, Clay-Warner, & McMahon-Howard, 2014; Henson, Wilcox, Reyns, & Cullen, 2010; Miller, 2012), which is supported by the findings for sexual violence. Personal theft/purse snatching was unique because the incidents were divided between nighttime and daytime hours. As such, it seems the support for contextual risk provided by property crime victimization factors is split. One last component of the offense relevant to the outcome was the completion status. In



spite of the various differences among victimization type, more than half of all the combinations indicated the criminal act was completed (rather than attempted).

## **Interaction Effects by Victimization Type**

The appearance of main effects within the truth tables helped form the basis for a discussion on non-additive relationships. Comparisons made across the different table rows detailed interaction effects, which resulted from the underlying relationships between victim, offender, and offense characteristics. These comparisons point to patterns where specific characteristics emerge in conjunction to one another. Of the three types of characteristics used to estimate the combinations, an aspect of the offender was involved in essentially every interactive relationship found in the data, regardless of victimization type. In other words, the relationship between the victim and the offender connected (victim and offense) elements of the combination together and resulted in the outcome. For high risk physical assault and high risk robbery, adolescent victims were preyed upon by offenders who were known to them; whereas, older victims were more prone to attacks from unknown offenders. This same effect emerged for low risk physical assault and high risk sexual assault/rape victims. The emergence of comparable situational contexts for varying outcomes provide further evidence of causal asymmetry, which refers to the same characteristics underlying victimization incidents but resulting in different outcomes (Fiss, Sharapov, & Cronquist, 2013). Gender was also tied to specific victim-offender relationships. For example, females reported being attacked by strangers in high risk robbery combinations. Furthermore, the relationship with age and the offender was also reported for males and females. Specifically, younger males and females were also sought after by known offenders; whereas, older males and females were more vulnerable to unknown offenders.



Making a theoretical connection to RAT was somewhat difficult because the theory does not speak to offender types or their relationship with specific victims (i.e., younger or older). Instead, motivated offenders are presented as part of the convergence equation along with suitable targets and capable guardianship without any real details as to how the victim and offender interact with one another. Other than the two parties converging at the same time and place, there is no discussion of any prior attachments or the effects of such an attachment. The victim-offender relationship also shed light on the demographic overlap between the two individuals. Specifically, high risk robbery combinations illustrated unknown offenders reflected fewer of the victim's demographic factors (race, gender, and age), while offenders familiar to the victim shared more of the victim's demographic profile. The concept of homogamy suggests the lifestyles of victims and offenders overlap because they share many of the same characteristics (i.e., demographic factors, contextual factors, and routine activities). However, the concept seemed to only be applicable to offenders that were known to the victims, since unknown offenders often displayed demographic profiles that varied from those of the victim.

Another set of interactive effects tied victim and offender characteristics to offense characteristics. For example, high risk robbery and high risk sexual assault/rape combinations showed incidents involving unknown offenders tended to occur in public areas; whereas, known offenders often attacked in restricted areas. Prior reports of known and unknown offenders between 2005 and 2010 showed about a quarter of violent victimization incidents committed by strangers took place in a private place and half took place in a public place. On the other hand, 60% of violent crime committed by known offenders were done so in private places, while less than 20% of offenders known to the victim chose a public place for their attack (Harrell, 2012).



Though these data were descriptive, the numbers suggest a relationship between location of crime and the victim-offender relationship does exist.

In addition, known offenders tended to attack during daytime hours; whereas, unknown attacks occurred during nighttime hours for high risk physical assault. Similarly, victims of high risk sexual assault/rape were also attacked by known offenders during nighttime hours. Nighttime is considered a more dangerous time for potential victims, however, most of the combinations indicated daytime hours were when incidents took place. One last layer of the victim-offender relationship coincided with the likelihood of success. For low risk physical assault, combinations with strangers resulted in completed incidents. The same pattern emerged for high risk robbery combinations. Essentially, strangers had more success at committing their various acts of violence than incidents committed by known offenders.

Table 14. Su	immary of Results I	by Victimization Type		
		Main Effects		Interaction Effects
	Victim	Offender	Offense	
High Risk Physical Assault	<ul> <li>White</li> <li>Male</li> <li>Younger (under 17)</li> <li>Never married</li> </ul>	<ul> <li>Known offender</li> <li>67%→100% overlap with victim</li> </ul>	<ul><li>Close to home</li><li>Completed (all)</li><li>Daytime</li><li>Public area</li></ul>	<ul> <li>Under 17→Known offender</li> <li>Older→Stranger attack</li> <li>Known offender→Restricted area</li> <li>Stranger attack→Public area</li> <li>Known offender→ Daytime</li> <li>Stranger attack→Nighttime</li> </ul>
Low Risk Physical Assault	<ul> <li>White</li> <li>Female</li> <li>Older (18+)</li> <li>Never married</li> </ul>	<ul> <li>Stranger attack</li> <li>20%→100% overlap</li> </ul>	<ul><li>Close to home</li><li>Completed (76%)</li><li>Daytime</li><li>Public area</li></ul>	<ul> <li>Stranger attack → More completion</li> <li>Under 17 → Known offender</li> </ul>



Table 14 (Continued)

	,	Main Effects		Interaction Effects
High Risk Robbery	Victim • White • Male • Older (18+) • Never married	Offender • Stranger attack • 24%→100% overlap	Offense Close to home Completed (56%) Daytime Public area	<ul> <li>Stranger attack → Less demographic overlap</li> <li>Known offender → More demographic overlap</li> <li>Most Females → Stranger attack</li> <li>Younger females → Known offender</li> <li>Older females → Stranger attack</li> <li>Young males → Known offender</li> <li>Stranger attack → More completion</li> </ul>
High Risk Sexual Assault/ Rape	<ul> <li>White</li> <li>Female</li> <li>Older (18+)</li> <li>Never married</li> </ul>	<ul> <li>Known or intimate offender</li> <li>79%→100% overlap with victim</li> </ul>	<ul> <li>Close to home</li> <li>Completed (95%)</li> <li>Nighttime</li> <li>Public area</li> </ul>	<ul> <li>Younger females→ Known offender</li> <li>Older females→ Stranger attack</li> <li>Known offender→ Restricted areas</li> <li>Known offender → Nighttime</li> </ul>
High Risk Personal Theft/ Purse Snatching	<ul> <li>White</li> <li>Female</li> <li>Older (18+)</li> <li>Married</li> <li>Not married</li> </ul>	<ul> <li>Stranger attack (all)</li> <li>Little to no demographic overlap</li> </ul>	<ul> <li>Close to home</li> <li>Completed (all)</li> <li>Daytime and nighttime</li> <li>Public area (all)</li> </ul>	

Note: Numbers in parentheses for offense reference the total number of combinations with said characteristic.

# Main Effects by Race and Ethnicity

The main and interaction effects discussed in the previous section were meant to address relationships stemming from differences across victimization type. Using the same methodological framework, a truth table was estimated using race and ethnicity as the "outcome" and victimization type as a control variable. The purpose of the second truth table was to pinpoint relationships that stemmed from differences in race/ethnicity. Due to the rather large presence of white victims in the sample, most of the combinations in the first truth table were directly related to whites. To remedy this limitation and delve deeper into the data, a race and



ethnic focused truth table was assessed. Once again, the main effects are discussed first, followed by a discussion of the interaction effects (see Table 15).

## **Demographic Factors**

Black, white, and other race victims were each sorted by mean prevalence to determine whether dominant combinations varied by race and ethnicity. High prevalence combinations for whites indicated most victims were older, male and prone to physical assault. In terms of marital status, almost half of the victims were married or never married. Similar characteristics emerged for low prevalence whites in terms of gender and age, however, most of the victims were single. Based on prior literature, a larger prevalence of single victims was expected among each group of victims. Being married is often associated with lower victimization risk thus serving as a protected status (Bunch, Clay-Warner, & Lei, 2015; Bunch, Clay-Warner, & McMahon-Howard, 2014; Siddique, 2016), yet, single and married white victims were almost equally preyed upon. Unlike high prevalence combinations, lower prevalence combinations better aligned with previous work in that all of the combinations involved victims who had never been married. Nevertheless, all white victims in the top 25 dominant combinations were victims of physical assault.

The results for blacks were interesting because even though there were more male than female high prevalence combinations, black females had the highest prevalence of all and were victims of rape. Among white victims, the most prevalent victimization type was physical assault; whereas, rape and robbery were among the top combinations for black victims. Nevertheless, the majority of black victims had been physically assaulted as well as older and never married. The marital status of high prevalence black victims more closely reflected the



postulations of prior findings in that none of the victims were married. In addition, these results further supported the notion that blacks often have lower marriage rates than their white counterparts. Aside from contextual factors, researchers noted few blacks benefit from a married status because of a deficit in the number of eligible black men. As such, it is not surprising to find more single (never married) black victims than white victims in the output.

Much like black and white victims, other race victims were also largely male and older (30 and over), however, other race victims were largely married. In order to maintain parallel comparisons between victims and offenders, there was no distinction made for Hispanic victims because there were no way to identify Hispanic offenders. As such, Hispanics were grouped into the others category. I mention this because the larger number of combinations with married victims may be a result of Hispanics. Hispanics have been shown to display higher rates of marriage, which would ideally serve to protect against victimization, even though many high prevalence combinations were indicative of married victims. Most other race victims also reported being physically assaulted, but a few reported being robbed.

All in all, white, black, and other race victims shared much of the same demographic profile. Specifically, there was some overlap in regard to gender and age. Physical assault was the most common victimization type, however, combinations with black and other victims were also inclined towards reports of robbery and rape. The only demographic factor that varied across race and ethnicity was marital status. More to the point, white and other victims evinced the most combinations with married victims; whereas, black victims had no married victims within the combinations.



## **Offender and Offense Characteristics**

Just as comparisons were made among offender and offense characteristics by victimization type, the same comparisons were made by race and ethnicity. Due to the overwhelming presence of physical assault, most offenders were known to high prevalence white victims. However, a little more than a third shared the exact demographic profiles as the victim. These combinations reflected that incidents occurred close to home, during the day, and in a public area. In addition, the incidents were almost all completed (with the exception of one combination). Low prevalence combinations for whites, on the other hand, were comprised of both known and intimate offenders. Among this group of combinations, there was less demographic overlap between the victim and offender. Interestingly, physical assault incidents occurred both close to and father away from home, while robbery incidents only occurred close to home. Both crime types were committed during daytime hours and in public areas. These incidents were also largely completed rather than attempted.

Black victims largely resembled white victims as they, too, were familiar with their attacker. Their attackers also shared the victim's same demographic characteristics about onethird of the time. The contextual framework for the various combinations were also summarized as occurring close to home and during the daytime. Such could not be said of other race victims, however. Though other race individuals reported incidents of physical assault and robbery, most victims were attacked by offenders unknown to them. As such, other race victims had the least demographic overlap with their attackers. Despite not being familiar with the offender, other victims still reported their incidents as having transpired during daytime hours, in public places, and close to home. Most incidents were also completed (not attempted) attacks.



