SEXUAL VICTIMIZATION OF WOMEN AND GIRLS IN THE U.S.: AN ANALYSIS OF RISK AND TRENDS

by

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ABSTRACT

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by

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Despite more than four decades of scholarship that has established both feminist criminology as a critical perspective in the field and victimology as a necessary element of integrated theories of crime and victimization, there are still many inconsistencies in the literature about the nature and extent of sexual violence and victimization in the United States. The current study used Lifestyle Exposure Theory (LET) and Routine Activities Theory (RAT) as conceptual frameworks to investigate personal risk of sexual victimization and macro-level trends in sexual victimization of females. Data from the National Crime Victimization Survey (NCVS) was used for the analyses. Results indicate that personal risk of sexual victimization is strongly associated with demographic variables, such as age, marital status, and cohabitation status; risk factors for sexual victimization differ from risk factors for other violent crime victimizations; risk factors for sexual victimization vary by type of victimization and victim-offender relationship; and the situational contexts of sexual victimization differ from other violent crime victimization. Furthermore, results indicate that the decline in sexual victimization rates between 1992 and 2005 was part of an overall decline in violent victimization of women; however, the factors generally credited with the crime decline of the 1990s and 2000s, such as changes in policing and incarceration, are insufficient in explaining the decline in sexual victimization. Other cultural factors related to sexuality may be relevant in conceptualizing the "rape decline" in the United States. Directions for future research are discussed.

DEDICATION

To my children:

Raiyan, who inspires me to live my life with compassion

and use my time in this world with good purpose;

Raif, who fills my waking hours with laughter and joy

and reminds me to focus on what's most important;

&

Baby R, who gives me so much hope for the future...

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Chapter 1: Introduction

Despite more than four decades of scholarship that has established both feminist criminology as a critical perspective in the field (Goodstein, 1992) and victimology as an essential component of integrated theories of crime and victimization (Geis, 1998), contemporary studies of sexual victimization still seem to be underrepresented in mainstream criminology. Much of the scholarly work on sexual victimization has been relegated to specialty journals such as *Violence Against Women* and *Feminist Criminology (*Sharp, 2006) and, despite a fair number of descriptive studies, theoretical discussion of sexual violence and victimization has been limited, though a growing body of literature is beginning to emerge (Belknap, 1987; Cass, 2007; Daigle, Fisher, & Cullen, 2008; Farrell, Phillips, & Pease, 1995; Felson & Burchfield, 2004; Fisher, Daigle, & Cullen, 2010; Krebs, Lindquist, Warner, Fisher, & Martin, 2009; Mustaine & Tewksbury, 2002; Schwartz & Pitts, 1995).

A substantial amount of scholarly work on sexual victimization has also been published in the professional journals of related fields, such as psychology, public health, and social work, and by scholars from a number of other disciplines as well. Many of the major studies, however, were published in the 1980's and 1990's and are now more than ten years old (DeKeseredy & Kelly 1993; Gidycz & Koss, 1990; Kilpatrick, Edmunds, & Seymour 1992; Koss, Gidycz, & Wisniewski, 1987; Koss, Dinero, Siebel, & Cox, 1988; Koss & Dinero, 1989; Koss & Gidycz 1985; Koss & Oros 1982; Ullman, Karabatsos, & Koss, 1999). Many of these studies were conducted with relatively small college student samples and varied considerably in constructs for sexual victimization and methods for analysis making it difficult to generalize the findings to the population at large. Therefore, there are still many unanswered questions about the nature and extent of sexual victimization in the U.S.

Only a small number of recent studies have used empirical data analysis to disaggregate victimization patterns, identify risk factors for victimization, analyze trends in victimization, or propose empirically-based theories to support or contradict the predominant feminist view – that sexual victimization of women and girls is a widespread problem in the U.S. and rates of victimization are likely to be increasing (Elliott, Mok, & Briere, 2004; Kilpatrick, Saunders, Veronen, Best, & Von, 1987; Kilpatrick & Seymour, 1992; Koss & Dinero, 1989; Sorenson, Stein, Siegel, Golding, & Burnam, 1987; Tjaden & Thoennes, 1998). The feminist view, based primarily on a theoretical critique of patriarchy, asserts that entrenched power relationships within society directly or indirectly maintain high levels of oppression and victimization of women. The victimization of women is defined broadly to include overt acts of violence as well as more subtle forms of manipulation and coercion. Furthermore, feminist scholars claim that the inadequate attention given to sexual crimes, which disproportionately involve female victims, may be the by product of criminology's traditional male-centric approach to the study of crime and victimization (Sharp & Hefley, 2004).

The two national sources of crime data, the Uniform Crime Reports (UCR) and the National Crime Victimization Survey (NCVS), however, do not support the predominant feminist view and both indicate relatively low rates of sexual victimization in the U.S. and consistently declining rates in the last three decades. The "rarity" of sexual victimization as well as the very low rates of this type of victimization as compared to other crime types might explain, at least partially, the diminished interest in sexual victimization in mainstream criminology. Other violent crimes, such as robbery and aggravated assault, seem to be much more common and, therefore, seem to warrant more attention. Nevertheless, considering that scholars continue to disagree about some of the basic facts about the nature and extent of sexual

victimization in the U.S., there is certainly a need for continued study of sexual violence and victimization in criminology to address some of the unresolved issues and to add to the scholarly discourse both in the field and with scholars in related fields.

Given that the NCVS has collected detailed information about victims and the circumstances of their victimization experiences for many years, it is somewhat surprising that few recent criminological studies have used this extensive data source to investigate sexual victimization patterns in the U.S. Part of the reason may be that the NCVS has been critiqued by feminist scholars as an insufficient source for the study of sexual victimization due to a number of methodological concerns. Despite its shortcomings, however, the NCVS is the only national victimization survey that collects data on numerous types of sexual victimizations as well as the contexts of those victimization experiences. Therefore, it provides a rich and unique dataset for analysis. (See Chapter 3 for a detailed comparison of data sources on sexual victimization). A thorough review of victimization patterns from the NCVS is likely to offer significant insights into the nature and extent of sexual violence and victimization in the U.S.

This introductory chapter briefly describes continuing differences between feminist scholars and mainstream criminologists in their views of the nature and extent of sexual victimization in the U.S. and proposes two victimization theories – the Lifestyle-Exposure Theory (Hindelang, Gottfredson, and Garofalo; 1978) and the Routine Activities Theory (Cohen and Felson; 1979) as complementary frameworks to model risk of victimization and trends in victimization. This chapter also outlines the specific goals of the current study.

1.1 Feminist Scholarship on Sexual Victimization

The feminist movement emerged as a significant political force in the 1970s. Feminist scholarship and advocacy resulted in the emergence of new ideas that dramatically changed

women's expectations and experiences and challenged prevailing norms. Feminist scholars critiqued the mainstream social sciences for failure to adequately examine and consider gender issues. In Women, Crime, and Criminology, Carol Smart (1977) specifically critiqued criminology for its negligence of gender as a major factor in the study of crime and victimization. Smart pointed out that most criminological theories fail to take into account women's particular vulnerability, especially to violence within the home.

Feminists argued that the prevalence of violence against women in society reflected a patriarchal power structure that favored men's control of women. Feminist advocacy raised awareness about sexual crimes (Bachmann, 1993; Rozee & Koss, 2001) and challenged the general acceptance of male violence against women (Newburn, 2007). In Against Our Will: Men, Women, and Rape, Susan Brownmiller (1975) proposed the feminist theory of sexual violence – that sexual violence is fundamentally about male power and control of women in a patriarchal society. According to the feminist interpretation, rape is simply a tactic used by men to achieve and maintain dominance over women and it is "the ultimate expression of patriarchal order" and "the outer limit of the oppression of women" (Cahill, 2001, p. 2).

Feminist scholars vehemently opposed emerging victim-precipitation theories of victimization (von Hentig, 1948; Wolfgang, 1958; Amir, 1971) that seemed to blame victims for their own victimization experiences. Menachem Amir's application of victim precipitation to the crime of rape was particularly controversial in that Amir suggested that women who acted and dressed seductively might have attracted rape victimization through their behavior and activities; essentially, these women were "asking for it." Amir's hypothesis that these women's behaviors were symptomatic of psychological problems was also taken as highly offensive. Feminist scholars rejected the notion that female victims could have directly or indirectly participated in

their own victimization experiences. Rather, scholars suggested that there was a stable supply of motivated offenders in the population who were ready and willing to assault women and girls without provocation.

Feminist theory is vested in the notion that violence against women is a widespread and culturally sustained phenomenon and, therefore, rates and patterns of sexual victimization are unlikely to experience significant changes in relatively short time spans. In fact, numerous studies by feminist scholars claim that sexual victimization is a widespread problem and that up to *a quarter* of American women are at risk of experiencing some form of sexual victimization in their lifetimes (Elliott, Mok, & Briere, 2004; Hickman and Muehlenhard, 1997; Kilpatrick, Saunders, Veronen, Best, & Von, 1987; Kilpatrick & Seymour, 1992; Koss & Dinero, 1989; Sorenson, Stein, Siegel, Golding, & Burnam, 1987; Tjaden & Thoennes, 1998). Feminist scholars question the validity of national crime data on sexual crimes and often reject mainstream criminologist's assertions that sexual victimization rates are low or in decline. Buchwald, Fletcher, and Roth (1993), for example, report that "Rape is a pervasive fact of American life, and its incidence is *growing dramatically*" (p. 9, emphasis added).

1.2 Criminological Scholarship on Sexual Victimization

Mainstream criminologists assert that sexual violence is not significantly different from other forms of violence. The predominant view is that violence is violence regardless of the gender of the victim or the specific context or characteristics of the crime. Criminologists assert that there are some underlying commonalities in all violence, such as, perhaps, criminal opportunity and situational factors. Criminologists seek to develop broad theories that can explain criminal violence in varying contexts and circumstances. In Violence and Gender Reexamined, Richard Felson (2002), for example, warns against specialization in the study of

violence and asserts, “Attention to the broader study of violence might reveal that violence against women is like any violence and not an expression of sexism” (ix). From this perspective, all violence can be explained by the same underlying causal factors and violence against women is not particularly “special.” Specific characteristics of different types of violent crimes might vary, but the situational contexts and patterns of those crimes are expected to be similar.

The feminist perspective has been challenged on other grounds as well. Whereas feminist scholars believe that sexual crimes are the result of power structures in society, many criminologists and other scholars critique this well-established rationale (Felson & Krohn, 1990; Johnson & Sigler, 2000; Palmer, 1988). Critics argue that sexual needs or desires, rather than power and control, may, in fact, be a direct motivation for sexual violence. Based on this rationale, sexual gratification becomes a desired commodity which a perpetrator takes from the victim much like a perpetrator takes desirable goods in a property crime. The level of personal contact required for sexual violence makes such crimes more serious and violent than property crimes, but the rationale to explain sexual violence is similar to property crimes – a perpetrator takes something of value from a victim to meet his specific need or desire. If sexual violence is indeed based on temptation for a desired “good” then the context of the crime may be a critical component to the victimization experience. In other words, if sexual violence is largely situational, protective measures may be especially effective in limiting victimization.

Furthermore, mainstream criminologists discount claims by feminist scholars that sexual violence is a widespread problem and refer to the two primary sources of national data on crime and victimization in the U.S., the UCR and the NCVS, which both indicate that sexual victimization rates in the U.S. are fairly low and have been in decline for years. Many criminologists assume the “rape decline” to be an empirical fact, meaning that most women are

not at risk of sexual victimization. In fact, criminologists have been quick to assume that the declining rates of sexual victimization, as suggested by the UCR and the NCVS, are perfectly reasonable considering the overall decline in crime rates during the same time period. Furthermore, criminologists assert that if crime rates fell consistently across different crime types at the same time; such a trend would support the notion that the same underlying factors affect crime across the board and sexual violence is not particularly unique.

1.3 Bridging the Gap between Feminist and Mainstream Criminology

Feminists argue that mainstream criminologists fail to understand sexual crimes because they fail to draw a distinction between sexual crimes and other crimes. Psychologist Mary P. Koss, for example, argues that the current criminological approach has resulted in a "nonsensical analysis of trends in rape" because criminologists, in general, refuse to recognize that rape has different causal factors than other crimes (2003, p. 69). Koss asserts that "there is no reason to expect that levels of rape would change over short intervals, given the tenacity of the fundamental gender constructs that drive it" (p. 70). Furthermore, she has vehemently challenged the field's diminished interest in the study of sexual violence. Koss asserts that the effect of grouping all forms of violence, or even all forms of violence against women, together makes rape (and, implicitly, other forms of sexual victimization) "become invisible." (p. 69). Koss and other feminist scholars urge criminologists to formulate new studies that specifically consider the unique correlates of rape and other forms of sexual violence.

One of the main reasons for inconsistencies between feminist views and criminological views may be the inconsistent definitions used for rape and other sexual crimes (Johnson & Sigler, 2000). Definitions could be either too constricted or too broad. While criminologists tend to limit definitions of sexual crimes to those that include overt acts of coercion, force, or

violence, feminists have defined sexual crimes much more broadly. Discrepancies in definitions could explain the vast differences in estimates of sexual victimization rates in the U.S. and suggest that feminists and criminologists may be comparing apples to oranges. Therefore, new studies must carefully consider definitions and measures of sexual victimization to ensure that findings and subsequent comparisons are accurately discussed.

Some critics assert that feminist definitions of sexual violence are too broad and encompass too many situational factors that do not clearly constitute coercion or force (Chasteen, 2001) and such broad definitions have led to misleading and inflated statistics on sexual violence (Gilbert 1991, 1998; Schwartz & Leggett, 1999). Critics have also argued that inflated statistics have created moral panic about sexual victimization (Best, 1997; Chasteen, 2001; Reitan, 2001). In fact, of all crime types, rape has become the most feared by women (Ferraro, 1996; Fisher & Sloan, 2003; Hickman and Muehlenhard, 1997). If such fears are linked to women's routine daily activities, then determining the "truth" about whether such fears are rational could have implications for women's lifestyle choices.

In Feminism and Criminology, Ngaire Naffine (1997) argues there is a gap between feminism and mainstream criminology that prevents adequate integration of feminist thought into criminology. Criminologists may be too quick to dismiss feminist theories and research of sexual violence as too political and feminists may be too quick to dismiss criminological theories and research as too traditional. As such, major ideological differences may have resulted in polarization and stagnation in the discourse on sexual violence and victimization. There is a need to bridge this gap towards more holistic explanations of sexual violence and victimization that integrate feminist ideas with criminological ideas to offer more precise explanations of rape and sexual assault. Detailed analysis comparing sexual violence with other forms of violence

against women and disaggregation of data on sexual violence by different types of sexual victimization could offer important insights that might help bridge this gap and foster an environment of collaboration in research and critical discourse.

1.4 Victimization Theories

Wolfgang (1958) and Amir (1971) introduced early victim precipitation studies that proposed that the interaction between offenders and potential victims could predict, at least partially, criminal victimization. These studies suggested that indirect victim participation, such as reckless or risky behavior, interaction with potential offenders on a regular basis, failure to use protective measures to safeguard oneself or one's property, failure to exercise good judgment, and more, could precipitate victimization. Amir's replication of Wolfgang's study on homicide victimization was particularly controversial. Amir applied victim precipitation to the crime of rape and his research concluded that female victims' behavioral choices, such as choice of dress, language, and body language often triggered potential offenders and contributed to subsequent rape victimizations. Amir's work was strongly criticized for its victim-blaming rhetoric and his conclusions were considered highly offensive by feminist scholar and victim-advocates. Subsequent backlash against his work resulted in stagnation in the study of victimology, and especially in the study of sexual victimization. Nevertheless, victim precipitation studies laid the foundation for later theories that included victims' behavior in models of criminal victimization such as Lifestyle-Exposure Theory and Routine Activities Theory.

1.4.1. Lifestyle-Exposure Theory (LET). Hindelang, Gottfredson, and Garofalo (1978) propose that differences in the likelihood of victimization are correlated with differences in the personal lifestyles of potential victims. Lifestyles are defined broadly as routine daily activities that are socially determined by role expectations and structural constraints. Status

characteristics, such as age, gender, marital status, cohabitation status, race, ethnicity, and income may be important correlates of crime and victimization because these characteristics carry with them expectations of behavior as well as structural constraints on behavioral choices (Meier and Miethe, 1993). For example, never married women without children are likely to have very different lifestyles from married women with children because their status characteristics carry with them widely different expectations and constraints. Never married women may have expectations of occasional casual sexual encounters, courtship, and long-term romantic relationships whereas married women with children may have expectations of spending quality time with their families and taking their children to extracurricular activities, and, they may also face constraints related to finding reliable childcare for the occasional evening out.

Lifestyle Exposure Theory suggests that differences in status characteristics affect target suitability and guardianship of potential victims. More simply, demographic characteristics affect both the attractiveness of a particular target as well as the protective measures available to that particular target. Differences in lifestyles are, therefore, associated with differences in exposure to situations that are potentially high-risk for victimization. Essentially, the daily activities of some women and girls may naturally expose them to higher risk of sexual victimization than women and girls with "less risky" lifestyles. In fact, according to Hindelang, Gottfredson, and Garofalo (1978), most of the demographic differences in risk of victimization should be accounted for in differences in lifestyles. It is important to note, however, that this notion of more or less risky lifestyles is not intended to assign blame on victims for their victimization experiences; rather, the theory can be used to identify risk factors that are more likely to be associated with particular demographic characteristics.

1.4.2. Routine Activities Theory (RAT). Cohen and Felson (1979) proposed that changes in routine activity patterns can influence crime rates by affecting the convergence in time and space of three elements of direct-contact predatory crimes: motivated offenders, suitable targets, and the absence of capable guardians. The basic premise underlying routine activities theory is that various social changes in conventional society can increase (or decrease) criminal opportunities. Cohen and Felson suggest that crime rate fluctuations might happen without any change in the number or proportion of motivated offenders as long as there has been a fluctuation in the supply of attractive and unguarded targets for victimization. Similarly, increased use of evasive or protective measure to prevent victimization might also restrict opportunities for crime. A routine activities approach predicts the highest risk of victimization when potential victims have high target suitability (high visibility, accessibility, and attractiveness) and low levels of guardianship. Even if the supply of motivated offenders remains stable over time, changes in the visibility, accessibility, and attractiveness of potential targets as well as changes in the evasive or protective measures used by potential targets could drastically alter victimization patterns. Application of routine activities theory to sexual victimization trends could explain the stability of motivated offenders in society, as proposed by feminist scholars, and, simultaneously, explain a decline in sexual victimization rates as proposed by mainstream criminologists.

1.5 Victimization Theories and Sexual Victimization

Both lifestyle-exposure theory and routine activities theory explain and predict victimization of particular high-risk populations due to their lifestyles and routine activities that expose them to high-risk situations and potential offenders. On the micro-level, women's personal victimization risk may be a function of their lifestyle choices or constraints. For

example, victimization risk may be higher for young, unmarried women who are more likely to be "out and about," regularly participating in routine dating and courtship activities or for low-income single women living in distressed, densely-populated, high-crime neighborhoods. These groups of women may have increased exposure to motivated offenders, be perceived as suitable targets for victimization, and may also be less capable of guarding themselves from sexual assaults. Meanwhile, victimization risk may be lower for married or cohabitating women, and those with children, who are likely to spend more of their leisure time with their spouses, boyfriends, or children.

It is also important to consider that lifestyles or routine activities factors might impact different groups in different ways. Meier and Miethe (1993) write that "the failure to examine whether variables have different effects across different contexts is a type of model misspecification that may dramatically alter substantive conclusions about the predictive validity of current theories" (p. 489). They suggest that women of different age groups and marital statuses may be vulnerable to different types of victimization based on their different lifestyles and constraints. For example, married and cohabitating women may have decreased exposure to risky situations that would make them less vulnerable for stranger or acquaintance assaults. These women may, however, be at higher risk for intimate partner victimizations.

