SEX ‘N THE HOOD: THE INTERRELATIONSHIPS AMONG NEIGHBORHOOD CHARACTERISTICS, PARENTAL BEHAVIOR, PEER NETWORKS, AND ADOLESCENT TRANSITION TO FIRST SEX

DISSERTATION

Presented in Partial Fulfillment of the Requirements for

the Degree Doctor of Philosophy in the Graduate

School of the Ohio State University

By

Matisa D. Wilbon, M.A.

*****

The Ohio State University
2005

Dissertation Committee:

Professor Ruth Peterson, Co-Advisor

Professor Christopher Browning, Co-Advisor

Professor Dana Haynie

Approved by

________________________
Co-Advisor
Sociology Graduate Program

________________________
Co-Advisor
Sociology Graduate Program
Researchers have recently been examining the relationship between neighborhood characteristics and adolescent sexual behavior. Although there has been some support for this effect, the mechanisms through which neighborhood characteristics affect teenage sexual behavior still need to be explored. Using a social disorganization framework, I examine whether and how parent relationships and peer networks mediate the relationships between neighborhood structure and juvenile sex. In addition, I examine whether or not neighborhood characteristics condition parental practices and peer networks, to ultimately affect adolescent coitus. Finally, I examine the differential role of neighborhood characteristics, parental behaviors, and peer factors on transition to first sex for younger and older youth to assess which factors impact their decisions to engage in sex. To investigate these questions, I examine White, Black, and Latino youth ages 13 to 18 (N=4,738) using the National Longitudinal Study of Adolescent Health (Add Health). Findings suggest that mother’s support, adolescent popularity, and minor peer delinquency diminish the impact of ethnic heterogeneity on transition to first sex. Neighborhood structure is also shown to moderate the effect of parents’ interaction with their child’s friends’ parents on early engagement in coitus. Finally, the results indicate that while
peer behavior influences teenage sex among younger youth, neighborhood
disadvantage, mother's support and peer delinquency impact transition to first
sex among older youth.
TO GOD BE THE GLORY
I wish to thank God with whom all things are possible.

I thank my advisor, Professor Ruth Peterson who encouraged me, prodded me, chastised me-whatever was necessary for my professional and academic development. You endured (and on rare occasions pacified) my whining and my procrastination. Most of all, you taught me to learn from my mistakes, to get up and to keep going. I absolutely would not have completed my graduate work without you. You have been a source of inspiration and a guide through this often lonely and grueling process. I am indebted to you forever.

I thank Professors Chris Browning and Dana Haynie for all of their helpful insight, their intellectual support, and general encouragement while serving on my dissertation committee. I thank Dr. Kecia Johnson for all of her support, encouragement, advice, and wisdom. I would not have made it through this process without you!

I would like to thank my family for their undying support. Every time you asked the question, “Now when are you going to graduate?” you encouraged me to push harder so I could actually give you a date. Thanks to my parents
(Pamela Cooper and Jesse Olinger) for teaching me early on in life that I can do anything I want if I persevere. I would like to thank Pastor Gary Cooper and Pastor Larry Weathers for instilling within me an unshakeable faith and showing me how that faith could move mountains.

I would like to thank the two best friends a girl could ever have. April and Brenda, you listened to me whine and complain, and you consoled me. But once the tears dried, you never failed to dust me off, pick me up and send me back into the game. Love ya!

Finally, to Lawrence (the love of my life)-“You were my strength when I was weak. My voice when I couldn’t speak. My eyes when I couldn’t see. You saw the best there was in me. Lifted me up when I couldn’t reach. You gave me strength ‘cause you believed. I am everything I am, because you love me.” I will always love you.
VITA

November 15, 2004................................. Born-Hazard, Kentucky
2000.................................................... M.A. Sociology, The Ohio State University
1997..................................................... B.A. Sociology, Centre College
1997-2004............................................. Graduate Teaching and Research Associate, The Ohio State University
2004

PUBLICATIONS

Research Publication


FIELDS OF STUDY

Major Field: Sociology

Other: Criminology
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>ii</td>
</tr>
<tr>
<td>Dedication</td>
<td>iv</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>v</td>
</tr>
<tr>
<td>Vita</td>
<td>vi</td>
</tr>
<tr>
<td>List of Tables</td>
<td>ix</td>
</tr>
<tr>
<td>List of Figures</td>
<td>x</td>
</tr>
<tr>
<td>Chapters:</td>
<td></td>
</tr>
<tr>
<td>1. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Contributions</td>
<td>15</td>
</tr>
<tr>
<td>1.2 Remaining Chapters</td>
<td>17</td>
</tr>
<tr>
<td>2. Neighborhood Structure, Parenting Behaviors</td>
<td>18</td>
</tr>
<tr>
<td>and Peer Networks</td>
<td></td>
</tr>
<tr>
<td>2.1 Social Disorganization</td>
<td>18</td>
</tr>
<tr>
<td>2.2 Neighborhood Characteristics</td>
<td>24</td>
</tr>
<tr>
<td>and Adolescent Risky Sex</td>
<td></td>
</tr>
<tr>
<td>2.3 The Mediating Effects of Parents and Peers</td>
<td>27</td>
</tr>
<tr>
<td>2.4 The Moderating Effects Of Neighborhood</td>
<td>39</td>
</tr>
<tr>
<td>Characteristics on Parents and Peers</td>
<td></td>
</tr>
<tr>
<td>3. Data and Methods</td>
<td>47</td>
</tr>
<tr>
<td>4. Results</td>
<td>67</td>
</tr>
<tr>
<td>5. Review of Research Questions and Subsequent</td>
<td>95</td>
</tr>
<tr>
<td>Issues</td>
<td></td>
</tr>
<tr>
<td>Bibliography</td>
<td>116</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Operationalization of Dependent, Independent and Control Variables</td>
<td>61</td>
</tr>
<tr>
<td>4.1 Means and Standard Deviations for Dependent and Independent Variables</td>
<td>84</td>
</tr>
<tr>
<td>4.2 Bivariate Correlations for Adolescent Risky Sex by Independent Variables</td>
<td>86</td>
</tr>
<tr>
<td>4.3 Logistic Regression Model for Adolescent Sexual Participation</td>
<td>87</td>
</tr>
<tr>
<td>4.4 Logistic Regression Model for Adolescent Sexual Participation by Age Group</td>
<td>91</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figures</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Theoretical Model for Adolescent Risky Sexual Behavior:</td>
<td>46</td>
</tr>
<tr>
<td>Neighborhood, Mediating, and Interaction Effects</td>
<td></td>
</tr>
<tr>
<td>4.1. Adolescent Risky Sex by Neighborhood</td>
<td>90</td>
</tr>
<tr>
<td>Disadvantage by Number of Peers' Parents with whom Adolescents' Parents Interact</td>
<td></td>
</tr>
<tr>
<td>4.2. Adolescent Risky Sex by Neighborhood</td>
<td>94</td>
</tr>
<tr>
<td>Disadvantage by Number of Peers' Parents with whom Adolescents' Parents Interact (15-18)</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION

Overview

Over the past decade, scholars have examined adolescent sexual participation extensively. Early researchers primarily investigated the effect of individual-level predictors on teenage coitus and found that aspects of family background and parent-child and peer relationships are important for understanding adolescents’ engagement in sex (Clasen and Brown 1995; Cox, Emans, Bithoney 1993; Hogan and Kitagawa 1985; Leftkowitz, Kahlbaugh and Sigman 1996; Miller, Norton, Fan, and Christopherson 1998). Beyond individual level predictors, scholars have begun investigating the social contexts within which youth are embedded to determine whether and how macro-level processes affect adolescent engagement in sex. The principle purpose of this dissertation is to add to this body of literature by examining the interrelationships among neighborhood characteristics, parental behavior, peer networks, and adolescent transition to first sex. Investigating whether and how neighborhood organization affects adolescent sexual behavior, with particular attention to how neighborhood characteristics are linked to parenting practices and peer networks, will increase our understanding of the factors that affect an adolescent’s choice to have sex.
Differences in adolescent sexual behavior by age are also important when examining adolescent engagement in sexual behavior. Researchers are beginning to examine adolescent sexual behavior from a developmental perspective (Whitbeck, Yoder, Hoyt, and Conger 1999) to determine whether, in fact, there are differences in the determinants of sexual risk taking between younger and older youth. The second purpose of this dissertation, then, is to more closely investigate age distinctions in adolescent sexual behavior considering neighborhood context. Below, I examine the following questions: (1) Do neighborhood characteristics affect adolescent participation in early sex beyond individual-level predictors? (2) Do parental factors and peer networks mediate the relationship between neighborhood structure and adolescents transition to first sex? (3) Are parent-child relationships and peer social networks conditioned by neighborhood characteristics to ultimately affect adolescent transition to first sex? (4) And to what extent do these relationships differentially affect the sexual behavior of younger and older adolescents?

Background

Adolescents are sexually active at increasingly younger ages (Center for Disease Control 2000). Further, mounting numbers of youth engage in pre-marital sex (Alan Guttmacher Institute 1999; Dryfoos 1990; McLaughlin, et al. 1988). Approximately one-quarter of adolescents have sex by age 15 with this percentage increasing to one-half by age 17 (Alan Guttmacher Institute 1999). Although two-thirds of sexually active adolescents report
using contraceptives at first sex, contraceptive use is often inconsistent and
used incorrectly (Alan Guttmacher Institute 1999). Moreover, of teens that
engage in early sex, many report that their initial coitus experience is
“unplanned.” Unplanned and often unprotected, sexual activity is a primary
factor leading to teenage pregnancy, with 78% of teen pregnancies being

These trends are of concern. Sexually active teenagers are at
increased risk not only for teenage pregnancy but also for sexually
transmitted diseases (including the deadly threat of HIV and AIDS), and the
psychological distress that results from these problems. Brown and
Eisenberg (1995) found that the younger the adolescent, the higher the
likelihood that an unplanned pregnancy will impact many areas of the
adolescent’s life and have damaging effects on the young parent. S/he will
have to make adult decisions such as whether to abort, whether to put the
child up for adoption, or whether to raise the child (Forste and Heaton 1988).
Ultimately, too, communities will bear financial costs related to the health
care, child rearing, and the emotional difficulties experienced by many
sexually active teenagers (Cooksey, Rindfuss, and Guilkey 1996).

Apart from the risk of pregnancy, adolescents who engage in early and
unprotected sex increase their chances of contracting a sexually transmitted
disease (STD). Studies show that one out of four sexually active teenagers
will contract a STD before she graduates from high school (Gans 1990; Miller,
et al. 1998). One sexually transmitted disease that is among the leading
causes of death for young people (Miller, et al. 1998) is the human immunodeficiency virus (HIV). HIV infection and the greater threat of full-blown Acquired Immune Deficiency Syndrome (AIDS) have created much concern and have gained much attention from educators and the media (Cooksey, et al. 1996). Despite attempts to expose youth to information regarding sexual activity and its possible consequences, it is estimated that 2.5 million adolescents contract STDs annually (Alan Guttmacher 1999). AIDS affects adolescents and young adults more than it does any other population (Brewster, Cooksey, Guilkey 1998; Gans 1990). Finally, early engagement in pre-marital sex is linked to depression, low self-esteem and the perception of having little control over one's life (Kowaleski-Jones and Mott 1998).

Researchers have explored the sources of adolescent sexual behavior in view of these potentially serious consequences. As stated above, most work has examined the influence of micro-level processes, particularly as they relate to families and peer groups. This research has demonstrated that such predictors help to explain the early onset of coitus among adolescents. Among the micro-level processes or factors that influence an adolescent's decision to engage in sex are: 1) parent-child relationships (Leftkowitz, Kahlbaugh, and Sigman 1996; Miller, et al. 1998), including discussions about sex (Inazu and Fox 1992; Leftkowitz, Kahlbaugh, and Sigman 1996); 2) perceived parental support and monitoring (Miller, et al. 1998); 3) peer modeling (Cox, Emans, Bithoney 1993; East and Felice 1992); 4) peer sexual
attitudes and behavior norms (Bearman and Bruckner 1999; Crane 1991; 
Treboux and Busch-Rossnagel 1995); and, 5) peer pressure (Clasen and 

Aside from the effects of individual characteristics, adolescents are 
embedded within several social contexts that are likely to influence their 
behavior-- neighborhoods, schools, and peer networks being among the most 
significant. Examining engagement in sex within these contexts gives 
investigators a broader understanding of macro-level factors that may shape an adolescent’s decision to engage in coitus beyond, and in combination with, the aforementioned individual-level indicators. Thus, to expand our knowledge of early coitus among youth, researchers have recently begun to examine initial engagement in sex and other deviant behaviors in view of neighborhood context (Brewster, et al. 1993; Brewster 1994; Grady, Klepinger and Billy 1993; Hogan and Kitagawa 1985a 1985b, Roche et al. 2005). These studies show significant effects of neighborhood characteristics such as poverty and heterogeneity on outcomes like youths’ age at first sex, contraceptive use, and teen pregnancy. These contextual analyses add a dimension to our understanding of the sources of juvenile sex, showing that risky behavior is not only a product of individual-level factors, but is also affected by the characteristics of the neighborhoods wherein adolescents reside.
Although it is clear from previous literature that there is a relationship between neighborhood characteristics and adolescent transition to first sex, there remains a need to further understand the mechanisms through which neighborhood characteristics operate. In addition, it may be that the different contexts within which adolescents are embedded interact with key factors (especially parenting behaviors and peer networks) to ultimately affect engagement in sex among adolescents in different age groups.

My dissertation research will draw on recent extensions of social disorganization theory to examine how and by what means neighborhood characteristics influence an adolescent’s decision to engage in adolescent sexual behavior. Specifically, I investigate how and whether parenting behaviors and peer networks mediate the link between neighborhood characteristics and juveniles transition to first sex. In addition, I examine whether neighborhoods, parent behaviors, and peer relations interact to ultimately affect an adolescent’s engagement in sex. Finally, I will examine these interrelationships by age group to determine if factors associated with early coitus for younger youth are the same factors that impact the transition to first sex for older adolescents.

Social Disorganization

To elaborate briefly, social disorganization theory emphasizes that neighborhood characteristics (e.g., neighborhood disadvantage, ethnic heterogeneity, residential instability) work through informal social control to affect adolescent delinquency and problem behaviors (Bursik and Grasmick et al., 1993).
1993; Sampson and Groves 1989; Sampson, et al. 1997). Typically, informal social control has been characterized as including two dimensions: 1) the readiness of residents to combat neighborhood-level crime and deviant behavior by monitoring and supervising youth and intervening when young people engage in deviant or delinquent activities; and, 2) shared values and norms concerning acceptable behaviors and how best to protect neighborhood residents from crime and deviance (Nash and Bowen 1999; Sampson and Groves 1989).

Do these notions of social disorganization apply to engagement in sex, not necessarily a criminal activity? I propose that neighborhood characteristics, as implied by social disorganization theory, could affect adolescent sexual behavior in several fundamental ways. First, I propose that neighborhood characteristics directly affect adolescent engagement in sexual activity. In line with prior literature, I propose that adolescents living in more highly disorganized neighborhoods (as measured by, disadvantage, residential instability, and ethnic heterogeneity) are more likely to participate in coitus. Second, I argue that parenting practices and peer social networks are individual-level informal social controls by which neighborhood social disorganization indirectly affects adolescent engagement in sex. Specifically, I posit that neighborhood characteristics associated with socially disorganized communities affect onset of sex among youth by influencing parents’ ability to effectively monitor and supervise their youth so as to combat deviant behavior and to communicate acceptable conventional norms of conduct. In addition, I
argue that socially disorganized communities characterized by poverty, residential instability, and ethnic heterogeneity affect engagement in sex through providing deviant opportunity structures wherein adolescents form peer groups that display and reinforce both attitudes and norms favoring sexual activity. If these suppositions are correct, then the observed relationship between neighborhood characteristics and adolescent sex should be strongly reduced when parental and peer factors are included in models of sexual behavior.

Finally, I propose that neighborhood characteristics, parenting behaviors and peer factors to ultimately affect adolescents’ transition to first sex. Specifically, I suggest that parenting and peer relationships will affect the likelihood of youth engaging in sex for youth differently across neighborhoods of varying levels of disorganization. Parents who “parent” in neighborhoods characterized by higher levels of disorganization may not be able to “buffer” the effects of the neighborhood, and thus the impact of parenting behaviors on engagement in sex may be weakened in neighborhoods characterized by higher levels of social disorganization (e.g. disadvantage, ethnic heterogeneity, residential instability). Prior literature suggests that the influence of peers may be stronger in more highly disorganized neighborhoods (Crane 1991). Peers may have a stronger influence on the engagement in sexual behavior of youth in more highly disorganized communities where such behavior may be accepted and
rewarded (Anderson 1990). These propositions are elaborated upon in the sections that follow.

**Parenting Behaviors**

It is widely noted that parents play a significant role in the lives of their offspring. Parenting behaviors and attitudes have strong direct effects on subsequent adolescent behavior. Research suggests that the result of successful parenting is an internalization of conventional norms from parent to child. For example, scholars have found that adolescents who feel supported and loved by their parents and who perceive that their parents disapprove of them having sex are less likely to engage in this behavior (Thornton and Camburn 1989). The ability to parent effectively, however, is often impacted by the neighborhood in which one resides. Living in neighborhoods characterized by higher levels of social disorganization means that parents may have fewer resources and more limited access to the kinds of social and economic capital needed to effectively support and monitor their children (Coleman 1990; Gottfredson and Hirschi 1990; Patterson 1992; Sampson, Morenoff and Earls 1999). Specifically, parents residing in neighborhoods with higher levels of disadvantage may lack resources to provide children with the emotional and instrumental tools (social support) necessary to resist peer pressure and other factors that push them to engage in sex.

Social disorganization also posits that in communities characterized by higher levels of ethnic heterogeneity and residential mobility, it is more difficult
for residents to develop close ties with one another. If so, then, these neighborhood characteristics should also have indirect effects on adolescent sex outcomes through parenting behaviors. That is, parents living in ethnically heterogeneous areas, and in areas with a great deal of population turnover may not develop close ties with neighborhood residents, and therefore, may not have access to much needed social capital by which to effectively support and monitor their children (Coleman 1990). The result may be that adolescents have more opportunities for hanging out and for gaining access to potential sexual partners. In general, then, through its effect on parental support and monitoring, neighborhood social disorganization as reflected in disadvantage, ethnic heterogeneity and residential mobility may indirectly determine the likelihood that adolescents will engage in problem behavior (Warr 1993; Wright and Cullen 2001).

In addition or as an alternative, neighborhood structure may interact with parental practices to affect onset of sex among teenagers (Stark 1987). Although greater support and monitoring by parents decrease the likelihood of youth engaging in deviant behavior, this effect may be lessened in neighborhoods with relatively high levels of disorganization (Haynie and Silver 2002; Roche, Mekos, Alexander, Astone, Bandeen-Roche, Ensminger 2005; Warr 1993). That is, regardless of the sources of parenting practices, youth in more disorganized neighborhoods will likely experience more deviance producing conditions that offset and lessen the effects of parenting practices. Conversely, living in less disorganized neighborhoods may add an additional
protective factor (e.g. collective social control, community role models, etc.) for youth whose parents do not have the best practices, and thereby, may buffer the impact of inadequate parenting.

**Peer Networks**

It has long been acknowledged that peers play a critical role in the lives of adolescents. As youth grow older, they seek independence from parents and turn to friends for guidance on behavioral issues (Bell 1981; Brown, Eicher and Petrie 1986). Moreover, adolescents often become members of peer networks to gain acceptance and support from their friends. Other youth, however, may become part of peer networks as a protection mechanism. That is, adolescents who reside in socially disorganized communities, where clear turf lines are drawn and peer group membership is encouraged, may feel the need to become part of larger (dense) friendship networks as a means of protection from other peer groups within the neighborhood.