# **Interaction Effects by Race and Ethnicity**

Results related to the victim, offender, and offense indicated whites, blacks, and others shared certain underlying components across their victimization incidents. Nonetheless, there were aspects of the incident that were specific to a racial or ethnic group. Hence the importance of interactive relationships. Due to the sheer number of whites, a main effects model would not have been able to pick up on the nuances found in relation to black and other race victims. However, conjunctive analysis revealed interaction effects that surfaced for all three victim types. In terms of interaction effects stemming from demographic factors, both male and female victims (among whites) were preyed upon by other males. However, the similarities ended there because male victims were not familiar with their attacker, while females tended to know their offender. Moreover, combinations that involved a known offender took place in a restricted area during daytime hours; whereas, instances when the victim was attacked by a stranger occurred in a public area and at night. RAT speaks of contextual elements that contribute to the successful completion of a criminal act, such as areas that are dimly lit, isolated, and accessible. These theoretical components are assumed to apply to motivated offenders in general, however, the results of the truth table suggest known and unknown offenders may use divergent contextual strategies to ensure criminal success. For example, restricted areas were shown to be utilized in attacks against people known to the offender, this is likely due to the added advantage of having the potential victim's trust. With this trust, known offenders have access to areas that unknown offenders don't (without using coercion or force). Stranger attacks often occur in public areas because they are forced to capitalize on the victim's lack of guardianship and their surroundings, such as the cover of night.



In terms of low prevalence whites, combinations that depicted attacks in restricted areas had the highest mean prevalence. This was also the case for incidents that occurred close to home. In other words, contextual characteristics provided the most insight into victimization risk for low prevalence whites. The only demographic contribution was marital status with married whites being targeted by unknown offenders. This was likely because most of the married victims were males, who were previously shown to be attacked by strangers more so than females. Considering the differences between high and low prevalence whites, the importance of detailed-oriented analytical tools is further stressed.

Once again, the results for black victims differed from those for white victims. The main difference had to do with the fact that the interaction effects were either related to a specific subset of black victims or very general in nature. For example, comparisons between physical assault combinations revealed younger black victims were more familiar with the offender than older black victims. In addition, the victim-offender relationship shed light on the preferred location for the incident, with strangers choosing public areas and known offenders choosing both public and restricted areas. This finding is unique because most victims familiar with the offender were attacked in a restricted area, however, black victims were not limited to one location when preyed upon by someone they knew. Black victims also varied from white and other race victims in that the dominant combinations included a more varied group of reported crime types. Specifically, the presence of a number of robbery specific combinations allowed for the identification of several interaction effects. First, though there were two combinations involving male victims and only one combination involving female victims, however, the latter's prevalence was higher than either of the former's. Second, the robbery incidents highlighted some gender differences. Female robbery victims were found to be older (30 plus); whereas,



male robbery victims were adolescents (under 17). These results showed a contrast existed between age, gender, and robbery. Moreover, it suggested victimization risk may vary across the life course for specific demographic groups and crime types. The last elements related to robbery incidents referenced gender risk according to the victim-offender relationship and time of day. Specifically, females were attacked by strangers, while males were attacked by known offenders. Moreover, females were attacked at night; whereas, males were attacked during the day. Based on the nature of the victim-offender relationship for males and females, it was not surprising to see stranger attacks being executed during nighttime hours and known offender attacks being executed during the day.

The last group of interaction effects were for other race high prevalence victims. Most of the interaction effects for other victims mirrored those found for whites and blacks. For instance, stranger attacks coincided with public areas and daytime hours. As for robbery incidents, all of the other race victims were male. There were no female robbery victims to report on. However, there was an effect specific to females within the output. Specifically, all other race victims who were adolescents were females. Furthermore, all adolescent females were victims of an attack by someone they knew.

Overall, many of the interaction effects found in the truth table overlapped across race and ethnicity. Much like interaction effects by victimization type, many of the non-linear relationships were driven by the victim-offender relationship. The dynamics between victim and offense characteristics were often tied together by the offender. In essence, since the motivated offender selects the target, it is not farfetched to assume the offender ultimately decides on the context for the incident as well. Nonetheless, there were also several nuanced relationships brought to light that offered a deeper look into the patterns that constitute risk factors. They



included variations across specific crime-related combinations, such as robbery, and racial/ethnic-specific combinations, especially other race victims.



Table 15. S	ummary of Results b	y Race and Ethnicity		
	Victim	Main Effects Offender	Offense	Interaction Effects
High Prevalence for Whites	<ul> <li>Male</li> <li>Older (18+)</li> <li>Married and never married</li> </ul>	<ul> <li>Known offender</li> <li>36% →100% overlap with victim</li> </ul>	<ul> <li>Physical assault</li> <li>Close to home</li> <li>Completed (all but one)</li> <li>Daytime</li> <li>Public area</li> </ul>	<ul> <li>Male/female victim→Male offender</li> <li>Female→ Known offender</li> <li>Male→Stranger attack</li> <li>Known offender→Restricted area</li> <li>Stranger attack→Public area</li> <li>Known offender→ Daytime</li> <li>Stranger attack→Nighttime</li> </ul>
Low Prevalence for Whites	<ul> <li>Male</li> <li>Older (18+)</li> <li>Never married</li> </ul>	<ul> <li>Known and intimate offender</li> <li>20% →100% overlap</li> </ul>	<ul> <li>Physical assault (largely) and robbery</li> <li>Robbery→Close to home</li> <li>Physical assault→Close and farther to home</li> <li>Completed (92%)</li> <li>Daytime</li> <li>Public area</li> </ul>	<ul> <li>Married→Stranger attack</li> <li>Restricted→ Higher prevalence</li> <li>Closer to home→Higher prevalence</li> </ul>
High Prevalence for Blacks	<ul> <li>More male combinations</li> <li>But female combination had the highest prevalence for rape</li> <li>Older (18+) and younger (under 17)</li> <li>Never married</li> </ul>	<ul> <li>Known offender</li> <li>32%→100% overlap</li> </ul>	<ul> <li>Largely physical assault but included robbery (3) and rape (1)</li> <li>Close to home</li> <li>Completed (86%)</li> <li>Daytime</li> <li>Public area</li> </ul>	<ul> <li>Young→ Known offender</li> <li>Robbery→ Higher prevalence of females but two male combinations</li> <li>Robbery→Females attacked during nighttime and males during daytime</li> <li>Robbery→Females were older (30+) and males were younger (under 17)</li> <li>Stranger attack→Public area</li> <li>Known offender→Public and restricted areas</li> </ul>
High Prevalence for Other	<ul><li>Male</li><li>Older (30+)</li><li>Married</li></ul>	<ul> <li>Stranger attack</li> <li>11% →100% overlap with victim</li> </ul>	<ul> <li>Physical assault and robbery (2)</li> <li>Close to home</li> <li>Completed (94%)</li> <li>Daytime</li> <li>Public area</li> </ul>	<ul> <li>Stranger attack → Public area</li> <li>Stranger attack → Daytime</li> <li>Younger victims → Females → Known offender</li> <li>Robbery → Males</li> </ul>

Note: Numbers in parentheses for offense reference the total number of combinations with said characteristic.



## **Theoretical Implications**

The purpose of the dissertation was to use RAT as a foundation and move beyond the implicit linear arguments often found in victimization theories and frameworks. Based on the main and interactive effects found in the truth tables, there was substantial support for existing linear victimization patterns (especially for demographic factors and the victim-offender relationships) as well as for nuanced non-linear patterns. Elements of RAT concepts were found throughout the various victimization combinations, however, RAT could only be used to account for some of the relationships.

The micro version of RAT is centered on the lifestyle components related to the victim. For example, the likelihood of successfully completing a direct contact predatory violation is based on the suitability of the target in addition to how well guarded the person or item is. Assuming the person or item is an appealing target and easily attainable, then the motivated offender will endeavor to commit the crime. In essence, the motivated offender will determine whether or not to act upon the elements that have converged. I emphasize the notion of the motivated offender because it is one of the least developed concepts of RAT, yet one of the most important pieces of the theoretical equation, especially when considering the effects of the victim-offender relationship that emerged in the truth tables. The victim-offender relationship served to link specific victims (based on demographic factors) to specific contextual (i.e., offense) characteristics. For this reason, I believe future theoretical efforts should move away from focusing on just the victim or the offender, but should instead work towards fine-tuning the relationship that links the two (Jennings, 2016; Piquero, & Reingle. 2012; Lauritsen & Laub, 2007; Tillyer & wright, 2014).



The importance of the victim-offender relationship has been outlined in Miethe and Meier's (1994) work, Crime and its Social Context. In this book, distinctions were made between known offenders and stranger attacks. The authors pointed out when offenders are targeting someone they know they do not pay as much attention to the victim's surroundings; whereas, stranger attacks do take context into consideration when calculating their success of crime completion (p. 68). Known offenders are described as engaging in crime that are the result of personal grievances, which make contextual factors irrelevant, because of the inherent accessibility to the victim that stems from the pre-established relationship. On the other hand, stranger attacks are driven by concerns unrelated to the victim (e.g., greed, sexual conquest, or thrill-seeking), which force the attacker to consider context because the potential victim is not as easily accessible. The truth table provided further support of this argument because known offenders were shown to be generally drawn to restricted areas, while stranger attacks tended to occur in public areas. Therefore, assuming all offenders utilize the same strategy and consider the same elements when planning an attack is somewhat short-sighted. RAT, as well as most victimization theories, are geared towards attacks committed by strangers who require all of the necessary components of convergence in order to consider their likelihood of success; however, RAT does not readily apply to known offenders who do not need to consider all of the underlying elements of convergence to act out.

As such, future theoretical developments need to consider the threat of both known and unknown offenders. Similar to how theoretical concepts have been developed to explain demographic and contextual factors that contribute to the likelihood of victimization, an explanation needs to be put forth for known offenders in victimization situations related and unrelated to IPV. Most works have only looked to known offenders in cases of IPV, however,



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high risk combinations for physical assault were largely comprised of known attackers. Therefore, it is not just a matter of distinguishing between the two victim-offender relationships, but future efforts also need to start situating crime types with specific relationship types. For example, due to the proximity of the victim and offender interaction during incidents of robbery, it is categorized as a violent crime (which it is), however, in terms of the victim-offender relationship, it resembled personal theft and purse snatching (i.e., the offender was unknown). Such overlap in crime types must be acknowledged and included in discussions of victimization risk. In this sense, integrating findings from the victim-offender overlap into more prominent victimization theories may aid in better understanding victimization risk on a broader scale.