On the macro-level, routine activities theory may be able to help reconcile the conflicting views between feminist scholars and mainstream criminologists about the nature and extent of sexual victimization in the U.S. According to the theory, changes in target suitability and guardianship might be able to affect crime rates even if the supply of motivated offenders remains constant (Cohen and Felson, 1979). Therefore, feminists may be correct in asserting that there is a relatively constant supply of motivated offenders in the population and mainstream

criminologists may also be correct in asserting that there has been a steady decline in the rate of sexual victimization in the U.S. Some of the changes in the availability of suitable targets may be related to changes in age demographics which may have reduced the number of potential victims relative to potential offenders in the population. Similarly, the gradual liberalization of sexuality in the U.S. might have resulted in greater access to mutually willing sexual experiences reducing the attractiveness of resorting to coercion or force with unwilling victims. Also, increased awareness about sexual crimes may have resulted in greater use of protective measures by potential victims to prevent victimization. For example, the emergence and utilization of CCTV, streetlights, and police patrolling practices as well as women's personal use of phones, texting, and cameras may have resulted in fewer opportunities for victimization.

1.6 Goals of Current Research

The current study uses data from the NCVS to disaggregate patterns in sexual victimization, evaluate potential risk-factors for sexual victimization, and analyze trends in sexual victimization using Lifestyle Exposure Theory (Hindelang, Gottfredson, & Garofalo; 1978) and Routine Activities Theory (Cohen & Felson; 1979) as complementary conceptual frameworks. The study seeks to shed light on some of the discrepancies between feminist scholars and mainstream criminologists about the nature and extent of sexual victimization in the United States.

Specifically, the study considers whether lifestyles and routine activities are associated with personal risk of sexual victimization; whether risk of sexual victimization varies by type of victimization or victim-offender relationship; whether sexual victimization is significantly different from other types of violent victimization; whether event characteristics of sexual victimization differ from other violent victimization; whether the "rape decline" is consistent

with the crime decline of the 1990's and can be explained by the same causal factors; and whether a cultural change with respect to sexuality in the U.S. might have contributed to a decline in sexual victimization in the U.S.

Chapter 2 will provide a brief review of the relevant literature on risk factors for sexual victimization and trends in sexual victimization; Chapter 3 will outline the current study's hypotheses, research design, and methods; Chapter 4 will provide detailed descriptive analysis of data on sexual victimization and discuss findings related to personal risk of victimization and victimization trends; and, Chapter 5 will summarize the conclusions of the study and propose directions for future research.

Chapter 2: Review of the Relevant Literature

2.1 Personal Victimization Risk

A growing body of literature on risk factors for sexual victimization is beginning to emerge in criminology (Belknap, 1987; Cass, 2007; Daigle, Fisher, & Cullen, 2008; Farrell, Phillips, & Pease, 1995; Felson & Burchfield, 2004; Fisher, Daigle, & Cullen, 2010; Krebs, Lindquist, Warner, Fisher, & Martin, 2009; Mustaine & Tewksbury, 2002; Schwartz & Pitts, 1995) and numerous studies have been published in related fields such as psychology, public health, and social work that have explored personal victimization risk, especially among college student samples (DeKeseredy & Kelly 1993; Gidycz & Koss, 1990; Humphrey & White, 2000; Kilpatrick, Edmunds, & Seymour 1992; Koss, Gidycz, & Wisniewski, 1987; Koss, Dinero, Siebel, & Cox, 1988; Koss & Dinero, 1989; Koss & Gidycz 1985; Koss & Oros 1982; Krebs, Lindquist, Warner, Fisher, & Martin, 2009; Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004; Schwartz & Pitts 1995; Ullman, Karabatsos, & Koss, 1999).

Previous research on sexual victimization vary substantially in the selection of samples, sample sizes, research questions, constructs for sexual victimization, predictor variables, and statistical methods. Most studies have focused exclusively on rape victimization or a composite construct of sexual assault victimization. Few studies have included measures of sexual victimization by levels of offense severity or victim-offender relationships and previous research has indicated a need for this type of specification in future studies. Nevertheless, taken together, previous research on sexual victimization has investigated numerous predictors of sexual victimization. These studies provide a strong foundation for future research. In general, research on the predictors of sexual victimization can be divided into two categories: victim characteristics and event characteristics.

2.1.1 Victim Characteristics

2.1.1.1 Age. Numerous studies indicate an inverse relationship between age and victimization risk; adolescents and young adults are at higher risk of sexual victimization than middle-age and elder women (Himelein & Vogel, 1994; Rennison, 2002). In fact, studies have found that vulnerability to sexual assault is highest for women between the ages of 16 and 24 (Russell, 1984; Skogan, 1976; Warshaw, 1988). One explanation is that younger women are likely to be less inhibited and more likely to engage in risk-taking behaviors that make them suitable targets for potential offenders (Kennedy & Forde, 1990; Lynch, 1987). For example, young women are likely to have a higher number of recent sexual partners (Laumann, Gagnon, Michael, & Michaels, 1994) and women with more consensual sexual partners are at higher risk of experiencing forced or coerced sex (Abbey, Ross, McDuffie, & McAuslan, 1996; Cunningham, Stiffman, Dore, & Earls, 1994; Merrill et al. 1999). Younger women may also have unique vulnerabilities such as sexual inexperience, shorter relationships, more numerous and frequent courtship activities, etc. Younger women, who are more likely to be out socializing with unfamiliar males, are also more vulnerable to victimization by acquaintances (Tjaden & Thomennes, 2000).

2.1.1.2 Marital Status. Marital status has also been found to be a strong predictor of sexual assault. Research indicates that married women are at lowest risk for rape (Belknap, 1987). Married women may have an added level of guardianship from assaults in that they are likely to spend more of their leisure time with their spouses. Meanwhile, single women are likely to engage in routine dating and courtship activities that place them more frequently in the proximity of motivated offenders. Furthermore, Harney and Muehlenhard (1991) found that single women are more likely to be engaging in “casual sex,” and, therefore, may be exposed to a

larger number of possible perpetrators as a result of their lifestyles. Similarly, research has found that higher numbers of dating partners and consensual sexual partners was correlated with higher risk for sexual victimization (Mandoki and Burkhart, 1989; Gidycz et al., 1995; Koss & Dinero, 1989; White & Smith, 2001). Single women may also be more vulnerable because their routine daily activities and leisure activities are more likely to be carried out alone. Other research has found that persons who are single are also more likely to experience a repeat victimization as well (Tseloni, 2000).

2.1.1.3 Cohabitation. Some research indicates that cohabitation with other adults is negatively associated with personal victimizations (Mukherjee & Carcach, 1998). Women who live with a boyfriend, roommate, or some other person are more likely to participate in leisure activities with cohabitants and, as a result, are likely to have an added level of guardianship from some types of assaults. Cohabitation, however, could facilitate intimate partner victimizations because perpetrators might enjoy consistent access to their victims. Living alone, on the other hand, has been found to increase vulnerability to sexual victimization in general (Fisher, Daigle, & Cullen, 2010). Overall, few studies have considered cohabitation separately from marriage and more research on cohabitation as a predictor of victimization is needed.

2.1.1.4 Children in the Household. Although presence of children in the household has been found to increase risk of violence against women in general (Lauritson & Schaum, 2004), no studies have explored the relationship between children in the household and sexual victimization specifically. Single women with children may find that their responsibilities in caretaking activities limit their active involvement in dating and courtship activities. If women have children in the household, they have to consider finding a babysitter, coming home at a certain time, and the implications of a new dating relationship on their children. Therefore, the

presence of children in the household, may, in fact, be a protective factor for sexual victimization.

2.1.1.5 Household Income. Socioeconomic differences have been found to be associated with differences in risk of crime victimization, as well as sexual victimization, with poorer women at higher risk of rape (Harlow, 1991; Belknap, 1987). Poorer women may be exposed to potential offenders more frequently due to their work schedules, greater use of public transportation, and neighborhood factors. Some research indicates that poorer women may be at higher risk of stranger rape specifically (Russell, 1984).

2.1.1.6 Race & Ethnicity. Recent research on violent victimization of women suggests differences among women of different races and ethnicities with Black women victimized at higher rates than Latina women and white women (Lauritsen & Rennison, 2006). The role of race and ethnicity as a risk factor for sexual assault, however, is not clear. Due to the small number of minorities included in most studies of sexual assault, the role of race and ethnicity has been difficult to measure. The limited research does indicate, however, that there may be differences. Some research indicates white women are at higher risk of sexual victimization than Black or Latina women (Koss et al 1987). Other research indicates that white women may be more likely to be assaulted in alcohol or drug related incidents whereas non-Whites may be more likely to be involved in attacks with physical force (Mohler-Kuo et al 2004; Gross, Winslett, Roberts, & Grohn, 2006; (Ullman, Filipas, Townsend, & Staezynski, 2006). On the other hand, structural factors might explain greater victimization risk for non-White women. Blacks and Latinas are more likely to live in poorer neighborhoods with fewer social and economic opportunities and higher levels of disorder and crime (Peterson, Krivo, & Browning. 2006;

Skogan, 1990; Massey & Denton, 1993). Therefore, race, ethnicity, and household income may be interrelated as predictors of victimization risk.

2.1.1.7 Social Disorganization Factors. In victimization research, social disorganization theory (Shaw and McKay, 1942) is often used to conceptualize and predict risk of criminal victimization. Urban, densely populated, transient communities with high levels of disorder and crime are considered particularly high-risk for crime and victimization whereas suburban, stable areas are considered comparatively safe. Few studies have considered whether social disorganization factors might predict sexual victimization specifically. In considering the issue of residential density, Belknap (1987) found that greater number of housing units within a living structure was associated with higher risk of rape victimization. Few other studies have explored social disorganization measures as predictors of victimization risk.

2.1.2 Event Characteristics

2.1.2.1 Time of Day. Research indicates that the sexual assaults are more likely to occur at night. Belknap (1987) found that rapes were most likely to take place at night. Considering that most dating and courtship activities, as well as other leisure activities, are likely to take place in the evening hours, sexual victimization is expected to be more common at night.

2.1.2.2 Location. Lifestyles and routine activities theories traditionally consider the home to be a safe space; however, for sexual victimization, the home may be less safe. Belkap (1987) found that a large percentage of rapes occurred in or just outside the home of the victim. Sexual assaults often require privacy and, furthermore, sexual assaults are often perpetrated by known individuals. Both of these factors indicate higher risk of victimization at or near home or in the home of family members, friends, or acquaintances.

2.1.2.3 Weapons. Greenfeld (1997) found that weapons were much less frequently used in sexual assaults than other violent crimes. Research suggests that most sexual assaults are likely *not* premeditated violent episodes but the result of opportunity or situational factors that result in violent and aggressive behavior. In the context of routine socialization activities, some sexual experiences may be coercive or violent; however, the use of weapons is limited because these situations are often unplanned spontaneous assaults.

2.1.2.4 Number and Gender of Perpetrator(s). Greenfeld (1997) found that the vast majority of rapes and sexual assaults are perpetrated by single, male offenders.

2.1.2.5 Substance Use. Numerous studies have explored the relationship between substance use and sexual victimization. Felson (1997) asserts that substance abuse is a routine activity that creates opportunities for violence. Several researchers have proposed that alcohol increases vulnerability to dangerous situation (Kilpatric, Acierno, Resnick, Saunders, & Best 1997; Parks & Miller, 1997) and drug-use has also been associated with an increased risk of rape (Mohler-Kuo et al, 2004) and some forms of sexual assault (Krebs et al 2009).

Most research of substance use and sexual victimization has focused on the role of alcohol on victimization of college women. Research has found that alcohol consumption can lower inhibitions, impair judgment, trigger more provocative and risk-taking behavior, and reduce the likelihood of taking appropriate guardianship measures (McClelland & Teplin, 2001; Parent & Newman, 1999; Testa & Parks, 1996). Alcohol may be associated with victimization due to both opportunity and situational factors. Regular alcohol consumption may result in regular contact with other drinkers and potential motivated offenders. Fisher et al (2000) and Schwartz et al (2001) found that women who drink heavily and often are at higher risk of being assaulted. They are more likely to go out at night and go to bars that could increase

opportunities for victimization (Felson, 1998; Lasley, 1989; Mustaine & Tewksbury, 1998). Situational factors might also play a role. Drinking may act as a trigger that motivates offenders (Felson & Burchfield, 2004). In fact, men may target women who are or have been drinking because such women are considered more sexually available or more suitable targets (George, Gournic, & McAfee, 1988).

Alcohol, however, has not been a consistent predictor of victimization risk. While some studies have found support, (Combs-Lane & Smith, 2002; Greene & Navarro, 1998), others have not (Gidycz et al, 1995). Perhaps the mixed results indicate that substance use increases the risk of certain types of sexual victimization, but not others. Alcohol is likely to be more common when the perpetrator is less known to the victim (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004; Ullman, 2003). Heavy episodic drinking typically occurs outside the home and with others who are also drinking, such as in a bar, and suggests a lifestyle that puts women more at risk of victimization by men that are less known to the victim.

2.1.3 Specification of Sexual Victimization

2.1.3.1 Offense Type. Sexual violence is often considered a unitary construct when it is, in fact, a heterogeneous phenomenon that includes a range of experiences from threats of sexual assault to violent stranger rape. Studies of sexual victimization have generally limited their focus to rape (Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997) or used a range of sexual assault experiences as their outcome measure (e.g., Koss, Gidycz, & Wisniewski, 1987). Sexual assault is increasingly being classified by the means by which a perpetrator achieved sexual access, for example whether the perpetrator used physical force or verbal coercion. Research is only beginning to examine whether there are differences in risk factors for different types of sexual assaults (Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004; Testa & Dermen, 1999; Testa,

Livingston, Vanzile-Tamsen, & Frone, 2003; Franklin, 2010; Messman-Moore, Ward, & Brown, 2009). This is a major oversight given the substantial qualitative differences between sexual assaults involving force and those involving pressure or coercion. Prediction of victimization may be improved by considering different types of victimizations separately (Testa & Dermen, 1999; Krebs, Lindquist, Warner, Fisher, & Martin, 2009).

2.1.3.2 Victim-Offender Relationship. Crime statistics indicate that the vast majority of rapes and sexual assaults are perpetrated by persons known to the victims. Greenfeld (1997) found that only about one-fourth of sexual assault victims reported being victimized by a stranger. Testa, VanZile-Tamsen, and Livingston (2007) found that there are different risk factors for sexual victimization based on victim-offender relationship. For example, some research indicates that coercion is more likely to be used with intimate partners than acquaintances or strangers (Abbey, Ross, McDuffie, and McAuslen, 1996; Livingston, Buddie, Testa, and VanZile-Tamsen, 2004) because offenders already have sexual access to victims and rely on coercion tactics to sustain that access. Meanwhile physical force, including weapon usage, is more likely to be associated with stranger assaults compared to acquaintance (Koss, Dinero, Seibel, & Cox, 1987) because strangers will have to use force to get sexual access to victims; however, whenever possible, offenders would rather *not* use physical force if other options are available. Alcohol will likely be associated with acquaintance assaults more than intimate assaults because alcohol will often be used as a tool in order to weaken inhibitions and gain sexual access to victims.

2.2 Macro-Level Victimization Trends

Most criminologists now agree that the U.S. experienced an unprecedented crime decline in the 1990's and early 2000's; however, there is still little consensus as to what factors were

responsible for this unexpected change in crime rates, though most scholars agree that multiple factors contributed to it (Blumstein and Wallman, 2006). In The Great American Crime Decline, Frank Zimring writes that "The great American crime decline was a surprise when it began and a mystery to this day…. Fifteen years after the crime decline began, there is little consensus among experts about what changes in circumstances produced the crime decline or what is likely to happen next" (2007, v). Zimring further laments the "absence of good predictive tools for crime forecasting" and suggests the need for more professional interest in developing tools for predicting future crime rates (23). Considering that the research that has been done on the crime decline to date has often excluded rape and other sexual crimes from consideration, there is particular need for further study of trends in sexual violence and victimization.

2.2.1 Correlates of the Crime Decline. In recent years, a number of scholars have attempted to make sense of the crime decline and have assessed the relative impact of competing explanations. One of the striking aspects of the crime decline is that the rates of virtually every serious crime type dropped over a sustained period of time. As a result, criminologists implicitly assumed that the causal mechanisms responsible for the decline in, say, homicide, would be applicable to other crimes, such as rape, as well. Most of the research on the crime decline focused either exclusively on homicide, as the most serious violent crime, or focused on a combination of crime types; however, few studies devoted much attention to sexual crimes exclusively. In fact, acknowledging the low rates of rape overall, many scholars excluded rape completely from discussion of the crime decline.

Research on the crime decline has suggested that a combination of a number of factors might have produced "a perfect storm" that resulted in a significant reduction in crime rates across the United States. Some of the most common potential correlates of the crime decline

include changes in the demographics of the U.S.; changes in policing manpower, policies, and practices; changes in incarceration rates; and changes in social and economic factors (Blumstein and Wallman, 2006; Conklin, 2003; Karmen, 2006; Levitt, 2004; Zimring, 2007). A brief summary of research on these potential correlates of the crime decline follows.

2.2.1.1 Demographics. Changes in the demographic composition of a population might influence crime rates if particular subsets of the population are consistently at higher (or lower) risk of involvement in crime. For example, males are much more likely than females to participate in criminal behavior and, therefore, changes in the gender composition of the population could have implications for crime rates. Since gender composition in the U.S. has been relatively stable, it is unlikely to be a plausible explanation for the decline in sexual victimization rates. In fact, changes in demographic composition alone are unlikely to have significant effects due to the fact that population changes tend to be gradual. Nevertheless, in combination with other factors, changes in demographic composition may have significant effects on crime. For example, based on the well-established age-crime curve, criminologists expect rates of involvement in crime to decrease as offenders age. On the macro-level, as the population ages overall, one would expect lower rates of crime. Zimring (2007) found that between 1990 and 2000 the percentage of the population in the high-risk age group of 15 to 29 dropped from 23.5% to 20.8% and concluded that the smaller share of the population in the high-risk age group may have pushed the crime rate down. Due to changes in immigration policies and differences in birth and death rates of different ethnic groups, changes in ethnic composition might also have a considerable effect on aggregate crime rates. Some research has estimated that the effects of demographic composition may account for up to 6% of the crime decline (Levitt, 2004). One of the shortcomings of the demographic approach, however, is the assumption of

stability in criminal propensity within demographic groups. Nevertheless, although criminal propensity may not be stable across demographic groups over long periods of time, it is likely to remain relatively stable over short time spans.

2.2.1.2 Policing. Changes in policing may have influenced the crime decline in two ways, by changes in the level of police manpower on the streets and by changes in policing strategies and management. There is, however, no clear theory on how these mechanisms translated into declines in all serious crime types across the country. Even with federal support for 100,000 new police officers on the street, most individual jurisdictions did not experience massive changes in police manpower. Furthermore, the specific mechanism by which the presence of a few extra police officers would result in declining crime rates is unclear. The most optimistic research has estimated the effects of policing manpower to be no more than 6% of the crime decline (Levitt, 2004; Zimring, 2007). The second possible explanation is that strategic and tactical changes in street policing and changes in the management and administration of policing through computer-supported statistical monitoring influenced crime rates. Considering that policing is decentralized and varies considerably from one jurisdiction to another, this explanation is also unlikely to make significant contributions to the crime decline overall. Zimring writes, "So there is no clear evidence of substantial substantive change at the national level in strategies of street policing that would justify linking police strategy to national-level crime declines" (2007, 80).

2.2.1.3 Incarceration. Incarceration may influence crime rates in two ways, either through incapacitation or through general deterrence. The effects of either mechanism are difficult to measure; however, in general, criminologists are more likely to consider incapacitation a stronger correlate of the crime decline than deterrence (Conklin 2003; Zimring,

2007), though the extent of the effect is disputed. Incarceration rates have been increasing consistently since 1972; however, crime rates have experienced many cyclical fluctuations between 1972 and 1991. Therefore, it is unclear to what extent incarceration influenced the crime decline since there were many time periods in which incarceration rates increased and crime rates also increased simultaneously. Nevertheless, scholars have estimated that incarceration rates may account for roughly 10% to 27% of the crime decline of the 1990's and early 2000's, though stronger models and more precise measurements are unlikely to be available soon (Donahue and Siegelman, 1998; Levitt, 2004; Spelman, 2000; Zimring 2007).

2.2.1.4 Social and Economic Factors. The U.S. economy experienced sustained economic growth throughout the 1990's and early 2000's with increasing GDP and decreasing rates of unemployment. There seems to be consensus in the social sciences that economic prosperity, translated into legitimate opportunities for education and employment, may result in lower crime rates. Estimates of the impact of the economic factors on the crime decline range from 6% to 40% (Levitt, 2004; Raphael & Winter-Ebmer, 2001; Zimring, 2007). The relationship between social and economic factors with respect to sexual violence is less obvious and has not been discussed in the literature.