Communities’ levels of social disorganization, then, may affect the types (e.g., deviant versus non-deviant) of peer groups and the structure of peer relations (e.g., size, intensity), and thereby, the types of behaviors in which individual youth are involved. If so, neighborhood social disorganization may contribute indirectly to adolescent sexual activity by determining the exposure of youth to opportunities for involvement with peers and peer networks that encourage or exhibit unconventional behaviors. This peer involvement would provide a direct link to engagement in sex.
Peers may influence adolescents to engage in risky behavior either by modeling deviant behaviors or by reinforcing deviant norms and attitudes (Warr 1993). Crane (1991), using his contagion model, tested the notion that disadvantaged communities experience epidemics of problem behavior due to the spread of such behavior predominantly through peer influence. Examining the notion that there is a relationship between neighborhood quality and individual–level problem behavior, he found that teenage pregnancy and dropping out is spread rapidly and substantially through peer relations in disorganized communities. Thus, neighborhood structure appears to be an important determinant of peer group membership and participation in these youthful behaviors.

Social network perspectives suggest that being a part of a peer network has a direct effect on adolescent behavior (Haynie 2001; Klovdahl 1985). In fact, Klovdahl (1985) suggests that peer network membership affects adolescent behavior above and beyond individual level factors and/or characteristics. Conventional peers constrain delinquent behavior among adolescents by attaching high costs to negative behavior (i.e. dismissal from the group). Conversely, delinquent peers encourage unconventional behavior by rewarding rule-breaking conduct. Those adolescents who are participants in delinquent peer groups are likely to be encouraged to engage in delinquency so as to gain peer group acceptance. Specific to adolescent sexual behavior, researchers have found that sexual risks are reinforced in group settings (Akers 1979; Billy and Udry 1985 ab; Warr and Stafford 1991).
Like parental practices, social disorganization may interact with peer factors to influence adolescent engagement in sex. For example, in neighborhoods where there are higher levels of disorganization, peers may have a stronger affect (Newcomb and Udry 1983; Billy, Rodgers, and Udry 1984) on adolescents, particularly when a community cannot regulate itself (Haynie and Silver 2002; Sampson et. al 1994). In a context of weakened social control (i.e., greater social disorganization) peer effects may be more strongly pronounced than in more organized communities, since they would not be as likely to be offset by conventional “old heads,” role models, family supervision and the like. Moreover, the negative behaviors engendered by peers may be more greatly rewarded, accepted, and reinforced in more highly disorganized communities.

**Age Differences**

Developmental perspectives suggest that factors that predict engagement in sex among youth may vary in their influence depending upon youths’ ages (Whitbeck, et al. 1999). Specifically, factors that impact the likelihood of adolescent sex among youth in early adolescence may be different from factors that influence this same behavior for those in later adolescence. For example, as posited by age-graded informal social control theory, during early adolescence, youth may be most affected by family (e.g. parents), while older teenagers may be more likely influenced by peer and other external relationships (e.g. schools and neighborhood) (Sampson and Laub 1993). The effects of neighborhood characteristics, parenting
behaviors, and peer networks on adolescent engagement in sex, then, may be different for youth in different age groups. In this dissertation, I examine the differential role of neighborhood characteristics, parental behaviors, and peer factors on the transition of first sex for two age groups (adolescents aged 13 to 14 and those aged 15 to 18) to assess which factors impact their decisions to have sex. I posit that very young teenagers’ behavior is more likely to be affected by individual-level family characteristics, while risk for older adolescents is more likely to include both peer and neighborhood factors. Understanding how factors affect individuals differentially over the life course will extend current literature investigating adolescent risk behavior by directing scholars to consider differences in youths’ life stages when examining adolescent problem behavior. That is, researchers will be encouraged to examine youth problem behavior in a developmental context so as to adequately gauge factors that influence sexual participation among younger youth and factors that affect early transition to sex among older adolescents. Additionally, understanding the potential differences in these factors is of particular importance for those creating policy around these issues.

In sum, this dissertation will assess whether or not parental efficacy and adolescent peer groups are the informal social controls through which neighborhood structure influences adolescent involvement in coitus, and/or whether parenting relationships and peer networks interact with neighborhood characteristics in influencing this outcome. Finally, I will also examine
whether and how these interrelationships differ across two different age groups-younger and older adolescents.

**CONTRIBUTIONS**

A significant contribution of this research is to attempt to assess whether and how social disorganization explains problem behavior beyond crime and delinquency. Social disorganization theory, since its inception by Shaw and McKay (1942), has primarily been utilized to examine crime and delinquency, behaviors that are quite public. How useful is the framework for understanding problem behaviors like adolescent engagement in sex, which takes place in private, and which when occurring between individuals of similar age probably breaks no law? In addition, in line with the current trend of social disorganization literature, I endeavor to assess the mechanisms through which neighborhood characteristics affect adolescent engagement in sex. In addition, understanding how residing in certain neighborhoods may condition parenting and peer behaviors to ultimately affect adolescent engagement in sex can lead policy makers to create and implement policies that not only target effective ways to deter adolescent premarital sex but also address specific concerns stemming from neighborhoods of varying levels of disadvantage.

Another contribution I attempt to make in this dissertation is to better assess how adolescents' behavior is affected within the contexts wherein they are embedded. Although it is clear that neighborhoods (Brewster, et al. 1993; Brewster 1994; Grady, Klepinger and Billy 1993; Hogan and Kitagawa 1985
ab), parental support and monitoring (Coleman 1990; Gottfredson and Hirschi 1990; Haynie and Silver 2002; Patterson 1992; Sampson, Morenoff, and Earls 1999; Warr 1993) and peer attitudes and behavior (Crane 1991; Warr 1993) are important in whether or not an adolescent engages in coitus, the extent to which these contexts work together and simultaneously is not quite as clear. Considering these interrelationships will broaden our understanding of adolescent sex by considering the impact of important contexts that potentially play a role in the lives of youth. Moreover, this dissertation attempts to make clear how neighborhood residence affects juvenile sex. Importantly in doing so, the work presented here examines the potential moderating influence of each of several neighborhood factors (disadvantage, ethnic heterogeneity, residential mobility) separately, allowing me to sort out which aspects of social disorganization producing factors are influential in interaction with parenting and peers.

Finally, I contribute to current adolescent sex literature by accounting for potential differences in factors that affect adolescents’ engaging in engagement in sex by age group. Researchers tend to examine teenage sex with the assumption that factors that encourage older youth to have sex also affect younger adolescents. This may reflect the supposition that in the past, sex among youth most frequently occurred among older adolescents. As time has evolved, however, youth are becoming sexually active at younger ages (CDC 2000), and the sources of earlier onset may differ from those for later onset. Important for this line of research, understanding differences in
determinants of transition to first sex by age points to a need for examining adolescent problem behavior from a developmental perspective.

REMAINING CHAPTERS

In Chapter 2, I more fully discuss my conceptual arguments. First, I outline my hypotheses and trace the development of social disorganization theory to connect neighborhood structure and adolescent engagement in sexual behavior. Second, I discuss the potential mediating effects of parenting behaviors and peer networks in the relationship between neighborhoods and adolescent transition to first sex. Third, I consider how neighborhoods condition parent and peer relationships to ultimately affect early coitus among youth. Finally, in Chapter 2, I discuss how the interrelationships among neighborhood structure, parents, peer, and transition to first sex affect youth differentially by age. The remaining chapters are straightforward. In Chapter 3, I identify the data sources, and elaborate on how the dependent and independent variables are conceptualized and operationalized. Chapter 4 presents the findings of the mediating relationship of parenting behavior and peer networks between neighborhood characteristics and sexual debut. In addition, it presents the findings for the conditioning effects of neighborhoods on parenting behavior and peer networks and its differential effect on youths in two different age groups. In Chapter 5, I review and discuss the findings, and suggest their implications for theory and future research.
Social Disorganization

Important to our understanding of how neighborhoods uniquely affect adolescent engagement in sexual behavior is social disorganization theory. First formulated by Shaw and McKay (1942) of the Chicago School, social disorganization theory suggests that crime and delinquency are related to neighborhood characteristics through community social organization. Specifically, Shaw and McKay argued that neighborhood characteristics (i.e., economic deprivation, ethnic heterogeneity, and population turnover) result in social disorganization, and in turn 1) a breakdown in neighborhood-level social controls, and 2) the transmission of countercultural values and behaviors from one generation to the next.

In their work entitled *Juvenile Delinquency and Urban Areas*, Shaw and McKay (1942) examined delinquency rates among juveniles referred by the Cook County Juvenile Court living in Chicago neighborhoods over a 30-year period. By plotting the addresses of these juveniles, they found that despite population turnover, delinquency rates remained high in neighborhoods characterized by poverty, ethnic heterogeneity, and population

18
turnover. Shaw and McKay conclude that beyond individual-level predictors such as race and/or ethnicity, neighborhood characteristics are important in determining delinquency rates via neighborhood social disorganization. It is in this early work that researchers are directed to the effect of neighborhoods on the socialization and supervision of teenagers and on their subsequent behavior. In addition, by drawing our attention to the importance of social space in understanding crime and deviant behavior, Shaw and McKay made a major contribution and paved the way for examining crime and delinquency in the context of structure rather than simply race/ethnicity or culture. Principally, Shaw and McKay proposed that economic deprivation positively affects both population turnover and neighborhood ethnic heterogeneity. According to the theory, neighborhood characteristics result in community disorganization, whereby residents hold competing and often conflicting moral views, families are ineffective in controlling teenagers, there is a lack of unanimity in addressing neighborhood issues, and most importantly, community residents cannot collectively combat neighborhood-level crime. In addition, delinquent subcultures are perpetuated among neighborhood youth.

The tenets of social disorganization theory have somewhat changed from Shaw and McKay’s (1942) original conceptualization. One of the most significant contributors to the change in direction of this theory was Ruth Kornhauser (1978). In her book entitled, Social Sources of Delinquency: Underlying Assumptions of Basic Models of Delinquency Theories, Kornhauser agrees that neighborhood social disorganization is largely the
product of economic deprivation, heterogeneity, and mobility. Neighborhoods characterized by these conditions give rise to the inability of neighborhood residents to collectively mobilize and combat neighborhood-level crime. In her assessment, however, the tenets of social disorganization theory most resemble a neighborhood-level social control model rather than a “mixed model” (e.g., a model combining elements of social control and social deviance). As such, it was necessary to restructure the components of the theory to make its structural- as opposed to cultural-nature clear.

Kornhauser’s reformulation emphasizes the control aspect of the theory. She posits that social disorganization (e.g., economic status, heterogeneity, and mobility) leads to a lack of community-level control, which in turn, leads to adolescent delinquency.

Bursik (1988) summarized and addressed several additional criticisms of social disorganization theory. One of the primary concerns addressed by Bursik (1988) was the operationalization of social disorganization. In Shaw and McKay’s work, social disorganization was often measured in the same way as the outcomes of interest (e.g., crime and delinquency). It was a challenge, therefore, to distinguish “cause” from “effect.” What followed, as social disorganization theory evolved, was an effort to operationalize social disorganization as distinct from its outcomes, and understand more clearly

---

how and through what mechanisms neighborhood characteristics affect crime and deviant behavior.

Using Janowitz and Kasarda’s (1974) notion that communities are made up of kin and friendship ties and informal and formal associational ties by which informal social control may be exercised, researchers have examined social networks as the mechanisms through which neighborhood characteristics affect crime and delinquency. For example, Sampson and Groves (1989), using the “British Crime Survey,” examined the mechanisms through which neighborhood characteristics indirectly affect neighborhood victimization and offender rates. The three intervening mechanisms they focused on in this community-level social disorganization or “systemic” model were: 1) the ability of the community to supervise their youth, 2) local friendship networks—which measures a community’s ability to regulate itself, and 3) community residents’ participation in formal and voluntary organizations—which gauges its ability to mobilize and address neighborhood-level crime issues. Sampson and Groves found that the presence of unsupervised teenagers mediates much of the impact of neighborhood characteristics (e.g., socio-economic status, family disruption) on crime and victimization rates, suggesting that social networks—particularly that of peers—are important in understanding these relationships. They concluded that social disorganization provides a necessary framework for examining how neighborhood characteristics are related to crime rates.
Bursik and Grasmick (1993) further tested the systemic model of neighborhood organization using Hunter’s (1985) conceptualization of private, parochial, and public controls. Private controls stem from “affective relational networks” (p. 35) within communities. When neighborhoods are characterized by ethnic heterogeneity and residential mobility, primary, intimate relationships that would inhibit certain negative behaviors rarely form. Parochial controls refer to relationships that are not based on sentimentality, but on the ability of a community to collectively control its residents. Finally, public social control takes into account political factors that shape neighborhood conditions to either provide or limit residents’ access to outside support (Bursik 1989; Velez 2002). Bursik and Grasmick (1993) posit that instability and heterogeneity weaken these forms of social control. For example, according to their model, family disruption will produce ineffective youth socialization, and ultimately, delinquency. They note that as exemplified in the work of Sampson and Groves (1989) the supervision of teenagers is a key component to controlling neighborhood-level crime. The authors’ conceptualization extends social disorganization by suggesting that researchers not only examine social networks within neighborhoods, particularly in the supervision and control of teenagers, but that they also examine residents’ ability to obtain needed resources outside of the community. By doing so, scholars will have a better understanding of the extent to which neighborhood residents are able to mobilize both within and
outside of their neighborhood to gain support and resources to fight crime and delinquency within their community.

Sampson, Raudenbush and Earls (1997) likewise contend that social disorganization works through informal social control, but suggests that it works through a single construct of “collective efficacy,” a shared willingness of community residents to collectively intervene in social control that incorporates the public, private, and parochial dimensions suggested by Bursik and Grasmick (1993). In socially organized communities, residents’ experience social cohesion, a mutual trust of one another and voluntary participation in local organizations, and thus, collective efficacy is high. Significant to our understanding of neighborhoods, collective efficacy takes into account the importance of social cohesion and of informal social control. Research supports the notion that collective efficacy is an important mediating mechanism through which neighborhood characteristics operate (Bellair 1997; Sampson, et al. 1997)\(^2\). For example, Bellair (1997) found that even in communities where residents report weak ties with neighbors, such as spending time with neighbors once per year, crime rates decrease. This supports the belief that even weak ties among neighbors are important in fostering neighborhood-level informal social control to ultimately diminish crime and delinquency.

Social networks and social ties may not always reduce the likelihood of crime, however. Some researchers contend that social cohesion among

\(^2\) See Warner and Roundtree (1997) for a discussion of whether or not “collective efficacy” should be used as a single construct of informal social control.
residents may, in fact, foster crime (Browning and Olinger-Wilbon 2003; Pattillo-McCoy 1998, 1999; Wilson 1996). For example, examining a Black middle class neighborhood in Chicago, Pattillo-McCoy (1998) found that residents who are members of social networks often have a difficult time “telling on” other network members due to close, personal ties. This finding suggests that social cohesion does not always result in informal social control. In Pattillo-McCoy’s example, social cohesion would likely increase rather than reduce the likelihood of delinquent behavior.

Similarly, Browning and Olinger-Wilbon (2003), examining the relationship between neighborhood structural characteristics, social organization, and the sexual partnering practices of adults, found that in neighborhoods characterized by disorganization and with low levels of collective efficacy, social ties increase the likelihood of short-term and therefore risky, sexual partnering among adult males. In other words, in disorganized communities where there is low collective efficacy, social ties within the community foster rather than retard engagement in sex among adult males. Because of its focus on engagement in sex, Browning and Olinger-Wilbon’s work points to the importance of examining whether and how peer networks affect the early onset of sex among youth across areas of varying levels of social disorganization.

**Neighborhood Characteristics and Adolescent Engagement in Sex**

As suggested earlier, although researchers traditionally examine the effects of neighborhood structure on criminal activities using the social
disorganization framework, there is a growing body of literature assessing how living in socially disorganized communities affects adolescent engagement in sexual behavior. In brief, social disorganization theory proposes that neighborhoods characterized by high rates of poverty, residential instability, ethnic heterogeneity are socially disorganized and essentially lack 1) social cohesion, and 2) informal social control (including the ability to adequately supervise teenagers). When a neighborhood lacks these components, residents cannot adequately come together to combat neighborhood-level crime. In other words, a disorganized community cannot regulate itself. Communities that cannot regulate themselves as a whole are also likely to be unable to socialize individual neighborhood residents to engage in conventional conduct. I argue that for this reason adolescents who reside in more socially disorganized communities have a higher likelihood of engaging in sexual behavior than those who reside in more socially organized communities. Specifically, I argue that 1) adolescents who reside in neighborhoods characterized by disadvantage are more likely to have early onset of sex; 2) youth living in ethnically heterogeneous communities are more likely to have sex; and 3) adolescents who live in neighborhoods with high residential instability are more likely to engage in coitus.

Recent Empirical Evidence

The body of literature examining these issues indicates that neighborhood characteristics, most notably disadvantage, is related to adolescent engagement in sex (Baumer and South 2001; Brewster, Billy and

Brewster (1994), for example, examining the role of neighborhood characteristics in explaining race differences in the early onset of adolescent sex, found that differences in the risk of intercourse across race is partially explained by neighborhood racial segregation. Similarly, Upchurch et al. (1999) found support for the notion that neighborhood structure is connected to the early onset of adolescent sex. Investigating the impact of neighborhood and family structure on adolescents' transition to first sex, the authors found that adolescents who lived in neighborhoods characterized by crime, violence, and physical decay were more likely to engage in early sex. The effect of neighborhood socioeconomic status, however, was diminished when family indicators were considered. Despite this evidence that neighborhood characteristics are related to adolescent sexual risky behavior, however, researchers have failed to fully account for the mechanisms through which neighborhood characteristics operate (for exceptions see Baumer and South 2000, 2001). Missing this important piece of the puzzle means that we
do not get a full view of factors that contribute to adolescent engagement in sex (Sampson 2002).

Essential to understanding how contextual and individual-level factors influence sexual debut, is explaining potential differences in sexual behavior among younger and older youth. Age-graded informal social control theory suggests that varying factors affect adolescents' behavior differently over the life course. Yet, researchers have failed to explore differences in the sources of engagement in sex by age group. I, therefore, undertake an examination of age differences in the onset of sex in light of neighborhood context. Before doing so, I set the stage for the empirical analyses by turning to a discussion of the current literature examining the relationship between neighborhood characteristics, parenting behaviors, peer networks and adolescent sexual debut.

THE MEDIATING EFFECTS OF PARENTS AND PEERS

Parenting Behaviors

Although researchers have demonstrated support for the notion that the neighborhoods within which adolescents are embedded affect their ultimate decision to engage in problem behavior, the nature of this relationship remains elusive. One potential mechanism that has had some attention in the literature is that of parenting practices (Haynie and Silver 2002; Hogan and Kitagawa 1985; Luster and Small 1994). We know that parenting is significant in the lives of adolescents. In fact, studies have shown that supportive and effective parenting often results in positive
emotional, social, and developmental outcomes for youth (Brooks-Gunn, Duncan, Klebanov, Seland 1993; Elliot, Wilson, Huizinga, Sampson, Elliott, Rankin 1996; Wilson 1996).

**Social Capital Theory**

Social capital theory posits that the family is the primary institution through which human and other forms of capital are passed (Coleman 1988). From this perspective when parents invest time and energy in their children, nurture affective relations, and set distinct guidelines for proper and acceptable conventional behavior, adolescents will reciprocate by: not breaking parent-child social bonds, doing well in school, avoiding association with deviant peers, and engaging in conventional behavior (Coleman 1988). Upon testing social capital theory, and in particular family social capital, Wright, Cullen and Jeremy (2001) found that family social capital is positively related to increased moral beliefs concerning the wrongfulness of delinquent behavior, increased time studying, and making better grades. Conversely, this factor is negatively related to the attainment of delinquent friends. Assessing aspects of parenting behaviors, namely parental support and monitoring, then, is important as we seek to understand what factors mediate the relationship between neighborhood characteristics and early coitus among adolescents.