Another compelling element for future theorists to consider is the application of theoretical concepts to demographic factors. Several interaction effects emerged that suggested certain victim-offender relationships coincided with specific demographic factors. For example, younger victims and female victims were often attacked by known offenders; whereas, older victims and male victims were sought after by strangers. Since one of the key elements of developing a theoretical explanation is parsimony, what is needed is an explanation that can accurately and concisely account for differences across victim profiles. My suggestion is to categorize demographic factors by change. In other words, there are aspects of the victim's profile that will remain the same (i.e., race and gender) and others that are variable and a function of time (i.e., age and marital status).

Using the basis of change as a distinction, I argue the more variable components of a victim's demographic profile would be best addressed with a life course or age graded RAT perspective. Take, for instance, the notion of trajectories, transitions, and turning points (Sampson & Laub, 1993). All three concepts are inherently based on age and the understanding



of getting older and experiencing life. In fact, getting married is a core example of a (positive) turning point for many individuals. As such, it should not be difficult to incorporate a dimension of the victim-offender relationship into such an explanation. Possible extensions of the theory could include the threat of victimization risk over the life course, such as youth being more at risk for physical assault by known offenders, but more at risk of stranger attacks as they get older. Essentially, such an endeavor would contribute to a relatively new subset of the victimization literature referred to as "life-course victimology" (Averdijk, 2014; Chen, 2009; Farrell, 1995; Lauritsen & Quinet, 1995; Ousey, Wilcox, & Brummel, 2008; Tillyer, 2013). This field is explained as an examination of victimization throughout the various phases of life (i.e., childhood, adolescent, and adulthood; Chen, 2009; Finkelhor, 1995). Furthermore, life course victimology is presented as consisting of two main areas in which 1) risk corresponds with the "stability and change" that stems from development over the life course and 2) reactions to crime that also develop over the life course (Chen, 2009). Based on the work of other researchers, it appears as though the elements of a more nuanced theory are available, but currently exist as separate bodies of the victimization literature. Therefore, the next step requires bringing these bodies together to formulate a more realistic explanation for victimization.

The last segment of future theoretical efforts has to do with the constant demographic factors. Much like age and marital status, race/ethnicity and gender also have entire bodies of literature dedicated to the examination of victimization risk. Of the various critiques of existing criminological theories, one of the most glaring has been the lack of attention given to explanations specific to race/ethnicity and gender. Most theoretical postulations are based on samples of white males, which limit the scope to which the theory can (or should) be applied. Considering the differences in demographic factors, lifestyles, and context between


blacks/whites and males/females, more of a focus needs to be placed on these variations in victimization risk. Researchers have shed light on the existence of divergent lifestyles and varying threats of victimization risk among blacks/white/other and males/females (Henson, Wilcox, Reyns, & Cullen, 2010; Like-Haislip & Miofsky, 2011; Like-Haislip & Warren, 2011; Zaykowski & Gunter, 2013), however, not much theoretical progress has been made.

Overlapping effects in the results illustrated known offenders commonly preyed on white and black victims, however, other race victims were largely attacked by strangers. White and other race victims also reported being attacked by a known offender in restricted areas; whereas, unknown offenders took advantage of public areas to attack white and other race victims. Conversely, black victims indicated known offenders were wont to attack in public and restricted areas, showing no particular preference for just one location. As such, an improvement over current theories would need to formulate postulations specific to race and ethnicity; rather than assumptions predicated on concepts that are believed to work similarly for all victims, regardless of demographic factors.

Using the life course perspective or an age-graded version of RAT as a basis for theoretical development, the racial/ethnic and gender differences underlying incidents of victimization can be more readily addressed. For example, one of the most prominent turning points in the theory is marriage, however, blacks (especially black males) are typically shown to have lower marriage rates than non-blacks. Even in the current sample, almost three-quarters of black victims had never been married in comparison to a little more than half of white and other race victims. Therefore, explaining racial/ethnic differences in victimization risk from the viewpoint of marital status would be available within such a framework. In essence, such a framework would allow for the integration of variable and constant demographic factors.



Moreover, the argument for routine activities and lifestyles at various stages of life could also better address demographic differences. Such a theory would acknowledge the importance of opportunity, but recognize that it "is not equally tied to routine activities at all stages of the life course" (Henson, Wilcox, Reyns, & Cullen, 2010, p. 322). Henson, Wilcox, Reyns, and Cullen (2010) made mention of age graded RAT after conducting a study on gender, adolescents, lifestyles, and victimization, from which they concluded few lifestyles offered protection against victimization. In fact, activities that took place within the home were positively related to victimization. According to RAT, activities that require individuals to leave the assumed safety of the home face greater risks of victimization, however, the current results (along with prior works) suggest a looming threat related to being closer rather than farther away from home (as indicated by the majority of high risk/ high prevalence combinations).

More age appropriate activities would better depict higher or lower likelihoods of victimization risk. The path from childhood and adolescence to adulthood could be applied to race/ethnicity and gender so as to capture the underlying differences in risk over time. Evidence of gender differences within and across racial/ethnic groups have been evinced within the RAT framework (Like-Haislip & Miofsky, 2011). Moreover, the study indicated measures of routine activities and neighborhood factors differentially affected black, white, and Hispanic males and females with some measures emerging as statistically significant, but not others. In addition, opposing effects showed some of the same measures contributed to higher risk for some groups and lower risk for others. Therefore, a theoretical focus on varied opportunities for race/ethnicity and gender would more closely depict the inner workings of victim, offender, and offense characteristics in the real world. Though research requires parsimonious theoretical guidance, future research would benefit from realistic postulations and hypotheses, which consist of non-



linear relationships and the recognition of differential effects on race/ethnicity and gender across the life course.

## **Policy Implications**

One of the more popular policies utilized to combat crime and victimization within the realm of RAT is situational crime prevention (Clarke, 1980; Cornish & Clarke, 2003; McNeeley, 2015). The purpose of situational crime prevention is to decrease criminal opportunities, which in turn decreases victimization risk. The basic principle for crime prevention is to make criminal acts appear hard to accomplish, risky, and fruitless (Felson & Boba, 2010). Essentially, the goals of crime prevention tactics are to harden targets. Since motivated offenders act on opportunities that possess a relatively good chance of success, making criminal opportunities less appealing or difficult to attain are expected to decrease their likelihood to act on the opportunity, thereby protecting potential victims. Such tactics have been used to decrease both property and violent crime risk. Some examples of preventable property crimes included vandalism on public transportation (i.e., buses), lewd phone calls, car theft, graffiti (i.e., on subways), and the formation of specialized neighborhood watches (to lower the likelihood of repeat victimization in burglary). Nonetheless, most of these property crimes consisted of little to no interaction between the victim and the offender, which did not align with my current dissertation goals. Though these crimes may not be considered violent, certain types of theft such as personal larceny and purse snatching may benefit from strategies used to prevent violent crime because of the close interactions between parties. Preventable violent crime situations consisted of several practical ways to avoid being targeted, which entailed managing alcohol, avoiding conflict, and steering clear of isolated areas while in public (Felson & Boba, 2010). These tactics are meant to



depict the simplicity in target hardening. In other words, hardening targets does not necessarily require the installation of expensive alarm systems and cameras.

The previous discussion focuses on preventative measures that are more general in nature and assumed to be equally applicable to all potential victims. However, a need for differential crime prevention has been identified by previous researchers who recognize victims require prevention tactics that are specific to their variation of risk (Lauritsen & White, 2001). For example, since the likelihood of stranger attacks was greatest for males in the study, the authors suggested males need to be made more aware of their surroundings when out in public. Moreover, they argued the threat from strangers is likely emphasized for females and not enough for males, which may contribute to their vulnerability to strangers. The greatest risk for females, on the other hand, was from non-strangers. As such, Lauriten and White (2001) recommended educational programs to teach females about the threat they face from people known to them, such as friends, family, and intimate partners.

The necessity of a differential approach for decreasing victimization is further compounded by the results of conjunctive analysis. Much like the study on gender and victimization, interaction effects highlighted that the victim-offender relationship served to differentiate between combinations in which blacks, whites, and other races were victimized by known and unknown offenders. Generally speaking, younger victims and female victims were most vulnerable to attacks from non-strangers; whereas, male victims and older victims were prone to stranger attacks. To avoid complicating crime prevention strategies, focusing on the element that overlaps many of the combinations that ultimately resulted in an incident of victimization would help formulate a clear strategic focus. In this case, the victim-offender relationship was the core characteristic that connected the victim to offense characteristics. As



such, crime prevention would best be served by strategies where the potential victim is made more aware of the characteristics that align with stranger and non-stranger attacks as suggested by prior researchers.

## Limitations

Despite efforts to provide a well-founded theoretical and methodological dissertation, there were a few limitations associated with the present research aims. To begin with, there were some aspects of the NCVS data that need to be addressed. First, the variables used to measure victim and offender race/ethnicity did not make distinctions between Hispanic and non-Hispanic blacks and whites. In addition, victims categorized as anything other than "white only" or "black only" in the NCVS data were categorized as other. Though available for victims, the need to maintain coding consistency between the victim and offender measures (i.e., offender race/ethnicity was broken into white, black, and other race) was deemed more important for the purpose of interpretation and drawing conclusions. Second, victimization incidents with missing data were not included in the analysis to ensure the resulting comparisons across combinations were comparable to one another. In other words, the findings would have been called into question had comparisons between combinations with and without missing data been allowed because any difference in risk may have been attributed to the missing data. Third, the only incidents included in the sample were non-series related and those committed by single offenders. These incident types were excluded to gain a better understanding of more standard victimization. Incidents consisting of single victimization and single offenders are referred to as standard because they comprised the vast majority of cases in the dataset (i.e., more than 94%). Nonetheless, the exclusion of these occurrences may have resulted in patterns being overlooked,



such as those related to IPV, which are often a subset of series victimization incidents. Such an oversight warrants future examination to determine what situational profiles are representative of this specific sample. Similarly, demographic factors for multiple offender incidents were coded differently than for single offender incident (hence their exclusion), however, applying conjunctive analysis to this smaller subset of victims may also shed some light as to similarities and differences regarding main and interaction effects.

Fourth, my analytical strategy differs from standard analyses in that significance (i.e., alpha) levels are not present, though the minimum frequency rule is meant to mimic the alpha to a certain extent. Nonetheless, it is acknowledged that some researchers may view the minimum frequency rule as arbitrary. For this reason, the rule was set at .1% of the sample so as to provide a more standard approach for determining dominant combinations in the data. Fifth, the analysis relied on categorical variables; however, with the exception of age the variables used in the analysis were either nominal or ordinal at the start. In other words, almost all of the variables retained their original form in that the data were not manipulated. Sixth, the quantity of variables may appear limited in reference to the numerous variables found throughout the LSRA literature. Nonetheless, what appears to be a small number of contextual and offender variables actually equated to a sizeable number of potential configurations once compounded with the categories of the other measures. In fact, the inclusion of too many measures in this detail-oriented analysis can make drawing concrete conclusions difficult, which prompts the adage of "less being more."