2.2.2 The Culture of Sex. The leading explanations for the crime decline seem somewhat inadequate when contemplating the very sharp decline in sexual violence suggested in the national statistics. While these general factors may have played a role, other specific factors associated with the changing nature of sexuality in the U.S. may also offer important insights. Significant social and cultural changes with respect to sexuality are likely to have influenced reported rates of victimization. Specifically, the liberalization of sex and the emergence of a "hook-up culture" have resulted in sexual situations that are not easily defined as either

consensual or coercive. For example, Franklin (2010) describes a college culture that accepts alcohol induced unwanted sex and does not consider it assault. Cultural changes with regards to attitudes about dating and casual sex are likely to have shifted expectations of what is and is not appropriate courtship behavior (Gavey, 2005). As women have become more carefree about sex, they have also become more likely to consider unwanted sexual advances or "borderline" coercive behaviors as, let's say, a "bad date" rather than a victimization experience. Nevertheless, many of these newly "acceptable" experiences do involve physical and emotional exploitation of women, though not in the traditional sense. Therefore, the decline in sexual victimization over time is likely to represent a combination of social and cultural changes as well as a potential "real decline" in aggressive sexual violence.

Chapter 3: Research Design and Methods

3.1 Hypotheses

The current study was directed by two main research questions: (1) What factors are associated with higher personal risk of sexual victimization? (2) What factors are associated with lower aggregate rates of sexual victimization? The following five hypotheses were proposed for the current study:

H1: Personal risk of sexual victimization will vary by demographic factors. Specifically, younger, unmarried women who are living alone will be at higher risk of victimization.

H2: Risk factors for sexual victimization will vary for different types of sexual victimization, different victim-offender relationships, and different age groups. Specifically, demographic factors will be best at predicting more serious victimizations and acquaintance assaults and worst at predicting adolescent victimization.

H3: Risk factors for sexual victimization will vary from risk factors for other violent crimes. Specifically, younger, unmarried women, who are living alone will be at higher risk of sexual victimization than other types of violent victimization.

H4: Event characteristics of sexual victimizations will vary from event characteristics of other violent victimizations. Specifically, sexual victimizations will be more likely to take place at night time in seemingly safe spaces.

H5: The variables commonly associated with the crime decline will be insufficient in explaining the simultaneous decline in sexual victimization.

3.2 Data Selection

The nature and extent of sexual victimization is contested, and, therefore, it was important to consider the different data sources to determine which dataset was most appropriate

for the analysis. The two major sources of national data on sexual crimes in the United States are the Federal Bureau of Investigation's (FBI) Uniform Crime Reports (UCR) and the Bureau of Justice Statistics' (BJS) National Crime Victimization Survey (NCVS). Both provide year-to-year statistics on sexual violence in the United States. In addition to these main sources, in 1995, the National Institute of Justice (NIJ) and the Centers for Disease Control (CDC) co-sponsored a one-time nationwide study on violence against women, called the National Violence Against Women Survey (NVAWS), and this dataset also collected information about sexual victimization. There have been numerous other smaller-scale studies, conducted by researchers and victims' advocates, to investigate the prevalence of sexual victimization in the United States. Each of these sources of data, as well as their relative strengths and weaknesses, are described and discussed in detail below.

3.2.1 The UCR. The UCR program, established in 1929, relies on law enforcement agencies across the nation to voluntarily report to the FBI data on major crime types that are reported to them (including murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson). According to the FBI's website, more than 17,000 city, county, and state law enforcement agencies participate in the program and, in 2003, the program represented more than 93% of the total population. Of the major crime types that are included in the UCR, the type that is most relevant for statistics on sexual violence is forcible rape. According to the UCR definition, forcible rape is "the carnal knowledge of a female forcibly and against her will." Law enforcement agencies report data on forcible rapes as well as attempts to commit forcible rape; however, other sexual offenses are excluded from the UCR. The major strength of the UCR is that it provides year-to-year statistics on rapes and attempted rapes *reported to the police*. Considering that the definition of forcible

rape has remained constant and the UCR program has been ongoing since 1929, the UCR is conducive to year-to-year comparisons on rape rates as well as long-term trend analysis. In summary, the UCR can provide reasonable estimates of how many rapes and attempted rapes are reported to law enforcement each year, comparisons of rates from year-to-year, as well as information on how each of the reports of sexual violence were cleared by the police.

The major weakness of the UCR is that it relies on victims' reports to law enforcement. Many victims of sexual assault do not report their victimization to the police for a variety of reasons including feelings of shame, humiliation, and fear (Muehlenhard et al 1984, Russell 1984, Koss 1992). Even when victims do report victimization experiences to the police, not all of the sexual crimes meet the UCR's definition of forcible rape. The definition of forcible rape excludes other types of sexual offenses, such as the assault of victims who are incapable of legal consent due to age, disabilities, drugs, or intoxication. Therefore, estimates of sexual victimization in the UCR are likely to represent the most serious or "classic" rape crimes. Though the UCR may be useful for law enforcement and criminal justice agencies to monitor the long-term trends in reporting of these crimes as well as law enforcement's performance on these types of cases, UCR data do not allow for adequate estimation of the nature and extent of sexual victimization in the United States.

In order to address some of the weaknesses of the UCR, the FBI has proactively implemented an alternative data collection effort that is expected to eventually replace the UCR, called the National Incident-Based Reporting System (NIBRS). This system was introduced in 1989 and replaces the UCR's "forcible rape" as a catch-all for sexual crimes with a more comprehensive list of sexual offenses. The offenses are grouped into two categories: "sex offenses-forcible" and "sex offenses-non-forcible." The first category includes such offenses as

forcible rape, forcible sodomy, sexual assault with an object, and forcible fondling; the second category includes such offenses as incest and statutory rape. These categories are likely to result in more comprehensive data on the number and range of sexual crimes committed in the U.S.; however, because it requires much more detail for each offense, it is also more time-consuming for law enforcement agencies to report statistics for the NIBRS. Furthermore, NIBRS requires special training and certification, which might ensure improvements in the reliability of its data, but also explains why the majority of law enforcement agencies currently do not participate in the NIBRS program. According to the FBI website, as of 2004, NIBRS data only represents approximately 20% of the U.S. population and 16% of crime statistics collected by the UCR. While there is hope that more law enforcement agencies will transition to NIBRS in the future, as of now, the NIBRS cannot provide data for the analysis of long-term sexual victimization trends in the U.S. Also, it is important to keep in mind that, though NIBRS can certainly improve the quality of official statistics on sexual crimes reported to law enforcement, like the UCR, it cannot be used to estimate the nature and extent of sexual crimes *not* reported to law enforcement.

3.2.2 The NCVS. The NCVS program was established in 1972 and is conducted by the Bureau of Justice Statistics; though data for the NCVS is actually collected by the U.S. Census Bureau. The NCVS was originally called the National Crime Survey (NCS) until it was redesigned in 1992 and the name was changed to the NCVS. The methodology of the NCVS involves ongoing random sampling of a nationally representative sample of households followed by face-to-face and telephone interviews of all household members at least 12 years of age about any crimes that they may have experienced in the last 6 months. Households are rotated into the sample and participate in a series of surveys, one every six months for three years. After three

years, households are rotated out and new households are rotated in. Data from the surveys are used to estimate national crime victimization rates. Each year, respondents' reporting of sexual crimes are tallied and used to estimate national rates for sexual victimization. From 1973-1992, the NCS categorized data on sexual crimes as rapes and attempted rapes, but since the redesign of the survey to the NCVS, data on sexual crimes are categorized as rapes, attempted rapes, and other sexual assaults.

Considering that the NCVS utilizes a survey-based methodology that relies on respondents' revealing specific cases of victimization in order to estimate national rates, the most significant strength of the NCVS is its large sample size and very high response rates. Smaller sample sizes and lower response rates would make it virtually impossible to generate meaningful estimates of victimization rates because the margins of error would be too large. According to the BJS website, in 2005, 77,200 households and 134,000 individuals were interviewed for the NCVS and response rates have consistently been between 91% and 96% of eligible households and between 84% and 93% of eligible individuals. The large sample sizes and extraordinary response rates of the NCVS are critical to confidence in its estimates of victimization rates.

An important strength of the NCVS is that, unlike the UCR, it is not dependent on victims' reporting of their assaults to law enforcement, and, therefore, should be considered a superior source for statistics on sexual victimization as compared to the UCR (Jensen and Karpos 1993). As cited above, there are many reasons why victims may choose not to report incidents, especially sexual assault incidents, to the police. On the other hand, many more victims are likely to reveal such information on confidential surveys that are conducted by well-trained interviewers, such as the NCVS. Therefore, we can be reasonably certain that the NCVS is

better than the UCR at measuring victimization in the U.S.; however, there are many questions and concerns about exactly *how much better* it is.

Although NCVS victimization rates tend to be higher than UCR rates (as expected), the NCVS still indicates fairly low rates of sexual victimization and this fact has resulted in vehement criticism of the NCVS by some feminist scholars and victims' advocates. Much of the feminist literature on sexual violence suggests that rape is a common and widespread phenomenon and that virtually *all women* are at risk of sexual victimization (Brownmiller 1975). Researchers in this tradition tend to argue that the NCVS consistently underestimates rape victimization rates. Another criticism of the NCVS pertains to the definitions used by the NCVS to define rape. According to the NCVS, rape is defined as "forced sexual intercourse, including both psychological coercion as well as physical force" and forced sexual intercourse is further defined as "vaginal, anal, or oral penetration by the offender." Critics argues that because the definitions used in the NCVS do not correspond to the legal definitions of rape and rely on whether participants personally label their experiences as rape or sexual attacks, the NCVS is likely to underestimate real rates of sexual violence (Lonsway 2008). Though there is some merit to this argument and it is likely that some acts of sexual victimization are omitted because of the reasons cited, it is also likely that the assaults that are the most physically and emotionally traumatic *are* captured by the NCVS. Considering the overall liberalization of sexuality in U.S. society, there may be some incidents of sexual acts that fall within the grey area. This is not considered a major problem in the validity of the NCVS because changes in the culture of sex cannot in themselves discount the value of the NCVS in providing information about sexual victimization rates.

3.2.3 The NVAWS. In response to criticisms of the NCVS, the NIJ and the CDC co-sponsored another nationally representative survey to test the reliability of the NCVS in estimating violence against women statistics. The NVAWS was conducted using a telephone survey with a random digital dialing of households across the nation. A total of 8,000 women and 8,000 men over the age of 18 were interviewed. The questions on sexual victimization were much more explicit than the NCVS and left little room for confusion. Because the questions asked about very specific experiences rather than broad categories of sexual crimes, concerns about victim's labeling or not labeling of their experiences as rape or sexual assaults are not major concerns. Therefore, a main strength of the NVAWS is its precision. One weakness of the NVAWS is that it was a randomized telephone survey and cannot represent those individuals that did not have access to phones. Another weakness is that the survey is from 1995 and can only estimate rates for that year; it is not useful for year-to-year comparisons or for investigating long-term trends. One of the main purposes of the commission of the NVAWS was to test the reliability of the NCVS. Though the NVAWS did generate higher rates of sexual victimization than the NCVS, Rand and Rennison (2005) found that there was no statistically significant difference between the NVWAS rates and the NCVS rates of victimization for 1995. Given these results, we can be even more confident in the NCVS as a reliable measure of sexual victimization rates in the U.S.

3.2.4 Other Social Science Research. As mentioned above, many researchers have been highly critical of the NCVS estimates of sexual victimization and have conducted their own research to counter the NCVS. Some examples include The National College Health Risk Behavior Survey, The U.S. Naval Recruit Health Study, Crime in the Ivory Tower, and the Behavioral Risk Factor Survey. Survey research conducted by Diana Russell (1984), Mary Koss

and colleagues (1987), and Muehlenhard and Linton (1987) have all found that rape is more common than what the NCVS indicates. The major strength of these works is the omission of loaded terms such as rape and sexual assault. Instead, these studies tend to describe behaviors and acts that are legally defined as rape and ask respondents whether they have ever experienced those behaviors or acts. As such, these studies are able to collect information on a wider range of sexual offenses and are able to shed light on some of the specific trends in sexual victimization, such as the prevalence of alcohol and drug facilitated acquaintance rapes. On the other hand, one of the weaknesses of this method is the potential to overestimate sexual violence.

Also, most of these studies were one-time cross-sectional surveys of high school or college students and are not useful for studying long-term trends in sexual victimization. Furthermore, since they tend to rely on student respondents who are more likely to be victims of sexual assault than women of other ages, the potential for overestimating the problem of sexual violence is even more significant. For example, one study conducted by Fisher, Cullen, and Turner (2000), used surveys of college students to compare the NCVS to other methods. The study found that sexual victimization rates were 11 times higher when using the other methods as opposed to the NCVS methodology. Given the concerns about the potential of these studies to overestimate sexual victimization discussed above, these figures should be considered with caution. In fact, while feminist scholars and researchers critique the NCVS for estimating rates of sexual victimization that seem too low, other scholars question whether these studies' estimates are too high (Gilbert, 1993; Roiphe, 1997).

Neil Gilbert (1993) suggests that the high numbers in feminist studies of rape represent a "phantom epidemic of sexual assault" (54) and feminist researchers' rape statistics are simply "advocacy numbers" (63). He challenges Koss's Ms. Magazine study pointing out vague and

ambiguous questions and the fact that "73% of students whom Koss categorized of victims of rape did not think that they have been raped" and even had a sexual relationship with the same man later on (75). He argues "According to Koss's data, rape is an act that most educated women do not recognize as such when it has happened to them, and after which almost half of the victims go back for more. To characterize this type of sexual encounter as rape trivializes the trauma and pain suffered by the many women who are true victims of this crime" (81).

Gilbert describes Koss's study as a sophisticated example of advocacy research and suggests that exaggerating the problem of sexual violence is actually a disservice to women because it prevents reasonable conversations about rape and sexual assault. He notes that some key problems with such studies include the use of extremely broad measures, the targeting of a group more likely to be impacted and then projecting to society at large, and asserting that the combination of many small studies with different methodological problems amounts to overwhelming evidence. The fundamental problem, according to Gilbert, is that tremendously high rates send the message that all men are potentially rapists and preclude efforts by women and men to work together to eradicate the problem of sexual violence. Similarly, Joel Best (1997) asserts that activists on behalf of victims always suggest the notion of high rates in order to achieve political gains. Considering that many feminist scholars are also committed to advocacy on behalf of victims, the motivation to report higher rates may be linked to pragmatic political reasons. Therefore, while it is possible that the NCVS may be underestimating sexual victimization rates, it is equally likely that feminist studies are overestimating them.

3.3 Datasets for Analysis

After considering the different data sources on sexual victimization, the NCVS was selected due to the fact this it is the only consistent source of data with a much larger sample size

than most the other sources. NCVS data was used to create two subset datasets: Dataset 1 and Dataset 2. Dataset 1 was used for analysis related to personal risk of victimization (Hypotheses 1-4) and Dataset 2 was used for analysis related to trends in victimization (Hypothesis 5).

3.3.1 Dataset 1. The occurrence of sexual victimization is very rare in NCVS data. Therefore, multiple years of data from 1992 to 2005 were pooled together to ensure adequate cases of sexual victimization for statistical analysis. The difference in numbers between sex crime victims and non-victims of sex crimes in the pooled dataset was so large that logistic regression modeling on the full sample would result in skewed coefficients and significance tests. In other words, there were far, far more respondents that were not a victim of a sex crime than were a victim. Therefore, a case control study design and sampling strategy was used to reduce the dataset for statistical analysis. The case control design allows for the observational analysis of two or more groups with different outcome measures compared on the basis of some proposed causal mechanisms.

Case control studies are frequently used in epidemiology and public health to compare outcome frequencies between a group of subjects that experience a particular outcome and a comparable group that does not within a source population. For example, studies have compared patients diagnosed with lung cancer with a control group of subjects not diagnosed with lung cancer to determine the effects of smoking on the risk of developing lung cancer. Case control studies are less conclusive than randomized trials; however, ethical concerns about putting subjects at risk of physically or psychologically harmful experiences preclude the use of randomized trials when studying topics such as cancer (and sexual victimization).

Case control studies are also better suited for studying rare events than prospective cohort studies since only a few subjects from a cohort are likely to develop the outcome of interest and,

as a result, cohort studies are likely to have less statistical power than case control studies. Case control studies, on the other hand, can be used to investigate the relationship between a rare outcome and potential risk factors by calculating odds ratios that approximate relative risk. In such instances, even with a large sample size the incidence of the outcome is likely to be too small for statistical analysis and a case control method might be the only feasible method for analysis (Mann, 2003).

For this study, all female victims of sexual crimes, all female victims of other violent crimes, and a random sample of female non-victims of violent crimes were selected. The power of case control studies are generally improved by sampling a larger number of controls than cases. Therefore, roughly three times as many non-victims of violent crimes were included as were victims of violent crime. Personal, household, and incident level variables (if applicable) were included in the dataset for each selected female. The total sample size for this subset was 40,041 females of which 1,296 were victims of a sexual assault and 12,051 were victims of a non-sexual violent crime. The sample size was significantly larger than the minimum sample size necessary for 90% power with a two-sided confidence interval of .95 as calculated by an open source statistical program. The case control method of reduction maintained a much larger proportion of non-victims in the final dataset to maximize the power of statistical tests but reduced the number to make statistical modeling feasible.

Missing data analysis was conducted to check for non-randomness of missing values. Overall, missing values for most of the selected variables represented less than 1% of the dataset and could be estimated to be missing completely at random (MCAR); however there was one exception: household income. Approximately 17% of cases had missing values for household income, and, therefore, could not be estimated to be MCAR. In fact, household income is a

variable that is likely missing not at random (MNAR) since the value of a respondent's household income is likely to predict whether or not the respondent reports his or her household income. There is not much that can be done to accurately estimate these missing values; however, the EM algorithm (Dempster, Laird, and Rubin 1977; Little and Rubin 1987; Schafer 1997), a maximum likelihood estimator, was used to approximately estimate the missing values of household income using the other independent variables in the model as predictors. Listwise deletion was used to delete all other missing cases. The final dataset used in the analyses included a total of 39,429 cases with 1,278 sex victims and 11,900 victims of other, non-sexual, violent crimes.

3.3.2 Dataset 2. For Dataset 2, yearly weighted incident-level data from the NCVS from 1992 to 2005 was used to calculate year to year rates of sexual victimization overall as well as year to year rates of different types of sexual victimization for types that contained enough cases per year. This data was combined with victimization rates from the UCR as well other measures of crime, demographic, and social trends from other sources. Dataset 2 was used to explore the relationship between these macro-level trends and victimization trends.

3.4 Measures

3.4.1 Personal Victimization Risk

3.4.1.1 Dependent Variable. The NCVS collects data on the following eight forms of sexual victimization: completed rape, attempted rape, sexual attack with serious assault, sexual attack with minor assault, sexual assault without injury, unwanted sexual contact without force, verbal threat of rape, and verbal threat of sexual assault. (See Appendix A for a detailed description of how each of these experiences is defined in the NCVS.) A victim of any of these crimes was classified as a "sexual assault victim." Sexual assault victims were compared to non-

victims of sexual crimes (who may have been a victim of some other violent crime) and victims of other violent crimes.

For comparison of risk by offense type, offenses were classified into four sub categories. The first category "serious sexual assault" included completed rape, attempted rape, and sexual attack with serious assault. The second category "minor sexual assault" included sexual attack with minor assault and sexual assault without injury. The phrase "minor sexual assault" is not intended to minimize the harms associated with these sexual assaults, but merely to identify and categorize sexual assaults with minor *physical* injuries. The third category "unwanted sex" included unwanted sexual contact without force and also served as a proxy for coercive sexual victimization. The sixth category "threats" included verbal threats of rape and verbal threats of sexual assault. For comparison of risk by victim-offender relationship, offenses were classified into four sub categories: stranger, acquaintance, intimate-partner, and family.

3.4.1.2 Independent Variables. In order to test H1 to H3, several demographic variables were selected as independent variables including age, marital status, cohabitation status, presence of children under 12 in the household, household income, race, ethnicity, msa status, residential density, and household crime. As a control for the impact of time-related factors on risk of victimization, year of interview was also included as an independent variable.