**Parental Support**

Scholars who examine the effects of parenting practices on adolescent sex have found that adolescents who feel loved and supported by their
parents are more likely to internalize their parents’ attitudes about sex, and are less likely to engage in early coitus than youth who do not feel supported and loved by their parents. Weinstein and Thornton (1989), for example, found that adolescents who feel close to their mothers are more likely to have attitudes and behaviors consistent with the values expressed by their mothers. This finding suggests that parental support (particularly that of the mother) whose own values discourage teenage sex may be important in decreasing the likelihood that adolescents will engage in early, premarital sex. Parental support has also been found to reduce the number of delinquent friends with which adolescents associate (Marcos, Bahr and Johnson 1986; Massey and Krohn 1986; Matsueda 1982; Warr 1993). For example, Melby, Conger, Conger, and Lorenz (1993) found that nurturing, supportive relationships between parents and children reduces the likelihood that adolescents will hang out with antisocial peers who model and encourage substance use (for similar findings please see Combs, et al. 1991; Coombs and Paulson 1988; Glynn and Haenlein 1988). Additionally, Warr (1993), examining whether the influence of parents outweighs that of peers on an adolescent’s decision to engage in problem behaviors, found that parental attachment reduces the number of delinquent friends that adolescents’ report.

Neighborhood characteristics, however, are factors that can potentially obstruct “good” relationships between parents and children so that parents are unable to effectively and successfully “parent” and/or support their children. Specifically, parents who reside in socially disadvantaged
communities may not have the economic resources needed to provide support with which to effectively socialize their children toward conventional behavior, encourage youth to stay away from delinquent others, and subsequently control their adolescents' behavior. For example, Klebanov, Brooks-Gunn, and Duncan (1993) found that neighborhood poverty is associated with less parental warmth, which is related to adolescent drug use (Hundleby and Mercer 1987). Neighborhoods characterized by ethnic heterogeneity may impede communication among neighborhood residents and therefore, hinder the development of relationships across groups, and ultimately hinder parents' ability to garner neighborhood helps. The inability for parents who may be dealing with "life" stressors (i.e. financial problems, family issues, etc.) to build relationships with neighbors from which to obtain emotional and/or social support may result in parents’ inability to give such support to their children.

Likewise, higher levels of residential instability where residents constantly move in and out of the neighborhood may obstruct the establishment of social networks within which residents can acquire social capital. The absence of social networks within a community may result in parents’ inability to gain much needed economic and social supports from other neighborhood residents. As noted above, parents who are not connected to neighbors and, therefore, who have little access to social capital may have little time and energy with which to support their children. To the extent that such a finding is broadly applicable, parental support may
indirectly link neighborhood structure to adolescent engagement in sexual behavior.

**Parental Supervision**

Parental supervision and monitoring also impact adolescent engagement in sex and may mediate the relationship between neighborhood social disorganization and this problem behavior. Warr (1993) found that time spent with parents on the weekend directly decreases the effect of delinquent peers on respondents’ behavior supporting the notion that parental supervision likely decreases adolescent misconduct. Research, however, has shown that parents who reside in socially disorganized neighborhoods may not have the needed time and/or energy to supervise their children well (Hogan and Kitagawa 1985, Sampson, Morenoff, and Earls 1999). For example, Hogan and Kitagawa (1985) test the notion that African-American females who are residents of “ghetto” neighborhoods are less likely to be supervised by parents, have lower aspirations toward academic achievement, and are more exposed to nonnormative behavior which, in turn, increases their likelihood of initiating in sex earlier and having higher rates of pregnancy after this initiation. Their findings reinforce the assertion that parental supervision may be a link between neighborhood characteristics and adolescent sexual initiation, and specifically, that this effect is mediated by parental control on early dating practices.

Brewster, Billy, and Grady’s (1993) research on the impact of communities’ social and economic conditions on timing of first intercourse and
contraceptive use indicate that high population turnover (a factor leading to social disorganization) and single parent households may lead to feelings of anonymity and of not being closely watched or supervised among youth. If so, this is another indication that social disadvantage and residential instability may affect parental supervision (or perceptions of such supervision) in a way that could produce a variety of forms of deviance among youth, perhaps including engagement in sex. This may also be true for those living in ethnically heterogeneous communities.
Intergenerational Closure

An important component of social capital theory that is essential to our understanding of the effects of neighborhoods on teen sex is *intergenerational closure*. Intergenerational closure is a term that refers to connectedness among parents, which results from formal and informal interaction. Social capital is gained through this interaction so that parents have the needed tools (i.e., understanding of shared sanctions, knowledge of neighborhood helps, etc.) to effectively “parent” their children. Specifically, Coleman (1988) suggests that when parents and the parents of their children’s friends mingle, a consensus of standard sanctions imposed for problem behaviors among neighborhood youth can result. “Closure” can be achieved informally through parent conversations or neighborly visits or more formally by parents participating in school and community organizations (e.g., Parent/Teacher Association (PTA) or civic organizations). In either case, the result is that parents are reinforced in the way they sanction their children when they are advised by other parents, creating a community consensus about what such sanctions should be.

A second important component of intergenerational closure is collective supervision. Not only will there be agreement about how to sanction children for inappropriate behavior, but neighborhood parents will be more likely to monitor their neighbors’ children. Parents, then, can inform each other when children are misbehaving or getting into trouble. As Coleman notes, “the existence of intergenerational closure provides a
quantity of social capital available to each parent in raising his children…” (p. 107).

Researchers contend, however, that living in socially disorganized, and often isolated, communities increases distrust and fear among neighborhood residents so that they withdraw from “neighborly” relationships (Sampson, et al. 1999; Wilson 1996). It follows, that if parents withdraw from the neighborhood and community activities, it is likely that they do not interact with or even know the parents of their children’s friends. Thus, intergenerational closure (i.e., consensus regarding standard sanctions and collective supervision) is not likely to happen. Neighborhood disorganization then, would act to decrease the likelihood of intergenerational closure, and ultimately, hinder collective supervision and/or socialization of youth. Therefore, I propose that intergenerational closure is another aspect of parenting practices that mediates the relationship between neighborhood social disorganization and adolescent engagement in sexual behavior.

**Peer Networks**

Just as parenting behaviors have been examined as a link between neighborhood characteristics and adolescent problem behavior, peers have also been investigated in this manner. The social network perspective suggests that group membership is extremely important in the decision-making of adolescents above and beyond individual-level characteristics (Haynie 2001). Whereas social cohesion within conventional peer networks might normally constrain deviant behavior, participation in deviant peer
groups, where there is transference of deviant attitudes and beliefs regarding early engagement in adolescent sex, might encourage and reinforce deviance (Pattillo-McCoy 1998). This is particularly likely in dense, peer networks.

**Peer Density**

Peer density refers to the extent to which all members in the network are connected by direct ties (Haynie 2001; Krohn 1986, 1988, 1993). Billy and Udry (1985) suggest that it is within close, dense relationships, where there is significant peer interaction that adolescents are likely to adopt the values and behavior of their peers. Perceptions of friends’ sexual attitudes and behaviors are associated with an adolescent’s own attitudes and behavior (Baumer and South 2001, Furstenberg, Morgan, Moore, and Peterson 1987). Membership in dense, peer networks, then, may influence youth to adopt favorable attitudes toward coitus, and ultimately lead them to engage in sex. Additionally, dense peer network membership may supply adolescents with a group of friends with whom to have sex, providing opportunities to engage in early coitus. In the analysis below I consider the extent to which peer density and other factors (adolescent popularity, peer delinquency) are the mechanisms by which neighborhood variables affect engagement in sex. I posit that membership in large (dense) peer networks mediate the relationship between neighborhood characteristics and adolescent engagement in risky sex. I also propose that membership within close knit (dense) peer networks will be associated with an increase in the likelihood of adolescents’ sexual debut.
Adolescent Popularity

Another aspect of peer behavior that may directly influence adolescent sexual risk (and mediate the relationship between neighborhood characteristics and engagement in sex) is adolescent popularity. This concept refers to youth who have high status within a peer group, which is determined by the number of peers who nominate them as friends. Sampson (1996) and Wilson (1987, 1996) posit that neighborhoods where residents do not trust each other to collectively supervise youth potentially foster deviant behavior by providing youth with opportunities to engage in deviance without penalty. Within this deviant opportunity structure, adolescents either choose or are chosen to be friends based on similarities in characteristics and/or behavior (Udry and Billy 1985). This behavior, in turn, is reinforced within the peer group.

Adolescents who are members of peer groups, particularly those who are considered “popular,” are at an increased risk of engaging in sex. Popular adolescents have a higher number of sexual partners from which to choose, and therefore, more opportunity to have sex. Social disorganization may provide a catalyst for both the kind of peer networks in which adolescents participate and the types of behavior in which “popular” youth engage with individuals’ degree of popularity being a direct link to sexual behavior. I contend that adolescents residing in neighborhoods characterized by social disorganization are likely to be “popular” within their peer networks and that adolescents who are more “popular” members of peer groups will
have a greater opportunity to have sex, and will be more likely to engage in risky coitus.

Peer Delinquency

Finally, neighborhood structure, particularly poverty, heterogeneity, and instability, provides an opportunity structure wherein adolescents can “test” many curiosities-including alcohol and drug use. Researchers contend that sexual risks are associated with these other deviant behaviors (Donovan, Jessor, and Costa 1988; Elliot and Morse 1985; Resnick, Chambliss and Blum 1993; Rosenbaum and Kandel 1990) and are reinforced in peer groups (Akers 1979; Elliot 1985, 1989; Lauritsen, 1990; Salts, Linholm Goddard and Duncan 1995; Sutherland 1974; Warr and Stafford 1991). For example, examining the relationship between drug use and early sexual behavior, Rosenbaum and Kandel (1990) found that after controlling for sociodemographic factors, reported prior use of cigarettes, alcohol, marijuana, and other illicit drugs greatly increases the risk of early sexual activity among adolescents.

More recently, Thornberry, Smith, and Howard (1997), using data from the Rochester Youth Development Study, identified the risk factors that predict the likelihood of becoming a teen father, and showed that gang membership, drug use, and violent behavior are associated with an increased likelihood of becoming a teenage father. In light of these findings regarding the association between participation in one kind of deviance and involvement in another kind, I propose that adolescents who have friends who engage in
delinquency are at an increased risk for also engaging in related, engagement in sexual behavior.

While it is generally anticipated that the influence of social disorganization on sexual onset is mediated by peer factors, it is not clear that all peer factors are relevant mediators of all disorganization-producing neighborhood characteristics. For example, it seems plausible that all three neighborhood factors examined here contribute indirectly to adolescent sex through the way they contribute to peer density and peer deviance. However, it is unclear that the directional influence of these factors is all the same.

For example, one would clearly expect a positive association between disadvantage and peer density (as well as peer deviance). However, it seems likely that ethnic heterogeneity and residential mobility would have negative relationships on peer density due to the fact that high levels of these factors would make it harder for friendships to form. Also, it is very unclear how any of the three neighborhood characteristics would affect peer popularity. Conceivably residential mobility could affect popularity through determining what youth have longevity in the neighborhood and is chosen more often as a friend because of their longevity. But arguments for the influence of disadvantage and ethnic heterogeneity are far less clear. Indeed, one might argue that levels of neighborhood disadvantage affect the degree to which “deviant” youth are more or less popular. Yet, it is unclear why net of the peer deviance measure such disadvantage would contribute to peer
popularity. And, one is even harder pressed to suggest a rationale for ethnic heterogeneity having an influence in peer popularity.

In brief, then, despite the general relationships posed by social disorganization models, it is possible that some neighborhood characteristics do not influence peer relationships in the manner expected. Nonetheless, the models examined below assess the mediating influence of all peer variables on all three neighborhood characteristics. Doing so will help to refine our understanding of neighborhood influences in relationship to peer influences.

THE MODERATING EFFECTS OF NEIGHBORHOOD CHARACTERISTICS ON PARENTS AND PEERS

In addition to examining whether parent and peer variables mediate the relationship between neighborhood characteristics and adolescent engagement in sex, there is a need to examine the possibility that these individual-level factors interact with the environmental context to affect adolescent sexual behavior. Both indirect and moderating effects of neighborhood conditions are possible, and should be explored empirically.

Parents

Although parenting behaviors may affect an adolescent’s decision to participate in sex, the strength of that effect may be moderated by the neighborhood in which s/he resides. That is, the effect of parental support and monitoring on subsequent adolescent problem behavior may vary across neighborhood type. Some research suggests that living in more disorganized communities diminish the effect of parents’ efforts to monitor and control their children from the dangers of the neighborhood (Coleman 1990; Gottfredson
and Hirschi 1990; Patterson 1992; Sampson, Morenoff and Earls 1999).

Specifically, parental support and monitoring may have less of an impact on youthful behavior in socially disorganized communities where these efforts are not reinforced by community informal social control, or where the prevalence of deviant opportunity structures that provide alternative sources of respect for youth are widespread.

For example, in a study quite similar to this one, Roche, et al. (2005), investigated whether neighborhood socioeconomic advantage modifies the relationship between parenting practices and sex initiation among middle school students. They found that greater parental involvement decreases the likelihood of an adolescent’s initiation in sex, but only in socially advantaged neighborhoods. This finding lends support to the notion that

3 During the later stages of writing the dissertation the Roche et al. paper was published. As indicated there is a great deal of overlap between this published paper and my dissertation; it raises questions about the same types of relationships, the same data sources, and measures key independent variables in similar ways. This was at one time very gratifying (it provided reinforcement of the importance of this type of work), and disturbing (it raised questions about whether my study would contribute anything additional to the field). A closer look at the Roche et al. paper indicates some central differences that render them both meritorious. First, Roche et al. focus upon adolescents in middle school only, who therefore range in age from 11-13. My work spans ages 13-18 and as such covers youth in both middle school and senior high. Thus, the findings presented here will suggest how broadly the patterns found in the previous study apply across the full set of teenagers.

Second, Roche et al. consider only one type of neighborhood factor i.e., neighborhood socioeconomic status, which is measured in a manner similar to how I defined neighborhood disadvantage. As indicated above, this dissertation examines the role of all three structural characteristics that social disorganization theory views as producing this condition (i.e., social disorganization). In this way, my analysis provides a broader test of the role of social disorganization in the onset of youthful sex. My study will complement theirs by shedding light on these relationships considering additional neighborhood characteristics; examining the theoretical linkages among neighborhood characteristics, several peer variables and sexual onset; and examining both sets of relationships for teenagers across the full range of adolescent years.

Third, Roche et al. treat peer factors as control variables and only the role of peer deviance is examined. In my analyses, a number of peer variables are treated as more central theoretically. In the end, their study is able to shed light on the linkages among neighborhood socioeconomic status, family characteristics, and sex onset for middle school youth (especially parenting involvement, communication, and decision-making).
neighborhoods condition the effect of parental behaviors on consequent adolescent behavior. I argue that greater social disorganization will diminish rather than strengthen the influence of parental factors on engagement in sex. This directional hypothesis is tested below.

**Peers**

The strength of peer associations is also likely to be moderated by neighborhood disorganization. In more socially organized neighborhoods where conventional behavior is both encouraged and reinforced by positive adult role models and ample conventional community activities, peer influence may be relatively less potent (Warr 1993). Conversely, peer influence may be stronger in more socially disorganized communities, where status and rewards obtained from engaging in deviant behaviors likely takes on increased importance. Deviant behavior may be especially strongly reinforced within peer networks located within neighborhoods where there are few adult and other community role models to buffer these peer effects. In light of previous findings (Anderson 1990; Cohen 1955; Wilson 1996), I propose that as the level of neighborhood social disorganization increases the greater will be the effect of peer associations on adolescent engagement in sex.

**Age-Graded Informal Social Control Theory**

One of the purposes of this dissertation is to examine whether or not contextual and/or individual-level factors that affect the likelihood of teenage sex during early and late adolescence are the same. Most theories assume
that this is the case. However, life course perspectives alert us to the possibility that teens, who are having sex at younger ages, may be quite different from those who begin to have sex at older ages. Blending social capital and social control theories, age-graded informal social control, for example, suggests that in early to late adolescence, factors that produce informal social control are different for youth depending on their stage in the life-course (Sampson and Laub 1993). Specific to my dissertation, this theory would posit that sexual debut among young teenagers is most impacted by proximate relationships such as with family while this behavior among older youth is influenced by more distal relationships as with peers and/or neighborhood factors. Additionally, Sampson and Laub (1993) assert that structural variables may affect youth indirectly through these relationships.

Examining adolescent engagement in sex among young juveniles, Whitbeck, et al. (1999) used event history analysis to examine predictors of early sex among 8th through 10th grade adolescents. The authors found that although some factors associated with early teen sex remained stable across grade levels, mothers' became less influential as age increased. Beyond this study, it is not known how central factors purported to determine adolescent engagement in sex vary in their influence across younger and older youth groups. Thus, it is necessary to address such questions as: 1) What are the factors that impact whether or not an adolescent will have sex during early adolescence? And 2) Are these factors the same as those that influence
older teenagers to engage in engagement in sex? Indeed, most literature examines juvenile sex across broad age groups varying from 11 to 17 and 15 to 18 years old. In my view, researchers do adolescents a major disservice by decidedly not disaggregating samples by age. It is important when creating and implementing policy that we be able to identify the factors affecting specific groups of youth so that key policy-makers can develop appropriate intervention strategies. For this reason, I explore the determinants of an adolescent’s early engagement in sex across age groups. In doing so, I pay close attention to whether the mediating or conditioning effect of neighborhood conditions are more central to the behavior of older than younger adolescents.

**Gaps in the literature**

In sum, it is clear from previous literature that there is a relationship between neighborhood characteristics and timing of first sex (Brewster 1994; Hogan, Aston, and Kitagawa 1985), pregnancy and childbirth (Billy and Moore 1992; Crane 1991; Hogan and Kitagawa 1985; Ku, Sostenein, and Pleck 1993; Sucoff and Upchurch 1998), and contraceptive use (Baumer and South 2001). Still, it is important to explore further the role of neighborhoods in these outcomes. Research is needed to examine the mechanisms through which neighborhood characteristics operate, and to determine if neighborhood characteristics interact with other central variables in determining engagement in sex. As indicated in my discussion of social

---

4 Roche et al. (2005) are sensitive to the need to consider important turning points in youths’ lives. Thus, they take the approach of examining prepubertal versus pubertal status among the young teenagers they examine.
disorganization theory, when contemplating the effects of neighborhood characteristics on criminal or delinquent outcomes, it is important to examine the dynamics of the social networks within the community. Social disorganization scholars note that it is through community informal and formal networks that neighborhood characteristics most affect delinquent behavior. In this dissertation, I examine whether and how neighborhood characteristics affect adolescent coitus. Specifically, I investigate the potential mediating effects of parenting and peers in the relationship between neighborhood characteristics and adolescent engagement in sexual behavior. In addition, I investigate whether neighborhood conditions moderate parent and peer relationships to ultimately affect adolescent engagement in sex. Finally, I look at differences in the effects of key factors in impacting engagement in sex among two age groups, 13 to 14 year olds and 15 to 18 year olds.