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Appendix



ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
1	White	Yes	Under	Never	Known	Yes	Yes	Yes	Yes	5 miles	Yes	No	.00	.02	.98	.00	235
			17	Married						or less							
2	White	Yes	Under	Never	Known	Yes	Yes	Yes	No	5 miles	Yes	No	.00	.01	.99	.00	229
			17	Married						or less							
3	White	Yes	Under	Never	Known	No	Yes	Yes	No	5 miles	Yes	No	.01	.03	.96	.00	77
			17	Married						or less							
4	White	Yes	18-29	Never	Stranger	Yes	Yes	Yes	Yes	5 miles	Yes	Yes	.00	.01	.99	.00	73
				Married						or less							
5	White	No	Under	Never	Known	Yes	Yes	Yes	Yes	5 miles	Yes	No	.00	.00	.00	.00	68
			17	Married						or less							
6	White	Yes	18-29	Never	Stranger	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	.00	.05	.95	.00	60
				Married						or less							
7	White	No	Under	Never	Known	Yes	Yes	Yes	No	5 miles	Yes	No	.00	.02	.98	.00	58
			17	Married						or less							
8	White	Yes	Under	Never	Known	No	Yes	Yes	Yes	5 miles	Yes	No	.00	.05	.95	.00	56
			17	Married						or less							
9	White	Yes	Under	Never	Known	Yes	Yes	Yes	Yes	50 miles	Yes	No	.00	.00	.00	.00	51
			17	Married						or less							
10	White	Yes	Under	Never	Known	Yes	Yes	Yes	No	50 miles	Yes	No	.00	.02	.98	.00	50
			17	Married						or less							
11	White	No	Under	Never	Known	Yes	No	Yes	Yes	5 miles	Yes	No	.05	.00	.95	.00	42
			17	Married						or less							
12	White	No	Under	Never	Known	Yes	No	Yes	No	5 miles	Yes	No	.05	.00	.92	.03	39
			17	Married						or less							
13	White	Yes	Under	Never	Stranger	Yes	Yes	Yes	Yes	5 miles	Yes	No	.00	.05	.95	.00	39
			17	Married	C					or less							
14	White	Yes	18-29	Never	Stranger	Yes	Yes	No	Yes	5 miles	Yes	Yes	.00	.03	.97	.00	35
				Married	C					or less							
15	White	Yes	30+	Married	Known	Yes	Yes	Yes	No	50 miles	Yes	No	.00	.03	.97	.00	31
										or less							
16	White	Yes	18-29	Never	Stranger	No	Yes	Yes	Yes	50 miles	Yes	Yes	.00	.11	.89	.00	28
				Married	0					or less							
17	White	Yes	18-29	Never	Known	Yes	Yes	Yes	Yes	5 miles	Yes	Yes	.00	.00	1.00	.00	28
			-	Married						or less							-
18	Black	Yes	Under	Never	Known	Yes	Yes	Yes	Yes	5 miles	Yes	No	.00	.07	.93	.00	28



ID	Race	Male	Age	Marital Status	Off	Same	Same Condor	Same	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
19	White	Yes	18-29	Never	Stranger	No	Yes	Yes	Yes	5 miles	Yes	Yes	.00	.15	.85	.00	27
20	White	No	Under 17	Never Married	Known	No	Yes	Yes	No	5 miles	Yes	No	.00	.00	1.00	.00	25
21	White	No	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	.00	.00	1.00	.00	22
22	Black	Yes	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	.00	.05	.95	.00	22
23	White	Yes	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	21
24	White	Yes	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.05	.95	.00	21
25	White	No	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	20
26	White	Yes	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	20
27	White	Yes	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.05	.95	.00	19
28	White	No	Under 17	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	.00	.11	.89	.00	18
29	White	No	30+	Married	Known	Yes	No	No	No	50 miles or less	Yes	No	.00	.00	1.00	.00	18
30	White	Yes	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	.00	.28	.72	.00	18
31	White	Yes	18-29	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	.00	.00	1.00	.00	18
32	White	Yes	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	.00	.00	1.00	.00	18
33	White	Yes	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.06	.94	.00	18
34	White	Yes	30+	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.11	.89	.00	18
35	White	No	30+	Married	Known	No	No	No	No	5 miles or less	Yes	No	.00	.00	1.00	.00	17
36	White	No	30+	Married	Known	No	No	No	No	50 miles or less	Yes	No	.00	.06	.94	.00	17



ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
37	White	Yes	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	.00	.00	1.00	.00	17
38	White	Yes	30+	Married	Known	Yes	Yes	Yes	Yes	50 miles	Yes	No	.00	.00	1.00	.00	17
39	White	No	Under 17	Never Married	Known	No	No	Yes	No	5 miles or less	Yes	No	.06	.00	.94	.00	16
40	White	Yes	18-29	Never Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	.00	.13	.88	.00	16
41	White	Yes	30+	Not Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.25	.75	.00	16
42	White	Yes	30+	Not Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	16
43	Black	No	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	.31	.00	.69	.00	16
44	White	No	30+	Married	Known	Yes	No	No	No	5 miles or less	Yes	No	.00	.07	.93	.00	15
45	White	No	30+	Married	Known	Yes	No	No	Yes	50 miles or less	Yes	No	.13	.07	.80	.00	15
46	White	Yes	Under 17	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	15
47	White	Yes	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	.00	.27	.73	.00	15
48	White	Yes	30+	Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	.00	.00	1.00	.00	15
49	White	Yes	30+	Married	Known	Yes	Yes	No	No	50 miles or less	Yes	No	.00	.07	.93	.00	15
50	White	Yes	30+	Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	.00	.00	1.00	.00	15
51	White	No	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	14
52	White	No	30+	Not Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.00	.14	.86	.00	14
53	White	Yes	Under 17	Never Married	Stranger	No	Yes	Yes	No	5 miles or less	Yes	No	.00	.07	.93	.00	14
54	White	Yes	18-29	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	14



ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
55	White	Yes	30+	Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	.00	.00	1.00	.00	14
56	White	Yes	30+	Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.07	.93	.00	14
57	White	Yes	30+	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	.00	.00	1.00	.00	14
58	White	No	30+	Married	Known	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	13
59	White	Yes	Under 17	Never Married	Stranger	Yes	Yes	Yes	No	5 miles or less	Yes	No	.00	.00	1.00	.00	13
60	White	Yes	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	No	Yes	.00	.15	.85	.00	13
61	White	Yes	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	13
62	White	Yes	30+	Married	Stranger	No	Yes	Yes	Yes	50 miles or less	Yes	No	.00	.08	.92	.00	13
63	Black	No	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	.00	.00	1.00	.00	13
64	White	No	18-29	Never Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	.08	.00	.92	.00	12
65	White	No	18-29	Never Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.17	.08	.75	.00	12
66	White	No	30+	Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	.08	.00	.92	.00	12
67	White	Yes	18-29	Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	.00	.00	1.00	.00	12
68	White	Yes	18-29	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	12
69	White	Yes	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	Yes	.00	.25	.75	.00	12
70	White	Yes	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	12
71	Black	Yes	Under 17	Never Married	Known	No	Yes	Yes	No	5 miles	Yes	No	.00	.08	.92	.00	12
72	White	No	Under 17	Never Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	.18	.09	.73	.00	11



1 a01	e AI (Co	Jinnued	)		0.00	G	a	G									
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
73	White	No	18-29	Never Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	11
74	White	No	30+	Married	Stranger	No	No	No	Yes	5 miles or less	Yes	No	.00	.55	.36	.09	11
75	White	No	30+	Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.27	.64	.09	11
76	White	No	30+	Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	No	.09	.27	.64	.00	11
77	White	No	30+	Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.09	.91	.00	11
78	White	Yes	Under 17	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	No	.00	.09	.91	.00	11
79	White	Yes	Under 17	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	11
80	White	Yes	18-29	Married	Stranger	Yes	Yes	No	Yes	50 miles	Yes	Yes	.00	.00	1.00	.00	11
81	White	Yes	18-29	Never Married	Known	Yes	Yes	No	Yes	5 miles	Yes	Yes	.00	.00	1.00	.00	11
82	White	Yes	30+	Married	Stranger	No	Yes	No	No	50 miles	Yes	No	.00	.00	1.00	.00	11
83	White	Yes	30+	Married	Stranger	No	Yes	No	Yes	5 miles	Yes	Yes	.00	.55	.45	.00	11
84	White	Yes	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles	Yes	No	.00	.00	1.00	.00	11
85	White	Yes	30+	Married	Known	Yes	Yes	No	Yes	50 miles	Yes	No	.00	.00	1.00	.00	11
86	White	Yes	30+	Married	Known	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	.00	.00	1.00	.00	11
87	White	Yes	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles	Yes	No	.00	.00	1.00	.00	11
88	Black	Yes	Under	Never	Known	No	Yes	Yes	Yes	5 miles	Yes	No	.00	.00	1.00	.00	11
89	White	No	18-29	Never	Stranger	Yes	Yes	Yes	Yes	5 miles	Yes	Yes	.00	.00	1.00	.00	10
90	White	No	30+	Married	Known	Yes	Yes	Yes	No	50 miles	Yes	No	.00	.00	1.00	.00	10



ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
91	White	No	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.40	.60	.00	10
92	White	No	30+	Not Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.20	.00	.80	.00	10
93	White	No	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	10
94	White	No	30+	Not Married	Intimate	Yes	No	Yes	Yes	50 miles or less	Yes	No	.00	.10	.90	.00	10
95	White	Yes	Under 17	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	10
96	White	Yes	Under 17	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	No	.00	.10	.90	.00	10
97	White	Yes	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.30	.70	.00	10
98	White	Yes	18-29	Never Married	Stranger	Yes	Yes	Yes	No	5 miles or less	Yes	Yes	.00	.00	1.00	.00	10
99	White	Yes	30+	Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.20	.80	.00	10
100	White	Yes	30+	Married	Known	No	Yes	No	No	50 miles or less	Yes	No	.00	.10	.90	.00	10
101	White	Yes	30+	Married	Known	Yes	Yes	No	No	5 miles or less	Yes	No	.00	.00	1.00	.00	10
102	White	Yes	30+	Not Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	.00	.00	1.00	.00	10
103	Black	No	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.30	.00	.70	.00	10
104	Other	Yes	Under 17	Never Married	Known	No	Yes	Yes	No	5 miles or less	Yes	No	.00	.10	.90	.00	10
105	White	No	18-29	Never Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	Yes	.22	.22	.56	.00	9
106	White	No	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	.00	.00	1.00	.00	9
107	White	No	18-29	Never Married	Known	Yes	No	No	Yes	50 miles	Yes	No	.44	.00	.56	.00	9
108	White	No	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	9