Age was recoded into five age levels. The first category consisted of adolescent girls between the ages of 12-17 (coded 1). The cutoff of 17 was selected due to the fact that legal adulthood in the U.S. begins at age 18. The second category consisted of college-age women between the ages of 18-26 (coded 2). The cutoff for college-age women was extended to age 26 considering that many women take more than four years to complete college. Furthermore, women's lifestyles are not expected to change substantially in the first few years after college as

they either continue to graduate school or begin professional careers. The third category consisted of young women between the ages of 27-39 (coded 3). The fourth category consisted of middle-age women between 40-59 (coded 4). The fifth category consisted of elder women 60 and up (coded 5). In addition, dummy variables were created for each of the different age groups for mean comparisons and in order to conduct specific analysis of potentially high-risk groups. Marital status was recoded into five dummy variables: single, never married; married; divorced; separated; and widowed. Cohabitation status and the presence of children under twelve in the household were recoded into dummy variables.

Household income was recoded into seven income groups. Incomes less than 10k (coded 1), incomes between 10-20k (coded 2), incomes between 20-30k (coded 3), incomes between 30-40k (coded 4), incomes between 40-50k (coded 5), incomes between 50-75k (coded 6), and incomes more than 75k (coded 7). Race and ethnicity were recoded into dummy variables: non-White and Latina. MSA status was included urban (coded 1), suburban (coded 2), and rural (coded 3) residences. Residential density was recoded into a dummy variable based on whether the respondent lived in a single family home as opposed to a large apartment building or other living arrangement. Household crime was recoded into a dummy variable for experiencing 3 or more household violent crime incidents. For all of the dummy variables, inclusion into the named group was coded as 1.

In order to test H4, several event variables were selected as independent variables including time of day, location, the use of weapons, number of offenders, offender gender, and offender use of alcohol or drugs.

Time of day was coded into two dummy variables: day and night. Day consisted of victimization experiences between 6am and 6pm; night consisted of victimizations between 6pm

and 6am. Location was also measured by four dummy variables: at or near home, within 1 mile of home, within 5 miles of home, and at a safe space including own home, friend's home, or neighbor's home. Weapons use recoded into three dummy variables: any weapon, handgun, and knife. Number of offenders was recoded into two dummy variables: single offender and multiple offenders. Offender gender was recoded into two dummy variables: male offender and female offender. Substance was recoded into a dummy variable: offender use of alcohol or drugs. For all of the dummy variables, inclusion into the named group was coded as 1.

3.4.2 Macro-level Victimization Trends

3.4.2.1 Dependent Variable. For analysis of trend data, NCVS rates of sexual victimization (overall) as well as different types of sexual victimization were calculated for each year between 1992 and 2005.

3.4.2.2 Independent Variables. In order to test H5, rates of sexual victimization were calculated from the UCR; data on age demographics, marriage, divorce, and cohabitation were calculated from the U.S. Census, data on policing of sex crimes was compiled from the UCR, data on incarceration for sex crimes was compiled from the National Corrections Reporting Program, and other social data was evaluated from the General Social Survey and other sources to examine the relationship between these general predictors of the crime decline and the decline in sexual victimization. Sociological data was assessed to examine the social and cultural changes that occurred in the United States during the 1990's and early 2000's. Special attention was paid to changes with respect to sexual behavior.

3.5 Methods of Analysis

3.5.1 Personal Victimization Risk. For H1 to H4, quantitative analysis of personal risk of sexual victimization consisted of descriptive statistics, mean tests, and logistic regression

models. Descriptive statistics provided an overall description of the sample. Mean tests compared victimization risk between victims of sex crimes and non-victims of sex crimes as well as victims of other violent crimes to consider differences across groups. Since logistic regression is the preferred analytical tool used in case control studies, logistic regression models were used to predict risk of sexual victimization. Different risk factors for different sexual offense types, victim-offender relationships, and age groups were also considered. For H4, descriptive statistics, mean tests, and logistic regression models were used to provide an overall description of the sample and a description of the data disaggregated by event characteristics. Logistic regression was used to predict risk of sexual victimization compared to other violent victimizations.

3.5.2 Macro-level Victimization Trends. For H5, data analysis on victimization trends included comparison of trend data from the NCVS with trend data from the UCR, age demographics data; marriage, divorce, and cohabitation data; policing data on clearance rates of rape crimes, incarceration data on sex offenders, and data on other social and cultural trends in the U.S. to elaborate on the changing nature of sexual violence and victimization. These relationships were documented in tables and figures.

Chapter 4: Results

4.1. Personal Risk of Sexual Victimization

4.1.1 Descriptive Statistics. As described in Chapter 3, Dataset 1 was created from NCVS data from 1992-2005 by a case control sampling strategy that selected all female victims of violent crimes (including all sex crimes) and a random sample of non-victims. After conducting missing value analysis, estimation of missing values for household income, and listwise deletion of the remaining missing cases, the full sample consisted of 39,429 females of which 1,278 were victims of a sexual assault and 11,900 were victims of a non-sexual violent crime. Table 4.1 presents the distribution of age, marital status, cohabitation status, the presence of children under 12 in the household, household income, race, ethnicity, msa status, residential density, and household crime incidents for the full sample. Respondents' age ranged between the ages of 12 and 90, with a mean age of 38. A small majority of respondents were married (41%) as compared to never married (36%). Divorced (12%), separated (5%), or widowed (7%) women accounted for about a fourth of the sample. A large majority of respondents cohabitated with other persons and only about a fifth (19%) lived alone. About a third of respondents (36%) lived in a household with children under the age of 12. There was a tremendous amount of variation in the household income of respondents but the average income range was from $20,000 to $40,000 per year. A majority of respondents were White (82%) and non-Latina (89%) and about half of respondents (50%) lived in suburban communities whereas more than a third (35%) lived in urban communities. Most respondents lived in single-family homes (63%) as opposed to other housing structures and the vast majority of respondents (92%) lived in households that had experienced fewer than three incidents of household violent crime victimizations.

TABLE 4.1: Descriptive Statistics

(N=39,429)

	Mean	Valid Percent
AGE	38	
AGE LEVEL		
Adolescent (12-17) = 1	.1293	12.9
College (18-26) = 1	.2033	20.3
Young (27-39) = 1	.2644	26.4
Middle Age (40-59) = 1	.2621	26.2
Elder (60+) = 1	.1409	14.1
MARITAL STATUS		
Married = 1	.4069	40.7
Never Married = 1	.3615	36.2
Divorced = 1	.1178	11.8
Separated = 1	.0446	4.5
Widowed = 1	.0691	6.9
COHABITATION (Lives Alone = 1)	.1892	18.9
CHILDREN (Children < 12 = 1)	.3603	36.0
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	3.8393	
RACE (Non-White = 1)	.1787	17.9
ETHNICITY (Latina = 1)	.1119	11.2
MSA (City=1, Suburb =2, Rural =3)	1.8128	
DENSITY (Single Family Unit = 1)	.6268	62.7
HH CRIME (>2 incidents = 1)	.0789	7.9

4.1.2. Independent Samples T-Test. An independent samples T-test was conducted to compare mean differences between sex victims and non-victims of sex crimes for all of the independent variables. The results of the T-test are presented in Table 4.2. Numerous significant differences between sex victims and non-victims of sex crimes emerged. The mean age for sex victims was significantly lower than non-victims of sex crimes (27 and 38, respectively) at the $p<.001$ level, indicating that, on average, sex victims were younger than non-victims of sex crimes. This finding was further reinforced by examining specific age groups separately. On average, sex victims were more likely to be between the ages of 12 and 26 and less likely to be 40 or older than non-victims of sex crimes; however, there were no significant mean differences for women between the ages of 27 and 39. In comparing marital status between groups, on average, sex victims were more likely to be never married, divorced, or separated and less likely to be married or widowed than non-victims of sex crimes. Sex victims were also more likely to be living alone than non-victims of sex crimes; however, there were no significant differences between groups with regards to the presence of children in the household. These differences indicate that age level, marital status, and cohabitation status may be correlates of sexual victimization and is consistent with other research on sexual victimization. Furthermore, sex victims were more likely to be economically disadvantaged with lower household incomes than non-victims of sex crimes. Although there were no racial differences between groups, sex victims were significantly less likely to be Latina than non-victims of sex crimes. Sex victims, on average, were also more likely to be living in urban communities and in non-single family homes, indicating support for a possible relationship between social disorganization factors and personal risk of sexual victimization. Finally, on average, sex victims resided in households that were more frequently victimized than non-victims of sex

Table 4.2 Mean Comparisons between Sex Victims with Non-Victims of Sex Crimes

	Sex Victims (N=1,278)	Non-Victims (N=38,151)	SE of Difference
AGE	27.36	38.01***	.34715
AGE LEVEL			
Adolescent (12-17) = 1	.2160	.1264***	.01164
College (18-26) = 1	.3498	.1983***	.01350
Young (27-39) = 1	.2676	.2643	.01254
Middle Age (40-59) = 1	.1534	.2657***	.01033
Elder (60+) = 1	.0133	.1452***	.00368
MARITAL STATUS			
Married = 1	.1354	.4160***	.00990
Never Married = 1	.5915	.3538***	.01396
Divorced = 1	.1620	.1163***	.01044
Separated = 1	.0931	.0430***	.00820
Widowed = 1	.0180	.0708***	.00395
COHABITATION (Lives Alone = 1)	.2864	.1859***	.01281
CHILDREN (Children < 12 = 1)	.3834	.3596	.01383
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	3.1771	3.8615***	.05246
RACE (Non-White = 1)	.1800	.1786	.01089
ETHNICITY (Latina = 1)	.0876	.1127**	.00808
MSA (City=1, Suburb =2, Rural =3)	1.7535	1.8148**	.02001
DENSITY (Single Family Unit = 1)	.4844	.6316***	.01420
HH CRIME (>2 incidents = 1)	.2919	.0717***	.01279

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

crimes. These differences indicate that, on average, sex victims may experience numerous social and economic vulnerabilities that may be associated with their heightened risk for sexual victimization as compared to non-victims of sexual assaults.

4.1.3 Multicollinearity Diagnostics. The independent-samples T-tests described in Table 4.2 indicated several potential predictors of personal risk of sexual victimization. Prior to modeling victimization risk, however, bivariate correlations were analyzed to check for multicollinearity. Table 4.3 presents the correlation matrix. Although several of the independent variables were correlated with one another, none of the Pearson correlation values were higher than .65 and the only correlations with values above .6 were marital status variables with one another. Variance inflation factors (VIF) were also calculated for each of the independent variables and all VIF values were below 3. As a result, none of the variables were excluded due to multicollinearity concerns.

4.1.4 Logistic Regression Analyses. Logistic regression was selected as the appropriate analytical tool for modeling sexual victimization risk due to the fact that logistic regression models are particularly useful in predicting group membership and the strength and direction of associations between independent variables and a dependent variable, especially for case-control studies. In order to assess Hypothesis 1, a logistic regression model (Model 1) was estimated to predict risk of sexual victimization overall. The predictors for the analysis were age level ("young (27-39)" was used as the reference category), marital status ("married" was used as the reference category), cohabitation status, the presence of children under 12 in the household, household income, race, ethnicity, msa status, residential density, residential stability, household crime incidents, and year (as a control variable for time-related factors). Table 4.4 presents the results of the model. Model 1 was statistically significant (Chi2 (N=39,429) = 1284.432,

Table 4.3 Correlation Matrix

		Adolescent	College	Young	Middle Age	Elder	Married	Never Married	Divorced	Separated	Widowed	Cohabitation	Children	HH Income	Non-White	Latina	MSA	Single Fam Unit	HH Crime
Adolescent	Pearson Correlation	1.00	-0.19	-0.23	-0.23	-0.16	-0.31	0.51	-0.14	-0.08	-0.10	-0.18	0.09	0.06	0.03	0.04	0.02	0.08	0.09
	Sig. (2-tailed)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
College	Pearson Correlation	-0.19	1.00	-0.30	-0.30	-0.20	-0.20	0.37	-0.13	-0.02	-0.13	0.01	0.03	-0.18	0.03	0.05	-0.07	-0.21	0.06
	Sig. (2-tailed)	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Young	Pearson Correlation	-0.23	-0.30	1.00	-0.36	-0.24	0.16	-0.17	0.06	0.10	-0.15	0.01	0.31	0.03	0.02	0.03	-0.02	-0.03	0.01
	Sig. (2-tailed)	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.24
Middle Age	Pearson Correlation	-0.23	-0.30	-0.36	1.00	-0.24	0.24	-0.34	0.17	0.03	-0.06	-0.03	-0.19	0.20	-0.02	-0.05	0.03	0.11	-0.05
	Sig. (2-tailed)	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Elder	Pearson Correlation	-0.16	-0.20	-0.24	-0.24	1.00	0.03	-0.27	-0.01	-0.06	0.51	0.19	-0.26	-0.13	-0.06	-0.07	0.05	0.07	-0.10
	Sig. (2-tailed)	0.00	0.00	0.00	0.00		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Married	Pearson Correlation	-0.31	-0.20	0.16	0.24	0.03	1.00	-0.62	-0.30	-0.18	-0.23	-0.37	0.07	0.33	-0.12	0.00	0.10	0.21	-0.11
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00
Never Married	Pearson Correlation	0.51	0.37	-0.17	-0.34	-0.27	-0.62	1.00	-0.27	-0.16	-0.21	0.01	-0.01	-0.12	0.13	0.04	-0.11	-0.14	0.09
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.02	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Divorced	Pearson Correlation	-0.14	-0.13	0.06	0.17	-0.01	-0.30	-0.27	1.00	-0.08	-0.10	0.23	-0.03	-0.12	-0.02	-0.03	-0.01	-0.07	0.04
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00
Separated	Pearson Correlation	-0.08	-0.02	0.10	0.03	-0.06	-0.18	-0.16	-0.08	1.00	-0.06	0.13	0.09	-0.13	0.04	0.03	-0.01	-0.07	0.05
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Widowed	Pearson Correlation	-0.10	-0.13	-0.15	-0.06	0.51	-0.23	-0.21	-0.10	-0.06	1.00	0.30	-0.15	-0.16	-0.01	-0.04	0.02	0.01	-0.06
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00

Table 4.3 Correlation Matrix Continued

Cohabitation	Pearson Correlation	-0.18	0.01	0.01	-0.03	0.19	-0.37	0.01	0.23	0.13	0.30	1.00	-0.08	-0.34	0.04	-0.06	-0.06	-0.23	-0.03
	Sig. (2-tailed)	0.00	0.02	0.11	0.00	0.00	0.00	0.02	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Children	Pearson Correlation	0.09	0.03	0.31	-0.19	-0.26	0.07	-0.01	-0.03	0.09	-0.15	-0.08	1.00	-0.05	0.08	0.14	-0.01	0.01	0.07
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.10	0.01	0.00
HH Income	Pearson Correlation	0.06	-0.18	0.03	0.20	-0.13	0.33	-0.12	-0.12	-0.13	-0.16	-0.34	-0.05	1.00	-0.17	-0.13	0.04	0.35	-0.08
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Non-White	Pearson Correlation	0.03	0.03	0.02	-0.02	-0.06	-0.12	0.13	-0.02	0.04	-0.01	0.04	0.08	-0.17	1.00	-0.12	-0.17	-0.13	0.00
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00		0.00	0.00	0.00	0.71
Latina	Pearson Correlation	0.04	0.05	0.03	-0.05	-0.07	0.00	0.04	-0.03	0.03	-0.04	-0.06	0.14	-0.13	-0.12	1.00	-0.13	-0.09	0.00
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.38
MSA	Pearson Correlation	0.02	-0.07	-0.02	0.03	0.05	0.10	-0.11	-0.01	-0.01	0.02	-0.06	-0.01	0.04	-0.17	-0.13	1.00	0.18	-0.03
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.00	0.00	0.10	0.00	0.00	0.00		0.00	0.00
Single Fam Unit	Pearson Correlation	0.08	-0.21	-0.03	0.11	0.07	0.21	-0.14	-0.07	-0.07	0.01	-0.23	0.01	0.35	-0.13	-0.09	0.18	1.00	-0.04
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00		0.00
HH Crime	Pearson Correlation	0.09	0.06	0.01	-0.05	-0.10	-0.11	0.09	0.04	0.05	-0.06	-0.03	0.07	-0.08	0.00	0.00	-0.03	-0.04	1.00
	Sig. (2-tailed)	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.38	0.00	0.00	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

p<.001) indicating that the predictors, as a set, could reliably distinguish between sex victims and non-victims of sex crimes. The Nagelkerke R^2 value of .132 indicated a moderate relationship between the independent variables and group membership. Several significant predictors of sexual victimization emerged from the model. As expected the odds of victimization were significantly higher for adolescent and college-age women and lower for middle age and elder women as compared to the reference group of young women. The results suggest that adolescent and college-age women may be particularly high-risk for sexual victimization. All marital statuses included in the model were statistically significant and indicated higher odds of victimization than married women, with separated and divorced women at highest odds of victimization, followed by never married and widowed women. The results of the model indicate that marriage may act as a protective factor for sexual victimization. Similarly, women who lived alone were about 1.5 times more likely to be a victim of a sex crime than those who cohabited with others and women with children under 12 in the home were about 1.2 times less likely to be a victim. The model seems to support the notion that cohabitants and children in the home may both influence women's lifestyles in ways that protect them from victimization. Meanwhile, for each unit decrease in income, the odds of sexual victimization increased by 1.1 times, indicating a relationship between socio-economic status and victimization risk. One unexpected finding was that White women were more likely than non-White and Latina women to be a victim of a sex crime. The odds of sexual victimization did not, however, vary by residential location; though women living in single family homes had slightly lower odds of victimization than women living in more densely populated living arrangements. The strongest predictor in the model was household violent crime incidents. Respondents with higher rates of household crime were 3.5 times as likely to be a victim than those with lower incidence of

Table 4.4 Model 1: Logistic Regression Analysis Predicting ANY Sexual Victimization (N=39,429)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	.367	.107	11.779	1.443***
College (18-26) = 1	.293	.086	11.687	1.340***
Middle Age (40-59) = 1	-.454	.098	21.347	.635***
Elder (60+) = 1	-2.362	.280	71.281	.094***
MARITAL STATUS (Reference: Married)				
Never Married = 1	.827	.107	59.245	2.285***
Divorced = 1	.987	.114	75.327	2.683***
Separated = 1	1.228	.132	87.104	3.416***
Widowed = 1	.579	.250	5.344	1.784*
COHABITATION (Lives Alone = 1)	.445	.077	33.142	1.560***
CHILDREN (Children < 12 = 1)	-.211	.066	10.341	.810***
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.075	.019	15.359	.928***
RACE (Non-White = 1)	-.269	.080	11.304	.764***
ETHNICITY (Latina = 1)	-.406	.105	14.815	.666***
MSA (City=1, Suburb=2, Rural=3)	-.028	.044	.412	.972
DENSITY (Single Family Unit=1)	-.147	.066	5.024	.863*
HH CRIME (> 3 incidents = 1)	1.264	.068	343.944	3.540***
YEAR (1992-2005)	-.041	.008	28.410	.960***
Chi-2			1313.446***	
-2LL			9965.724	
Nagelkerke R2			.132	

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

household crime. Year was also a significant predictor of victimization suggesting that the odds of victimization declined slightly each year over the time period between 1992 and 2005.

4.2 Risk of Different Types of Sexual Victimization

The models presented above estimated personal risk of sexual victimization overall; however, the NCVS collects detailed information about the specific characteristics of sexual crimes and the data allows researchers to categorize sexual victimizations into specific offense types. As described in Chapter 3, the current study classified sexual victimization into four categories: serious sexual assault, minor sexual assault, unwanted sexual contact, and threats of rape or sexual assault. Table 4.5 presents a frequency distribution of sex victims by offense type experienced at least once. Since some victims experienced multiple sexual victimizations, the total percentage exceeds 100%. The frequency distribution in Table 4.5 indicates that 62.7% of the sex victims in the sample experienced at least one serious sexual assault and, overall, serious sexual victimizations were more frequently reported in the NCVS than less serious offenses. In general, the frequency of crimes tends to have an inverse relationship with level of severity. For example, the most serious criminal offense of homicide is much less frequent than less serious offenses such as aggravated assault or robbery. Therefore, Table 4.5 raises the question of

Table 4.5: Frequency of Sexual Victimization by Offense Type

(N=1,278)

Type of Victim	Frequency	Percentage
Serious Sexual Assault	803	62.8%
Minor Sexual Assault	252	19.7%
Unwanted Sexual Contact	104	8.1%
Threats of Rape or Sexual Assault	153	12.0%
Total	1312	102.6%

whether the NCVS is simply better at collecting information on more serious assaults than minor assaults and unwanted sexual experiences. Perhaps, these "less serious" sexual offenses are the types of offenses that tend to be undercounted in the NCVS and more accurately assessed through other research methods. Indeed, the NCVS may be biased towards more "classic" types of sexual victimizations and that may be a factor to consider when using the NCVS to investigate trends in sexual victimization. Nevertheless, to investigate personal risk of sexual victimization, Dataset 1 included enough cases of each offense category to model predictors of each offense category independently and compare with one another.