Hypotheses

In conclusion, Figure 2.1 summarizes the central hypotheses of this research regarding how neighborhood characteristics play a role in adolescent engagement in sex. Note in Figure 2.1 that I expect greater levels of neighborhood disadvantage, residential instability, and ethnic heterogeneity to be associated with a greater likelihood of engagement in sex among youth. I also test the hypotheses that the effects of neighborhood characteristics, (e.g. neighborhood poverty, residential instability, and ethnic heterogeneity) on adolescent engagement in sex are mediated by parental practices and peer networks.
Neighborhoods with higher levels of disadvantage reflecting greater social disorganization are contexts in which parents may have fewer social and economic resources with which to support and control their youth, thereby increasing the likelihood of early sexual onset among youth. Similarly, it is expected that more disorganized neighborhoods will generate more deviant opportunity structures, including more delinquent peer groups, again resulting in a higher likelihood of adolescents engaging in early, non-marital sex. Finally, as indicated in Figure 2.1, I posit that neighborhood disorganization will condition the impact of both parents and peers on the likelihood that an adolescent will engage in sex. I also assess these patterns across younger and older adolescent groups.\footnote{The reader is reminded that these hypotheses are based on the general aspects of social disorganization theory. As indicated earlier, particular neighborhood characteristics may not be related to peer factors in a manner consistent with the broad outlines of this theoretical perspectives.}
Figure 1.1 Theoretical Model for Adolescent Engagement in sexual Behavior: Neighborhood, Mediating, and Interaction Effect
CHAPTER 3
DATA AND METHODS

DATA SOURCE

The data for this study are from the National Longitudinal Study of Adolescent Health (Add Health), (Udry 1998). A nationally representative sample of 80 high schools and one of each of its “feeder schools” (middle or junior high schools) were chosen to participate in this study. If the high school chosen included grades seven through twelve, it acted as its own “feeder school.” The sample of schools was stratified by region, urbanity, school type, ethnic mix, and size. From this sample of schools, a “core” group of students in grades seven through twelve was selected to be interviewed at home. One parent or guardian was also interviewed (most often the mother). The parental data were matched with the student respondents’ data to make a single file. These data are referred to as the core In-Home sample (Udry 1998). All questions answered by the respondents were recorded on laptop computers. For general topics, respondents were read a question by the interviewer who recorded their answers on the laptop computer. For more sensitive questions, respondents listened to pre-recorded questions and proceeded to respond on the laptop themselves.

The data were collected in two waves (1994 and 1996) from the original core sample of seventh through eleventh graders (N=90,142). The Add Health
Study did not follow up on Wave I twelfth graders in Wave II (i.e., those who graduated between the two Waves). Therefore, the core In-Home longitudinal sample from Wave I and Wave II is representative of U.S. seventh through 11th grade students only. Add Health researchers compiled the census tract and census block group location for each respondent (Udry 1998). Researchers attached census tract information to respondents' data by geo-coding respondent at-home addresses to their 1990 neighborhood information. The neighborhood data are from the U.S. Census of Population and Housing 1990, Summary Tape File 3A (STF 3A). Add Health researchers provided pseudo-identification numbers with the census data so that respondents could be matched with their correct census tract and block groups. Some missing data exist on tract and block group information because Add Health researchers were unable to geo-code residential location for some respondents. However, for the Wave II, core in-Home sample, only one percent (N=133) of the cases have missing data on the Census measures.

Sample

The analyses conducted in this study are specifically based on White, African-American, and Latino adolescents drawn from the Wave I and Wave II core longitudinal data sets who are 13 to 18, had not had sex at the time of first interview, who were not married at Wave II, and who attended one of the schools within which network data were calculated\(^6\) (N=4,738). White, African-American, and Latino adolescents constituted the largest percentage of the sample that had

\(^6\) Network data were calculated from schools where 50% of the student body completed the questionnaire. I selected students who attended one of these 145 schools.
sex at Time 2 as compared to a small percentage of youth who reported having sex at Time 2 in other racial and ethnic groups. Therefore, only White, African-American, and Latino youth were included in the sample.\textsuperscript{7} Selecting youth who were not sexually active during Wave I allows me to address the causal influence of whether or not an adolescent has ever had sex. Unfortunately, doing so may have had some biasing consequences for the research. Of note, adolescents excluded from the sample due to having engaged in sexual intercourse by Time 1 differed significantly from youth included (N=2,826). Youth who had already engaged in sex were more likely to be older (µ=16.1), male (µ=.73), and to have lower GPA’s (µ=2.60). Finally, youth who had sex at Time 1 reported lower levels of parental support (µ=1.8) and supervision (µ =6.14) and were more likely to have friends who smoke (µ=1.51), are truant (µ=.74), or drink (µ=.94).

Given that there are significant differences between those youth included in my sample and those excluded, the results that follow should be interpreted with some caution regarding the degree to which they definitely describe the hypothesized relationships. Yet, it also should be recognized that the effect of the selectivity is more dramatic for the older than the younger adolescents.

**MEASURES**

The dependent and independent variables for the analyses are presented in Table 3.1. Note that my dependent variable (adolescent engagement in sexual behavior) was measured during Wave II (collected between April 1996

\textsuperscript{7} Groups in the “other” category were American Indian, Asian or Pacific Islander, Chinese, Filipino, Japanese, Asian Indian, Korean, and Vietnamese.
and August 1996) of the study. The independent variables were measured
during Wave I and Wave II as indicated in the Table.  

(refer to Table 3.1)

**Measuring the Dependent Variable**

Adolescent transition to first sex is measured as initial engagement in sex.  
*Initial engagement in sex* is a dummy variable indicating whether 1) or not 0) the respondent had engaged in sexual intercourse by the Wave II interview.

**Measuring the Independent Variables**

*Neighborhood Variables*

A goal of this research is to assess the direct and indirect impact of neighborhood characteristics on adolescent sex. Following the tradition of the social disorganization literature (Bursik and Grasmick 1993; Kornhauser 1978; Sampson and Groves 1989), I include the following traditional measures of disorganization in the analyses that follow: neighborhood economic disadvantage, ethnic heterogeneity, and residential instability.  
*Neighborhood disadvantage* is created by taking the average of three z-scored census tract items: 1) the proportion of families below poverty, 2) the unemployment rate, and 3) the proportion of households with public assistance income. Higher scores on this variable signal higher levels of neighborhood social disadvantage.  
*Ethnic heterogeneity* is a variable measured by the proportion of the community that is foreign born. Finally, the proportion of individuals aged 5 or older who lived in a different house five years earlier is used to measure *residential instability.*

---

8 Wave I data were collected between September, 1994 and December, 1995.
I hypothesize that neighborhood disadvantage, residential instability, and ethnic heterogeneity are positively related to adolescent engagement in sex. That is, adolescents living in neighborhoods characterized with higher levels of neighborhood disadvantage, residential instability, ethnic heterogeneity are at an increased risk for transitioning to first sex. I also propose that higher levels of each of the neighborhood characteristics defined above will be associated with lower levels of mother’s support and supervision, parental interaction, parental membership in community organizations and parental monitoring of neighborhood children. In addition, I posit that as levels of neighborhood disadvantage, residential instability, and ethnic heterogeneity increase, peer networks become denser, and adolescent popularity and peer density will have a stronger negative impact on engagement in sex.

Parenting Behaviors

Neighborhood characteristics are expected to contribute indirectly to onset of first sex through a variety of parenting practices. To capture important aspects of the parent-child relationship, I include measures of both parental support and parental supervision. In keeping with Moore, Peterson, Furstenberg (1986) and Raffaelli, et al., (1998), these factors are measured from the point of view of the child. Mother’s support is an index created by averaging responses to several questions that measure the adolescent respondent’s feelings of closeness to his/her mother. Respondents reacted to the following statements “Most of the time, your mother is warm and loving toward you.” Response choices were, “1) not at all, 2) very little, 3) somewhat, 4) quite a bit, and 5) very much.”
Respondents were then asked to respond to the following statements: “You are satisfied with the way your mother and you communicate with each other;” and “Overall, you are satisfied with your relationship with your mother.” Response choices were 1) strongly disagree, 2) disagree, 3) neither agree nor disagree, 4) agree, 5) strongly agree. Exploratory factor analysis shows these variables load on the same construct. Higher scores indicate that adolescents view their relationship with their mothers as more supportive. I hypothesize that as mother’s support increases, the likelihood that adolescents will engage in coitus decreases.

In addition to parental support, parental supervision indicators are included in the analyses. Respondents were asked, "How often is she [mother] at home when you leave for school?" “How often is she at home when you return from school?" and “How often is she at home when you go to bed?” Answer choices were 1) never, 2) almost never, 3) some of the time, 4) most of the time, 5) always. Factor analysis shows that these variables load on the same construct. Higher scores indicate higher levels of parental supervision. Drawing on Wright and Cullen (2001), Moore, Peterson, Furstenberg (1986), and Raffaelli, et al. (1998), I hypothesize that reports of higher parental supervision are associated with a decreased likelihood of adolescent engagement in sex.

As implied by social capital theory, a second aspect of collective parental supervision is intergenerational closure (Coleman 1990). Intergenerational closure is comprised of three sets of variables, which gauge collective socialization: parents’ interaction with parents of their child’s friends, parental
membership in community organizations, and neighborhood parental monitoring. 

*Number of peers’ parents with whom adolescents’ parents interact* is measured by asking parents to think about all of [child’s] friends and to respond to “How many parents of [child’s] friends have you talked to in the last four weeks?” Response choices range from 0-6 where 6 equals 6 or more. 

*Parental membership in parent/teacher organization* is measured by the question: “Please tell me whether or not you are a member of a parent/teacher organization.” Answer choices were 1) yes and 0) no. Likewise, *parental membership in civic organizations* is measured by asking parents whether or not they are members of a civic or social organization, such as Junior League, Rotary, or Knights of Columbus.” Answer choices were 1) yes and 0) no. 

*Parents’ monitoring of neighborhood children* is measured by the question, 1) “If you saw a neighbor’s child getting into trouble, would you tell your neighbor about it?” Response choices were 1) definitely would not, 2) probably would not, 3) might, 4) probably would, 5) definitely would. *Neighbors’ monitoring of adolescents* is measured by asking parents, “If a neighbor saw your child getting into trouble, would your neighbor tell you about it?” Response choices were 1) definitely would not, 2) probably would not, 3) might, 4) probably would, 5) definitely would. Each of these variables measures an aspect of social capital among neighborhood parents and their children. I hypothesize that there will be a negative association between each intergenerational closure variable and adolescents’ transition to first sex.
Peer Networks

A goal of this research is to examine whether and how peer networks mediate the relationship between neighborhood structure and adolescent engagement in sexual behavior, and whether or how peer influence is conditioned by neighborhoods. The Add Health dataset has detailed social network data. During the in-school survey, respondents were asked to nominate five of their closest friends. Based upon this information, three aspects of peer networks are examined in this dissertation. Conceptually, peer density measures peer membership cohesion and interaction as determined by the number of friends in the network. Specifically, it is defined as the number of friendship ties present in the friendship network divided by the number of possible friendship ties based on a respondent’s friends’ nominations and those who nominated the respondent. Adolescent popularity is a network variable that indicates the number of times the respondent is nominated by other students in the school. Finally, peer delinquency is comprised of three variables: peer smoking, peer truancy, and peer drinking. Peer smoking is measured by asking respondents, “During the past twelve months, how often did you smoke cigarettes?” Answer choices ranged from 0) never, 1) once or twice, 2) once a month, 3) 2 or 3 days, 4) once or twice a week, 5) three to five days a week, and 6) nearly everyday. Peer truancy is measured by asking adolescents, “During the past twelve months, how often did you skip school?” Answer choices ranged from 0) never, 1) once or twice, 2) once a month, 3) 2 or 3 days, 4) once or twice a week, 5) three to five days a week, and 6) nearly everyday.”
Finally, to measure peer drinking, adolescents were asked, “During the past twelve months, how often did you get drunk?” Answer choices ranged from 0) never, 1) once or twice, 2) once a month, 3) 2 or 3 days, 4) once or twice a week, 5) three to five days a week, and 6) nearly everyday. Higher scores indicate higher levels of peer density, adolescent popularity, and individual peer delinquency. I hypothesize that peer density, adolescent popularity, and peer delinquency will all be positively correlated with adolescent engagement in sexual behavior.

**Control Variables**

In addition to the above independent variables, several sociodemographic controls are also included in the models that follow. Control variables include age, gender, race, grade point average (G.P.A.), the adolescents’ attitude about premarital childbirth, adolescents’ positive beliefs about having sex, parents’ disapproval of the child’s involvement in sex, religious service attendance and salience, family socioeconomic status (parents’ education), family structure, and racial composition of the community. Age of the adolescent is a continuous variable (in the general model) measured in years and ranges from thirteen (13) to eighteen (18). Gender is a dummy variable indicating whether the respondent is 1) female or 0) male. Race is measured by two dummy variables; one for Latinos (1) and one for Blacks (1) where Non-Hispanic Whites (0) is the reference category. G.P.A. is measured by a scale created by taking the average of respondents’ self-reported most recent grades in English, math, history, and science. This variable is measured on a four-point scale 1) D or
lower, 2) C, 3) B, 4) A, where higher scores represent higher grades on a 4.0 scale.

Adolescents’ attitude about premarital childbirth is measured by asking the youth, “Regardless of whether you have ever had a child, would you consider having a child in the future as an unmarried person?” Answer choices were 1) yes and 0) no. Adolescents’ positive beliefs about having sex is an additive scale created by averaging the responses to several statements. Respondents were asked to respond to the following: “Having sex would make you feel more relaxed.” “Having sex would give you sexual pleasure.” “Having sex would make you more attractive.” Answer choices included 1) strongly disagree, 2) disagree, 3) neither agree nor disagree, 4) agree, 5) strongly agree. Higher scores indicate adolescents’ positive views of having sex. Parents’ disapproval of child’s involvement in sex is an additive scale that measures adolescents’ perceptions of parents’ disapproval of adolescents having sex. Respondents were asked, “How would she [mother] feel about your having sex at this time in your life?” “How would she feel about your having sexual intercourse with someone who was special to you and whom you knew well-like a steady {girlfriend/boyfriend}?" Answer choices were 1) strongly approve, 2) approve, 3) neither approve or disapprove, 4) disapprove, and 5) strongly disapprove.

Religious service attendance is a scale created by taking the average of the sum of two items measuring adolescents’ attendance at religious services including the following: “In the past 12 months, how often did you attend religious services?” And “In the past 12 months, how often did you attend youth
activities (i.e., special activities for teenagers such as youth groups, Bible classes, or choir)?” Response choices were 1) never 2) less than once a month, 3) once a month or more, but less than once a week, 4) once a week or more. Higher scores indicate higher levels of church attendance. Religious salience is a scale created by taking the average of the sum of two items measuring adolescents’ report of the importance of religion and how often they pray including the following: “How important is religion to you?” Response choices were 1) not important at all, 2) fairly unimportant, 3) fairly important, and 4) very important; and “How often do you pray?” Response choices were 1) never, 2) less than once a month, 3) at least once a month, 4) at least once a week, 5) at least once a day. Higher scores indicate higher levels of religious salience. I hypothesize that religious service attendance and religious salience are negatively related to adolescent engagement in sexual behavior.

Family socioeconomic status is measured by parents’ highest level of education. *Parents’ education* is measured on a 9 point scale: 0) none, 1) 8th grade or less, 2) more than 8th grade, but did not graduate from high school, 3) went to a business, trade, or technical high school instead of high school, 4) high school graduate, 5) completed general education diploma (GED), 6) went to a business, trade, or vocational school after high school, 7) went to college but did not graduate, 8) graduated from a college or university, 9) professional training beyond a four year college or university. *Family structure* is coded as a dummy variable where respondents either reside with 1) two married parents or 0) with
other family types. In line with prior research that has found a positive association between racial composition and adolescent engagement in sex (Teitler and Weiss 2000), racial composition is taken from the Census tract level and is defined as the proportion in the tract identified as Black. I hypothesize that as family socioeconomic status increases and when adolescents live in a two-parent household, the likelihood that they will engage in sex decreases. I also posit that racial composition is positively associated with adolescent engagement in sexual behavior.

**Missing Data**

Missing data on the neighborhood contextual variables account for less than one percent of the cases (N=55). Large missing data problems, however, were generated from the parental portion of the survey and from the peer network variables. To avoid substantial reduction in cases, I use the best subset regression substitution for those key parental and peer variables (Allison 2002). In this procedure, I obtained value estimates for variables with missing values by regressing the variable for which values needed to be estimated on other key variables. The estimated values were then substituted for the missing values.10

**ANALYTIC PROCEDURE**

The design calls for use of a multilevel model. A statistical issue that is often noted when doing multilevel analysis is the potential for correlated

---

9 The “other” family structure category includes parents who are divorced, separated, widowed, or never married.
10 Imputed variables include all *intergenerational variables* (number of peers’ parents with whom adolescents’ parents interact, parents’ monitoring neighborhood children, neighbors’ monitoring neighborhood children, parental membership in parent/teacher organizations, parental membership in civic organizations), *peer delinquency* variables (peer smoking, peer drinking, and peer truancy), parent’s education, and family structure.
regression residuals within macro-level units. This violates the assumption of
standard regressions, and must therefore, be corrected. One resolution for this
problem is the use of special statistical software such as Hierarchical Linear
Modeling (HLM) that corrects for correlated regression residuals. The Add
Health data, however, are unique because 75% of 2,449 census tracts contain
fewer than five adolescents, where the median number of adolescents per tract is
two. Therefore, there is a minimal risk of tract-level nesting where observed
results would be correlated.

Adolescents, however, are nested within schools, which nesting must be
accounted for in statistical analyses. Failure to account for this nesting may
result in correlated errors across cases (e.g., students within the same school
likely have unmeasured common variables that have an impact on the
engagement in sex outcome). Unaccounted for, the analyses will likely result in
incorrect significance tests due to biased estimates of the standard errors (Harris
unpublished manuscript 1999). As suggested by the ADD Health research
teams (Chantala and Tabor 1999), to correct for the possibility of biased
estimates, it is recommended that scholars using ADD Health use certain
statistical analysis programs (including in STATA), which implements the correct
formulas for estimating variances by taking into account survey weights when
analyzing complex survey data and, therefore, adjusts for clustering within
schools (Chantala and Tabor 1999). STATA is used for all analyses within this
dissertation.
For the purposes of this dissertation, I employ logistic (LOGIT) regression in all models due to the dichotomous dependent variable (initial engagement in sex). My multivariate analyses proceed in three steps. The first step is to examine the mediating effects of parenting behaviors and peer networks in the relationship between neighborhood characteristics and adolescent sexual behavior. Two models are assessed. The first model includes neighborhood characteristics and control variables. In the second model, I add parental behaviors and peer network variables to the baseline model to assess how neighborhood characteristics’ effect on adolescent engagement in sex are altered by the inclusion of the parent and peer variables. The second step of the analyses is to examine how neighborhood characteristics condition parenting behaviors and peer networks to ultimately affect adolescent engagement in sex. The third model, then, includes all neighborhood variables, parent and peer variables, control variables, and interaction terms. The final stage of this dissertation includes repeating analyses one and two separately for adolescents aged 13-14 and 15-18.
VARIABLES | OPERATIONALIZATION
--- | ---
**DEPENDENT VARIABLES** | The dependent variable came from the Add Health Wave II (1996) In-Home data file.

Initial Engagement in Sex | Dummy variable indicating whether or not the respondent engaged in sexual intercourse where 1) yes and 0) no.

**INDEPENDENT VARIABLES** | The independent variables came from the Add Health Wave I and II (1994) In-Home data file.

Neighborhood Characteristics | Scale created by taking the average of three z-score census-tract items where higher scores indicate greater levels of disadvantage. The scale includes: 1) the proportion of families below poverty, 2) the proportion unemployed and, 3) the proportion households with public assistance income (Alpha=.939). The factor loadings for each of the components are .949, .922, and .946, respectively.

Ethnic Heterogeneity | This variable is defined as the proportion of the community that is foreign born where high scores indicate a higher proportion of immigrant concentration.

Residential Instability | This variable is defined as the proportion of individuals aged 5 and older living in a different household 5 years earlier. Higher scores indicate higher levels of instability.

Parental Behavior | Scale created by averaging answers to questions that indicate feelings of closeness and maternal support. A higher score indicates a greater feeling of attachment. Respondents reacted to the following question: “Most of the time, your mother is warm and loving toward you.” Response choices included: 1) not at all, 2) very little, 3) somewhat, 4) quite a bit, and 5) very much.