1 0001	(00		/	Marital	Off	Same	Same	Same									
ID	Race	Male	Age	Status	Туре	Race	Gender	Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
109	White	No	30+	Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	.00	.22	.56	.22	9
110	White	No	30+	Married	Stranger	Yes	No	No	Yes	50 miles or less	Yes	No	.00	.33	.56	.11	9
111	White	No	30+	Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.00	.22	.78	.00	9
112	White	No	30+	Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	No	.00	.00	.89	.11	9
113	White	No	30+	Not Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	No	.00	.11	.89	.00	9
114	White	No	30+	Never Married	Known	Yes	No	No	No	50 miles or less	Yes	No	.00	.00	1.00	.00	9
115	White	Yes	Under 17	Never Married	Known	No	Yes	Yes	Yes	50 miles or less	Yes	No	.11	.00	.89	.00	9
116	White	Yes	18-29	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	9
117	White	Yes	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	No	No	.00	.78	.22	.00	9
118	White	Yes	30+	Married	Stranger	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	.00	.00	1.00	.00	9
119	White	Yes	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	9
120	Black	No	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	9
121	White	No	Under 17	Never Married	Known	No	Yes	Yes	No	50 miles or less	Yes	No	.00	.13	.88	.00	8
122	White	No	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles	No	No	.00	.25	.75	.00	8
123	White	No	Under 17	Never Married	Known	Yes	No	Yes	No	50 miles	Yes	No	.00	.00	1.00	.00	8
124	White	No	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles	No	No	.00	.50	.50	.00	8
125	White	No	18-29	Never	Stranger	Yes	No	No	Yes	50 miles	Yes	Yes	.13	.00	.88	.00	8
126	White	No	18-29	Never Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	.13	.00	.88	.00	8



ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
127	White	No	18-29	Never Married	Known	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	.00	.13	.88	.00	8
128	White	No	18-29	Never Married	Intimate	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	.25	.00	.75	.00	8
129	White	No	30+	Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	.00	.25	.75	.00	8
130	White	No	30+	Married	Known	Yes	Yes	No	No	50 miles or less	Yes	No	.00	.00	1.00	.00	8
131	White	No	30+	Married	Known	Yes	Yes	No	Yes	50 miles or less	Yes	No	.00	.00	1.00	.00	8
132	White	No	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	.00	.50	.38	.13	8
133	White	No	30+	Not Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	.25	.00	.75	.00	8
134	White	No	30+	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	.00	.00	1.00	.00	8
135	White	Yes	Under 17	Never Married	Known	Yes	Yes	No	Yes	50 miles or less	Yes	No	.00	.00	1.00	.00	8
136	White	Yes	Under 17	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	No	No	.00	.50	.50	.00	8
137	White	Yes	18-29	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	8
138	White	Yes	18-29	Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	8
139	White	Yes	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	No	Yes	.00	.25	.75	.00	8
140	White	Yes	18-29	Never Married	Known	Yes	Yes	No	No	5 miles	Yes	No	.00	.00	1.00	.00	8
141	White	Yes	18-29	Never Married	Known	Yes	Yes	No	No	50 miles	Yes	No	.13	.00	.88	.00	8
142	White	Yes	30+	Married	Stranger	Yes	Yes	Yes	Yes	50 miles	Yes	No	.00	.00	1.00	.00	8
143	White	Yes	30+	Married	Known	Yes	Yes	Yes	Yes	5 miles	Yes	Yes	.00	.00	1.00	.00	8
144	White	No	Under 17	Never Married	Known	No	No	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	7



Tabl	e Al (Co	ontinued	)														
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
145	White	No	18-29	Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	.29	.29	.43	.00	7
146	White	No	18-29	Not Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	7
147	White	No	18-29	Never Married	Stranger	No	No	No	Yes	5 miles or less	Yes	Yes	.00	.43	.43	.14	7
148	White	No	18-29	Never Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	Yes	.00	.14	.71	.14	7
149	White	No	18-29	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	7
150	White	No	18-29	Never Married	Known	Yes	No	No	Yes	5 miles or less	Yes	Yes	.14	.00	.86	.00	7
151	White	No	18-29	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.14	.00	.86	.00	7
152	White	No	18-29	Never Married	Known	Yes	No	Yes	Yes	5 miles	Yes	No	.43	.14	.43	.00	7
153	White	No	18-29	Never Married	Known	Yes	No	Yes	Yes	50 miles	Yes	Yes	.14	.00	.86	.00	7
154	White	No	18-29	Never Married	Intimate	Yes	No	Yes	Yes	50 miles	Yes	No	.00	.14	.86	.00	7
155	White	No	30+	Married	Stranger	No	No	No	Yes	50 miles	Yes	No	.14	.29	.43	.14	7
156	White	No	30+	Married	Stranger	No	No	Yes	Yes	50 miles	Yes	No	.00	.14	.86	.00	7
157	White	No	30+	Married	Stranger	Yes	No	Yes	No	50 miles	Yes	No	.00	.00	1.00	.00	7
158	White	No	30+	Married	Known	No	No	No	Yes	5 miles	Yes	No	.00	.00	1.00	.00	7
159	White	No	30+	Married	Known	No	Yes	Yes	Yes	50 miles	Yes	No	.00	.00	1.00	.00	7
160	White	No	30+	Married	Known	Yes	No	Yes	No	50 miles	Yes	No	.14	.00	.86	.00	7
161	White	No	30+	Married	Known	Yes	No	Yes	Yes	50 miles	Yes	No	.14	.00	.86	.00	7
162	White	No	30+	Married	Known	Yes	Yes	No	No	5 miles	Yes	No	.00	.00	1.00	.00	7



ID	Race	Male	Аде	Marital	Off	Same	Same	Same	Public	Home	Comp <sup>1</sup>	Night	Rane	Roh	Phv <sup>2</sup>	Theft	N
	Nace	Whate	nge	Status	Туре	Race	Gender	Age	Tublic	поше	comp	inght	Карс	Rob	I IIy	Inch	1
163	White	No	30+	Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	.00	.00	1.00	.00	7
164	White	No	30+	Not Married	Stranger	No	No	No	Yes	5 miles or less	Yes	No	.00	.29	.57	.14	7
165	White	No	30+	Not Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	.14	.43	.29	.14	7
166	White	No	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.14	.00	.86	.00	7
167	White	No	30+	Not Married	Known	Yes	No	Yes	No	50 miles or less	Yes	Yes	.29	.00	.71	.00	7
168	White	Yes	Under 17	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	No	.00	.57	.43	.00	7
169	White	Yes	Under 17	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	7
170	White	Yes	Under 17	Never Married	Known	Yes	Yes	No	No	5 miles	Yes	No	.00	.00	1.00	.00	7
171	White	Yes	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	Yes	.00	.00	1.00	.00	7
172	White	Yes	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	No	No	.00	.43	.57	.00	7
173	White	Yes	18-29	Never Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	No	.00	.00	1.00	.00	7
174	White	Yes	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.14	.86	.00	7
175	White	Yes	18-29	Never Married	Known	No	Yes	No	Yes	5 miles or less	Yes	No	.00	.29	.71	.00	7
176	White	Yes	18-29	Never Married	Known	No	Yes	No	Yes	50 miles	Yes	No	.00	.00	1.00	.00	7
177	White	Yes	18-29	Never Married	Known	Yes	Yes	Yes	Yes	50 miles	Yes	No	.00	.00	1.00	.00	7
178	White	Yes	30+	Married	Stranger	No	Yes	No	Yes	5 miles	Yes	No	.00	.00	1.00	.00	7
179	White	Yes	30+	Married	Stranger	No	Yes	No	Yes	50 miles	Yes	No	.00	.29	.71	.00	7
180	White	Yes	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles	No	No	.00	.43	.57	.00	7



ID	Race	Male	Age	Marital	Off	Same	Same	Same	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
181	White	Ves	30+	Status	1 ype Stranger	Kace	Gender	Age	Ves	5 miles	Ves	No		00	1.00	00	7
101	white	103	501	Wallieu	Stranger	103	103	110	103	or less	103	110	.00	.00	1.00	.00	/
182	White	Yes	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles	Yes	Yes	.00	.29	.71	.00	7
183	White	Yes	30+	Married	Known	No	Yes	Yes	No	50 miles	Yes	No	.00	.00	1.00	.00	7
184	White	Yes	30+	Married	Known	Yes	Yes	Yes	No	50 miles	Yes	Yes	.00	.00	1.00	.00	7
185	White	Yes	30+	Not Married	Known	Yes	Yes	Yes	No	5 miles	Yes	No	.00	.00	1.00	.00	7
186	White	Yes	30+	Never Married	Stranger	No	Yes	No	Yes	5 miles	Yes	Yes	.00	.43	.57	.00	7
187	White	Yes	30+	Never Married	Stranger	Yes	Yes	No	Yes	50 miles	Yes	Yes	.00	.14	.86	.00	7
188	Other	Yes	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	7
189	White	No	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	No	No	.17	.50	.33	.00	6
190	White	No	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	.00	.00	1.00	.00	6
191	White	No	Under 17	Never Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.33	.00	.67	.00	6
192	White	No	18-29	Married	Stranger	Yes	No	No	Yes	5 miles	Yes	Yes	.00	.17	.83	.00	6
193	White	No	18-29	Married	Known	No	No	No	No	50 miles	Yes	No	.00	.00	1.00	.00	6
194	White	No	18-29	Never Married	Stranger	Yes	No	Yes	Yes	50 miles	Yes	Yes	.33	.17	.50	.00	6
195	White	No	18-29	Never Married	Known	No	No	No	No	5 miles	Yes	No	.17	.00	.83	.00	6
196	White	No	18-29	Never Married	Known	Yes	No	No	Yes	50 miles	Yes	Yes	.17	.00	.83	.00	6
197	White	No	18-29	Never	Known	Yes	No	Yes	Yes	5 miles	Yes	Yes	.50	.00	.50	.00	6
198	White	No	18-29	Never Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	6