In order to assess Hypothesis 2, the next set of analyses tested whether predictors of sexual victimization overall were consistent in predicting different types of sexual victimization or whether there was variation in risk factors by offense type. The logistic regression analysis in Model 1 was repeated in four new models with four new dependent variables: serious sexual assault (Model 2), minor sexual assault (Model 3), unwanted sexual contact (Model 4), and threats of rape or sexual assault (Model 5). The results of these models are presented in Tables 4.6 through 4.9. All four of the models were statistically significant at the $p < .001$ level indicating that the predictors in each model, as a set, were able to distinguish between sex victims and non-victims of sex crime. The strength of the models, however, varied; the strongest model was Model 2, predicting serious sexual assault (Nagelkerke R^2 = .137), and the strength of the subsequent models were much weaker (Nagelkerke R^2 = .081, .069, and .070, respectively) suggesting that the predictors, overall, were better at predicting more serious sexual assaults than less serious sexual victimization experiences.

Several of the independent variables in Model 2, including age level, marital status, cohabitation status, household income, msa status, race and ethnicity, household crime incidence,

and year were statistically significant predictors of serious sexual assault. Adolescent and college-age women were almost 1.5 times as likely to experience a serious assault than young women, whereas, middle age and elder women were significantly less likely to experience a serious assault. Separated women, divorced women, and never married women were more likely to experience a serious sexual assault than married women, though there was no difference between married and widowed women. Interestingly, separated women seem to be the most vulnerable to sexual victimization. Living alone also increased the odds of serious sexual assault by 1.3 times and the presence of children in the household decreased the odds by 1.3 times. These findings suggest that lifestyles factors might be associated with higher risk of serious sexual assault victimization. Lower income levels and higher rates of household incidence of crime also increased the odds of serious sexual victimization. Somewhat surprisingly, White women were at higher odds of serious sexual assault than Latina women, although there was no difference with non-White women. The social disorganization variable of residential location and density were not significant predictors of serious sexual assaults suggesting that social disorganization factors were likely less important than demographic factors. Overall, the results of Model 2 tend to support a lifestyles and routine activities explanation for serious sexual victimization over a social disorganization explanation. Also, of note, year was a significant predictor indicating that the odds of serious victimization decreased over time.

The results of Model 3, predicting minor sexual assault victimizations, are presented in Table 4.7 and are very similar to the results of Model 2; however fewer predictors were statistically significant. Two age level categories, marital status, cohabitation status, children in the household, and household crime incidents were the only significant predictors of minor sexual assault. Adolescent girls were about 1.8 times as likely to experience a minor sexual

assault than young women; however there was no difference between young women and college-age women or middle age women. Elder women, however, were significantly less likely to experience a minor sexual assault. Never married women and divorced or separated women, as well as widowed women, were significantly more likely to experience a minor sexual assault than married women. Similarly, women living alone were 1.8 times as likely to experience minor sexual assault victimization and the presence of children in the household was associated with lower odds of victimization. As expected women with higher levels of household crime incidence had much higher odds of minor sexual assaults as women in households with lower levels of household crime. None of the other variables were statistically significant. The results suggest that for minor sexual assaults, demographic variables were particularly strong predictors of personal risk of sexual victimization, more so than socio-economic or social disorganization factors or time-related factors.

The results of Model 4, predicting unwanted sex, are presented in Table 4.8. Marital status and household crime incidents were the only significant predictors of unwanted sexual contact. Separated women were at highest odds of experiencing unwanted sex, followed by never married and divorced women, as compared to married women. Separated women may be experiencing a transition in their lives and may be more vulnerable in their interactions with ex-husbands or boyfriends and may also experience more unwanted sex from casual dating partners. The results support the notion that demographic variables, and the lifestyles associated with them, are more likely to be associated with less violent sexual victimizations than socio-economic and social disorganization factors.

The results of Model 5, predicting threats of rape and sexual assault, are presented in Table 4.9. Middle-age and elder women were significantly less likely to be threatened with rape

Table 4.6 Model 2: Logistic Regression Analysis Predicting SERIOUS Sexual Victimization (N=39,429)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	.296	.135	4.814	1.345*
College (18-26) = 1	.371	.105	12.467	1.449***
Middle Age (40-59) = 1	-.566	.126	20.024	.568***
Elder (60+) = 1	-2.452	.378	42.142	.086***
MARITAL STATUS (Reference: Married)				
Never Married = 1	.864	.139	38.795	2.373***
Divorced = 1	1.139	.146	60.489	3.123***
Separated = 1	1.555	.159	95.840	4.734***
Widowed = 1	.567	.340	2.785	1.763
COHABITATION (Lives Alone = 1)	.323	.094	11.832	1.382***
CHILDREN (Children < 12 = 1)	-.235	.082	8.331	.790**
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.135	.025	30.338	.874***
RACE (Non-White = 1)	-.150	.096	2.418	.861
ETHNICITY (Latina = 1)	-.375	.130	8.312	.688**
MSA (City=1, Suburb=2, Rural=3)	-.024	.054	.197	.976
DENSITY (Single Family Unit=1)	-.116	.082	2.029	.890
HH CRIME (> 3 incidents = 1)	1.322	.082	258.287	3.751***
YEAR (1992-2005)	-.039	.010	16.388	.961***
Chi-2		987.115***		
-2LL		6856.026		
Nagelkerke R2		.137		

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

Table 4.7 Model 3: Logistic Regression Analysis Predicting MINOR Sexual Victimization

(N=39,429)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	.590	.239	6.103	1.805*
College (18-26) = 1	.354	.203	3.060	1.425
Middle Age (40-59) = 1	.096	.208	.214	1.101
Elder (60+) = 1	-2.316	.583	15.786	.099***
MARITAL STATUS (Reference: Married)				
Never Married = 1	1.118	.255	19.281	3.059***
Divorced = 1	1.271	.256	24.625	3.563***
Separated = 1	.992	.344	8.339	2.698**
Widowed = 1	1.370	.427	10.287	3.935***
COHABITATION (Lives Alone = 1)	.613	.168	13.299	1.846***
CHILDREN (Children < 12 = 1)	-.384	.150	6.608	.681**
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	.026	.041	.426	1.027
RACE (Non-White = 1)	-.213	.176	1.460	.808
ETHNICITY (Latina = 1)	-.359	.242	2.203	.699
MSA (City=1, Suburb=2, Rural=3)	-.038	.097	.150	.963
DENSITY (Single Family Unit=1)	-.193	.145	1.779	.824
HH CRIME (> 3 incidents = 1)	1.119	.151	54.691	3.063***
YEAR (1992-2005)	-.029	.016	3.137	.971
Chi-2		239.081***		
-2LL		2809.930		
Nagelkerke R2		.081		

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

Table 4.8 Model 4: Logistic Regression Analysis Predicting UNWANTED SEX (N=39,429)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	.409	.348	1.386	1.506
College (18-26) = 1	.088	.304	.083	1.091
Middle Age (40-59) = 1	-.647	.363	3.185	.524
Elder (60+) = 1	-1.101	.750	2.153	.333
MARITAL STATUS (Reference: Married)				
Never Married = 1	.985	.363	7.352	2.678**
Divorced = 1	.927	.395	5.519	2.527*
Separated = 1	1.255	.459	7.467	3.507**
Widowed = 1	-13.557	759.154	.000	.000
COHABITATION (Lives Alone = 1)	.126	.300	.177	1.135
CHILDREN (Children < 12 = 1)	.106	.216	.240	1.112
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	.091	.062	2.174	1.096
RACE (Non-White = 1)	-.487	.302	2.600	.615
ETHNICITY (Latina = 1)	-.522	.381	1.878	.594
MSA (City=1, Suburb=2, Rural=3)	.113	.150	.574	1.120
DENSITY (Single Family Unit=1)	-.211	.226	.870	.810
HH CRIME (> 3 incidents = 1)	1.073	.231	21.495	2.925***
YEAR (1992-2005)	-.027	.026	1.093	.974
Chi-2		97.911***		
-2LL		1344.890		
Nagelkerke R2		.069		

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

Table 4.9 Model 5: Logistic Regression Analysis Predicting THREATS (N=39,429)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	.238	.295	.651	1.269
College (18-26) = 1	-.290	.240	1.461	.748
Middle Age (40-59) = 1	-.606	.264	5.280	.545*
Elder (60+) = 1	-1.990	.661	9.050	.137**
MARITAL STATUS (Reference: Married)				
Never Married = 1	.207	.274	.567	1.229
Divorced = 1	-.014	.303	.002	.986
Separated = 1	-.705	.500	1.989	.494
Widowed = 1	-.730	.803	.826	.482
COHABITATION (Lives Alone = 1)	.837	.230	13.194	2.309***
CHILDREN (Children < 12 = 1)	-.030	.181	.027	.971
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.045	.053	.708	.956
RACE (Non-White = 1)	-.691	.258	7.182	.501**
ETHNICITY (Latina = 1)	-.388	.293	1.757	.678
MSA (City=1, Suburb=2, Rural=3)	-.118	.124	.906	.889
DENSITY (Single Family Unit=1)	-.174	.186	.869	.840
HH CRIME (> 3 incidents = 1)	1.208	.190	40.400	3.346***
YEAR (1992-2005)	-.060	.022	7.426	.942**
Chi-2			136.083***	
-2LL			1868.179	
Nagelkerke R2			.070	

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

or sexual assault than young women; however, there was no difference for adolescent and college-age women with young women. Marital status was not a significant predictor; however, women living alone were more likely to experience threats. Surprisingly, white women were more likely than non-White women to experience threats of rape or sexual assault. The strongest predictor of experiencing threats of sexual violence was household crime incidents. Women who lived in households with higher levels of violence in general were more likely to experience threats of sexual assault. In violent household, threats of sexual violence may be one of the tools used to intimidate women. Interestingly, year was a significant predictor for threats, indicating a decline in the odds of experiencing threats of rape or sexual assault over time.

4.3 Risk of Victimization by Victim-Offender Relationships

NCVS data provides some information on offenders of crimes and allows researchers to classify victimization experiences by victim-offender relationships. As described in chapter 3, the current study classifies victim-offender relationships into four categories: stranger, acquaintance, intimate partner, and family. Table 4.10 presents a frequency distribution for victims experiencing at least one victimization experience by each type of relationship. The totals add up to more than 100% because some victims experienced victimizations by multiple offender types. By far, sex victims were most often assaulted by acquaintances (68.2%) and least often assaulted by family members (5.2%); however, considering that family victimizations are more common for children and the NCVS does not survey individuals younger than 12, the NCVS likely undercounts family victimizations.

In order to asses Hypothesis 2, the next set of analyses examined risk factors for sexual victimization by different victim-offender relationships. The logistic regression analysis in Model 1 was repeated in four new models with four new dependent variables: stranger assault

(Model 6), acquaintance assault (Model 7), intimate partner assault (Model 8), and family assault (Model 9). The results of these models are presented in Tables 4.11 through 4.14. All four of the models were statistically significant at the $p < .001$ level indicating that the predictors in each model, as a set, were able to distinguish between sex victims and non-victims of sex crimes.

Table 4.10: Frequency of Victim-Offender Relationships for Sex Victims (N=1,278)

At least 1 victimization by:	Frequency	Percentage
Stranger	247	19.3%
Acquaintance	872	68.2%
Intimate Partner	311	24.3%
Family	67	5.2%
Total	1497	117%

The weakest model was Model 6, predicting stranger sexual assaults (Nagelkerke R^2 = .067). Two age level categories and one marital status category were statistically significant predictors of stranger assault. Adolescent and elder women were at lower odds of stranger assault than young women; however there was no difference in odds between college-age women and middle-age women with young women. This finding suggests that strangers may target women across a wide age range, but may be less inclined to assault women that are "too young" or "too old." Separated women were at lower odds of stranger victimization than married women, though there was no difference in odds between any of the other marital statuses with married women. Separated women's lower odds of stranger victimization may be due to their much higher odds of experiencing intimate partner and acquaintance victimizations. Cohabitation and the presence of children in the household reduced the odds of stranger assault, which may be due to the increased guardianship associated with living with other people. Women living in urban areas and in households with high incidence of crime were, however, at higher odds of stranger assault, perhaps due to their increased exposure to risky situations and

potential offenders in general. The odds of stranger assault, however, declined slightly each year between 1992 and 2005.

Model 7, predicting acquaintance assaults, is presented in Table 4.12, and indicates a moderate relationship between the independent variables and acquaintance assaults (Nagelkerke R^2 = .138). Several predictors were statistically significant. The demographic variables of age, marital status, cohabitation status, and children in the household were all significant predictors of acquaintance assault. Adolescent and college-age women were at higher odds of acquaintance assault and middle age and elder women were at lower odds of acquaintance assault than young women. Never married women, divorced women, and separated women were more likely than married women to be assaulted by an acquaintance, with separated women being the most vulnerable. Women living alone were 1.6 times as likely to experience an acquaintance assault; however women with children in the household were at lower odds of acquaintance victimizaton. Lower household income levels slightly increased the odds of victimization by an acquaintance. Also, White females were up to 2 times as likely as non-White or Latina women to experience an acquaintance assault. Also, higher levels of household victimization raised the odds of acquaintance assault by about 4 times. The odds of acquaintance victimization did, however, decrease slightly over time. The results indicate a potentially strong relationship between demographic variables and victimization risk.

Model 8, presented in Table 4.13, predicted intimate partner assaults and was the strongest model of victim-offender relationships (Nagelkerke R^2 = .155). Although the results of Model 8, overall, were similar to Model 7, there were some interesting differences between the models. First, there was no difference in the odds of intimate partner victimization between adolescent and college-age women with young women; however middle age and elder women

Table 4.11 Model 6: Logistic Regression Analysis Predicting STRANGER Sexual Victimization (N=39,429)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	-.632	.089	50.502	.532***
College (18-26) = 1	.064	.061	1.090	1.066
Middle Age (40-59) = 1	-.110	.058	3.543	.896
Elder (60+) = 1	-1.148	.112	104.772	.317***
MARITAL STATUS (Reference: Married)				
Never Married = 1	.110	.065	2.910	1.117
Divorced = 1	.060	.072	.706	1.062
Separated = 1	-.308	.112	7.532	.735**
Widowed = 1	.020	.128	.025	1.020
COHABITATION (Lives Alone = 1)	.243	.061	16.014	1.275***
CHILDREN (Children < 12 = 1)	-.112	.047	5.562	.894*
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	.073	.013	31.063	1.076***
RACE (Non-White = 1)	-.174	.058	9.147	.840**
ETHNICITY (Latina = 1)	-.120	.070	2.982	.887
MSA (City=1, Suburb=2, Rural=3)	-.396	.033	145.700	.673***
DENSITY (Single Family Unit=1)	-.064	.047	1.858	.938
HH CRIME (> 3 incidents = 1)	.979	.057	299.088	2.662***
YEAR (1992-2005)	-.066	.005	153.160	.936***
Chi-2			1035.610***	
-2LL			18381.325	
Nagelkerke R2			.067	

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

Table 4.12 Model 7: Logistic Regression Analysis Predicting ACQUAINTENCE Sexual Victimization

(N=39,429)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	.374	.129	8.441	1.453**
College (18-26) = 1	.314	.103	9.297	1.369**
Middle Age (40-59) = 1	-.465	.119	15.209	.628***
Elder (60+) = 1	-2.392	.359	44.321	.091***
MARITAL STATUS (Reference: Married)				
Never Married = 1	.960	.136	50.005	2.611***
Divorced = 1	1.180	.141	70.335	3.254***
Separated = 1	1.500	.157	91.340	4.483***
Widowed = 1	.547	.327	2.793	1.728
COHABITATION (Lives Alone = 1)	.492	.092	28.823	1.635***
CHILDREN (Children < 12 = 1)	-.157	.078	4.036	.855*
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.089	.023	14.864	.915***
RACE (Non-White = 1)	-.271	.096	7.977	.763**
ETHNICITY (Latina = 1)	-.591	.136	18.760	.554***
MSA (City=1, Suburb=2, Rural=3)	.007	.052	.019	1.007
DENSITY (Single Family Unit=1)	.001	.079	.000	1.001
HH CRIME (> 3 incidents = 1)	1.375	.079	303.236	3.954***
YEAR (1992-2005)	-.043	.009	20.788	.958***
Chi-2		1054.328***		
-2LL		7317.442		
Nagelkerke R2		.138		

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

Table 4.13 Model 8: Logistic Regression Analysis Predicting INTIMATE Sexual Victimization (N=39,429)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	-.292	.226	1.661	.747
College (18-26) = 1	.063	.160	.154	1.065
Middle Age (40-59) = 1	-.643	.187	11.825	.526***
Elder (60+) = 1	-2.594	.641	16.364	.075***
MARITAL STATUS (Reference: Married)				
Never Married = 1	.992	.230	18.663	2.698***
Divorced = 1	1.356	.228	35.289	3.881***
Separated = 1	1.969	.235	70.054	7.166***
Widowed = 1	.509	.577	.779	1.663
COHABITATION (Lives Alone = 1)	.683	.143	22.852	1.980***
CHILDREN (Children < 12 = 1)	.039	.128	.093	1.040
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.086	.039	4.864	.918*
RACE (Non-White = 1)	-.185	.160	1.346	.831
ETHNICITY (Latina = 1)	-.309	.211	2.148	.734
MSA (City=1, Suburb=2, Rural=3)	.196	.084	5.436	1.216*
DENSITY (Single Family Unit=1)	.277	.129	4.611	1.319*
HH CRIME (> 3 incidents = 1)	1.792	.124	210.493	6.004***
YEAR (1992-2005)	-.025	.015	2.526	.976
Chi-2		541.996***		
-2LL		3089.557		
Nagelkerke R2		.155		

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

Table 4.14 Model 9: Logistic Regression Analysis Predicting FAMILY Sexual Victimization

(N=39,429)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	1.541	.463	11.098	4.670***
College (18-26) = 1	.609	.384	2.516	1.839
Middle Age (40-59) = 1	-1.290	.575	5.035	.275*
Elder (60+) = 1	-1.667	1.050	2.520	.189
MARITAL STATUS (Reference: Married)				
Never Married = 1	-.378	.427	.782	.685
Divorced = 1	.487	.458	1.131	1.628
Separated = 1	-.569	.784	.527	.566
Widowed = 1	-13.463	750.171	.000	.000
COHABITATION (Lives Alone = 1)	.201	.385	.272	1.222
CHILDREN (Children < 12 = 1)	.009	.262	.001	1.009
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.212	.083	6.579	.809**
RACE (Non-White = 1)	-.172	.330	.271	.842
ETHNICITY (Latina = 1)	-.973	.530	3.372	.378
MSA (City=1, Suburb=2, Rural=3)	.145	.177	.670	1.156
DENSITY (Single Family Unit=1)	-.041	.276	.022	.960
HH CRIME (> 3 incidents = 1)	1.253	.273	21.123	3.502***
YEAR (1992-2005)	.002	.032	.003	1.002
Chi-2			95.129***	
-2LL			893.351	
Nagelkerke R2			.097	

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

were less likely to be assaulted by an intimate. Although, never married, divorced, and separated women were all at higher odds of intimate partner victimization than married women, separated women were especially vulnerable with odds more than 7 times as high as married women. Women who lived alone also experienced higher odds of victimization, and, for intimate partner victimization, the presence of children in the household did not act as a protective factor. There were no significant variation between White women and non-White or Latina women with respect to the odds of intimate partner victimizations. Lower levels of household income slightly raised the odds of intimate victimization as did living in more suburban areas in single family homes. Household crime rates were also a very strong predictor of intimate victimizations.