Continued

Table 3.1 Operationalization of Dependent, Independent, and Control Variables
Respondents were then asked to respond to the following statements: “You are satisfied with the way your mother and you communicate with each other;” and “Overall, you are satisfied with your relationship with your mother.” Response choices included: 1) strongly disagree, 2) disagree, 3) neither agree nor disagree, 4) agree, 5) strongly agree (Alpha=.834). The factor loadings for this construct are .640, .828, and .857, respectively.

Parental Supervision Questions were asked that gauged an adolescent’s response to whether or not parents were physically present in the home throughout the day. Questions included: “1) How often is she [mother] at home when you leave for school?” “How often is she at home when you return from school?” And, “How often is she at home when you go to bed?” Response choices ranged from: 1) never, 2) almost never, 3) some of the time, 4) most of the time, 5) always. (Alpha=.872). The factor loadings are .835, .840, and .943, respectively. Higher scores represent higher levels of parental supervision.

Intergenerational Closure

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Peers’ Parents with whom Adolescents’ Parents Interact</td>
<td>This variable measures the interaction between peers’ parents and adolescents parents. Parents were asked to think about all of their [child’s] friends. Then they were asked, “How many parents of child’s friends have you talked to in the last four weeks?” Response choices ranged from 0 to 6 or more.</td>
</tr>
<tr>
<td>Parental Membership in Community Organizations</td>
<td>These variables indicate parental involvement in the PTA and civic organizations.</td>
</tr>
<tr>
<td>Parental PTO Membership</td>
<td>Parents were asked, “Please tell me whether or not you are a member of a parent/teacher organization. Response choices were 1) yes and 0) no.</td>
</tr>
<tr>
<td>Parental Membership in Civic Organizations</td>
<td>Parents were asked, “Please tell me whether or not you are a member of a civic or social organization, such as Junior League, Rotary, or Knights of Columbus?” Response choices were 1) yes and 0) no.</td>
</tr>
</tbody>
</table>

Continued
Table 3.1 continued

**Neighborhood Parental Monitoring**

Parents were asked questions that gauge collective monitoring among neighborhood residents.

**Parents’ Monitoring of Neighborhood Children**

Parents responded to the following question: “If you saw your neighbor’s child getting into trouble, would you tell your neighbor about it? Response choices were 1) definitely would not, 2) probably would not, 3) might, 4) probably would, and 5) definitely would.

**Neighbors’ Monitoring of Adolescents**

Parents responded to the following question: “If a neighbor saw your child getting into trouble, would your neighbor tell you about it?” Response choices were 1) definitely would not, 2) probably would not, 3) might, 4) probably would, and 5) definitely would.

**Peer Networks**

**Peer Density**

This variable is a network variable that indicates the number of ties in respondent's friendship send/receive-network divided by the number of possible ties in the total friendship send/receive-network (composed of respondent, respondent's friend nominations, and those who nominated respondents).

**Adolescent Popularity**

This variable is a network variable that indicates the number of times respondent is nominated by other students in the school.

**Peer Delinquency**

Variables that measure the activities of peer responses in each adolescent’s network for 1) involvement in smoking, 2) school truancy, and 3) participation in heavy drinking. Higher scores indicate higher levels of peer delinquency for each variable.

**Peer Smoking**

Friends were asked how often they smoked cigarettes in the past twelve months. Answer choices ranged from 0) never, 1) once or twice, 2) once a month, 3) 2 or 3 days, 4) once or twice per week, 5) three to five days a week, and 6) nearly everyday.

**Peer Truancy**

Friends were asked how often they skipped school without an excuse in the past twelve months. Response

Continued
Table 3.1 continued

Peer Drinking

Friends were asked how often they got drunk in the past twelve months. Response choices were 0) never, 1) once or twice, 2) once a month, 3) 2 or 3 days, 4) once or twice per week, 5) three to five days a week, and 6) nearly everyday.

Control Variables


Age

A continuous variable measured in years.

Gender

A dummy variable indicating whether respondent is 1) female or 0) male.

Latino

A dummy variable indicating whether respondent is 1) Latino or 0) Non-Hispanic White.

Black

A dummy variable indicating whether respondent is 1) Black or 0) Non-Hispanic White.

Grade Point Average

A scale created by taking the average of respondent’s self-reported most recent grade in math, science, history, and English. This variable is measured on a four-point scale where 1) D or lower, 2) C, 3) B, 4) A (Alpha=.757). The factor loadings of each subject in this construct are .789, .694, .777, and .770, respectively. Higher scores represent better grades.

Adolescents’ Attitude having about Premarital Childbirth

This question measures an adolescent’s attitude about children before marriage. Respondents were asked, “Regardless of whether you have ever had a child, would you consider having a child in the future as an unmarried person?” Answer choices were 1) yes and 0) no. Higher scores indicate higher approval of premarital childbirth.

Adolescents’ Positive Beliefs about Having Sex

Additive scale was created by averaging scores on variables that indicate adolescent’s sexual beliefs. Respondents were asked to respond to the following statements: 1) Having sex would make you feel relaxed, 2) Having sex would give you sexual pleasure, 3) Having sex would make you more attractive. Answer choices included 1) strongly disagree, 2) disagree, 3) neither.
Parents’ Disapproval of Child’s Involvement in Sex

This variable measures whether or not parents’ disapprove of children’s sexual activity. Adolescents were asked, “How would she [mother] feel about your having sex at this time in your life?” “How would she feel about your having sexual intercourse with someone who was special to you and whom you knew well-like a steady (girlfriend/boyfriend)?” Response choices were 1) strongly approve, 2) approve 3) neither approve or disapprove, 4) disapprove, and 5) strongly disapprove (Alpha= .820). The factor loadings of each item are .860, and .892, respectively. Higher scores represent higher levels of parents’ disapproval of child’s involvement in sex.

Religious Service Attendance

Scale created by taking the average of the sum of two measures measuring church/youth group attendance. Higher scores represent higher levels of church/youth group attendance. Respondents were asked the following questions: “In the past 12 months, how often did you attend religious services?” “2) In the past 12 months, how often did you attend such youth activities? (i.e., special activities for teenagers such as youth groups, Bible classes, or choir).” Response choices were 1) never, 2) less than once a month, 3) once a month or more, but less than once a week, and 4) once a week or more. The factor loadings of each are .809 and .712.

Religious Salience

Scale created by taking the average of the sum of two items measuring reported religious importance. Items were measured on a four point scale such that higher scores represent higher levels of religious importance and prayer including the following: “How important is religion to you?” Response choices were 1) not important at all, 2) fairly unimportant, 3) fairly important, and 4) very important. The second question asked, “How often do you pray?” Response choices were, 1) never, 2) less than once a month, 3) at least once a month, 4) at least once a week, and 5) at least once a day, respectively (Alpha=.769). The factor loadings of each item are .784 and .771, respectively.
Table 3.1 continued

| Family Socioeconomic Status | Family socioeconomic is measured by parent’s highest level of education. Answer choices were 0) none, 1) 8th grade or less, 2) more than 8th—did not graduate, 3) went to business, trade, or technical school instead of high school, 4) completed high school, 5) completed GED, 6) business, trade or vocational school after high school, 7) went to college, but did not graduate, 8) graduated from college or university, 9) professional training beyond a 4-year college or university. |
| Family Structure | This variable is coded as a dummy variable where either the 1) respondent resides with two married parents, or 0) respondent resides with other family types. |
| Racial Composition | This variable is defined as proportion Black in census tract of respondent where higher scores indicate a higher proportion of black concentration. |
CHAPTER 4

RESULTS

Descriptive Results

The purpose of this dissertation is to examine the interrelationships among neighborhood structure, parenting practices, peer networks, and initial engagement in sex. I hypothesize that parenting practices and peer networks mediate the relationship between neighborhood characteristics and juvenile sex. I also hypothesize that neighborhood characteristics, parenting behaviors and peer relations will interact to ultimately affect sex among teenagers. Finally, I hypothesize that different factors will affect adolescents' engagement in sex by age group.

Table 4.1 presents descriptive statistics for the dependent and key independent variables included in the analyses. Note that among adolescents who had not had sex during the first interview, 19% have had sex by the time of the second interview. Disaggregated by age, among 13-14 year olds 9% had sex and among 15-18 year olds, 29% had sex. Turning to the neighborhood factors, the typical adolescent resided in a neighborhood with low levels of disadvantage. For example, the average level of disadvantage was -.02 (range -1.54-3.94). The typical adolescent resided in a community in which 59% of the
population changed residences in the prior 5 years. The standard deviation was 12%. Finally, the average proportion of foreign-born residents in a neighborhood was 7% (s.d. 9%).

(Table 4.1 about here)

Turning to key parenting and peer variables, respondents characteristically reported feeling supported by their mother (4.34, range 1-5), and reported relatively high levels of parental supervision (12.28, range 3-17). Interestingly, parents, on average, reported having contact with a reasonable number of parents of their child’s friends (2.41, range 0-6), but were only moderately involved in community groups, with 39% of parents being members of their local parent/teacher organization and 15% being a member of a community civic or social organization. Parents typically reported a good deal of neighborhood monitoring of youth. In fact, the average parent respondent reported that she probably would tell a neighbor if her neighbor’s child was getting into trouble (4.26, range 1-5), and that this is likely true for her neighbor, as well (3.93, range 1-5). In turning to peer networks, the descriptive statistics show that adolescents do not tend to be members of extremely dense networks (.29, range .06-1) are somewhat popular (4.81, range 0-27), and on average, have friends who do not characteristically participate in cigarette smoking, truancy, or drinking.

**Bivariate Results**

Before discussing the multivariate models, I present the significant bivariate relationships between the dependent and independent variables. Table
4.2 presents these results. Primary attention is focused on the relationship between adolescent engagement in sex, neighborhood structure, parenting behaviors, and peer relations. The asterisks indicate that the respective correlation coefficients are significant at the .01** or .05* level.

Note that the neighborhood characteristics are associated with an increase in the likelihood that adolescents will engage in engagement in sex at the bivariate level except for ethnic heterogeneity. That is, neighborhood disadvantage and residential instability are positively associated with coitus among youth. Adolescents who live in neighborhoods with higher levels of disadvantage and higher levels of instability have an increased risk of engaging in sex. On the other hand, adolescents who reside in neighborhoods characterized by higher levels of ethnic heterogeneity are less likely to engage in sex. This finding is contrary to the expectation of social disorganization theory, but is supported by findings from other research (e.g., Brewster 1993). It remains to be seen whether this relationship holds net of the influence of other factors.

Many of the variables hypothesized to mediate the effect of neighborhood characteristics on adolescent sexual activity are significantly related to juvenile sex at the bivariate level. As expected, among the parental behavior variables, adolescents who report higher levels of mother's support and parental supervision are less likely to engage in engagement in sex. Likewise, greater intergenerational closure tends to decrease the risk of adolescent sexual
activity at the bivariate level. As parents interact with more parents of their children’s friends, adolescents’ risk of early engagement in sex decreases. Parental involvement in parent/teacher and civic organizations also results in a decreased risk of teens having sex. Contrary to my expectations, adolescents whose parents monitor neighborhood children and whose neighbors supervise community youth are more likely to have sex at the bivariate level.

Among the peer network variables, peer density, adolescent popularity, and some minor peer delinquency are significantly related to adolescent engagement in sex at the bivariate level. Contrary to my hypotheses, adolescents who are members of more dense networks are less likely to have sex. As expected, however, adolescents who are popular within their peer groups are more likely to participate in risky coitus. In addition, the results indicate that adolescents whose peers report higher levels of truancy (but not those who engage in more smoking or drinking) are more likely to have sex at the bivariate level.

Finally, the bivariate results reveal that individual-level theoretical controls (i.e., gender, race) are significantly associated with adolescent sexual risky activity. Being 1) female, 2) Latino, 3) Black, 4) approving of having a child before marriage, 5) having positive attitudes about the benefits of having sex, and 6) residing in neighborhoods with a high percent Black population increase the likelihood of sexual risk taking among adolescents compared with those adolescents who do not have these characteristics and who do not reside in neighborhoods with a high percent Black population. Finally, religious service
attendance, religious salience, high levels of parents’ education, and living in a two-parent household are all significantly and negatively related to the likelihood of an adolescent engaging in sex. In other words, adolescents who report higher levels of church attendance, higher levels of religious salience, live in two-parent households, and have parents who attain high levels of education are less likely to have sex.

**Summary**

In summing the relationships between the dependent variable and the key independent variables, it appears at the bivariate level that residing in neighborhoods characterized by some social disorganization factors positively impacts adolescent sexual risk taking. Adolescents who live in neighborhoods characterized by disadvantage and residential instability are more likely to engage in sex. Residing in neighborhoods with high levels of ethnic heterogeneity, however, decreases the likelihood of adolescents’ engagement in sex, which is at variance with the expectation of social disorganization theory.

All but three (peer cigarette smoking, peer drinking, and parents’ disapproval of child’s involvement in sex) parent and peer indicators expected to mediate the relationship between neighborhoods and coitus among youth are related to juvenile sex at the bivariate level. High levels of parental support and supervision result in a decreased likelihood of engagement in sex among youth. Furthermore, adolescents whose parents interact with more of their friends’ parents and participate in local community organizations are less likely to engage in sex. Contrary to my expectations, adolescents whose parents report
monitoring neighborhood youth and whose neighbors would likely monitor them have an increased likelihood of engaging in sex. Finally, at the bivariate level, also contrary to my expectation, peer density decreases the likelihood that adolescents will have sex while peer popularity and peer truancy increase the likelihood of sex among youth.

**Multivariate Results**

This section reveals the multivariate results presented in Table 4.3. As indicated earlier, the multivariate analysis proceeds in three steps. The first step is to examine the mediating effects of parenting behaviors and peer networks in the relationship between neighborhood characteristics and adolescent sexual behavior. Two models are assessed. The first model includes neighborhood characteristics and control variables. In the second model, I add parental behaviors and peer network variables to the baseline model to assess how neighborhood characteristics’ effect on adolescent engagement in sex is altered by the inclusion of the parent and peer variables.

The second step of the analysis is to examine the interaction of neighborhood characteristics with parenting behaviors and peer networks in influencing adolescent engagement in sex. The third model, then, includes all neighborhood variables, parent and peer variables, control variables, and interaction terms. The final stage of this dissertation includes repeating analyses one and two for adolescents aged 13-14 and 15-18 (these findings are shown in Table 4.4).
Mediating Effects

Model 1 of Table 4.3 presents the results of the logistic regression analysis of the main effects of the community-level and control variables on adolescent engagement in sex. The table presents the unstandardized logistic regression coefficients and the standard errors for the coefficients. The asterisks (*) indicate that the t-statistic of a given coefficient is significant at least at the .05 level. For ease of interpretation the odds ratios of the logistic coefficient are also presented. Odds ratios describe the proportionate change in the odds for a one-unit difference in the explanatory variable.

(Table 4.3 about here)

Based on Table 4.3, neighborhood characteristics impact adolescent engagement in sex beyond individual-level predictors. Consistent with social disorganization theory, net of all other variables, higher levels of neighborhood disadvantage increases the likelihood that adolescents will engage in sex. A one-unit change in disadvantage increases the odds of engaging in early coitus by 16% ($e^{.152}=1.16$). On the other hand, higher levels of ethnic heterogeneity reduce slightly the likelihood that adolescents will have sex, which is at variance with social disorganization theory. A unit increase in ethnic heterogeneity is associated with a .581 reduction in the odds of participating in early sex. Perhaps a higher concentration of foreign born in a community results in a shared acceptance of engaging in sex, thereby, delaying the transition of first sex among youth (Brewster 1993; Browning and Olinger-Wilbon 2004).
Among the control variables, the odds of participation in sex are higher among older youth, females, Latinos, adolescents' who support premarital childbirth, and adolescents' who positively view having sex. All of these associations are consistent with expectations with the exception of being female. Finally, G.P.A., parents’ disapproval of their child’s involvement in sex, and living in a two-parent home decrease significantly the odds of participation in early coitus among youth.

Model 2 adds the parenting and peer variables to the base model to examine whether or not they mediate the relationship between neighborhood characteristics and adolescent engagement in sex. Note that neighborhood disadvantage remains statistically significant and that although this factor does not operate principally through parenting and/or peer behaviors, the strength of its effect is somewhat diminished, ($\beta=.152$ Model 1, $\beta=.139$ Model 2). Net of all other variables, with each unit increase in neighborhood disadvantage, the odds of an adolescent engaging in first sex increases by about 15%. This compares to 16% in the baseline model. Additionally, the impact of ethnic heterogeneity is reduced to non-significance in Model 2. Thus, these findings indicate that only a tiny portion of the relationship between neighborhood disadvantage and juvenile engagement in sex is explained by parenting and peer variables. However, these factors do mediate the effects of ethnic heterogeneity of youth sex. Among the parenting variables, the results indicate that the primary factor influencing the likelihood that adolescents will engage in sex is mother’s support. That is, for each unit increase in mother’s support, the odds of adolescents engaging in sex
is reduced by 27%. Similarly none of the intergenerational closure variables achieve significance in Model 2.

Two peer variables are associated with engagement in sex: adolescent popularity and peer drinking. Popularity among adolescents increases the likelihood of engaging in early coitus, as expected ($\beta = 0.051$). With every 1-unit increase in the level of adolescent popularity, youth are 1.05 times more likely to have sex. Consistent with prior research (Whitbeck, et al. 1999; Yamaguchi and Kandel 1987; Zabin, Hardy, Smith, and Hirsch 1986), adolescents whose friends drink are more likely to engage in sex ($\beta = 0.357$). The odds of adolescents engaging in early coitus increases by about 43% for each unit increase in peer drinking. Peer density, cigarette smoking, and truancy do not have net effects on youthful sex. The control variables that were significant in Model 1, remain significant and in the same direction in Model 2. In sum, key parenting and peer variables directly affect whether or not an adolescent will transition to first sex and reduce to some extent the relationship between some neighborhood characteristics (especially ethnic heterogeneity) and adolescent engagement in sexual behavior.

**Interaction Effects**

In addition to examining whether and how the effects of neighborhood structure operates through parenting behaviors and peer networks to ultimately affect risky coitus among youth, I also examined whether and how neighborhood characteristics, parenting behaviors, and peer networks interact to ultimately affect engagement in teen sex. Model 3 in Table 4.3 presents the cross-level
interaction between neighborhood disadvantage and number of peers’ parents with whom adolescents’ parents interact and its impact on adolescent engagement in sex. The findings reveal that this interaction is positive and significant. That is, neighborhood disadvantage moderates the effect of parental contact with friends’ parents.