Tabl	e A1 (Co	ontinued	)														
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
199	White	No	30+	Married	Stranger	No	No	No	Yes	5 miles or less	Yes	Yes	.00	.33	.50	.17	6
200	White	No	30+	Married	Stranger	Yes	No	Yes	No	50 miles or less	Yes	Yes	.00	.00	1.00	.00	6
201	White	No	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	6
202	White	No	30+	Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.33	.00	.67	.00	6
203	White	No	30+	Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	.00	.17	.83	.00	6
204	White	No	30+	Not Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	.00	.00	1.00	.00	6
205	White	No	30+	Not Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	6
206	White	No	30+	Not Married	Known	Yes	No	Yes	Yes	50 miles	Yes	No	.00	.00	1.00	.00	6
207	White	No	30+	Not Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	.00	.00	1.00	.00	6
208	White	No	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	.00	.17	.83	.00	6
209	White	Yes	Under 17	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	No	No	.00	.67	.33	.00	6
210	White	Yes	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	No	No	.00	.50	.50	.00	6
211	White	Yes	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.00	.00	1.00	.00	6
212	White	Yes	Under 17	Never Married	Known	Yes	Yes	No	Yes	5 miles	Yes	Yes	.00	.00	1.00	.00	6
213	White	Yes	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles	No	Yes	.00	.33	.67	.00	6
214	White	Yes	Under 17	Never	Known	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	.00	.00	1.00	.00	6
215	White	Yes	18-29	Married	Stranger	No	Yes	No	Yes	5 miles	Yes	Yes	.00	.17	.83	.00	6
216	White	Yes	18-29	Married	Known	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	.00	.00	1.00	.00	6



ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same A ge	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
217	White	Yes	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles	Yes	No	.00	.00	1.00	.00	6
218	White	Yes	18-29	Never Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	Yes	.00	.00	1.00	.00	6
219	White	Yes	18-29	Never Married	Stranger	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	.00	.00	1.00	.00	6
220	White	Yes	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	.00	.00	1.00	.00	6
221	White	Yes	18-29	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	Yes	.00	.17	.83	.00	6
222	White	Yes	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	No	Yes	.00	.67	.33	.00	6
223	White	Yes	30+	Married	Stranger	Yes	Yes	No	No	5 miles or less	Yes	Yes	.00	.00	1.00	.00	6
224	White	Yes	30+	Married	Stranger	Yes	Yes	No	No	50 miles	Yes	Yes	.00	.00	1.00	.00	6
225	White	Yes	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles	No	Yes	.00	.33	.67	.00	6
226	White	Yes	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles	No	No	.00	.00	1.00	.00	6
227	White	Yes	30+	Married	Known	No	Yes	No	No	5 miles	Yes	No	.00	.00	1.00	.00	6
228	White	Yes	30+	Married	Known	Yes	Yes	No	No	50 miles	Yes	Yes	.00	.00	1.00	.00	6
229	White	Yes	30+	Married	Known	Yes	Yes	No	Yes	5 miles	Yes	No	.00	.17	.83	.00	6
230	White	Yes	30+	Married	Known	Yes	Yes	No	Yes	5 miles	Yes	Yes	.00	.00	1.00	.00	6
231	White	Yes	30+	Not Married	Stranger	No	Yes	No	Yes	5 miles	No	Yes	.00	.17	.83	.00	6
232	White	Yes	30+	Not	Stranger	Yes	Yes	No	Yes	5 miles	Yes	No	.00	.00	1.00	.00	6
233	White	Yes	30+	Never	Stranger	Yes	Yes	No	Yes	5 miles	Yes	Yes	.00	.00	1.00	.00	6
234	White	Yes	30+	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.00	1.00	.00	6



Tabl	e A1 (Co	ontinued)															
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
235	Black	Yes	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.33	.67	.00	6

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault



Tabl	e A2. A	ll <b>Low</b> Ri	isk (Uni	que) Profi	les for Ph	ysical A	Assault (n	=46)									
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
47	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	.00	.27	.73	.00	15
72	White	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	.18	.09	.73	.00	11
30	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	.00	.28	.72	.00	18
167	White	Female	30+	Not Married	Known	Yes	No	Yes	No	50 miles or less	Yes	Yes	.29	.00	.71	.00	7
175	White	Male	18-29	Never Married	Known	No	Yes	No	Yes	5 miles or less	Yes	No	.00	.29	.71	.00	7
148	White	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	Yes	.00	.14	.71	.14	7
179	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	No	.00	.29	.71	.00	7
182	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles or more	Yes	Yes	.00	.29	.71	.00	7
103	Black	Female	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.30	.00	.70	.00	10
97	White	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.30	.70	.00	10
43	Black	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	.31	.00	.69	.00	16
191	White	Female	Under 17	Never Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.33	.00	.67	.00	6
202	White	Female	30+	Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	.33	.00	.67	.00	6
213	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	Yes	.00	.33	.67	.00	6
225	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	No	Yes	.00	.33	.67	.00	6
235	Black	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.33	.67	.00	6
75	White	Female	30+	Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.27	.64	.09	11
76	White	Female	30+	Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	No	.09	.27	.64	.00	11



Tabl	e A2 (C	ontinued)	)														
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
91	White	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.40	.60	.00	10
172	White	Male	Under 17	Never married	Known	Yes	Yes	Yes	Yes	50 miles or less	No	No	.00	.43	.57	.00	7
164	White	Female	30+	Not Married	Stranger	No	No	No	Yes	5 miles or less	Yes	No	.00	.29	.57	.14	7
180	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	No	No	.00	.43	.57	.00	7
186	White	Male	30+	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.43	.57	.00	7
107	White	Female	18-29	Never Married	Known	Yes	No	No	Yes	50 miles or less	Yes	No	.44	.00	.56	.00	9
105	White	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	Yes	.22	.22	.56	.00	9
109	White	Female	30+	Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	.00	.22	.56	.22	9
110	White	Female	30+	Married	Stranger	Yes	No	No	Yes	50 miles or less	Yes	No	.00	.33	.56	.11	9
124	White	Female	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	.00	.50	.50	.00	8
136	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	No	No	.00	.50	.50	.00	8
197	White	Female	18-29	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.50	.00	.50	.00	6
210	White	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	No	No	.00	.50	.50	.00	6
194	White	Female	18-29	Never Married	Stranger	Yes	No	Yes	Yes	50 miles or more	Yes	Yes	.33	.17	.50	.00	6
199	White	Female	30+	Married	Stranger	No	No	No	Yes	5 miles or less	Yes	Yes	.00	.33	.50	.17	6
83	White	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.55	.45	.00	11
152	White	Female	18-29	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	.43	.14	.43	.00	7
145	White	Female	18-29	Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	.29	.29	.43	.00	7



Tabl	e A2 (Co	ontinued)	)														
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	Ν
147	White	Female	18-29	Never Married	Stranger	No	No	No	Yes	5 miles or less	Yes	Yes	.00	.43	.43	.14	7
155	White	Female	30+	Married	Stranger	No	No	No	Yes	50 miles or less	Yes	No	.14	.29	.43	.14	7
168	White	Male	Under 17	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	No	.00	.57	.43	.00	7
132	White	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	.00	.50	.38	.19	8
74	White	Female	30+	Married	Stranger	No	No	No	Yes	5 miles or less	Yes	No	.00	.55	.36	.09	11
189	White	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	No	No	.17	.50	.33	.00	6
209	White	Male	Under 17	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	No	No	.00	.67	.33	.00	6
222	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	No	Yes	.00	.67	.33	.00	6
165	White	Female	30+	Not Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	.14	.43	.29	.14	7
117	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	No	No	.00	.78	.22	.00	9

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault

Tabl	e A3. A	ll <b>High</b> R	tisk (Uni	ique) Prof	iles for Ro	obbery (	(n=41)										
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
117	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	No	No	.00	.78	.22	.00	9
209	White	Male	Under 17	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	No	No	.00	.67	.33	.00	6
222	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	No	Yes	.00	.67	.33	.00	6
168	White	Male	Under 17	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	No	.00	.57	.43	.00	7
83	White	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.55	.45	.00	11
74	White	Female	30+	Married	Stranger	No	No	No	Yes	5 miles or less	Yes	No	.00	.55	.36	.09	11
124	White	Female	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	.00	.50	.50	.00	8
136	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	50 miles or more	No	No	.00	.50	.50	.00	8
132	White	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	.00	.50	.38	.13	8
210	White	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	No	No	.00	.50	.50	.00	6
189	White	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	No	No	.17	.50	.33	.00	6
172	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	No	No	.00	.43	.57	.00	7
180	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	No	No	.00	.43	.57	.00	7
186	White	Male	30+	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.43	.57	.00	7
147	White	Female	18-29	Never Married	Stranger	No	No	No	Yes	5 miles or less	Yes	Yes	.00	.43	.43	.14	7
165	White	Female	30+	Not Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	.14	.43	.29	.14	7
91	White	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.40	.60	.00	10
110	White	Female	30+	Married	Stranger	Yes	No	No	Yes	50 miles or less	Yes	No	.00	.33	.56	.11	9



Tabl	e A3 (C	ontinued)	)														
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
213	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	Yes	.00	.33	.67	.00	6
225	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	No	Yes	.00	.33	.67	.00	6
235	Black	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	.00	.33	.67	.00	6
199	White	Female	30+	Married	Stranger	No	No	No	Yes	5 miles or less	Yes	Yes	.00	.33	.50	.17	6
97	White	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.30	.70	.00	10
175	White	Male	18-29	Never Married	Known	No	Yes	No	Yes	5 miles or less	Yes	No	.00	.29	.71	.00	7
179	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	No	.00	.29	.71	.00	7
182	White	Male	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles	Yes	Yes	.00	.29	.71	.00	7
164	White	Female	30+	Not Married	Stranger	No	No	No	Yes	5 miles or less	Yes	No	.00	.29	.57	.14	7
145	White	Female	18-29	Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	.29	.29	.43	.00	7
155	White	Female	30+	Married	Stranger	No	No	No	Yes	50 miles or less	Yes	No	.14	.29	.43	.14	7
30	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	.00	.28	.72	.00	18
75	White	Female	30+	Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	.00	.27	.64	.09	11
76	White	Female	30+	Married	Stranger	Yes	No	Yes	Yes	5 miles	Yes	No	.09	.27	.64	.00	11
47	White	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	.00	.27	.73	.00	15
41	White	Male	30+	Not Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	.00	.25	.75	.00	16
69	White	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	Yes	.00	.25	.75	.00	12
122	White	Female	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	No	No	.00	.25	.75	.00	8



Tabl	e A3 (C	ontinued)															
ID	Race	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Rape	Rob	Phy <sup>2</sup>	Theft	N
129	White	Female	30+	Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	.00	.25	.75	.00	8
139	White	Female	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	No	Yes	.00	.25	.75	.00	8
111	White	Male	30+	Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	.00	.22	.78	.00	9
105	White	Male	18-29	Never Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	Yes	.22	.22	.56	.00	9
109	White	Male	30+	Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	.00	.22	.56	.22	9

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault



ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
1	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.89	.10	.01	260
2	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.91	.08	.00	248
3	Male	Under 17	Never Married	Known	No	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.79	.12	.10	94
4	Female	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.87	.12	.01	78
5	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.95	.05	.00	76
6	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.75	.15	.10	71
7	Female	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.81	.19	.00	70
8	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	57
9	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.91	.07	.02	56
10	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.91	.06	.04	54
11	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.77	.21	.02	52
12	Female	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.82	.16	.02	44
13	Male	Under 17	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.90	.10	.00	41
14	Male	18-29	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.94	.03	.03	36
15	Male	30+	Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.97	.00	.03	31
16	Male	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.93	.03	.03	30
17	Female	Under 17	Never Married	Known	No	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.89	.04	.07	28