The results of Model 9, predicting family victimization, are presented in Table 4.14, and indicate a moderate relationship between the independent variables and family victimization (Nagelkerke R^2 = .097). The odds of family victimization were more than 4.5 times higher for adolescent girls than young women indicating that children and adolescents may be especially vulnerable to family victimizations. Females in lower income household and households with higher incidence of crime were also at higher odds of family victimization. The results suggest that neither lifestyles variables not social disorganization variables are particularly strong predictors of family victimization. Rather, children and adolescents may be trapped in abusive family environments. Other family-related factors, such as family substance abuse problems, might also be associated with higher risk of family victimizations.

4.4 Risk of Victimization for High-Risk Age Groups

Existing literature on sexual victimization, as well as Models 1-9 presented above, indicate a strong inverse relationship between age level and risk of sexual victimization. In order to assess Hypothesis 2, the following set of analyses considered whether specific high-risk age

groups might have unique vulnerabilities. Adolescent girls and college-age women were examined independently.

4.4.1 Adolescent Girls. Considering that the majority of adolescent girls were single, never married and did not live alone, marital status, cohabitation status, and the presence of children in the household under 12 were dropped from the analysis. Household income, race/ethnicity and other household characteristics were included as potential predictors of risk of victimization. Table 4.15 presents an independent samples T-test comparing adolescent girls between the ages of 12 and 17 in the sample by victim status. The T-test indicates significant differences between sex victims and non-victims of sex crimes in the distribution of four independent variables: household income, ethnicity, household density, and household crime incidents. On average, adolescent sex victims lived in lower income households, in non-single family homes, and experienced more household crime than non-victims of sex crimes. Also, on

Table 4.15: Mean Comparisons between Adolescent Sex Victims and Non-Victims

	Sex Victims (N=278)	Non-Victims (N=4,887)	SE of Difference
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	3.7609	4.1348***	.11325
RACE (Non-White = 1)	.2194	.2083	.02507
ETHNICITY (Latina = 1)	.0942	.1459**	.01833
MSA (City=1, Suburb=2, Rural=3)	1.7986	1.8541	.04147
DENSITY (Single Family Unit=1)	.6619	.7278*	.02913
HH CRIME (> 3 incidents = 1)	.2878	.1367***	.02764

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

average, adolescent sex victims were less frequently Latina than non-Latina. Overall, the mean comparisons indicated that, for adolescents, social disorganization variables and other family-level variables may play a more important role than lifestyles. Essentially, adolescents' social and economic circumstances, perhaps due to their parents' lifestyles, rather than their own personal lifestyles, are more likely to determine victimization risk. A logistic regression model (Model 10) was estimated to predict risk of sexual victimization for adolescents. This model is presented in Table 4.16.

Table 4.16. Model 10: Logistic Regression Analysis Predicting ADOLESCENT Sexual Victimization (N=5,122)

	B	SE	Wald	Exp(B)
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.091	.039	5.472	.913*
RACE (Non-White = 1)	-.144	.162	.790	.866
ETHNICITY (Latina = 1)	-.630	.221	8.139	.533**
MSA (City=1, Suburb=2, Rural=3)	-.111	.096	1.354	.895
DENSITY (Single Family Unit=1)	-.153	.145	1.105	.858
HH CRIME (> 3 incidents = 1)	.831	.143	33.874	2.296***
YEAR (1992-2005)	-.029	.016	3.203	.971
Chi-2			63.131***	
-2LL			2086.058	
Nagelkerke R2			.036	

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

The results of Model 10 indicate a weak relationship between the predictors and victimization (Nagelkerke R^2=.036). The odds of victimization increased slightly with each decrease in income level. Household crime incidents, however, was the strongest predictor of adolescent sexual victimization. Higher levels of household crime were associated with 2 times the odds of sexual victimization. Residential location or density; however, were not significant predictors. Adolescent Latinas were at lower odds of victimization than non-Latina; however, there was no difference between Whites and non-Whites. Overall, the model was not a strong predictor of adolescent victimization and indicates that many other variables, perhaps family-level variables, need to be considered in order to model adolescent risk of victimization specifically.

4.4.2 College-Age Women. A large body of literature indicates that college-age women may be particularly vulnerable for sexual victimization. Table 4.13 presents an independent samples T-test comparing college-age women between the ages of 18 and 26 in the sample by victim status. The T-test indicates many differences in distribution between sex victims and non-victims of sex crimes. On average, sex victims were more likely to be never married and less likely to be married than non-victims. Sex victims were also more likely to live alone and less likely to have children under 12 in the household. Sex victims were also less likely to live in single family homes. On average, sex victims were more likely to have lower household incomes and higher levels of household crime incidents than non-victims. Sex victims, on average, were less likely to be Latina than non-victims.

A logistic regression model (Model 11), presented in Table 4.18, was estimated to predict risk of sexual victimization for college-age women. Model 11 was a statistically significant predictor of sexual victimization. The results indicate a moderate relationship between the

Table 4.17: Mean Comparisons between College-Age Sex Victims and Non-Victims

	Sex Victims (N=447) Mean	Non-Victims (N=7567) Mean	SE of Difference
MARITAL STATUS			
Married = 1	.0917	.2202***	.01447
Never Married = 1	.7987	.7073***	.01970
Divorced = 1	.0447	.0363	.00917
Separated = 1	.0604	.0341*	.01147
Widowed = 1	.0045	.0021	.00320
COHABITATION			
Lives Alone = 1	.2931	.1925***	.02202
CHILDREN			
Children < 12 = 1	.3356	.3895*	.02305
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	2.8225	3.1921***	.08803
RACE (Non-White = 1)	.1879	.2005	.01946
ETHNICITY (Latina = 1)	.0850	.1458***	.03361
MSA (City=1, Suburb=2, Rural=3)	1.7181	1.7218	.03550
DENSITY (Single Family Unit=1)	.3647	.4328**	.02349
HH CRIME (> 3 incidents = 1)	.3177	.0981***	.02231

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

predictors and the outcome (Nagelkerke R^2 = .085). Marital status was a strong predictor of risk of sexual victimization for college-age women. Never married, divorced, or separated women were at higher odds of victimization than married women. Separated women were the

most vulnerable for sexual assaults. Women who lived alone were also at higher odds for victimization and women with children in the household were at lower odds of victimization. Also women with high levels of household victimizations were more than four times as likely to experience sexual victimization. Finally, ethnicity was also associated with risk of sexual

Table 4.18. Model 11: Logistic Regression Analysis Predicting COLLEGE-AGE Sexual Victimization (N=8,014)

	B	SE	Wald	Exp(B)
MARITAL STATUS (Reference: Married)				
Never Married = 1	.742	.176	17.800	2.101***
Divorced = 1	.640	.290	4.865	1.897*
Separated = 1	1.003	.270	13.782	2.727***
Widowed = 1	1.289	.793	2.643	3.630
COHABITATION (Lives Alone = 1)	.427	.126	11.424	1.533***
CHILDREN (Children < 12 = 1)	-.297	.116	6.546	.743*
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.041	.034	1.457	.960
RACE (Non-White = 1)	-.191	.134	2.030	.826
ETHNICITY (Latina = 1)	-.446	.179	6.190	.640*
MSA (City=1, Suburb=2, Rural=3)	.032	.072	.191	1.032
DENSITY (Single Family Unit=1)	-.101	.116	.748	.904
HH CRIME (> 3 incidents = 1)	1.394	.114	150.760	4.030***
YEAR (1992-2005)	-.037	.013	7.828	.964**
Chi-2			241.276***	
-2LL			3207.744	
Nagelkerke R2			.085	

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

victimization for college-age women. Latina women experienced lower odds of victimization than non-Latina women. Year was a significant predictor suggesting that the odds of victimization for college-age women decreased over time. None of the other variables, including social disorganization factors, were statistically significant predictors for college-age women.

4.5 Risk of Sexual Victimization Compared to Other Violent Victimization

4.5.1 Personal Characteristics. The "non-victims" presented in Table 4.2 were non-victims of sex crimes; however, they may have been victims of other violent crimes. Considering that there may be a vulnerable population of women and girls that experience violent victimization, it is worthwhile to examine whether sex victims might have unique vulnerabilities compared to victims of other violent crimes. Therefore, Table 4.19 presents mean comparisons between sex victims and victims of other violent crimes and indicates that there are indeed numerous statistically significant differences between groups. Even among a vulnerable population of violent crime victims, sex victims, on average, were younger (M = 27) than other violent crime victims (M = 31) at the $p<.001$ level. When examining differences in specific age groups, on average, adolescent girls and college-age women between the ages of 12 and 26 were more likely to be a victim of a sex crime than some other violent crime; however, women age 27 and older were less likely to be a victim of a sex crime than some other violent crime. There were significant differences in marital status as well. Although there were no significant differences for divorced or separated women between groups, on average, sex victims were more likely to be never married and less likely to be married or widowed than victims of other violent crimes. On average, sex victims were also more likely to live alone than victims of other violent crimes and, interestingly, sex victims were less likely to have children under 12 in the household than victims of other violent crimes. These differences are consistent with expectations and also

indicate that among a vulnerable population of females the presence of children in the household could, in fact, be a protective factor.

The data presented in Table 4.19 also indicate that sex victims are particularly vulnerable, even more so than victims of other violent crimes. On average, sex victims lived in households with lower household income than victims of other violent crimes. Although there were no significant racial differences between groups, on average, sex victims were less often Latina than victims of other violent crimes. There were no significant differences in community characteristics between groups. On average, sex victims, however, were more likely to live in non-single family homes than victims of other violent crimes. Finally, on average, sex victims were more likely to live in households that experienced three or more violent victimizations than victims of other violent crimes.

In order to assess Hypothesis 4, a logistic regression model (Model 12) predicting sexual victimization in the vulnerable population of violent crime victims is presented in Table 4.20. This model was a statistically significant model of victimization risk (Chi2 (n=7,359) = 298.329, p<.001) though the Nagelkerke R^2 value of .048 indicated a weak relationship between the independent variables and group membership. The weak relationship may be due to the fact that victims of sex crimes and victims of other violent crimes share many of the same vulnerabilities that put them at risk as compared to non-victims of violent crimes. Nevertheless, the model still indicates some significant predictors of sexual victimization. As expected sexual victimization risk was higher for younger women. College-age women were at highest odds of sexual victimization compared young women and middle age and elder women were at significantly lower odds of victimization than young women. Never married, divorced, separated, and widowed women were all at higher odds of sexual victimization than married women. Living

Table 4.19 Mean Comparisons between Sex Victims and Other Victims

	Sex Victims (N=1,278)	Other Victims (N=11,900)	SE of Difference
Age	27.36	31.13***	.35783
AGE LEVEL			
Adolescent (12-17) = 1	.2160	.1834**	.01205
College (18-26) = 1	.3498	.2545***	.01393
Young (27-39) = 1	.2676	.2993*	.01308
Middle Age (40-59) = 1	.1534	.2248***	.01079
Elder (60+) = 1	.0133	.0379***	.00365
MARITAL STATUS			
Married = 1	.1354	.2765***	.01041
Never Married = 1	.5915	.4605***	.01449
Divorced = 1	.1620	.1565	.01071
Separated = 1	.0931	.0795	.00850
Widowed = 1	.0180	.0271*	.00401
COHABITATION (Lives Alone = 1)	.2864	.2234***	.01321
CHILDREN (Children < 12 = 1)	.3834	.4495***	.01435
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	3.1771	3.5405***	.05440
RACE (Non-White = 1)	.1800	.1850	.01142
ETHNICITY (Latina = 1)	.0876	.1089**	.00841
MSA (City=1, Suburb =2, Rural =3)	1.7535	1.7599	.02067
DENSITY (Single Family Unit)	.4844	.5708***	.01470
HH CRIME (> 3 incidents = 1)	.2919	.2067***	.01325

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

Table 4.20. Model 12: Logistic Regression Analysis Predicting Sexual Victimization

(N=13,178)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	.166	.108	2.334	1.180
College (18-26) = 1	.242	.087	7.834	1.274**
Middle Age (40-59) = 1	-.346	.100	11.932	.708***
Elder (60+) = 1	-1.148	.275	17.447	.317***
MARITAL STATUS (Reference: Married)				
Never Married = 1	.557	.109	26.345	1.746***
Divorced = 1	.553	.115	23.279	1.739***
Separated = 1	.653	.132	24.600	1.922***
Widowed = 1	.489	.249	3.867	1.630*
COHABITATION (Lives Alone = 1)	.232	.079	8.640	1.262**
CHILDREN (Children < 12 = 1)	-.363	.066	29.802	.696***
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.050	.019	6.769	.951**
RACE (Non-White = 1)	-.164	.082	4.023	.848*
ETHNICITY (Latina = 1)	-.266	.107	6.156	.766*
MSA (City=1, Suburb=2, Rural=3)	.031	.045	.467	1.031
DENSITY (Single Family Unit=1)	-.130	.067	3.806	.878
HH CRIME (> 3 incidents = 1)	.413	.068	37.243	1.511***
YEAR (1992-2005)	-.005	.008	.380	.995
Chi-2		298.710***		
-2LL		8092.930		
Nagelkerke R2		.048		

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

alone raised the odds of sexual victimization by 1.2 times whereas the presence of children in the household reduced the odds of sexual victimization. Non-White and Latina women had lower odds of sexual victimization as compared to other violent victimizations. Women living in more densely populated living arrangements also experienced higher odds of victimization; however residential location did not affect the odds of victimization. Household income, also, was not a significant predictor of sexual victimization indicating that victims of other violent crimes are likely to face similar socio-economic hardships as victims of sexual crimes. Household victimization, however, did increase odds of sexual victimization by 1.5 times. These results suggest that there were few significant differences in social disorganization variables between sex victims and victims of other violent crimes; rather, sex victims shared many of the same vulnerabilities with violent crime victims and were, perhaps, even more vulnerable. Furthermore, sex victims' lifestyles and routine activities may have enhanced their vulnerabilities even more.

4.5.2 Intimate Partner Sexual Victimization. Researchers of intimate partner violence have proposed that intimate partner violence is substantially different from other types of violence against women. The current study also suggests that there are differences between different types of violent victimization, specifically sexual versus non-sexual victimization. In order to assess differences in victimization risk for women and girls experiencing different types of intimate partner violence, the following analyses compared intimate partner violence involving sexual victimization compared to other forms of intimate partner violence. Table 4.21 presents mean comparisons between victims of sexual and non-sexual intimate partner violence and shows that, on average, there were significant differences between victims of sexual and non-sexual intimate partner violence. Table 4.22 presents a logistic regression model predicting

Table 4.21 Mean Comparisons between IP Sex Victims and Other IP Victims

	Sex Victims (N=314)	Other Victims (N=2436)	SE of Difference
Age	28.8981	30.8883***	.60901
AGE LEVEL			
Adolescent (12-17) = 1	.1369	.0484***	.01991
College (18-26) = 1	.3217	.3395	.02836
Young (27-39) = 1	.3758	.4175	.02914
Middle Age (40-59) = 1	.1561	.1847	.02197
Elder (60+) = 1	.0096	.0099	.00585
MARITAL STATUS			
Married = 1	.1086	.1638**	.01915
Never Married = 1	.4665	.3537***	.02987
Divorced = 1	.2204	.2390	.02554
Separated = 1	.1917	.2357	.02390
Widowed = 1	.0128	.0078	.00548
COHABITATION (Lives Alone = 1)	.3662	.3945	.02898
CHILDREN (Children < 12 = 1)	.4841	.5952***	.02995
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	2.9791	2.9950	.10560
RACE (Non-White = 1)	.1783	.1876	.02337
ETHNICITY (Latina = 1)	.0865	.1083	.01715
MSA (City=1, Suburb =2, Rural =3)	1.8726	1.8025	.04207
DENSITY (Single Family Unit)	.5510	.4832*	.02988
HH CRIME (> 3 incidents = 1)	.4172	.2172***	.02910

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

Table 4.22. Model 13: Logistic Regression Analysis Predicting IP Sexual Victimization (N=2,714)

	B	SE	Wald	Exp(B)
AGE LEVEL (Reference: Young (27-39))				
Adolescent (12-17) = 1	.719	.258	7.776	2.053**
College (18-26) = 1	-.083	.171	.238	.920
Middle Age (40-59) = 1	-.244	.197	1.537	.784
Elder (60+) = 1	.102	.636	.026	1.107
MARITAL STATUS (Reference: Married)				
Never Married = 1	.427	.241	3.131	1.532
Divorced = 1	.210	.233	.813	1.233
Separated = 1	.147	.235	.392	1.159
Widowed = 1	.914	.594	2.371	2.494
COHABITATION (Lives Alone = 1)	.180	.147	1.494	1.197
CHILDREN (Children < 12 = 1)	-.502	.136	13.669	.606***
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	-.042	.041	1.034	.959
RACE (Non-White = 1)	.015	.171	.008	1.015
ETHNICITY (Latina = 1)	-.033	.223	.022	.967
MSA (City=1, Suburb=2, Rural=3)	.151	.091	2.744	1.163
DENSITY (Single Family Unit=1)	.376	.139	7.330	1.456**
HH CRIME (> 3 incidents = 1)	.943	.130	52.223	2.568***
YEAR (1992-2005)	-.003	.017	.037	.997
Chi-2		111.600***		
-2LL		1820.809		
Nagelkerke R2		.079		

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

intimate partner sexual victimization compared to other, non-sexual, intimate partner victimization. The model (Model 13) was a statistically significant model of victimization risk (Chi2 (n=2,714) = 111.600, p<.001) and the Nagelkerke R^2 value of .079 indicated a weak to moderate relationship between the independent variables and group membership, suggesting that, although victims of all types of intimate partner victimization may share many of the same risk factors, there may factors that enhance the risk of sexual victimization within intimate partner relationships. Specifically, the model indicated that adolescent girls were at enhanced risk of intimate partner sexual victimization. This may be due to their relative inexperience in sexual relationships or due to issues of low-self esteem or low self-confidence and inability to actively stop sexual situations in which they are not comfortable. Women living in households with children under 12 in the household, however, were at reduced odds of experiencing sexual forms of intimate partner violence. Violent partners may be aware of children in the household and may prefer to avoid exposing them to sexual situations as compared to other forms of violent behavior. Also, residence in single family housing units slightly raised the odds of sexual forms of intimate partner violence compared to non-sexual forms. This may be related to enhanced privacy in single family housing units that would preclude perpetrators from being interrupted during a sexual assault. Finally, women living in households with lots of other violent crime incidence were at enhanced odds for experiencing sexual violence as well. In these households, perpetrators may use a variety of mechanisms to exert power and control over their victims, including both sexual and non-sexual methods.

4.5.3 Event Characteristics. Event characteristics are also important factors to consider in order to better understand the situational contexts and patterns of sexual victimization. Non-victims of violent crimes will not have data on these factors; therefore, sex victims are compared

Table 4.23: Mean Comparisons of Event Characteristics

	Sex Victims (N=1,278)	Other Victims (N=11,900)	SE of Difference
Time of Day			
Day Victimization	.4218	.5810***	.01453
Night Victimization	.6987	.4657***	.01363
Location			
At or Near Home	.4679	.4250**	.01468
Within 1 Mile of Home	.5970	.5859	
Within 5 Miles of Home	.7684	.7859	
Safe Space	.5798	.3053***	.01444
Weapons			
Any Weapon	.1502	.2414***	.01074
Gun	.0571	.0737**	.01074
Knife	.0603	.0543*	.00692
Number of Offenders			
Single Offender	.9178	.8374***	.00840
Multiple Offender	.1393	.1808***	.01031
Gender of Offender			
Single Male Offender	.9030	.5972***	.00942
Single Female Offender	.0657	.2659***	.00803
Substance Use			
Single Alcohol/Drug Offender	.4429	.2682***	.01448

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

to victims of other violent crimes. Table 4.23 presents an independent samples T-test comparing means of event characteristics between sex victims and other victims. The results indicated that, on average, sex victims more frequently experienced victimizations at night at or near home in at

a “safe space.” On average, sexual assaults were less likely to involve weapons and more likely to involve single, male offenders who used alcohol or drugs.