To better see the ramifications of this interaction, I present this pattern in Figure 4.1. Adolescent engagement in sex is the dependent variable. Note, Figure 4.1 presents the predicted log odds of youthful sex for the interaction between neighborhood disadvantage-characterized by low (-1), moderate (0), and high levels (1), and number of peers’ parents with whom adolescents’ interact, which is represented at contact with zero (0) parents, with two (2) parents, and with four (4) parents.12 The graph indicates that at low levels of disadvantage, as the number of peers’ parents with whom respondents’ parents interact increases (goes from 0 to 2 to 4), there is a corresponding decrease in the likelihood that an adolescent will engage in risky, as is expected. In neighborhoods characterized by moderate levels of disadvantage, there is also a negative relationship between the number of peers’ parents with whom respondents’ parents interact and adolescent engagement in sex. However, this pattern is less pronounced than in the low disadvantaged areas, a pattern that is consistent with the hypothesis that parental behavior has a stronger impact in less disadvantaged neighborhoods. The patterns for youth in low and to a lesser

---

11 In preliminary analyses, I interacted all neighborhood variables with each parenting and peer network variable to examine the effects on adolescent engagement in sex. None of these additional interactions were significant.
12 The predicted values are based on models where all other factors are being held constant at their mean level.
extent moderately, disadvantaged areas support the notion that intergenerational closure within neighborhoods provides social capital among parents to ultimately decrease the likelihood that adolescents will engage in sex. Interestingly, the effect of intergenerational closure turns positive when disadvantage reaches high levels. Thus, as the number of peers’ parents with whom adolescents’ parents interacts increases, the log odds are greater that adolescents will engage in sex. Though the differences across categories of parental contact are not large, they may reflect that parents, who reside in highly disadvantaged neighborhoods, intermingle with one another in response to their child’s sexual activity rather than prior to their child’s engagement in sex. 13

Age Differences

Age-graded informal social control theory suggests that different factors may affect the likelihood of engagement in sex differently for adolescents who are younger than for those who are older. Specifically, this theory implies that while proximate relationships (such as the family) are the key factors influencing sexual activity of younger adolescents, more external factors (such as peers and neighborhood characteristics) will impact the engagement in sexual behavior of older youth. Another purpose of this dissertation, then, is to examine to what extent the same factors affect engagement in sex among youth in different age groups, principally considering the impact of neighborhoods, parents, and peers. Table 4.4 presents the comparative findings for youth in two age groups: 13-14 and 15-18.

13 This notion will be elaborated upon in the Conclusions Chapter.
The first model in Table 4.4 presents the main effects of the community-level and control variables for adolescents’ ages 13-14 and 15-18. Here, due to space limitations, only the logistic coefficients and their standard errors are presented. The odds ratios are presented in the text for those variables that are discussed in detail below. There are two additional caveats to note before discussing the results. First, 13 to 14 year old adolescents are less likely to have had sex than 15 to 18 year olds. Analyzing a sample with a higher percentage of sexually active youth in this group may have yielded different results. Second, because the 15 to 18 year olds comprise a significant portion of the total (making up approximately three-fourths of the sample), their patterns are much more reflective of the larger patterns presented in Table 4.3.

Turning to the results, consistent with age-graded informal social control theory, the first model indicates that none of the neighborhood variables achieve significance for adolescents aged 13-14. Among 15-18 year olds, however, in Model 1 the two neighborhood characteristics are significant net of the control variables. Neighborhood disadvantage increases the likelihood that older adolescents will engage in engagement in sex, while ethnic heterogeneity decreases this outcome. The odds ratio for this factor is 1.182 indicating that for each unit increase in neighborhood disadvantage, the odds of transition to first sex increases by 18%. On the other hand, for each unit increase in ethnic

14 9% of 13 to 14 year olds had sex by Time 2 as compared to 29% 15 to 18 year old youth.
heterogeneity, the odds of youthful participation in early coitus decreases by 77%.

Briefly turning to control variables, factors that influence adolescent sex for each age group differs somewhat. Having positive attitudes about the benefit of engaging in sex (OR=1.45) increases the odds that 13 to 14 year old adolescents will engage in risky coitus, whereas G.P.A. (OR=.390) and living in a two-parent household (OR=.466) decreases the odds such young adolescents will engage in sex. Among 15-18 year olds, age (OR=1.151), being female (OR=1.616), an adolescents’ support of premarital childbirth (OR=1.301), and having positive attitudes about the benefits of engaging in sex (OR=1.237), increase the odds that adolescents will engage in sex. Higher G.P.A. scores (OR=.721), higher levels of parents’ disapproval of their child’s involvement in sex (.607), higher levels of parents’ education (OR=.970), and living in a two-parent family (OR=.794) decrease the likelihood that an adolescent aged 15 to 18 will engage in premarital coitus.

For 13-14 year olds, the neighborhood characteristics remain non-significant. After adding parenting behavior and peer network variables into the baseline model, mother’s support and parental supervision are not significant related to the transition to first sex. One measure of intergenerational closure tends to foster sexual risk among adolescents in this age group. When parents are involved in the school PTO, the odds that young adolescents will engage in sex increases (OR=1.839). None of the other intergenerational closure variables is statistically significant. Minor peer delinquency is associated with risky coitus
among 13-14 year olds. When an adolescent’s peers smoke, the odds that s/he will engage in sex increases by approximately 32%. The key factor for adolescents aged 13-14 is peer smoking. Net of this, none of the parenting or peer factors matter for the early onset of sex among this age group.

Among 15-18 year olds, when parenting and peer variables are introduced into the model, the findings indicate that aspects of these characteristics explain engagement in sex and the relationship between one neighborhood characteristic (ethnic heterogeneity) and adolescent engagement in sex. Among these factors, mother’s support, adolescent popularity, and peer drinking reduce the effect of ethnic heterogeneity to nonsignificance. The coefficient for neighborhood disadvantage remains significant in Model 2 net of all control variables. Among the independent variables, the results indicate that a unit increase in mother’s support decreases the odds of adolescents’ aged 15-18 engaging in sex by about 27% (OR=.728). Parental supervision is not significant. Regarding the influence of peer variables, older adolescents who are popular and whose peers smoke cigarettes or drink are at an increased risk of engaging in sex. That is, with every 1-unit increase in the level of adolescent popularity among peers, the odds of adolescents having sex are increased by about 6% (OR=1.056). Consistent with prior research (Whitbeck, et al. 1999; Yamaguchi and Kandel 1987; Zabin, Hardy, Smith, and Hirsch 1986), adolescents whose friends drink are more likely to have engagement in sex. For each unit increase in peer drinking, adolescents are 1.46 times more likely to transition to first sex
(β=.385). All significant control variables from Models 1 remain significant and in the same direction in Models 2.

**Interaction Effects**

I interacted all of the neighborhood characteristic variables with each parenting and peer variable to examine the effects on adolescent engagement in sex for each age group separately. None of these interactions was significant for 13 to 14 year olds. Among 15 to 18 year olds, however, the findings indicate that the effect of the number of peers’ parents with whom adolescents’ parents interact with levels of neighborhood disadvantage to affect engagement in sex. Model 3 in Table 4.4 presents these findings. The interaction term is significant and positive.

To more clearly observe the result of this interaction, I illustrate this effect graphically in Figure 4.2. As before, the graph presents predicted odds of adolescent sex for youth living in neighborhoods with different levels of disadvantage and where parents have contact with varying numbers of the parents of their child’s friends. As with the full sample, here in neighborhoods characterized by low levels of disadvantage, as the number of peers’ parents with whom adolescents’ parents interact increases, youths’ likelihood of engaging in engagement in sex decreases. And, again, to a lesser extent, this pattern holds for adolescents residing in more moderately disadvantaged neighborhoods. Also, similar to patterns shown in the full sample, in neighborhoods characterized by high levels of disadvantage, the pattern is reversed. As one moves from youth’s parents having knowledge of none of a
child’s friends’ parents, the likelihood that a child will avoid engagement in sex is less than when parents know 2 or 4 of their child’s friends’ parents. As suggested earlier, this may reflect that parents interact with one another in response to their child’s sexual activity rather than as a routine that has a preventative effect on children’s engagement in sexual behavior.

In sum, the results indicate that, overall, parenting behaviors and peer networks explain the relationship between degree of ethnic heterogeneity and adolescent engagement in sexual behavior, reducing its strength to nonsignificance. However, parenting and peer variables do not appear to mediate the effect of social disadvantage on adolescent sex. Additionally, mother’s support decreases the odds that youth will engage in sex, while adolescent popularity and peer drinking increases the likelihood of early onset of coitus among adolescents. One significant interaction effect was revealed in the analysis. The effect of parents’ interaction with a number of their child’s friends’ parents on adolescent engagement in sex varies across levels of neighborhood disadvantage for the full sample. At low to moderate levels of disadvantage, when parents interact with more of their child’s friends’ parents, youths are less likely to transition to first sex. In more highly disadvantaged neighborhoods, however, interacting with more parents of one’s child’s friends is associated with higher odds youth will engage in early coitus.

When examining whether and how different factors affect the likelihood of engagement in sex for adolescents by age group, the findings reveal that neighborhood characteristics do not affect adolescent engagement in sex for 13-
14 year olds, but beyond controls, higher levels of neighborhood disadvantage *increases* the odds of engagement in sex among 15-18 year olds. This is consistent with age-graded social control theory. In addition, parenting behaviors and peer networks *do not* mediate the relationship between neighborhood disadvantage and engagement in sexual behavior for 15 to 18 year olds, but does diminish the influence of ethnic heterogeneity on adolescent engagement in sex. Finally, among this age group, neighborhood disadvantage and intergenerational closure interact to ultimately affect adolescent sexual behavior. The interaction patterns for 15 to 18 year olds are the same as those for the full sample. At low to moderate levels of disadvantage, an increase in the number of peers’ parents with whom adolescents’ parents interact decrease the odds that adolescents will engage in sex. In more highly disadvantaged neighborhoods, however, interacting with more parents of ones’ child’s friends *increases* the odds that a youth will have sex.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risky Sex</td>
<td>0.19</td>
<td>----</td>
<td>0-1</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood</td>
<td>-0.02</td>
<td>0.95</td>
<td>-1.54-3.96</td>
</tr>
<tr>
<td>Disadvantage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential Instability</td>
<td>0.59</td>
<td>0.12</td>
<td>0.14-0.81</td>
</tr>
<tr>
<td>Ethnic Heterogeneity</td>
<td>0.07</td>
<td>0.09</td>
<td>0-0.45</td>
</tr>
<tr>
<td>Mother’s Support</td>
<td>4.34</td>
<td>0.71</td>
<td>1-5</td>
</tr>
<tr>
<td>Parental Supervision</td>
<td>12.28</td>
<td>2.47</td>
<td>3-17</td>
</tr>
<tr>
<td>Number of Peers’ Parents with whom Adolescents’ Parents Interact</td>
<td>2.41</td>
<td>1.86</td>
<td>0-6</td>
</tr>
<tr>
<td>Parental Membership in Parent/Teacher Organizations</td>
<td>0.39</td>
<td>----</td>
<td>0-1</td>
</tr>
<tr>
<td>Parental Membership in Civic/Community Organizations</td>
<td>0.15</td>
<td>----</td>
<td>0-1</td>
</tr>
<tr>
<td>Parents’ Monitoring of Neighborhood Children</td>
<td>4.26</td>
<td>0.82</td>
<td>1-5</td>
</tr>
<tr>
<td>Neighbors Monitoring of Adolescents</td>
<td>3.93</td>
<td>0.87</td>
<td>1-5</td>
</tr>
<tr>
<td>Peer Density</td>
<td>0.29</td>
<td>0.14</td>
<td>0.06-1</td>
</tr>
<tr>
<td>Peer Popularity</td>
<td>4.81</td>
<td>3.75</td>
<td>0-27</td>
</tr>
<tr>
<td>Peer Cigarettes Smoking</td>
<td>0.88</td>
<td>1.06</td>
<td>0-6</td>
</tr>
<tr>
<td>Peer Truancy</td>
<td>0.37</td>
<td>0.55</td>
<td>0-6</td>
</tr>
<tr>
<td>Peer Drinking</td>
<td>0.49</td>
<td>0.65</td>
<td>0-6</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>15.65</td>
<td>1.40</td>
<td>13-18</td>
</tr>
<tr>
<td>Female</td>
<td>0.54</td>
<td>----</td>
<td>0-1</td>
</tr>
<tr>
<td>Latino</td>
<td>0.06</td>
<td>----</td>
<td>0-1</td>
</tr>
<tr>
<td>Black</td>
<td>0.18</td>
<td>----</td>
<td>0-1</td>
</tr>
<tr>
<td>GPA</td>
<td>2.94</td>
<td>0.73</td>
<td>1-4</td>
</tr>
<tr>
<td>Adolescents’ Attitude About Premarital Childbirth</td>
<td>0.18</td>
<td>0.38</td>
<td>0-1</td>
</tr>
</tbody>
</table>

Table 4.1 Means and Standard Deviations for Dependent and Independent Variables  N=4,738
<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescents’ Positive Beliefs About Having Sex</td>
<td>2.30</td>
<td>0.87</td>
<td>1-5</td>
</tr>
<tr>
<td>Parents’ Disapproval of Child’s Involvement in Sex</td>
<td>4.35</td>
<td>0.79</td>
<td>1-5</td>
</tr>
<tr>
<td>Religious Service Attendance</td>
<td>2.40</td>
<td>1.28</td>
<td>1-4</td>
</tr>
<tr>
<td>Religious Salience</td>
<td>3.24</td>
<td>1.45</td>
<td>1-4.5</td>
</tr>
<tr>
<td>Parent’s Education</td>
<td>5.92</td>
<td>2.14</td>
<td>0-9</td>
</tr>
<tr>
<td>Family Structure</td>
<td>0.78</td>
<td>----</td>
<td>0-1</td>
</tr>
<tr>
<td>Percent Black</td>
<td>0.13</td>
<td>0.14</td>
<td>0-0.59</td>
</tr>
<tr>
<td>Neighborhood Variables</td>
<td>Bivariate Correlations</td>
<td>Control Variables</td>
<td>Bivariate Correlations</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------</td>
<td>------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Neighborhood Disadvantage</td>
<td>.085*</td>
<td>Age</td>
<td>.151</td>
</tr>
<tr>
<td>Residential Instability</td>
<td>.035*</td>
<td>Female</td>
<td>.017*</td>
</tr>
<tr>
<td>Ethnic Heterogeneity</td>
<td>-.019*</td>
<td>Latino</td>
<td>.018*</td>
</tr>
<tr>
<td>Parental Behavior Variables</td>
<td></td>
<td>Black</td>
<td>.099*</td>
</tr>
<tr>
<td>Mother's Support</td>
<td>-.119**</td>
<td>GPA</td>
<td>-.163</td>
</tr>
<tr>
<td>Parental Supervision</td>
<td>-.019**</td>
<td>Adolescents' Attitude about Premarital Childbirth</td>
<td>.098*</td>
</tr>
<tr>
<td>Intergenerational Closure</td>
<td></td>
<td>Adolescents' Positive Beliefs about Having Sex</td>
<td>.092*</td>
</tr>
<tr>
<td>Number of Peers' Parents with whom Adolescents' Parents Interact</td>
<td>-.054*</td>
<td>Parents' Disapproval of Child's Involvement in Sex</td>
<td>-.220</td>
</tr>
<tr>
<td>Parental Membership in Parent/Teacher Organizations</td>
<td>-.045*</td>
<td>Religious Service Attendance</td>
<td>-.081*</td>
</tr>
<tr>
<td>Parental Membership in Civic/Community Organizations</td>
<td>-.007**</td>
<td>Religious Salience</td>
<td>-.065*</td>
</tr>
<tr>
<td>Parents' Monitoring of Neighborhood Children</td>
<td>.028*</td>
<td>Parent's Education</td>
<td>-.054*</td>
</tr>
<tr>
<td>Neighbors Monitoring of Adolescents</td>
<td>.016*</td>
<td>Family Structure</td>
<td>-.097*</td>
</tr>
<tr>
<td>Peer Networks</td>
<td></td>
<td>Percent Black</td>
<td>.085*</td>
</tr>
<tr>
<td>Peer Density</td>
<td>-.059*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescent Popularity</td>
<td>.062*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Cigarette Smoking</td>
<td>.139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Truancy</td>
<td>.107*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Drinking</td>
<td>.157</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p< .05   **p< .01

Table 4.2 Bivariate Correlations for Adolescent Risky Sex by Independent Variables  N=4,738
### Table 4.3 Logistic Regression Model for Adolescent Sexual Participation

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood Disadvantage</td>
<td>0.152* (.164)</td>
<td>0.139* (.149)</td>
</tr>
<tr>
<td>Residential Instability</td>
<td>-0.543 (.581)</td>
<td>-0.703 (.495)</td>
</tr>
<tr>
<td>Ethnic Heterogeneity</td>
<td>-1.59* (.204)</td>
<td>-1.20 (.301)</td>
</tr>
<tr>
<td>Parental Behavior Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother's Support</td>
<td>-0.311** (.733)</td>
<td>-0.312** (.732)</td>
</tr>
<tr>
<td>Parental Supervision</td>
<td>0.00 (.100)</td>
<td>0.002 (.1002)</td>
</tr>
<tr>
<td>Intergenerational Closure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Peers' Parents with whom Respondents' Parents Interact</td>
<td>-0.022 (.978)</td>
<td>-0.024 (.976)</td>
</tr>
<tr>
<td>Parental Membership in Parent/Teacher Organizations</td>
<td>0.177 (.128)</td>
<td>0.176 (.129)</td>
</tr>
<tr>
<td>Parental Membership in Civic Organizations</td>
<td>0.189 (.162)</td>
<td>0.186 (.164)</td>
</tr>
<tr>
<td>Parents' Monitoring of Neighborhood Children</td>
<td>0.090 (.075)</td>
<td>0.089 (.076)</td>
</tr>
<tr>
<td>Neighbors Monitoring of Adolescents</td>
<td>0.026 (.070)</td>
<td>0.029 (.071)</td>
</tr>
<tr>
<td>Peer Networks Peer Density</td>
<td>-0.357 (.700)</td>
<td>-0.360 (.698)</td>
</tr>
<tr>
<td>Adolescent Popularity</td>
<td>0.051** (.014)</td>
<td>0.052** (.014)</td>
</tr>
<tr>
<td>Peer Cigarette Smoking</td>
<td>0.093 (.1097)</td>
<td>0.093 (.1097)</td>
</tr>
</tbody>
</table>

Numbers in parentheses are standard errors of the coefficients.