Tab	le A4 (co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
18	Male	18-29	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.82	.04	.14	28
19	Male	18-29	Never Married	Stranger	No	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.89	.04	.07	28
20	Female	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.80	.12	.08	25
21	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.84	.12	.04	25
22	Female	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	.92	.08	.00	24
23	Male	18-29	Never Married	Known	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	.82	.09	.09	22
24	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or	Yes	Yes	Phy <sup>2</sup>	.91	.09	.00	22
25	Male	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.85	.15	.00	20
26	Male	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	20
27	Female	Under 17	Never Married	Known	Yes	Yes	Yes	No	50 miles	Yes	No	Phy <sup>2</sup>	.84	.11	.05	19
28	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	.89	.05	.05	19
29	Male	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.95	.05	.00	19
30	Male	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.95	.00	.05	19
31	Female	30+	Married	Known	No	No	No	No	5 miles or	Yes	No	Phy <sup>2</sup>	.94	.00	.06	18
32	Female	30+	Married	Known	Yes	No	No	No	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	18
33	Male	Under 17	Never Married	Stranger	Yes	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.72	.17	.11	18



Tab	le A4 (co	ntinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
34	Male	30+	Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.94	.00	.06	18
35	Male	30+	Not Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.89	.11	.00	18
36	Female	Under 17	Never Married	Known	No	No	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.88	.06	.06	17
37	Male	Under 17	Never Married	Stranger	No	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.76	.12	.12	17
38	Male	30+	Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.88	.06	.06	17
39	Male	30+	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.94	.00	.06	17
40	Female	30+	Married	Known	No	No	No	No	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	16
41	Male	Under 17	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.94	.00	.06	16
42	Male	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.81	.13	.06	16
43	Male	30+	Married	Stranger	No	Yes	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	.75	.06	.19	16
44	Male	30+	Married	Stranger	Yes	Yes	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	.94	.06	.00	16
45	Female	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or	Yes	Yes	Phy <sup>2</sup>	.93	.07	.00	15
46	Female	18-29	Never Married	Stranger	Yes	No	No	Yes	5 miles or	Yes	Yes	Phy <sup>2</sup>	.73	.27	.00	15
47	Female	18-29	Never	Intimate	Yes	No	Yes	Yes	5 miles or	Yes	Yes	Phy <sup>2</sup>	.73	.27	.00	15
48	Male	Under	Never	Known	Yes	Yes	Yes	No	5 miles or	No	No	Phy <sup>2</sup>	.73	.27	.00	15
49	Male	30+	Married	Stranger	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	.93	.07	.00	15
50	Female	30+	Married	Known	Yes	No	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14



Tab	le A4 (co	ntinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
51	Female	30+	Not Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.86	.14	.00	14
52	Male	18-29	Never Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	14
53	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	No	Yes	Phy <sup>2</sup>	.79	.21	.00	14
54	Male	18-29	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
55	Male	30+	Married	Known	Yes	Yes	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
56	Male	30+	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
57	Female	Under 17	Never Married	Known	No	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.54	.15	.31	13
58	Female	30+	Married	Known	Yes	No	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	13
59	Female	30+	Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.77	.08	.15	13
60	Male	Under 17	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.85	.15	.00	13
61	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	Phy <sup>2</sup>	1.00	.00	.00	13
62	Male	18-29	Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.92	.08	.00	13
63	Male	18-29	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.92	.08	.00	13
64	Male	30+	Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	13
65	Male	30+	Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.85	.15	.00	13
66	Female	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.83	.17	.00	12
67	Female	30+	Married	Known	Yes	No	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	12



Tab	le A4 (co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
68	Male	Under	Never	Known	No	Yes	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	.67	.25	.08	12
69	Male	17 30+	Married	Stranger	No	Yes	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.92	.00	.08	12
70	Male	30+	Not Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	12
71	Male	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	12
72	Female	Under 17	Never Married	Known	Yes	No	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.73	.27	.00	11
73	Female	18-29	Never Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.82	.18	.00	11
74	Female	30+	Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11
75	Female	30+	Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.91	.09	.00	11
76	Male	Under 17	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.82	.18	.00	11
77	Male	18-29	Married	Stranger	Yes	Yes	No	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	11
78	Male	18-29	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	11
79	Male	30+	Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.73	.00	.27	11
80	Male	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11
81	Male	30+	Married	Known	Yes	Yes	No	Yes	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11
82	Male	30+	Not Married	Known	Yes	Yes	Yes	No	50 miles	Yes	No	Phy <sup>2</sup>	.91	.09	.00	11
83	Male	30+	Not	Known	Yes	Yes	Yes	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11
84	Female	18-29	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.70	.10	.20	10



Tab	le A4 (co	ntinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
85	Female	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.90	.10	.00	10
86	Female	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	10
87	Male	Under 17	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	10
88	Male	Under 17	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	10
89	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	.60	.40	.00	10
90	Male	18-29	Never	Stranger	Yes	Yes	Yes	No	5 miles or	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	10
91	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	.90	.00	.10	10
92	Male	30+	Married	Known	No	Yes	No	No	50 miles	Yes	No	Phy <sup>2</sup>	.90	.00	.10	10
93	Male	30+	Married	Known	Yes	Yes	No	No	5 miles or	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	10
94	Male	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	.90	.10	.00	10
95	Female	Under 17	Never Married	Known	No	Yes	Yes	No	50 miles	Yes	No	Phy <sup>2</sup>	.78	.00	.22	9
96	Female	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	9
97	Female	30+	Married	Stranger	No	No	Yes	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	.56	.00	.44	9
98	Female	30+	Married	Stranger	Yes	No	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	.89	.11	.00	9
99	Female	30+	Married	Known	No	Yes	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	.78	.11	.11	9
100	Female	30+	Married	Known	Yes	Yes	No	No	50 miles	Yes	No	Phy <sup>2</sup>	.89	.11	.00	9
101	Female	30+	Not Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.89	.11	.00	9



Tabl	le A4 (co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
102	Female	30+	Not	Intimate	Yes	No	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	9
103	Female	30+	married Never Married	Known	Yes	No	No	No	or less 50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	9
104	Male	Under 17	Never Married	Known	No	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.56	.44	.00	9
105	Male	18-29	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	9
106	Male	18-29	Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.89	.00	.11	9
107	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.78	.22	.00	9
108	Male	18-29	Never Married	Known	Yes	Yes	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.89	.11	.00	9
109	Male	30+	Married	Stranger	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	9
110	Male	30+	Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.89	.11	.00	9
111	Male	30+	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.67	.33	.00	9
112	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
113	Female	18-29	Not Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.88	.13	.00	8
114	Female	18-29	Never Married	Stranger	Yes	No	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.88	.13	.00	8
115	Female	18-29	Never Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.88	.13	.00	8
116	Female	30+	Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.75	.00	.25	8
117	Female	30+	Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.88	.13	.00	8
118	Female	30+	Married	Known	No	No	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.88	.00	.13	8



Tab	le A4 (co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
118	Female	30+	Married	Known	No	No	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.88	.00	.13	8
119	Female	30+	Married	Known	Yes	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
120	Female	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.63	.38	.00	8
121	Female	30+	Not Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
122	Female	30+	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
123	Male	Under 17	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.88	.13	.00	8
124	Male	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.75	.25	.00	8
125	Male	Under 17	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.75	.25	.00	8
126	Male	Under 17	Never Married	Known	Yes	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
127	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	Rob	.63	.38	.00	8
128	Male	18-29	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.63	.00	.38	8
129	Male	18-29	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	8
130	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.75	.00	.25	8
131	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Rob	.75	.00	.25	8
132	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles	No	No	Rob	.88	.00	.13	8
133	Male	30+	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.88	.13	.00	8
134	Male	30+	Married	Stranger	Yes	Yes	Yes	Yes	50 miles or more	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8



Tabl	le A4 (co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
135	Male	30+	Married	Known	No	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.88	.13	.00	8
136	Male	30+	Not Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.88	.13	.00	8
137	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	Rape	.29	.71	.00	7
138	Female	18-29	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.86	.14	.00	7
139	Female	18-29	Never Married	Known	Yes	Yes	Yes	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	7
140	Female	18-29	Never	Intimate	Yes	No	Yes	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	.86	.14	.00	7
141	Female	18-29	Never	Intimate	Yes	No	Yes	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	.86	.14	.00	7
142	Female	30+	Married	Stranger	No	No	No	Yes	5 miles or	Yes	No	Rob	.86	.00	.14	7
143	Female	30+	Married	Stranger	Yes	No	No	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
144	Female	30+	Married	Stranger	Yes	No	No	Yes	5 miles or	Yes	Yes	Phy <sup>2</sup>	.86	.14	.00	7
145	Female	30+	Married	Stranger	Yes	No	Yes	No	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
146	Female	30+	Married	Stranger	Yes	No	Yes	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
147	Female	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	.86	.14	.00	7
148	Female	30+	Married	Known	Yes	No	Yes	No	50 miles	Yes	No	Phy <sup>2</sup>	.86	.14	.00	7
149	Female	30+	Married	Known	Yes	Yes	No	No	5 miles or	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
150	Female	30+	Married	Known	Yes	Yes	Yes	No	50 miles	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	7
151	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	Rob	.57	.43	.00	7



Tab	e A4 (co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
152	Female	30+	Not Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.86	.14	.00	7
153	Male	Under 17	Never Married	Known	Yes	Yes	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
154	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	7
155	Male	18-29	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.57	.43	.00	7
156	Male	18-29	Never Married	Stranger	Yes	Yes	No	Yes	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
157	Male	18-29	Never	Stranger	Yes	Yes	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	.86	.14	.00	7
158	Male	18-29	Never	Known	No	Yes	No	Yes	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
159	Male	18-29	Never	Known	Yes	Yes	No	No	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
160	Male	18-29	Never Married	Known	Yes	Yes	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
161	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
162	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or	Yes	Yes	Phy <sup>2</sup>	.71	.14	.14	7
163	Male	30+	Married	Stranger	Yes	Yes	No	No	5 miles or	Yes	Yes	Phy <sup>2</sup>	.86	.14	.00	7
164	Male	30+	Married	Stranger	Yes	Yes	No	No	50 miles	Yes	Yes	Phy <sup>2</sup>	.86	.14	.00	7
165	Male	30+	Married	Known	Yes	Yes	Yes	No	50 miles	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	7
166	Male	30+	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or	Yes	Yes	Phy <sup>2</sup>	.86	.14	.00	7
167	Female	Under	Never	Known	No	Yes	Yes	Yes	50 miles	Yes	No	Phy <sup>2</sup>	.67	.00	.33	6
168	Female	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	No	No	Phy <sup>2</sup>	1.00	.00	.00	6