In order to further assess Hypothesis 4, a logistic regression model (Model 13) using victimization event characteristics to predict sexual victimization was estimated. Some of the variables were dropped due to double-counting. The final model included five variables: night victimization, safe space victimization, weapons use, single male offender, and offender alcohol or drug use. Table 4.24 presents the results of Model 14 and indicates that the model was statistically significant at the $p < .001$ level and the predictors, as a set, could reliably distinguish

Table 4.24: Model 14 Logistic Regression Analysis Predicting Any Sexual Victimization (N=13,178)

	B	SE	Wald	Exp(B)
Night Victimization	.735	.069	114.624	2.086***
Safe Space Victimization	.660	.064	105.146	1.934***
Weapon	-.651	.083	60.761	.522***
Single Male Offender	1.545	.100	240.507	4.687***
Single Alcohol/Drugs Offender	.130	.066	3.933	1.139*
Chi-2	941.741***			
-2LL	7449.849			
Nagelkerke R2	.146			

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

between sex victims and victims of other violent crimes (Nagelkerke R^2 = .146). All five of the independent variables were statistically significant predictors of sexual victimization. The odds of victimization by a single male offender were 4.7 times higher for sex victims than other

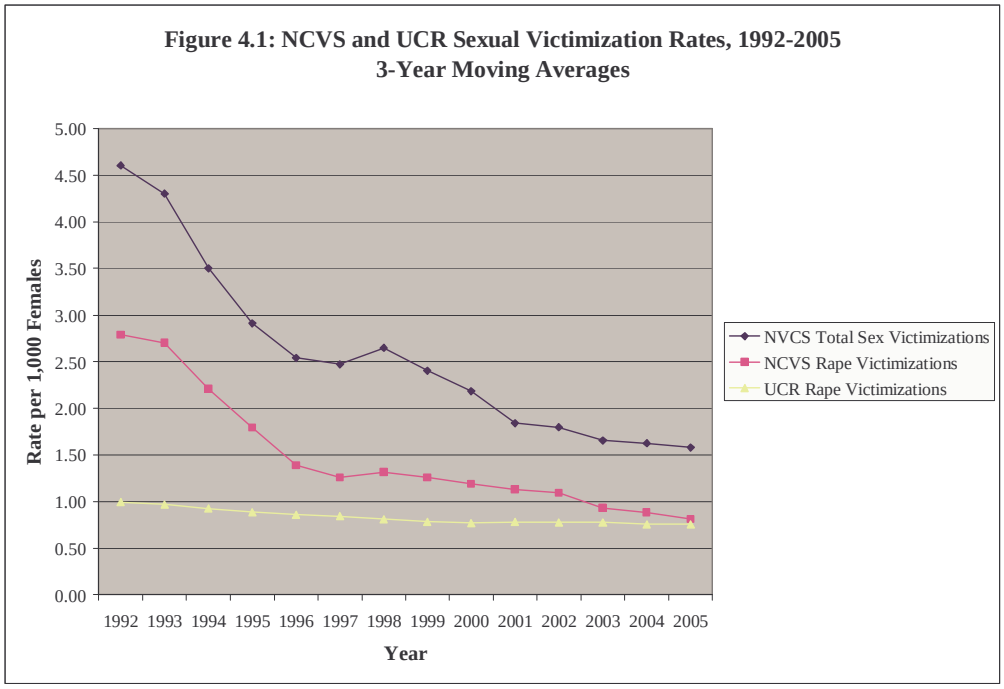
victims. Sex victims were also about 2 times as likely as other victims to be victimized at night in their own homes or in the home of a friend, relative, or neighbor. The odds of victimization by an offender who had consumed alcohol or drugs were slightly higher for sex victims than other victims. Finally, sex victims were almost 2 times less likely to be assaulted by an offender with a weapon than other victims.

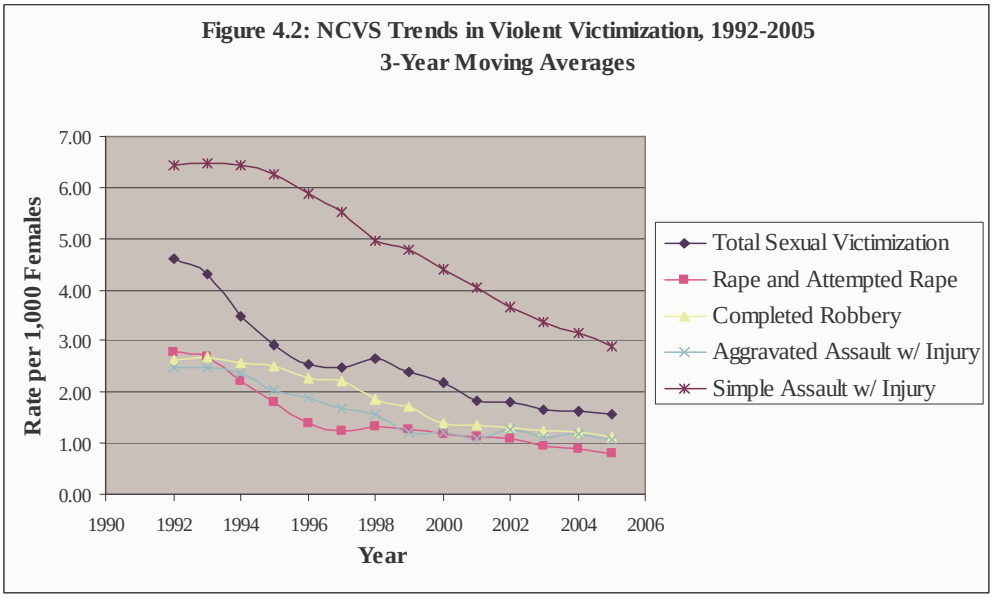
4.6 Macro-Level Trends in Sexual Victimization

The two main sources of national data on crime and victimization, the NCVS and the UCR, both indicate declining rates of rape and sexual assault in the U.S. Figure 4.1 presents NCVS and UCR 3-year-moving averages of rates of total sexual victimization and rape victimization from 1992-2005. NCVS statistics indicate a sharper decline in victimization, roughly 65% from 1992 to 2005; however UCR statistics also indicate a steady decline of about 50%. The smaller magnitude of decline in UCR statistics could be due to the fact that reporting rates are likely to have gone up offsetting the real rate of decline in UCR data. This is supported by the fact that the gap between NCVS and UCR statistics has been closing in recent years.

Declining rates of sexual victimization are consistent with the overall crime decline of the 1990s and 2000s. Figure 4.2 presents NCVS data on rates of total sexual victimization, rape and attempted rape, completed robbery, aggravated assault with injury, and simple assault with injury to compare trends in these violent crimes. The data indicates significant declines in all of these types of violent victimizations between 1992 and 2005. The overall rates and trends in victimizations for rape and attempted rape, completed robbery, and aggravated assault with injury were loosely aligned. As expected, simple assault was much more common than the more violent victimizations, but simple assault rates also declined significantly. Results suggest overall declines in violent victimization of women, but the question of whether the causal factors

associated with those declines were the same across the board requires further study. In order to assess Hypothesis 5, potential correlated of the rape decline are considered below.





4.6.1 Potential Correlates of the Rape Decline

A number of theories have been introduced to explain the "great American crime decline" of the 1990's and 2000's, but how effective are these theories in explaining declines in

sexual victimization? It is outside of the scope of this dissertation to assess all the potential correlates of the rape decline; however, this chapter discusses the "usual suspects" or factors associated with the crime decline in general, such as changes in demographics, policing, incarceration, and social and economic factors. Changes in the culture of sex are also considered as a potential correlate of declining victimization trends.

4.6.1.1 Demographics. Most of the models presented above indicated that age may be a predictor for personal risk of victimization. On the aggregate level, age demographics may be a predictor for macro-level trends. If the age demographics of a population changes over time, it may affect the number of suitable targets in the population. Since younger women are at higher risk of sexual victimization, if the population of females is aging overall, then we might expect lower rates of aggregate sexual victimization. Data from the U.S. Census Bureau (2012), presented in Figure 4.3, indicates that the median age of the female population has been increasing over the last four decades and the percentage of females in the highest risk age groups has been decreasing. If there are simply fewer women in the highest risk age groups, there may simply be fewer opportunities for sexual victimization. Although this study assumes a constant supply of motivated offenders, age demographics might also play a role on the offender side. Demographic factors related to marital status and cohabitation may also have played a role in changing trends in sexual victimization. According to U.S. census data and the National Marriage Project's *State of Our Unions* report (2011), marriage rates have been in decline for decades. Although the percentage decline was small, still, considering that married women were at lowest risk of sexual victimization, one might have expected higher victimization rates; however the decline in marriage rates may have been offset with rising rates of cohabitation. Cohabitation rates have been increasing at a faster rate than marriage rates have been declining.

According to the U.S. Census the number of unmarried couples living together increased 72% between 1990 and 2000. Divorce rates also dropped slightly in the same time period. These statistics are presented in Figure 4.4.

Figure 4.3: U.S. Age Demographics, 1980-2010

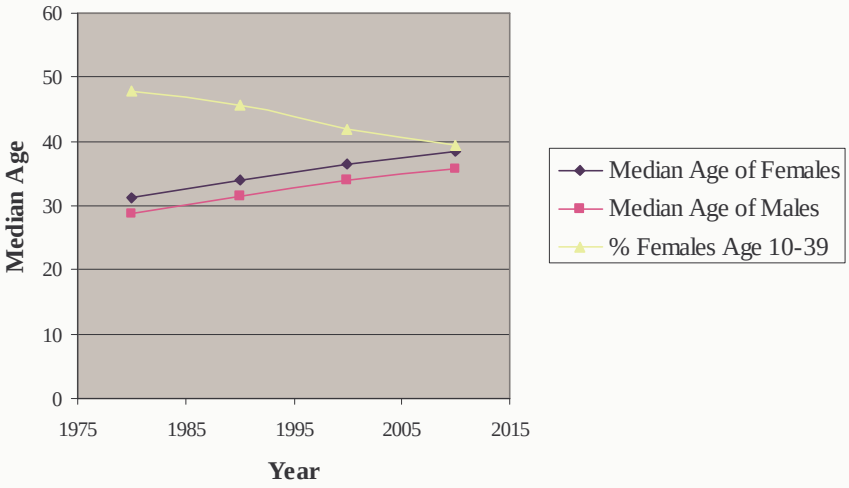
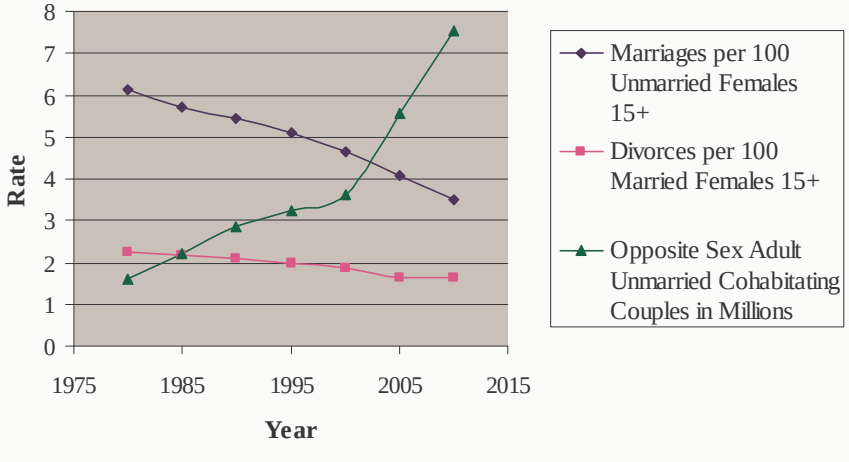


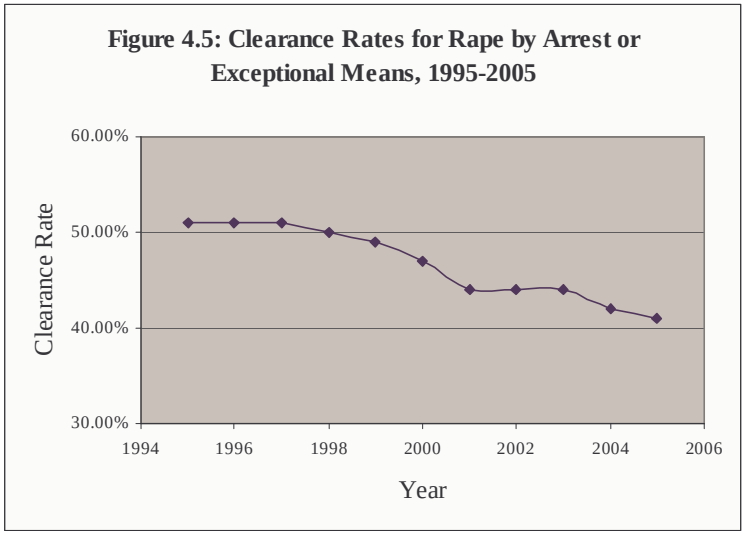
Figure 4.4: U.S. Marriage, Divorce, and Cohabitation Demographics, 1980-2010



The models presented in Chapter 3 also indicated that Latina women were at lower risk of sexual victimization than non-Latina women. While it is unclear as to the reasons for this ethnic difference, the growth of the Hispanic population in the U.S. could also have implications

for aggregate rates of sexual violence. According to the U.S. Census, between 2000 and 2009, the female Hispanic population grew an astounding 36.3%. The large population spike in the Hispanic population might be associated with declining rates of victimization.

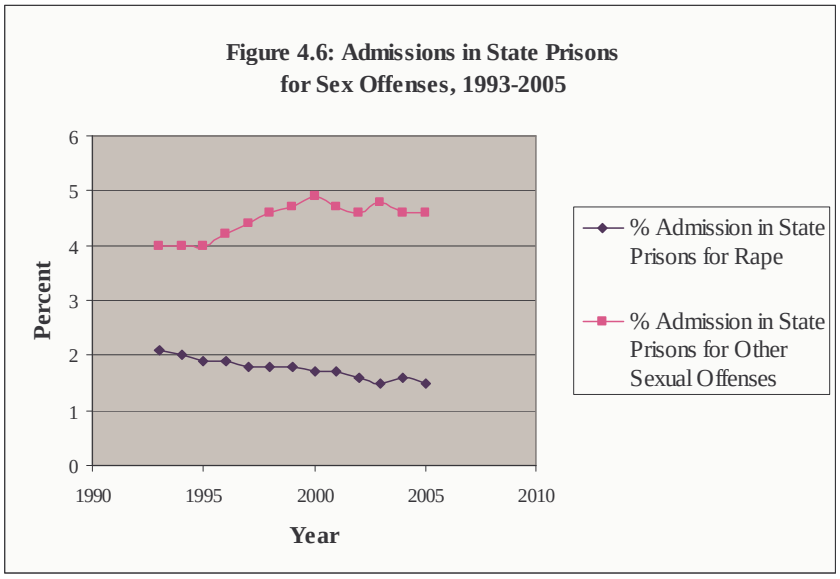
4.6.1.2 Policing. Policing has been cited as a possible correlate of the crime decline both in terms of number of officers on the street as well as policing policy and strategies. The role of policing in the decline in sexual victimization, however, seems less relevant than for other violent crimes considering that the vast majority of sexual assaults are perpetrated by non-strangers in seemingly safe spaces like a person's home or the home of a friend or neighbor. If most sex crimes were perpetrated outside the realm of police officers, then the number of police on the street would probably not make a major difference in victimization rates. Another possible effect of policing could be changes in policing strategies. The development of



specialized policing units to investigate sex crimes, such as special victims' units (SVUs), might have resulted in more arrests and a deterrent effect; however, according to the FBI's UCR, clearance rates for rape actually decreased from 51.0% in 1995 to 41.3% in 2005 as presented in Figure 4.5. Despite special efforts by police departments, police were not necessarily getting better at identifying and arresting offenders. Therefore, policing was unlikely to have had a

deterrent effect on potential rapists. The role of police probably had little to do with drop in sex crimes.

4.6.1.3 Incarceration. The rise in incarceration in the 1990's is often credited, at least partially, with contributing to the crime decline. In so much as those incarcerated are incapable of victimizing others, incapacitation is a credible causal mechanism for decreasing crime rates. It is true that there is considerable non specialization in violent crime, therefore overall incarceration rates could have an impact on declining sexual violence. Nevertheless, data from the National Corrections Reporting Program indicates that the percentage of admissions into state prisons for rape have declined consistently from 2.1% in 1993 to 1.5% in 2005, although admissions for other sexual crimes did increase from 4.0% in 1993 to 4.6% in 2005 as presented in Figure 4.6. The median sentence length for rape was 120 months in 1993 to 1996 dropping between 1997 to 2001 to 100 to 108 months, and then increasing again back to 120 months



between 2002 and 2005. Median sentencing for other sex offenses also fluctuated similarly from 72 months down to 62 months and then back to 72 months. Overall, only a small percentage of the state prison population is incarcerated for sexual crimes and average sentencing for sexual

offenses, despite some fluctuations, has not shifted much between 1992 and 2005. These data suggest that while incarceration may have played a role in the rape decline, the weight of incarceration is difficult to determine and likely not as high as incarceration enthusiasts would suggest.

4.6.1.4 Gun Control. Gun control efforts have been cited as a possible explanation for decreasing rates of violent crime, however, these efforts are likely only minimally related to the steady decline in sexual victimization considering that only a small fraction of sex crimes involve firearms. In fact, overall, weapons use is rare in sex crimes. Due to such small numbers per year, four-year average rates between 1992-1995 and 2002-2005 were calculated and compared. From 1992-1995, the average rate of weapons use in sex crimes was .48 per 1,000 female victims. From 2002-2005, the average rate of weapons use dropped to .14 per 1,000 female victims. Therefore, although weapons use was infrequent in sexual crimes, there appears to be some rough evidence of a decline in weapons use; however, the year to year numbers are so small that they do not have statistical value.

4.6.1.5 Social and Economic Factors. Could the economy have something to do with declining rates of sexual victimization. Traditional hypotheses on the relationship between economy and crime have focuses on the benefits of prosperity as a deterrent; however, whether economic prosperity would deter sexual crimes is less clear. In fact, it may be the opposite considering that people may have more of an appetite for sex in times of economic prosperity and more money to spend on dates and at bars.

4.6.2 The Culture of Sex. Significant cultural changes with respect to sexuality may provide important supplements to the standard explanations of the crime decline. Laura Sessions Stepp (2007) notes that "Young people have virtually abandoned dating and replaced it with

group get-togethers and sexual behaviors that are detached from love or commitment – and sometimes even from liking…. Relationships have been replaced by the casual sexual encounters known as hook-ups" (5). Similarly, Kathleen Bogle (2008) proposes that women (and men) began to consider sex with casual acquaintances and non-intimates as an acceptable norm in the 1990s (whereas prior to the 1990's sex was normatively considered to be between intimates). Technological advances such as the cell phone and the internet also contributed to and facilitated the growing "hook-up culture." According to the General Social Survey, the percentage of females reporting casual sexual experiences in the last year increased from 30.8% in 1990 to 36.1% in 2006. These changes indicate a cultural trend in which casual sexual encounters have largely been normalized, resulting in significant changes in routine dating and courtship behavior. While some scholars might consider some of these casual sexual encounters to be victimization experiences, "victims" will often not consider these experiences as victimization. In a study of college students, most did not consider casual sexual encounters to include the possibility of sexual assault and did not consider rapes in the context of casual sexual encounters (Littleton et al 2009).

As sex without commitment has become more and more acceptable and even *expected*, the participants in the emerging culture face new physical and emotional challenges. Bogle, for example, notes that, "unlike the dating era when sex was deemed appropriate only after marriage or at least engagement, college students utilizing the hookup script cannot pinpoint precisely when, or in what context, sex should occur" (93). Given these cultural changes and the confusion and ambiguity surrounding sex, the tools and measures we use to understand victimization, may not be adequate to understand the true nature and extent of victimization. Measures are important in what they can tell us, but also what they cannot tell us. National

statistics can tell us many things about the victimization of women, but the national instruments were not *designed* to answer questions about victimization that are the result of the nature of victimization undergoing significant changes. As such, we can learn a tremendous amount of information about overt aggressive violence from national statistics, but less about coercive and exploitive behaviors that have essentially become *acceptable* forms of sexuality.