N=4,738
Table 4.3 continued

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.283** (.1327)</td>
<td>.213** (.1327)</td>
<td>.213** (.1327)</td>
</tr>
<tr>
<td></td>
<td>(.036)</td>
<td>(.037)</td>
<td>(.037)</td>
</tr>
<tr>
<td>Female</td>
<td>.484** (.1623)</td>
<td>.382** (.1465)</td>
<td>.377** (.1458)</td>
</tr>
<tr>
<td></td>
<td>(.113)</td>
<td>(.115)</td>
<td>(.115)</td>
</tr>
<tr>
<td>Latino</td>
<td>.511* (.1667)</td>
<td>.585* (.1796)</td>
<td>.574* (.1775)</td>
</tr>
<tr>
<td></td>
<td>(.288)</td>
<td>(.301)</td>
<td>(.301)</td>
</tr>
<tr>
<td>Black</td>
<td>.021 (.1021)</td>
<td>.151 (.163)</td>
<td>.164 (.178)</td>
</tr>
<tr>
<td></td>
<td>(.154)</td>
<td>(.169)</td>
<td>(.170)</td>
</tr>
<tr>
<td>GPA</td>
<td>-.434** (.648)</td>
<td>-.410** (.664)</td>
<td>-.410** (.664)</td>
</tr>
<tr>
<td></td>
<td>(.090)</td>
<td>(.091)</td>
<td>(.091)</td>
</tr>
<tr>
<td>Adolescents’ Attitude about Premarital Childbirth</td>
<td>.291** (.1338)</td>
<td>.265** (.1303)</td>
<td>.268** (.1307)</td>
</tr>
<tr>
<td></td>
<td>(.125)</td>
<td>(.125)</td>
<td>(.125)</td>
</tr>
<tr>
<td>Adolescents’ Positive Beliefs about Having Sex</td>
<td>.253** (.1288)</td>
<td>.260** (.1297)</td>
<td>.257** (.1293)</td>
</tr>
<tr>
<td></td>
<td>(.046)</td>
<td>(.048)</td>
<td>(.048)</td>
</tr>
<tr>
<td>Parents’ Disapproval of Child’s Involvement in Sex</td>
<td>-.452** (.636)</td>
<td>-.433** (.649)</td>
<td>-.435** (.647)</td>
</tr>
<tr>
<td></td>
<td>(.062)</td>
<td>(.061)</td>
<td>(.061)</td>
</tr>
<tr>
<td>Religious Service Attendance</td>
<td>-.052 (.949)</td>
<td>-.054 (.947)</td>
<td>-.054 (.947)</td>
</tr>
<tr>
<td></td>
<td>(.077)</td>
<td>(.077)</td>
<td>(.077)</td>
</tr>
<tr>
<td>Religious Salience</td>
<td>-.056 (.946)</td>
<td>-.042 (.959)</td>
<td>-.045 (.956)</td>
</tr>
<tr>
<td></td>
<td>(.065)</td>
<td>(.066)</td>
<td>(.066)</td>
</tr>
<tr>
<td>Parent’s Education</td>
<td>-.012 (.988)</td>
<td>-.037 (.964)</td>
<td>-.037 (.965)</td>
</tr>
<tr>
<td></td>
<td>(.023)</td>
<td>(.025)</td>
<td>(.025)</td>
</tr>
<tr>
<td>Family Structure</td>
<td>-.355** (.701)</td>
<td>-.400** (.670)</td>
<td>-.406** (.666)</td>
</tr>
<tr>
<td></td>
<td>(.140)</td>
<td>(.138)</td>
<td>(.139)</td>
</tr>
</tbody>
</table>

Continued
Table 4.3 continued

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Black</td>
<td>0.791 (2.206)</td>
<td>0.753 (2.123)</td>
<td>0.791 (2.206)</td>
</tr>
<tr>
<td></td>
<td>(.547)</td>
<td>(.567)</td>
<td>(.564)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.72* (.066)</td>
<td>-1.22 (.295)</td>
<td>-1.22 (.295)</td>
</tr>
<tr>
<td></td>
<td>(.699)</td>
<td>(.869)</td>
<td>(.867)</td>
</tr>
<tr>
<td>Logistic Regression</td>
<td>559.16</td>
<td>556.92</td>
<td>574.78</td>
</tr>
</tbody>
</table>

* p<.05  ** p<.01 (One-tailed test)
Figure 4.1. Adolescent Transition to First Sex by Neighborhood Disadvantage by Number of Peers' Parents with whom Adolescents' Parents Interact
<table>
<thead>
<tr>
<th>Neighborhood Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Neighborhood Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood Disadvantage</td>
<td>.117 (.119)</td>
<td>.074 (.161)</td>
<td>.236 (.195)</td>
<td>Neighborhood Disadvantage</td>
<td>.167* (1.182)</td>
<td>.167* (1.182)</td>
<td>.029* (.117)</td>
</tr>
<tr>
<td>Residential Instability</td>
<td>-.516 (1.18)</td>
<td>-.661 (1.40)</td>
<td>-.658 (1.40)</td>
<td>Residential Instability</td>
<td>-.481 (.618)</td>
<td>-.699 (.711)</td>
<td>-.676 (.684)</td>
</tr>
<tr>
<td>Ethnic Heterogeneity</td>
<td>-.227 (2.34)</td>
<td>-.377 (2.69)</td>
<td>-.402 (2.67)</td>
<td>Ethnic Heterogeneity</td>
<td>-.145* (.235)</td>
<td>-.984 (.831)</td>
<td>-.908 (.864)</td>
</tr>
<tr>
<td>Parental Behavior Variables</td>
<td></td>
<td></td>
<td></td>
<td>Parental Behavior Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother’s Support</td>
<td>-.263 (.192)</td>
<td>-.257 (.194)</td>
<td></td>
<td>Mother’s Support</td>
<td>-.318** (.068)</td>
<td>-.319** (.067)</td>
<td></td>
</tr>
<tr>
<td>Parental Supervision</td>
<td>.016 (.055)</td>
<td>.014 (.056)</td>
<td></td>
<td>Parental Supervision</td>
<td>-.003 (.030)</td>
<td>-.002 (.030)</td>
<td></td>
</tr>
<tr>
<td>Intergenerational Closure</td>
<td></td>
<td></td>
<td></td>
<td>Intergenerational Closure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Peers’ Parents with whom Adolescents’ Parents Interact</td>
<td>-.009 (.088)</td>
<td>-.021 (.089)</td>
<td></td>
<td>Number of Peers’ Parents with whom Adolescents’ Parents Interact</td>
<td>-.025 (.035)</td>
<td>-.026 (.035)</td>
<td></td>
</tr>
<tr>
<td>PTO Membership</td>
<td>.609* (.311)</td>
<td>.631* (.310)</td>
<td></td>
<td>PTO Membership</td>
<td>.126 (.142)</td>
<td>.116 (.143)</td>
<td></td>
</tr>
<tr>
<td>Parent Membership in Civic/Community Organizations</td>
<td>-.354 (.412)</td>
<td>-.361 (.426)</td>
<td></td>
<td>Parent Membership in Civic/Community Organizations</td>
<td>.270 (.188)</td>
<td>.265 (.192)</td>
<td></td>
</tr>
</tbody>
</table>

*p< .05    **p< .01  (One-tailed tests)

Table 4.4 Logistic Regression Model for Adolescent Sexual Participation by Age Group

---

16Numbers in parentheses are standard errors of the coefficients.
Table 4.4 continued

<table>
<thead>
<tr>
<th></th>
<th>MULTIVARIATE MODELS 13-14 YEAR OLDS</th>
<th></th>
<th>MULTIVARIATE MODELS 15-18 YEAR OLDS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 1</td>
</tr>
<tr>
<td>Parents’ Monitoring</td>
<td>.008</td>
<td>.019</td>
<td></td>
<td>.117</td>
</tr>
<tr>
<td>Neighborhood Children</td>
<td>(.242)</td>
<td>(.241)</td>
<td></td>
<td>(.086)</td>
</tr>
<tr>
<td>Neighbors Monitoring of</td>
<td>.194</td>
<td>.190</td>
<td>Neighbors Monitoring of Adolescents</td>
<td>.002</td>
</tr>
<tr>
<td>Adolescents</td>
<td>(.208)</td>
<td>(.208)</td>
<td></td>
<td>(.076)</td>
</tr>
<tr>
<td><strong>Peer Networks</strong></td>
<td></td>
<td></td>
<td><strong>Peer Networks</strong></td>
<td></td>
</tr>
<tr>
<td>Peer Density</td>
<td>-1.25</td>
<td>-1.18</td>
<td></td>
<td>-.168</td>
</tr>
<tr>
<td></td>
<td>(1.32)</td>
<td>(1.30)</td>
<td></td>
<td>(.490)</td>
</tr>
<tr>
<td>Adolescent Popularity</td>
<td>.033</td>
<td>.035</td>
<td></td>
<td>.055**</td>
</tr>
<tr>
<td></td>
<td>(.035)</td>
<td>(.037)</td>
<td></td>
<td>(1.057)</td>
</tr>
<tr>
<td>Peer Cigarette Smoking</td>
<td>.276*</td>
<td>.275*</td>
<td></td>
<td>.068</td>
</tr>
<tr>
<td></td>
<td>(1.318)</td>
<td>(1.46)</td>
<td></td>
<td>(.058)</td>
</tr>
<tr>
<td>Peer Truancy</td>
<td>-.127</td>
<td>-.098</td>
<td></td>
<td>.039</td>
</tr>
<tr>
<td></td>
<td>(.331)</td>
<td>(.30)</td>
<td></td>
<td>(.107)</td>
</tr>
<tr>
<td>Peer Drinking</td>
<td>.064</td>
<td>.039</td>
<td></td>
<td>.385**</td>
</tr>
<tr>
<td></td>
<td>(.312)</td>
<td>(.321)</td>
<td></td>
<td>(.097)</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of R's Parents with</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>whom Peers’ Parents Interact</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disadvantage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>.473</td>
<td>2.92</td>
<td>3.52</td>
<td>-.506</td>
</tr>
<tr>
<td></td>
<td>(4.68)</td>
<td>(5.52)</td>
<td>(5.58)</td>
<td>(.946)</td>
</tr>
<tr>
<td>Logistic Regression $\chi^2$</td>
<td>71.84</td>
<td>111.44</td>
<td>117.74</td>
<td>234.24</td>
</tr>
</tbody>
</table>

*p< .05    **p< .01 (One-tailed tests)
<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Control Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.056</td>
<td>- .099</td>
<td>- .134</td>
<td>Age</td>
<td>.141*</td>
<td>.090*</td>
<td>.092*</td>
</tr>
<tr>
<td></td>
<td>(.305)</td>
<td>(.330)</td>
<td>(.337)</td>
<td></td>
<td>(.052)</td>
<td>(.054)</td>
<td>(.054)</td>
</tr>
<tr>
<td>Female</td>
<td>.512</td>
<td>.469</td>
<td>.441</td>
<td>Female</td>
<td>.480**</td>
<td>.387**</td>
<td>.382**</td>
</tr>
<tr>
<td></td>
<td>(.291)</td>
<td>(.280)</td>
<td>(.279)</td>
<td></td>
<td>(.122)</td>
<td>(.125)</td>
<td>(.125)</td>
</tr>
<tr>
<td>Latino</td>
<td>1.03</td>
<td>1.09</td>
<td>1.17</td>
<td>Latino</td>
<td>.325</td>
<td>.376</td>
<td>.369</td>
</tr>
<tr>
<td></td>
<td>(.721)</td>
<td>(.790)</td>
<td>(.791)</td>
<td></td>
<td>(.230)</td>
<td>(.242)</td>
<td>(.242)</td>
</tr>
<tr>
<td>Black</td>
<td>-.463</td>
<td>-.495</td>
<td>-.511</td>
<td>Black</td>
<td>.114</td>
<td>.252</td>
<td>.265</td>
</tr>
<tr>
<td></td>
<td>(.688)</td>
<td>(.759)</td>
<td>(.766)</td>
<td></td>
<td>(.162)</td>
<td>(.168)</td>
<td>(.169)</td>
</tr>
<tr>
<td>GPA</td>
<td>-.942**</td>
<td>-.950**</td>
<td>-.960**</td>
<td>GPA</td>
<td>-.327**</td>
<td>-.309**</td>
<td>-.307**</td>
</tr>
<tr>
<td></td>
<td>(.202)</td>
<td>(.215)</td>
<td>(.216)</td>
<td></td>
<td>(.094)</td>
<td>(.093)</td>
<td>(.093)</td>
</tr>
<tr>
<td>Adolescents’ Attitude</td>
<td>.391</td>
<td>.346</td>
<td>.319</td>
<td>Adolescents’ Attitude</td>
<td>.263*</td>
<td>.244*</td>
<td>.246*</td>
</tr>
<tr>
<td>Premarital Childbirth</td>
<td>(.358)</td>
<td>(.353)</td>
<td>(.354)</td>
<td>Premarital Childbirth</td>
<td>(.136)</td>
<td>(.136)</td>
<td>(.135)</td>
</tr>
<tr>
<td>Adolescents’ Positive Beliefs</td>
<td>.372**</td>
<td>.421**</td>
<td>.411**</td>
<td>Adolescents’ Positive Beliefs</td>
<td>.213**</td>
<td>.227**</td>
<td>.224**</td>
</tr>
<tr>
<td>about Having Sex</td>
<td>(.120)</td>
<td>(.122)</td>
<td>(.119)</td>
<td>about Having Sex</td>
<td>(.054)</td>
<td>(.059)</td>
<td>(.059)</td>
</tr>
<tr>
<td>Parents’ Disapproval of</td>
<td>-.275</td>
<td>-.235</td>
<td>-.249</td>
<td>Parents’ Disapproval of</td>
<td>-.500**</td>
<td>-.489**</td>
<td>-.490**</td>
</tr>
<tr>
<td>Child Having Sex</td>
<td>(.233)</td>
<td>(.243)</td>
<td>(.239)</td>
<td>Child Having Sex</td>
<td>(.068)</td>
<td>(.067)</td>
<td>(.067)</td>
</tr>
<tr>
<td>Religious Service Attendance</td>
<td>-.066</td>
<td>.004</td>
<td>.011</td>
<td>Religious Service Attendance</td>
<td>-.030</td>
<td>-.042</td>
<td>-.042</td>
</tr>
<tr>
<td></td>
<td>(.201)</td>
<td>(.217)</td>
<td>(.213)</td>
<td></td>
<td>(.081)</td>
<td>(.080)</td>
<td>(.080)</td>
</tr>
<tr>
<td>Religious Salience</td>
<td>-.135</td>
<td>-.219</td>
<td>-.242</td>
<td>Religious Salience</td>
<td>-.044</td>
<td>-.010</td>
<td>-.014</td>
</tr>
<tr>
<td></td>
<td>(.171)</td>
<td>(.179)</td>
<td>(.176)</td>
<td></td>
<td>(.072)</td>
<td>(.073)</td>
<td>(.073)</td>
</tr>
<tr>
<td>Parents’ Education</td>
<td>.094</td>
<td>.045</td>
<td>.053</td>
<td>Parents’ Education</td>
<td>-.030*</td>
<td>-.053*</td>
<td>-.052*</td>
</tr>
<tr>
<td></td>
<td>(.061)</td>
<td>(.066)</td>
<td>(.088)</td>
<td></td>
<td>(.027)</td>
<td>(.030)</td>
<td>(.030)</td>
</tr>
<tr>
<td>Family Structure</td>
<td>-.763**</td>
<td>-.849**</td>
<td>-.892**</td>
<td>Family Structure</td>
<td>-.231*</td>
<td>-.283*</td>
<td>-.295*</td>
</tr>
<tr>
<td></td>
<td>(.312)</td>
<td>(.291)</td>
<td>(.286)</td>
<td></td>
<td>(.149)</td>
<td>(.148)</td>
<td>(.148)</td>
</tr>
<tr>
<td>Racial Composition</td>
<td>-.011</td>
<td>-.282</td>
<td>.092</td>
<td>Racial Composition</td>
<td>.912</td>
<td>.879</td>
<td>.933</td>
</tr>
<tr>
<td></td>
<td>(1.12)</td>
<td>(1.29)</td>
<td>(1.23)</td>
<td></td>
<td>(.564)</td>
<td>(.562)</td>
<td>(.581)</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01  (One tailed tests)
Figure 4.2. Adolescent Transition to First Sex by Neighborhood Disadvantage by Number of Peers' Parents with whom Adolescents' Parents Interact (15-18 Year Olds)
CHAPTER 5
REVIEW OF RESEARCH QUESTIONS AND CONCEPTUAL ISSUES

The purpose of this dissertation was to examine predictors of adolescent sex beyond individual-level factors by considering how neighborhood residence directly and indirectly affects an adolescent’s engagement in engagement in sex. Extending recent research that has investigated the relationship between neighborhood structure and adolescent engagement in sex (Baumer and South 2001; Brewster, Billy and Grady 1994; Billy and Moore 1992; Brooks-Gunn, et al. 1993; Crane 1991; Hogan and Kitagawa 1985ab; Sucoff and Upchurch 1998; Upchurch, et al. 1998), in this dissertation, I examined the interrelationships among neighborhood structure, parenting behaviors, peer networks and adolescent sexual behavior.

Using a social disorganization framework, I first assessed whether parenting behaviors and peer networks mediate the relationship between neighborhood characteristics and adolescent engagement in sex. The next issue I investigated was whether neighborhood characteristics, parenting behaviors, and peer networks interact to affect adolescent engagement in coitus. Finally, I examined these models across two different age groups to determine if the same factors affect engagement in sex among younger and older youth differently. The remainder of this chapter briefly reviews the conceptual issues raised in the beginning of this dissertation, summarizes the empirical results,
discusses the implications of my substantive findings for theory and research, outlines the limitations of the work, and provides recommendations for future studies.

CONCEPTUAL ISSUES

The guiding premise for this dissertation is based in social disorganization theory. The theory essentially suggests that neighborhood characteristics affect a community’s ability to regulate itself and to exert neighborhood-level social control, and in turn, the likelihood of individual-level delinquency and deviance. Although this theory has generally been applied to public delinquency and deviance such as property crime and adolescent violence (Haynie and Silver 2002; Sampson, Raudenbush and Earl 1997), it is also important to examine how neighborhood features contribute to control of behavior conventionally carried out in private spaces such as adolescent engagement in sex.

Above, I argued that the informal social control mechanisms through which neighborhood characteristics operate to affect adolescent engagement in sex are parenting behaviors and peer networks. The literature examining adolescent deviance suggests that both parents and peers are important predictors of whether or not an adolescent will engage in risky behavior. Of theoretical importance is the investigation of the effects of these two sets of factors within various contexts in understanding the sources of juvenile sexual activity.

Parenting behaviors have strong direct effects on subsequent adolescent behavior (Inazu and Fox 1992; Leftkowitz, Kahlbaugh, and Sigman 1996; Miller,
et al. 1998). The ability to parent effectively, however, is often impacted by the neighborhood in which one resides. Living in neighborhoods characterized by social disorganization means that parents may have fewer resources and limited access to the kinds of social and economic capital needed to effectively support and monitor their children (Coleman 1990; Gottfredson and Hirschi 1990; Haynie and Silver unpublished manuscript 2002; Patterson 1992; Sampson, Morenoff and Earls 1999). I argued that through its affect on parental support and monitoring, neighborhood social disorganization indirectly determines the likelihood that adolescents will engage in risky behavior (Warr 1993; Wright and Cullen 2001).

Although parenting behaviors may affect an adolescent’s decision to engage in sex, the strength of that effect may vary across neighborhood type. Some research suggests that living in disadvantaged communities diminishes the effect of parents’ efforts to monitor and control their children from the dangers of the neighborhood (Coleman 1990; Gottfredson and Hirschi 1990; Patterson 1992; Sampson, Morenoff and Earls 1999). Specifically, parental support and monitoring may have less influence on youth behavior in socially disorganized neighborhoods where these efforts are not reinforced by community informal social control (Roche, et al. 2005), or where the prevalence of deviant opportunity structures that provide alternative sources of respect for youth are widespread (Anderson 1990; Cohen 1955; Wilson 1996). I argued in this dissertation, therefore, that greater social disorganization will weaken rather than reinforce the impact of parental factors on engagement in sex.
Research also demonstrates that peer networks may mediate the relationship between neighborhood structure and adolescent engagement in sex. Youth may turn to peers when seeking independence and autonomy from parents. In addition, delinquent behavior may be reinforced in peer groups based in neighborhoods where that behavior is rewarded. Adolescents, then, who are members of such peer groups, may engage in risky behavior to gain acceptance from the group or to maintain group status. Finally, research suggests that peer influence may also vary across neighborhood type. That is, living in disadvantaged neighborhoods where there may be few adult role models and little neighborhood supervision and where unconventional behavior may be accepted and rewarded, peer influence may have a stronger effect on whether or not an adolescent will engage in sex. I will now turn to a discussion of the findings and the resulting research and theory implications.

DISCUSSION AND RESEARCH IMPLICATIONS

Mediating Effects

The first analysis examined the mediating effects of parenting behaviors and peer networks in the relationship between neighborhood characteristics and adolescent engagement in sex. The predicted mediators included mother’s support and monitoring, intergenerational closure variables, peer density, adolescent popularity, and peer delinquency. The results were mixed. They suggest that mother’s support, adolescent popularity, and peer drinking do not explain the relationship between disadvantage and sexual onset. However, the
inclusion of these factors does render the effects of ethnic heterogeneity on sex nonsignificant.

The fact that the role of neighborhood disadvantage is not mediated by the independent variables investigated here does not necessarily mean that neighborhood disadvantage has a wholly direct effect on youthful sexuality. Rather, there may be other parental, peer, or community factors that explain the disadvantage-sex relationship. Below, I suggest what some of these factors may be and encourage future researchers to examine their impact in detail. In the meantime, it is fair to say that the factors included here do help to explain why ethnic heterogeneity has an influence on adolescent sex.