Tabl	le A4 (co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
169	Female	Under 17	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.17	.00	6
170	Female	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
171	Female	18-29	Married	Known	No	No	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
172	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.83	.17	.00	6
173	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.83	.17	.00	6
174	Female	18-29	Never Married	Known	Yes	No	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
175	Female	18-29	Never Married	Known	Yes	No	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.83	.17	.00	6
176	Female	18-29	Never Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
177	Female	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.67	.33	.00	6
178	Female	18-29	Never Married	Intimate	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
179	Female	30+	Married	Stranger	Yes	No	Yes	No	50 miles	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
180	Female	30+	Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
181	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
182	Female	30+	Not Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.17	.00	6
183	Female	30+	Not Married	Stranger	Yes	No	Yes	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
184	Female	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	.83	.00	.17	6
169	Female	Under 17	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.17	.00	6



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Tabl	le A4 (co	ntinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
170	Female	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
171	Female	18-29	Married	Known	No	No	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
172	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.83	.17	.00	6
173	Female	18-29	Never Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.83	.17	.00	6
174	Female	18-29	Never Married	Known	Yes	No	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
175	Female	18-29	Never Married	Known	Yes	No	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.83	.17	.00	6
176	Female	18-29	Never Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
177	Female	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.67	.33	.00	6
178	Female	18-29	Never Married	Intimate	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
179	Female	30+	Married	Stranger	Yes	No	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
180	Female	30+	Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
181	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
182	Female	30+	Not Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.17	.00	6
183	Female	30+	Not Married	Stranger	Yes	No	Yes	Yes	50 miles	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
184	Female	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.00	.17	6
185	Female	30+	Not	Stranger	Yes	Yes	Yes	Yes	5 miles or	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
186	Female	30+	Not Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6



Tab	le A4 (co	ontinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
187	Female	30+	Not Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
188	Female	30+	Not Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
189	Male	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.17	.00	6
190	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Rob	.67	.33	.00	6
191	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
192	Male	18-29	Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	Rob	.83	.00	.17	6
193	Male	18-29	Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.17	.00	6
194	Male	18-29	Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
195	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
196	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
197	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	No	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
198	Male	18-29	Never Married	Known	No	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.17	.00	6
199	Male	18-29	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.67	.33	.00	6
200	Male	18-29	Never Married	Known	Yes	Yes	Yes	No	5 miles or	Yes	No	Phy <sup>2</sup>	.83	.17	.00	6
201	Male	18-29	Never Married	Known	Yes	Yes	Yes	No	5 miles or	Yes	Yes	Phy <sup>2</sup>	.83	.17	.00	6
202	Male	18-29	Never	Known	Yes	Yes	Yes	No	50 miles	Yes	Yes	Phy <sup>2</sup>	.33	.67	.00	6
203	Male	30+	Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.83	.00	.17	6



Tabl	e A4 (co	ntinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
205	Male	30+	Married	Known	No	Yes	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
206	Male	30+	Married	Known	Yes	Yes	No	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
207	Male	30+	Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.83	.17	.00	6
208	Male	30+	Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
209	Male	30+	Not Married	Stranger	No	Yes	No	Yes	5 miles or less	No	Yes	Phy <sup>2</sup>	.83	.00	.17	6
210	Male	30+	Not Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
211	Male	30+	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.67	.00	.33	6
212	Male	30+	Never Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault



ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
8	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	57
26	Male	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	20
32	Female	30+	Married	Known	Yes	No	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	18
40	Female	30+	Married	Known	No	No	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	16
50	Female	30+	Married	Known	Yes	No	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
52	Male	18-29	Never Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	14
54	Male	18-29	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
55	Male	30+	Married	Known	Yes	Yes	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
56	Male	30+	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	14
58	Female	30+	Married	Known	Yes	No	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	13
61	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	Phy <sup>2</sup>	1.00	.00	.00	13
64	Male	30+	Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	13
67	Female	30+	Married	Known	Yes	No	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	12
70	Male	30+	Not Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	12
71	Male	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	12
74	Female	30+	Married	Known	Yes	No	Yes	Yes	5 miles or	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11



Tabl	le A5 (co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
77	Male	18-29	Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	11
78	Male	18-29	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	11
80	Male	30+	Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11
81	Male	30+	Married	Known	Yes	Yes	No	Yes	50 miles or less	Yes	No	Rob	1.00	.00	.00	11
83	Male	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	11
86	Female	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	10
87	Male	Under 17	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	10
88	Male	Under 17	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	10
90	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	No	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	10
93	Male	30+	Married	Known	Yes	Yes	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	10
96	Female	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	9
102	Female	30+	Not Married	Intimate	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	9
103	Female	30+	Never Married	Known	Yes	No	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	9
105	Male	18-29	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	9
109	Male	30+	Married	Stranger	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	9
112	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8



Tabl	e A5 (co	ntinued)	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
119	Female	30+	Married	Known	Yes	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
121	Female	30+	Not Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
122	Female	30+	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
126	Male	Under 17	Never Married	Known	Yes	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
129	Male	18-29	Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	8
134	Male	30+	Married	Stranger	Yes	Yes	Yes	Yes	50 miles or more	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	8
139	Female	18-29	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	7
143	Female	30+	Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
145	Female	30+	Married	Stranger	Yes	No	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
146	Female	30+	Married	Stranger	Yes	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
149	Female	30+	Married	Known	Yes	Yes	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
150	Female	30+	Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	7
153	Male	Under 17	Never Married	Known	Yes	Yes	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
154	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	7
156	Male	18-29	Never Married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
158	Male	18-29	Never Married	Known	No	Yes	No	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
159	Male	18-29	Never Married	Known	Yes	Yes	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7



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Tabl	le A5 (co	ntinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
160	Male	18-29	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
161	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	7
165	Male	30+	Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	7
168	Female	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	No	No	Phy <sup>2</sup>	1.00	.00	.00	6
170	Female	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
171	Female	18-29	Married	Known	No	No	No	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
174	Female	18-29	Never Married	Known	Yes	No	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
176	Female	18-29	Never Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
178	Female	18-29	Never Married	Intimate	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
179	Female	30+	Married	Stranger	Yes	No	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
180	Female	30+	Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
181	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
183	Female	30+	Not Married	Stranger	Yes	No	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
185	Female	30+	Not Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
186	Female	30+	Not Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
187	Female	30+	Not Married	Known	Yes	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
188	Female	30+	Not Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6



Tabl	e A5 (co	ntinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	Ν
191	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
194	Male	18-29	Married	Known	Yes	Yes	Yes	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
195	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
196	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
197	Male	18-29	Never Married	Stranger	Yes	Yes	Yes	Yes	50 miles or less	No	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
204	Male	30+	Married	Stranger	Yes	Yes	Yes	Yes	5 miles or less	No	No	Phy <sup>2</sup>	1.00	.00	.00	6
205	Male	30+	Married	Known	No	Yes	No	No	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
206	Male	30+	Married	Known	Yes	Yes	No	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
208	Female	30+	Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6
210	Female	30+	Not Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	1.00	.00	.00	6
212	Female	30+	Never married	Stranger	Yes	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	1.00	.00	.00	6

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault

Tab	le A6. Al	l Low P	revalence	(Unique)	Profiles	for Whit	e Victir	ns (n=33	)							
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
43	Male	30+	Married	Stranger	No	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.75	.06	.19	16
124	Male	Under 17	Never Married	Known	Yes	No	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.75	.25	.00	8
125	Male	Under 17	Never Married	Known	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.75	.25	.00	8
116	Female	30+	Married	Stranger	No	No	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.75	.00	.25	8
130	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.75	.00	.25	8
131	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Rob	.75	.00	.25	8
6	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.75	.15	.10	71
46	Female	18-29	Never Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.73	.27	.00	15
47	Female	18-29	Never Married	Intimate	Yes	No	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.73	.27	.00	15
48	Male	Under 17	Never Married	Known	Yes	Yes	Yes	No	5 miles or less	No	No	Phy <sup>2</sup>	.73	.27	.00	15
72	Female	Under 17	Never Married	Known	Yes	No	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.73	.27	.00	11
79	Male	30+	Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.73	.00	.27	11
33	Male	Under 17	Never Married	Stranger	Yes	Yes	Yes	No	5 miles or less	Yes	No	Phy <sup>2</sup>	.72	.17	.11	18
162	Male	30+	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.71	.14	.14	7
84	Female	18-29	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.70	.10	.20	10
68	Male	Under 17	Never Married	Known	No	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.67	.25	.08	12



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Tabl	le A6 (co	ontinued	)													
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
111	Male	30+	Never Married	Stranger	Yes	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.67	.33	.00	9
177	Female	18-29	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.67	.33	.00	6
190	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Rob	.67	.33	.00	6
199	Male	18-29	Never Married	Known	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.67	.33	.00	6
167	Female	Under 17	Never Married	Known	No	Yes	Yes	Yes	50 miles or less	Yes	No	Phy <sup>2</sup>	.67	.00	.33	6
211	Male	30+	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.67	.00	.33	6
120	Female	30+	Not Married	Known	Yes	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.63	.38	.00	8
127	Male	Under 17	Never Married	Known	Yes	Yes	Yes	Yes	5 miles or less	No	No	Rob	.63	.38	.00	8
128	Male	18-29	Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	Yes	Phy <sup>2</sup>	.63	.00	.38	8
89	Male	18-29	Never Married	Stranger	No	Yes	No	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.60	.40	.00	10
151	Female	30+	Not Married	Stranger	Yes	No	No	Yes	5 miles or less	Yes	Yes	Rob	.57	.43	.00	7
155	Male	18-29	Never Married	Stranger	No	Yes	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.57	.43	.00	7
104	Male	Under 17	Never Married	Known	No	Yes	Yes	No	50 miles or less	Yes	No	Phy <sup>2</sup>	.56	.44	.00	9
97	Female	30+	Married	Stranger	No	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.56	.00	.44	9
57	Female	Under 17	Never Married	Known	No	No	Yes	Yes	5 miles or less	Yes	No	Phy <sup>2</sup>	.54	.15	.31	13
202	Male	18-29	Never Married	Known	Yes	Yes	Yes	No	50 miles or less	Yes	Yes	Phy <sup>2</sup>	.33	.67	.00	6



Tabl	e A6 (co	ntinued)														
ID	Male	Age	Marital Status	Off Type	Same Race	Same Gender	Same Age	Public	Home	Comp <sup>1</sup>	Night	Violent Crime	White	Black	Other	N
137	Female	Under 17	Never Married	Known	Yes	No	Yes	Yes	5 miles or less	Yes	No	Rape	.29	.71	.00	7

Comp<sup>1</sup>=Completed; Phy<sup>2</sup>=Physical Assault