Nicola Gavey (2005) writes "Popular culture ostensibly screams out with images and messages of women actively and keenly pursuing sex and sexual pleasure" (2). In the modern context, pressures to acquiesce to sexual advances are strong; whereas, in the past, the normative response was to resist. As such, otherwise coercive sexual encounters have become culturally normalized, and, as a result, may not be internalized as assaults but rather as part of the normal struggles associated with socialization. Refusal of unwanted sex can be problematic for women whose "liberated" status demands openness to sexual advances as an indicator of self-confidence and self worth. Young women are increasingly prone to conceptualizing their life experiences in the context of individual choice and agency and resist notions that their life experiences are determined by outside social forces. They may consider the "sexual freedom" of the hook-up culture as a positive element in their lives even if there are negative consequences for their physical and emotional well-being. As a result, the distinction between rape and sex has become much more ambiguous (Cahill 2001, Gavey 2005).

Gavey continues, "The divide between rape and what was once 'just sex' has well and truly began to crumble. Rape is no longer rare. It is almost ordinary" (1). These sociological assessments based on qualitative data collection lend some support to feminist notions of high rates of sexual exploitation. Research has also found that "hook-up" sexual experiences are often unpleasurable or coervice for women (Armstrong et al 2009; Flack et al 2007; Paul 2006,

Wade and Heldman 2010). Many women consent to sexual encounters and behaviors that they do not desire (Flack et al. 2007; Littleton et al. 2009; Paul 2006). For black women, there may be particular subcultural factors that affect both black women's routine activities and victimization trends. T. Denean Sharpley-Whiting (2007) writes "the overtly sexual and sexist nature of much of hip hop culture also suggests its guidance on matters of sex" (58). As young women listen to this music and participate in this culture, the range of acceptable sexual behaviors is broadened. The lyrics of such music present a bleak state of young black women's sexual options and experiences because it suggests an inability to distinguish seduction from sexual violence. Sharpley-Whiting continues, "These perversions of desirability set young black women up as 'too hot to be bothered,' so accommodating sexually that that bothersome word, 'No,' has no place in our repertoire" (67). These studies indicate that a better understanding of the changing nature of sexuality within society is critical to understanding trends in sexual violence, and, especially racial differences in victimization statistics.

Essentially, this cultural redefinition of victimization may explain a decline in victimization rates over time while simultaneously resulting in increased risk of victimization for some women. Moreover, social changes may represent a shift in the nature of sexual violence away from well-defined assaultive behaviors to more exploitive forms of sexual coercion. Even in exploitive sexual situations, these experienced may be brushed off as a bad date or a failed hook-up, not as a sexual victimization experience. Therefore, vulnerable women may be at risk of more insidious forms of victimization that are unlikely to be captured in official statistics and likely to be undercounted in victimization surveys. Relevant sociological literature on sexuality and related topics indicate that our measures of victimization may not tell the whole story and that one must consider the implications of social changes to fully make sense of the national

statistics. These changes are difficult, though not impossible, to capture in survey methodology and may require more qualitative study or mixed method approaches.

4.6.3 A Comparison of Two Sex Victim Cohorts. Dataset 1 was used to compare to sex victim cohorts to investigate whether there were differences in the distribution of victimization between decades. The first group included sex victims from 1992 to 1995 and the second included sex victims from 2002 to 2005. Both personal characteristics and event characteristics were compared between the groups. There were only a few statistically significant mean differences in personal characteristics and no differences in even characteristics between these cohorts. The significant differences are presented in Table 4.22 and indicate that sex victims in the early 1990s were more likely from lower income households and experienced higher levels of household crime incidents.

Table 4.25: Mean Comparisons between Two Sex Victim Cohorts

	Sex Victims 1992-1995 (N=542)	Sex Victims 2002-2005 (N=222)	SE of Difference
Children <12 in the Household	.4077	.3198*	.03782
Household Income	2.9024	3.6544***	.14272
Non-White	.1568	.2387**	.03266
MSA Status	1.8173	1.7027*	.05537
Single Family Home	.4705	.5586*	.03977
Household Crime Incidents	.3413	.2252***	.03472

***. Significant at the p<.001 level; **. Significant at the p<.01 level; *. Significant at the p<.05 level.

They were also less likely to live in single-family homes, more likely to live in urban areas, more likely to have children in the home, and less likely to be a minority. Overall, these results

indicate that crimes most likely to be associated with social disorganization and environmental variables may have been more likely to experience reductions as part of the crime decline. Therefore, the reduction in the overall rate of victimization may be related to reductions in these forms of sexual assault. Meanwhile, changes in the culture of sex may have created new types of coercive sexual situations for women which are not readily captured in national statistics.

Chapter 5: Discussion and Conclusion

5.1 Key Findings

The current study was directed by two main research questions: (1) What factors are associated with higher personal risk of sexual victimization? (2) What factors are associated with lower aggregate rates of sexual victimization? Table 5.1 presents the five hypotheses of the study and indicates whether the findings supported or rejected each of the hypotheses.

Table 5.1 Hypotheses Supported or Rejected

Hypotheses	**Results**
H1: Personal risk of sexual victimization will vary by demographic factors. Specifically, younger, unmarried women, who are living alone will be at higher risk of victimization.	Supported
H2: Risk factors for sexual victimization will vary for different types of sexual victimization, different victim-offender relationships, and different age groups. Specifically, demographic factors will be best at predicting serious victimizations and acquaintance assaults and worst at predicting adolescent victimization.	Supported
H3: Risk factors for sexual victimization will vary from risk factors for other violent crimes. Specifically, younger, unmarried women, who are living alone will be at higher risk of sexual victimization than other types of violent victimization.	Supported
H4: Event characteristics of sexual victimizations will vary from event characteristics of other violent victimizations. Specifically, sexual victimizations will be more likely to take place at night time in seemingly safe spaces.	Supported
H5: The variables commonly associated with the crime decline will be insufficient in explaining the simultaneous decline in sexual victimization.	Supported

As presented in Table 5.1, all five of the hypotheses were supported by the current study. The results indicate that risk of female sexual victimization is closely linked to demographic variables, including age, marital status, and cohabitation status, and the presence of children in the household, and is in line with prior research. Younger, unmarried women, living alone without children, were at higher risk of sexual victimization than older, married women, who cohabitated with others. The significance of these demographic variables, controlling for a large number of other variables, suggest that victims' enhanced vulnerability to sexual victimization was likely associated with behavioral expectations and constraints related to their demographic characteristics. In essence, the results of this study support a lifestyles explanation for increased risk of sexual victimization overall. Young, unmarried women's relative sexual inexperience, active participation in dating and courtship activities within a "hook-up" culture that normalizes casual sexual experiences, socialization behavior and alcohol consumption, and lower levels of personal and collective guardianship might all contribute to their particular attractiveness and accessibility to potential offenders.

An unexpected finding of the current study was that, overall, White women were at higher risk of victimization than non-White or Latina women, which is consistent with some prior research. The reasons for racial and ethnic differences in risk are somewhat unclear; however, it is possible that larger family sizes and extended family living arrangements among minority and Latina households may impact relative levels of guardianship. There may also be cultural factors that impact the ways in which minority and Latina women define sexual victimization that affects their reporting of these experiences. In a study of rape advocates perceptions of rape victims based on cultural differences, rape advocates reported that victims of color were more likely to remain silent about their victimization experiences (Maier, 2008). In

another study of low income women, minority and Latina women were less inclined to define intimate partner violence as rape (Littleton et al, 2007). Issues of immigration status may also preclude women's willingness to report criminal victimization experiences, even in surveys.

Household income and some of the social disorganization variables were also important predictors of sexual victimization in the full sample; however, these variables were less important as predictors in the vulnerable sample of all violent crime victims indicating that victims of sex crimes may share many of the same socio-economic and environmental vulnerabilities with other violent crime victims; however, their personal lifestyles could potentially make them even more vulnerable. Nevertheless, one of the strongest predictors of personal victimization risk was repeated incidents of violence in the home. Women and girls who lived in households with higher levels of household crime victimizations were more vulnerable to sexual victimization than those living in safer homes. This finding suggests that characteristics of the home environment might be especially important in considering risk of sexual victimization.

Risk factors for sexual victimization also varied considerably by offense types and victim-offender relationships suggesting vulnerabilities for sexual victimization were not constant across different situational contexts. Table 5.2 presents the statistically significant predictors in Models 1-12 which predicted risk of sexual victimization overall, by offense type, by victim-offender relationships, by high risk age groups, and compared to other violent crimes. Prior research has suggested that socio-economic factors may be related to risk of victimization; however few studies have specified the characteristics of this relationship. In the current study, socio-economic status, measured by household income, was only a significant predictor of the most serious sexual assaults perpetrated by known offenders including acquaintances, intimate

Table 5.2 Significant Predictors for Personal Risk of Sexual Victimization (Models 1-12)												
	1 ANY	2 SERIOUS	3 MINOR	4 UNWANTED	5 THREATS	6 STRANGER	7 ACQUAINTANCE	8 INTIMATE	9 FAMILY	10 ADOLESCENT	11 COLLEGE	12 OTHER VIOLENT
AGE LEVEL (Reference: Young (27-39))												
Adolescent (12-17) = 1	Yes	Yes	Yes				Yes		Yes			
College (18-26) = 1	Yes	Yes					Yes					Yes
Middle Age (40-59) = 1	Yes	Yes			Yes	Yes	Yes	Yes	Yes			Yes
Elder (60+) = 1	Yes	Yes	Yes		Yes	Yes	Yes	Yes				Yes
MARITAL STATUS (Reference: Married)												
Never Married = 1	Yes	Yes	Yes	Yes		Yes	Yes	Yes			Yes	Yes
Divorced = 1	Yes	Yes	Yes	Yes		Yes	Yes	Yes			Yes	Yes
Separated = 1	Yes	Yes	Yes	Yes		Yes	Yes	Yes			Yes	Yes
Widowed = 1	Yes		Yes			Yes						Yes
COHABITATION (Lives Alone = 1)	Yes	Yes	Yes		Yes	Yes	Yes	Yes			Yes	Yes
CHILDREN (Children < 12 = 1)	Yes	Yes	Yes			Yes	Yes				Yes	Yes
HH INCOME (<10K = 1, 10K-20K = 2, 20K-30K = 3, 30K-40K = 4, 40K-50K = 5, 50K-75K = 6, 75K+= 7)	Yes	Yes					Yes	Yes	Yes	Yes		Yes

Table 5.2 Significant Predictors for Personal Risk of Sexual Victimization (Models 1-12) Continued												
	1 ANY	2 SERIOUS	3 MINOR	4 UNWANTED	5 THREATS	6 STRANGER	7 ACQUAINTANCE	8 INTIMATE	9 FAMILY	10 ADOLESCENT	11 COLLEGE	12 OTHER VIOLENT
RACE (Non-White = 1)	Yes				Yes	Yes	Yes					Yes
ETHNICITY (Latina = 1)	Yes	Yes					Yes			Yes	Yes	Yes
MSA (City=1, Suburb=2, Rural=3)						Yes		Yes				
DENSITY (Single Family Unit=1)	Yes							Yes				Yes
HH CRIME (> 3 incidents = 1)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

partners, and family members. This finding suggests that poorer women are not necessarily at greater risk of assault by random strangers, but by persons within their social circles. Therefore, it is presumable that poorer women may be able to affect their chances of victimization if they are able to alter their level of attractiveness to offenders and enhance their guardianship.

Although serious sexual assault, minor sexual assault, and unwanted sex were all strongly associated with demographic variables, threats of rape or sexual assault was an exception; marital status did not predict risk of threats of rape or sexual assault. This finding suggests that there may be inherent differences between physical victimization and threats of victimization. It is possible that threats may be used as a tool of intimidation of women, rather than an indicator of impending physical victimization. Therefore, threats of sexual violence may be distributed more evenly among the population and may be related to specific situational contexts that do not necessarily relate back to demographic variables.

Prior research on violent victimization of women has indicated that the presence of children in the household increases risk of violent victimization. In the current study, the presence of children under 12 in the household served as a protective factor from sexual victimization. This finding is interesting because it departs slightly from prior research in that, overall, it suggests that the presence of children in the household does not increase risk of sexual victimization, and, in fact, decreases risk with one exception, intimate partner victimization. Women with small children may face emotional and financial uncertainties that cause them to stay in abusive relationships in which they are victimized emotionally, physically, and sexually.

Demographic factors were not strongly associated with victimization by family members. Age was a strong predictor of family victimization; however, this finding can largely be explained by the fact that family victimization disproportionately affects minors that are

essentially trapped in abusive family environments. Risk of family victimization was strongly associated with household income and household crime incidents which suggests that poor children and adolescents living in violent homes are at greatest risk of family victimization and that risk is likely related to family-level variables not tested in the current study. Nevertheless, this finding has important implications for prevention and victim services.

Event characteristics varied between sexual victimizations and other violent crime victimizations indicating that the situational factors associated with sexual victimization are different from other violence crimes. Sex victims were more likely to be victimized at night in places considered safe, such as at home or the home of a friend, relative, or neighbor. Weapons were rarely used in sexual assaults; however, offender consumption of alcohol or drugs was more common in sexual assaults than other violent victimizations. Overall, the results indicate that sexual victimizations are likely to be spontaneous events that come about as a result of lifestyles that expose unmarried, young women to potential offenders who take advantage of opportunities to assault easily accessible, unguarded women. These assaults often take place in seemingly safe places where victims grant access to potential offenders.

In considering macro-level trends in sexual violence, the findings of the current study indicate that the factors generally credited with the crime decline are insufficient for explaining the decline in sexual victimization. While changes in the demographic characteristics of the U.S. population, such as an increase in the median age of women in the population, a decline in divorce rates, and an increase in cohabitation rates, may have contributed to the decline in sexual victimization, demographic changes alone cannot account for the significant declines in sexual violence reported in the UCV and NCVS. Furthermore, changes in policing, incarceration, and other criminal justice factors are also unlikely to have impacted sexual violence in profound

ways. The nature of sex crimes limits the effects that enhanced street policing or new strategic initiatives can have on this type of criminal offense. Furthermore statistical data indicates that police clearance rates for rape actually declined in the years included in the current study. Furthermore, new admissions into state correctional institutions and sentence lengths for sexual crimes did not change significantly. There have; however, been significant changes in the culture of sexuality that has been documented in several qualitative studies. The emergence of a "hook-up culture" and the overall liberalization of sexuality in the U.S. may have implications for sexual victimization by reducing the frequency of overt, aggressive types of sexual assault and replacing some of them with more subtle, exploitive forms of sexual victimization that are not readily defined. Therefore, it is hypothesized that changes in the culture of sex, the emergence of a hook-up culture, may have influenced sexual victimization rates by fundamentally changing how women experience and make sense of unwanted sexual experiences. Future research should consider these cultural changes and develop new methods to study more subtle forms of sexual exploitation.

5.2 Key Contributions

The current study makes a number of contributions to the larger discourse on sexual violence and victimization. First, the study demonstrates that mainstream criminological theories can be used to model risk of female sexual victimization and may be able to offer important insights into the situational contexts of these acts of violence against women. These efforts will not only help to place sexual victimization within a larger theoretical discussion about violent crime, it will also provide pragmatic directions for situational crime prevention. Second, the study suggests that there is indeed variation in risk of sexual victimization; not *all* women are at risk of sexual victimization, and, certainly not across the lifespan; however, many women *do*

face a period of higher risk in their youth. This finding has implications for women's rational decision-making regarding their lifestyles choices and implications for prevention programs and victim services. More research is needed to continue to specify which populations are at greatest risk and in what circumstances. Third, the study supports feminist scholars' long-standing argument that there may be inherent differences between different types of violent crimes. The "purpose" of sexual violence may different from other types of violence and it may be worthwhile to investigate those differences. Future research should continue to study specific types of violence against women and even specific types of sexual offenses to identify the unique correlates and situational contexts of each crime type. It is possible that this type of disaggregation may ultimately lead to more holistic explanations of violence in general that will satisfy mainstream criminologists' goals of developing broad, all-encompassing theories of violence. Fourth, the study suggests that the predominant feminist theory of sexual violence may not be entirely adequate in explaining sexual victimization. If power and control motivations are strong driving forces of sexual violence, one might expect higher victimization rates of middle-age women who are generally more likely to be in positions of power that may potentially be threatening to males. Nevertheless, feminist theory is not entirely inconsistent or incompatible with a lifestyles and routine activities approach considering that social and cultural patterns shape personal lifestyles and routine activities.

Social and cultural factors may enhance opportunities and support for the sexual assault of women. The two theoretical views are not mutually exclusive. Specifically, individual behaviors and routines take place within the context of society and of the cultural norms and values within it.

It is clear that there is a need for continued discourse, theory testing, and theory refinement to continue to uncover other possible causal relationships behind sexual violence. Fifth, the study suggests that research on the crime decline is still incomplete. More research is needed to be able to fully appreciate the casual relationships associated with the crime decline, and, especially, the decline in sexual victimization.

5.3 Limitations

While this study makes a number of contributions to the literature, some limitations of the study should be considered. The use of the NCVS as the primary data source for the study may have limited the analysis in some ways. The very small numbers of sexual victimizations reported in the NCVS each year make it virtually impossible to conduct meaningful quantitative analysis on risk factors for victimization using annual statistics alone. In order to address this issue, the current study combined data on all violent victimizations from several years of the NCVS and took a random sample of non-victims from those years. This case control sampling strategy was very useful for quantitative modeling and analysis; however, this statistical technique uses an outcome-based sampling scheme which does pose some challenging statistical problems in error structures, the effects of which are difficult to estimate and control. Also, the NCVS data only has a limited number of independent variables that can be used as proxies for lifestyles. Although several demographic variables were used to approximate lifestyles, the absence of more precise variables is a limitation worth noting because it adds a certain level of ambiguity to the results. Furthermore, since the area-identified NCVS is currently unavailable to the public, only a few variables were available to operationalize social disorganization theory for analysis. As such, the logistic regression models were limited by the variables available in the dataset. Future research should incorporate more precise variables to measure lifestyles.

In terms of studying trends in victimization, the small numbers of victimizations reported in the NCVS each year and the very short time span between 1992 and 2005 make it particularly challenging to conduct trend analysis. Disaggregation by types of sexual victimization was simply not possible because of the small number of cases in each type of victimization. Though there was NCS data available from 1973-1992, serious concerns about the reliability and validity of the data with regards to sexual victimization precluded use of the NCS data in the current study. Furthermore, many of the cultural changes that might have influenced changing rates of sexual victimization are difficult to measure, especially in short time spans.

5.4 Policy Implications

The current study supports the use of targeted efforts geared towards high-risk groups for prevention of sexual victimization. Overall, prevention programs should be targeted towards adolescent girls and young women and should include provisions to increase awareness of the prevalence of victimization by known perpetrators and to teach safety measures to enhance personal guardianship from assaults. Funds should also be invested in enhancing screening and services in educational institutions. Public school teachers and counselors are often the first to deal with troubled children and adolescents. These children and adolescents often come from dysfunctional homes and are extremely vulnerable to multiple types of victimization. Therefore, teachers and counselors should be trained to look for red flags or warning signs of victimization and to refer suspected cases to the appropriate services. Also, situational crime prevention initiatives should be enhanced in urban communities to prevent stranger assaults.

5.5 Future Research

Future research should continue to use mainstream criminological theories, such as Lifestyle Exposure Theory, Routine Activities Theory, and Social Disorganization Theory, to

model risk of sexual victimization. The results of the current study support a lifestyles and routine activities explanation for some types of sexual victimization, especially serious assaults by acquaintances; however, the study was somewhat limited in the variables available to be included in the models. Future research should incorporate more precise variables to measure lifestyles and routine activities. Future research should also continue to explore the relationship between race and ethnicity and sexual victimization to uncover possible explanations for variations in risk between groups. The current study was one of the first to explore the relationship between cohabitation and risk of sexual victimization and future research should continue to test this relationship and consider whether cohabitation with romantic partners differs from cohabitation with family or unrelated roommates. Overall, future research should continue to explore differences in risk factors by age groups, types of offenses, and victim-offender relationships, as well as event-characteristics to continue to specify risk factors and confirm reliability of the current study. Future research should also devote attention to the changes in the culture of sex and explore whether changes in routine courtship activities might be related to changes in rates of victimization. Qualitative or mixed-methods approached might be particularly useful in exploring changes in sexual exploitation which could provide insights into the meaning of declining rates of victimization in national statistics. Furthermore, this research might provide empirical support to feminist theory about the prevalence of sexual coercion and victimization in the U.S.

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