As indicated, factors at the individual-level that emerged as significant mediators between neighborhood composition (ethnic heterogeneity) and adolescent engagement in sex are mother’s support, adolescent popularity, and peer delinquency. Consistent with prior research, mother’s support reduces the likelihood that an adolescent engages in engagement in sex (Leftkowitz, Kahlbaugh, and Sigman 1996; Miller, et al. 1998; Weinstein and Thornton 1989). As suggested earlier, when adolescents report feeling loved and supported by their parents, they are more likely to internalize their parents’ attitudes regarding sex. In addition, as posited by social control theory, adolescents bonded to conventional others are likely to participate in conventional behavior so as not to damage that relational bond. In this study, among the parenting variables, only the direct effect of mother’s support partially explains the impact of a key
neighborhood characteristic (i.e. ethnic heterogeneity) on juvenile coitus. This is likely true for a couple reasons.

First, parental supervision may not have emerged as a mediator because of the way it was measured. Parental supervision, in this dissertation, captured parental presence in the home as a means of supervision, but did not capture actual parental decision-making regarding adolescents’ whereabouts and activities which have been shown to reduce the likelihood of adolescent sexual risk-taking (Roche et al. 2005). The fact that mother’s support only partially explained the association between neighborhood composition and adolescent engagement in sex may be because my models did not completely capture the influence of other family support such as that garnered by the father, step-parents, non-custodial parents, the extended family, and “fictive” kin. Future research should take into consideration a more direct measure of supervision (including parental decision-making) as well as to investigate the potential mediation of other family supports in the relationship between neighborhood structure and adolescent engagement in sex.

Peer behavior also explained a portion of the relationship between neighborhood structure and risky coitus among youth. Consistent with social network theory, more popular adolescents have a higher likelihood of having sex than those who are less popular. Perhaps opportunity may play a role in the association between adolescent popularity and engagement in sex. Popular adolescents may have more sex partners from which to choose, and therefore, more opportunity to engage in coitus. What is not clear from my findings,
however, is how an adolescent becomes popular within a social network? Does s/he become popular because s/he has sex? Future research should examine this question to determine whether and how adolescent popularity and engagement in sex are mutually reinforcing. Finally, consistent with research connecting adolescent engagement in sex with other minor forms of delinquency, particularly adolescent drinking (Donovan, Jessor, and Costa 1988; Elliot and Morse 1985; Resnick, Chambliss and Blum 1993; Rosenbaum and Kandel 1990), the results indicate that adolescents whose friends drink are more likely to have sex.

The fact that I was unable to account for the relationship between engagement in sex and neighborhood disadvantage means it is important to examine other potential mechanisms through which neighborhood disadvantage operates that are not captured here. For example, although the intergenerational closure variables were utilized to capture parental social capital, I was unable to fully measure collective efficacy.

Collective efficacy considers neighborhood residents’ shared ability to informally control their neighborhood, including the ability to garner support from outside of the neighborhood. As indicated by the work of Sampson, Raudenbush and Earls (1997), it is important to examine collective efficacy to see whether and how this variable mediates the relationship between neighborhood characteristics and individual-level deviant behavior. Particular to adolescent engagement in sex, neighborhood residents that can collectively mobilize may be more likely to supervise neighborhood children and also to lobby for outside organizations that
educate youth on adolescent engagement in sex (e.g. planned parenthood, etc.) as well as other risk behaviors (Bursik and Grasmick 1992). Browning, Leventhal, and Brooks-Gunn (2004), examining gender differences in the timing of first intercourse, found that for boys collective efficacy delays the onset of sexual intercourse, while for girls this is only true when levels of parental supervision are low. These findings support the need for continued examination of neighborhood supervision in reducing the likelihood of adolescent engagement in sex.

**Interaction Effects**

A contribution of my dissertation is the examination of whether and how neighborhoods condition the effect of parenting behaviors on engagement in sex. The results indicate that in neighborhoods characterized by low to moderate levels of disadvantage, as peers’ parents interact with more parents of their child’s friends’ parents, the likelihood that adolescents will engage in sex decreases.¹⁷ This supports the notion that intergenerational closure among neighborhood parents’ results in shared social capital that aids in decreasing problem behavior among youth (Coleman 1988). This pattern changes, however, within neighborhoods characterized by high levels of disadvantage. In more highly disadvantaged neighborhoods, when adolescents’ parents interact with more of their child’s friends’ parents, adolescents are at an increased risk for engaging in sex. One potential explanation for this finding, as hypothesized, is that the destructive elements associated with living in disadvantaged

¹⁷ Similar findings were established by Roche et al. (2005) examining the interaction between neighborhood conditions and parental involvement on the initial sexual intercourse of middle school students.
neighborhoods may supercede the positive benefits of parental interaction on whether or not adolescents engage in sex. Gaining social capital through interacting with ones’ child’s friends may not be enough to combat the negative behaviors and attitudes present in disadvantaged neighborhoods in diminishing the likelihood of youth participating in sex. A second interpretation for this finding may be that the parents of adolescent sex partners may interact with one another as a result of their child’s having sex to discuss consequences of their child’s sexual partnering, especially if it ends in pregnancy.

**Age Differences**

An additional contribution of my dissertation has been to reproduce the mediating and moderating models examining age differences in sexual risk among 13-14 year olds and 15-18 year olds. I argued that whereas proximate relationships (such as with family) are more likely to affect sexual risk taking among younger youth, more distal relationships (such as with peers and neighborhoods) are more likely to affect older youth. The results indicate, as expected, that neighborhood disadvantage and ethnic heterogeneity do impact the likelihood of adolescent sex for older youth (15-18 year olds) but not for younger youth. Younger adolescents may be restricted from “hanging out” in the neighborhood (unlike their older counterparts), thereby diminishing opportunities for deviance offered by living in disadvantaged neighborhoods that increase the likelihood of engagement in sex. Moreover, they may have more strict limitations on where they are allowed to go. Therefore, for this age group,
individual level predictors may be most important for understanding engagement in sex.

Among older youth, neighborhood, family, and peer predictors all affect the likelihood that an adolescent will engage in sex. For this group, mother’s support, adolescent popularity, and peer drinking explains the relationship between ethnic heterogeneity and adolescent engagement in sex. Consistent with social disorganization theory, however, neighborhood disadvantage, directly impacts the likelihood of an adolescent having engagement in sex net of all other variables, and its role is not diminished by parenting and peer factors. As suggested earlier, due to the absence of neighborhood role models who demonstrate and encourage conventional behavior and/or neighborhood supervision, neighborhoods that are disadvantaged may provide youth with both opportunities and ways in which to be deviant, thereby increasing the likelihood of having sex among older youth. Although not utilized, neighborhood supervision (collective efficacy) may be a mechanism through which neighborhood structure operates to affect engagement in sex among older youth who may have the opportunity to spend more time in the neighborhood. Finally, the findings indicate that among the mediating variables, mother’s support reduces the likelihood of adolescent sex for 15 to 18 year olds. On the contrary, among 13-14 year olds, PTO membership tends to foster sexual risk. Although it is not clear why parents’ involvement in the PTO increases the likelihood of sex for young adolescents, it is possible that parental absence at home while
attending PTO functions may provide younger adolescents the opportunity to engage in risky behavior, including engagement in sex.

Turning to peer effects on engagement in sex, older youth who are more popular in their peer groups are more likely to have sexual intercourse. No evidence of this effect emerged for 13 to 14 year olds. One interpretation of this finding is that older youth may be more aware of their popularity status and may, therefore, be in a position to garner sexual partners from within their peer group. Consistent with prior research (Donovan, Jessor, and Costa 1988; Elliot and Morse 1985; Resnick, Chambliss and Blum 1993; Rosenbaum and Kandel 1990), minor delinquency among youth affects the likelihood of an adolescent having sex for both age groups, but the delinquency type differs. Peer smoking is positively associated with engagement in sex among 13-14 olds, while peer drinking increases the likelihood that 15-18 year olds will have sex. These differences may reflect variations in “environmental” opportunity by age group. For example, younger adolescents may hang out with delinquent others in “acceptable” public spaces (e.g. in the bathroom, behind his/her apartment building) while “testing” curiosities, such as smoking. This may lead to other experimentation, particularly that of engaging in sex. Older youth, however, may have more freedom from parental monitoring to “hang out” in the neighborhood, thereby, providing the opportunity to associate with peers who drink. Prior research shows a direct link between adolescent drinking and engagement in sex (Whitbeck, et al. 1999; Yamaguchi and Kandel 1987; Zabin, Hardy, Smith, and Hirsch 1986).
As indicated, the variables included here do not account for the neighborhood disadvantage effect. Instead, consistent with social disorganization theory, neighborhood disadvantage was an important determinant of 15-18 adolescents' engagement in sex, net of all other factors, including parent and peer behaviors. This finding indicates that characteristics of a neighborhood play a significant direct role in whether or not an adolescent will engage in sex. One possible explanation for this finding is that adolescents, who are often “testing limits” are more likely to engage in delinquent and/or deviant behavior when they have the opportunity to do so. Residing in a structurally disadvantaged neighborhood may not only present adolescents with an opportunity to engage in deviant behavior, but may also offer more ways in which to be deviant. This may particularly be the case when there are few adult role models and/or “supervisors” in the neighborhood monitoring community children. Future research should continue to examine the role (direct and indirect) role of residing in a neighborhood characterized by disadvantage on engagement in sex, particularly investigating the role of opportunity.

Finally, I investigated the impact of the interaction among neighborhood characteristics, parenting behaviors, and peer networks on adolescent engagement in sex by age group. This interaction was only significant for older youth, again, supporting the notion that neighborhood characteristics are more likely to affect older adolescents than younger adolescents. Among older youth, in neighborhoods characterized by low to moderate levels of disadvantage, when adolescents’ parents interact with more of their peers’ parents, the likelihood that
a youth will engage in sex decreases. As noted earlier, this supports social capital theory and the assertion that interaction between neighborhood parents would create social capital, and decrease the likelihood of engagement in sex among youth—at least within more advantaged neighborhoods. In more highly disadvantaged neighborhoods, however, the pattern is different. When adolescents’ parents interact with more of their friends’ parents in these neighborhoods, the likelihood that adolescents will engage sex increases slightly. As with the overall sample, this may be due to 1) the inability of parents to combat the negative influences found within disadvantaged neighborhoods, and 2) parents’ interaction may be the response to child’s engagement in sex rather than a precursor to the behavior.

THEORETICAL AND POLICY IMPLICATIONS

In sum, social disorganization scholars have sought to understand the mechanisms through which neighborhood characteristics affect adolescent engagement in sexual behavior. I have attempted to identify whether and how neighborhood characteristics, parenting behaviors, and peer networks are interrelated to affect adolescent engagement in sex. My research showed that although parenting and peer behaviors explain very little of this relationship, neighborhoods have a direct effect on adolescent engagement in sex. In addition, intergenerational closure (parents’ interaction with child’s friends’ parents) interacts with neighborhood disadvantage to ultimately affect risky coitus. Investigating these patterns across age groups (13-14 and 15-18 year olds), peer factors (smoking) influenced the sexual risk of younger youth, while
parental factors (mother’s support), peer behaviors (adolescent popularity and peer density), and neighborhood disadvantage impacted the early onset of sex among older youth.

My analyses point to the importance of further considering neighborhood context to understand the processes by which neighborhood characteristics affect adolescent engagement in sexual activity. It is clear that individual-level predictors such as parent and peer behaviors matter in the sexual choices of youth and the empirical reality of this is substantial. There is also some evidence linking neighborhood characteristics with adolescent engagement in sex (Brewster 1994a; Brewster, Billy and Grady 1993; Roche et al. 2005). My research suggests, however, that there are other processes not captured that may affect engagement in sex among youth. Therefore, it is necessary to investigate other mechanisms (e.g. collective efficacy) through which neighborhood characteristics may operate to affect early coitus among youth.

My analyses also indicate that there are significant differences in factors that impact engagement in sex for younger and older youth. Peers impacted the likelihood of sexual activity among younger adolescents’ while parents, peers, and neighborhoods influenced the likelihood of sex for older youth. My research, therefore, points to the need of examining the sexual activity of younger and older adolescents separately.

There are also several important policy recommendations that are implied by this research. First, it is important to create and implement policies that provide needed tools and resources for parents residing in socially disorganized
communities. My research revealed that the effect of at least one neighborhood characteristic and adolescent engagement in sexual behavior is mediated by mother's support. In other words, where parents reside affects their ability to support their children, which is directly tied to subsequent adolescent deviant behavior. Policies often target youth, but as these findings indicate, it is important that parents have the necessary social and economic supports that will enable them to, in turn, effectively support and monitor their children.

So parents have the support they need, programs should be developed within the neighborhood that offer educational classes, paid work training, neighborhood support groups, and subsidized childcare. In addition, neighborhood and local school organizations should work together to encourage active participation from parents. They should also provide incentives for participation in neighborhood block watch groups and/or school organizations. Moreover, it is important to not only encourage neighborhood participation and mobilization among parents but also for local organizations to provide adequate childcare during meetings so children have a safe place to go while their parents are in the meeting.

Policy should also be implemented that affects youth and their peer groups. This dissertation shows that the peer groups in which youth are embedded influence adolescent sexual behavior. It is necessary, therefore, to create both in-school and after-school programming that encourages adolescents to make well-informed, positive choices regarding sexual behavior so that the pressure associated with being part of peer groups does not increase the
likelihood of adolescent sexual behavior. Local school and neighborhood organizations should create programs that encourage positive, peer-led initiatives that provide intentional messages discouraging engagement in sexual behavior. This may decrease the likelihood that an adolescent will engage in sex. Finally, local community organizations should develop activities and programs (particularly after school) that offer students a safe, supervised place to “hang out.” This would reduce the opportunity for youth to associate with peers without supervision and will potentially decrease the likelihood that they would have sex.

**LIMITATIONS**

There are several important limitations to note in this dissertation. First, I only examined one aspect of sexual behavior—initial onset. To have a full picture, particularly of adolescent engagement in sex, I would need to examine an array of additional issues (e.g. condom use, number of partners, frequency of sex).

A second limitation is the possibility of selectivity bias. To gauge the effects of parenting behaviors, peer factors, and neighborhood characteristics on engagement in sex, I selected only those adolescents who had not had sex at the time of the first interview to examine their sexual behavior at the time of the second interview. Selecting out sexually active youth introduced some selection effects. That is, adolescents excluded from my study (those who engaged in sex) are different in some key respects from those who had not engaged in sex prior to the first interview. The impact of such selection should have been more consequential for older than younger adolescents.
A final limitation of this dissertation is that there is no measure of peer sexual behavior, only involvement in minor delinquency. Research suggests that adolescent sexual attitudes and behavior are related to the sexual attitudes and behavior of peers (Bearman and Bruckner 1999; Crane 1991; Evans-Oates and Schwab 1992; Kinsman, et al. 1998; Romer et al 1994; Treboux and Busch-Rosnagel 1995). There was no way, however, to determine peer sexual attitudes and behavior using the Add Health data. Having the opportunity to do so would have provided a more clear understanding of the sexual attitudes of peers within peer networks and, thus, the effects of peer sexual behavior on subsequent adolescent engagement in sex.

Despite these concerns, this dissertation extends social disorganization literature. It provides some evidence that examining the effect of neighborhoods on parenting behaviors and peer networks is beneficial in understanding adolescent sexual risk. It also illustrates the fact that the effect of parenting behaviors and peer networks vary by neighborhood disadvantage. The research also directs our attention to examining younger and older adolescents separately, and provides some direction for future research in this area.

**FUTURE RESEARCH**

In sum, future research should continue to examine the direct impact of residing in a neighborhood characterized by disadvantage on engagement in sex, particularly investigating the role of opportunity. Living in community contexts where there are few adult role models and/or adult supervision, may not only offer youth the opportunity to engage in sex, but may also provide them with
the resources (e.g. money, time, energy) by which to do so. Future research should also investigate other familial relationships in the association between neighborhood characteristics and adolescent engagement in sex. For example, neighborhood characteristics may impede the buffering effect and support of other family members such as fathers and the extended family. Researchers should examine whether or not this is empirically true.

Scholars should also extend this work by examining the mediating role of collective efficacy in the relationship between neighborhood characteristics and adolescent engagement in sex, particularly when examining the sexual behavior of older youth. When neighbors are visiting each other, patrolling the neighborhood, and actively supervising neighborhood children, this may reduce the likelihood that youth will engage in sex. Although my findings revealed that parental interaction in disadvantaged communities slightly increases the risk of sex, this finding only speaks to the number of peers’ parents with whom adolescents' parents interact, not the nature of this interaction. Interaction based on a “neighborly” relationship may create social capital and buffer the deleterious effect of more highly disadvantaged neighborhoods on adolescent risk behavior. In contrast, mingling as a result of deviant behavior does not provide needed associations that would prevent such behavior.

Finally, scholars should extend this research by examining gender and race differences within these contexts. Are the intertwined effects of neighborhoods, parents, and peers the same for girls as for boys? At the individual level, research suggests that boys are more likely to engage in sex
earlier than are girls (Dryfoos 1990; Hofferth and Hayes 1987), and that this
gender difference in sexual activity may be attributed to differences in parental
controls exerted over boys and girls (Hagan 1988; Lundberg and Plotnick 1990);
differences in the opportunity cost of becoming sexually active (Hayes 1987;
Moore, Simms and Betsey 1986); and differences in maturation (Lundberg and
Plotnick 1990; Udry 1988; Udry and Billy 1987). More recently scholars have
paid attention to both individual-level and neighborhood effects on gender
differences in timing of first intercourse (Browning et al. 2004). Browning et al.
(2004), for example, found that while parental controls reduce the likelihood of
first sex for girls, neighborhood supervision (collective efficacy) delayed the onset
of first sex for boys (and for girls with lower levels of parental supervision).
Beyond this most recent work, little research has been done that examines both
micro and macro contexts in explaining gender differences in sexual activity.
Future studies, therefore, should extend this line of research by considering
neighborhood processes that may explain the differential sexual risk-taking of
boys and girls. Similarly, race differences and the intersection of race, gender,
and age differences should be explored.

More attention has been paid to neighborhood effects on race differences
in sexual patterning. Explaining the early ages at which minority youth engage in
sex as compared to non-minority youth, researchers have found some evidence
that race differences in this sexual behavior can be explained by variations in
neighborhood characteristics in which these youth reside (Dryfoos 1990;
Furstenberg et al. 1987; Hayes 1987; Hogan and Kitagawa 1985; Upchurch et al.
What has not been adequately explained, however, are the processes through which neighborhoods operate to affect race differences in sexual activity. Future research, therefore, should further examine these processes, noting the relationships between parenting behavior, peer networks, and neighborhood structure and its effect on engagement in sex.

In summary, this dissertation demonstrates that neighborhood characteristics both directly and indirectly affects whether or not an adolescent will engage in engagement in sex. The indirect effect can partially be explained by parenting and peer behaviors (mother’s support, adolescent popularity, and peer drinking). Adolescents who report feeling supported by their mother are less likely to have sex, while adolescents’ who are popular and who have friends who are drink are at an increased risk for engaging in sex. These findings confirm factors that somewhat explain how neighborhood characteristics affect adolescent engagement in sex, but also point scholars to reexamine this behavior considering other mediating factors (e.g. collective efficacy). In addition, this research demonstrates that the effect of parenting varies across neighborhood types and suggests that the deleterious effects of the neighborhood may weaken the informal/formal social control capabilities of neighborhood parents. Finally, my research supports the notion that to understand adolescent engagement in sex, we must understand how different factors affect adolescent engagement in sex during life stages. Whereas peers affected the sexual risk behavior of younger adolescents, parents, peers, and neighborhoods impacted whether or not older youth would have sex. Noting this
very important distinction, researchers can continue to explore determinants of engagement in sex to combat the potential negative consequences of this behavior.
BIBLIOGRAPHY


Haynie, Dana and John Silver. 2002. Unpublished manuscript.


Teitler, Julien and Christopher C. Weiss. “Effects of Neighborhood and School Environments on Transition to First Sexual Intercourse.” *Sociology of Education.* Vol. 73:


