ABSTRACT

Title of Document:

EXPANDING THE IMPACT OF PEER NETWORKS: PATHWAYS TO TURNING POINTS

Lauren O'Neill, Ph.D., 2007

Directed By:

Assistant Professor, Jean M. McGloin, Department of Criminology and Criminal Justice

Scholars highlight the importance of both adolescent peers and prosocial life events in explanations of continuity and change in deviant behavior. Thus far, research has evaluated the pathway to desistance by focusing on what happens to one's trajectory after experiencing prosocial adult activities, including the role of adulthood friendships. This research shifts the focus to an earlier stage of the process and combines these two research realms to investigate the influence of one's adolescent peer network on shaping the pathway to marriage, educational achievement, and job stability. Using data from the National Longitudinal Study of Adolescent Health allows this investigation to evaluate the level of deviance within one's peer group as well as the conditioning effect of network characteristics (e.g. density, centrality, popularity, attachment, and involvement) on peer deviance, while controlling for background characteristics. This research finds that the level of deviance in a peer network is particularly detrimental for educational attainment. Deviant peers also play a significant role in shaping educational expectations. The results do not,

however, find peers to be influential for marriage and employment outcomes. The analyses show minimal support for the conditioning effect of network characteristics and highlight the importance of considering background characteristics in conjunction with these more dynamic influences. Lastly, the results draw attention the fact that these processes do not operate uniformly and that the pathways to prosocial adult outcomes sometimes vary by gender and race. Theoretical and policy implications are also discussed.

EXPANDING THE IMPACT OF PEER NETWORKS: PATHWAYS TO TURNING POINTS

By

Lauren O'Neill

Dissertation submitted to the Faculty of the Graduate School of the University of Maryland, College Park, in partial fulfillment of the requirements for the degree of Doctor of Philosophy 2007

Advisory Committee: Assistant Professor Jean M. McGloin, Chair Professor Denise Gottfredson Professor Ray Paternoster Professor Sally Simpson Associate Professor Robert Marcus © Copyright by Lauren O'Neill 2007

Dedication

To Mom and Dad:

Thank you for teaching me the value of education and for your never-ending love, support, and encouragement throughout my education and every other aspect of my life. So much of who I am is because of you. For that, so much of this achievement should be and is contributed to you. I love you.

Acknowledgements

There are so many people who should be acknowledged for the integral role that they have played in the completion of this dissertation. First, to my committee, Denise Gottfredson, Ray Paternoster, Sally Simpson, and Robert Marcus; thank you all for your time, patience, and contributions to the final document. I have learned so much from each of you over the years. Our conversations were always thought provoking and pushed me to make this dissertation much better than it would have been without you. You all deserve a spot on the "if needed" page.

Especially to my chair, Jean McGloin; I know it was not always easy, but there is no way this could have been done without you. With you, I never doubted that this process would end on a positive note. You have taught me so much as a professor, as a boss, and as a mentor. I am truly grateful for the time I have had working with you and can only hope that it continues. I am honored to be your first "hooding". Thank you so much for the many opportunities you have given me.

To the other professors that I have had the privilege to work with and learn from, especially Hank Fradella, Doris MacKenzie, and Laure Brooks; you have each played a unique role in my educational experiences. You have taught me how to be a better teacher, a better mentor, and a better researcher, and as a result, you have collectively made me a better person.

To my family and friends, I don't even know where to begin. I am so fortunate to have all of you in my life. Because of you this process that sometimes felt like it was going to go on forever wound up not being too bad after all. It was a long road, but having you all behind me made it so much more doable than it would have been alone. And because of all of you I never doubted that I had someone to turn to, whether I needed to scream, cry, laugh, or celebrate. And for that, I am very grateful. And to Joe, for making the weekends fun time and for your love, understanding, and patience that so often helped to make the tough times bearable. Thanks for your willingness to come along for the ride; I know it wasn't always easy.

Table of Contents

Dedication	ii
Acknowledgements	iii
Table of Contents	v
List of Tables	. vii
List of Figures	viii
Chapter 1: Introduction	1
Chapter 2: Literature Review	7
What are Turning Points?	9
A Shift in Focus	. 13
Prosocial Life Events as Outcomes	. 13
Why a Focus on Peers?	. 17
Theoretical Perspectives	. 20
The Dynamic Perspective: Turning Points and Peers are Meaningful	. 22
The Static Perspective: Reflections of Propensity	. 43
A Theoretical Middle Ground: Both Perspectives Matter	. 47
A Uniform Process? Considerations of Gender and Race	. 49
Hypotheses and Concept Map	. 51
Hypothesis 1	. 52
Hypothesis 2	. 52
Hypothesis 3	. 52
Concept Map	. 53
Chapter 3: Data and Methods	. 54
Sample	. 54
Sample Reduction	. 56
Dependent Variables	. 61
Marriage	. 62
Employment	. 62
Education	. 63
Independent Variables	. 65
Peer Deviance	. 65
Network Characteristics	. 67
Expectations	. 69
Social Control	. 70
Background Characteristics	. 71
Self-Control	. 71
IQ	. 73
Parental Modeling	. 74
Demographics	. 75
Analytic Strategy	. 78
Chapter 4: Results	. 81
Marriage	. 81
Main Effects	. 82

Conditioning Effects	
Gender and Race	
Job Stability	
Main Effects	
Conditioning Effects	
Gender and Race	
Education	
Main Effects	
Conditioning Effects	
Gender and Race	
Expectations	
Delinquent Sub-sample	
Summary	
Chapter 5: Conclusions	
Discussion of Major Findings	
Policy Implications	
Limitations	
Future Research	
Appendices	
Bibliography	

List of Tables

List of Figures

Figure 1: Concept Map53

Chapter 1: Introduction

Scholars cite both adolescent peers and certain life events during the transition to adulthood as influential for shaping continuity and change in criminal activity. As opposed to focusing on specific attributes of an individual (e.g. propensity), these two research areas focus on uncovering the underlying processes inherent in shaping one's criminal career. Admittedly, these investigations tend to focus on two different stages of a criminal career. Within the sphere of life course criminology, the influence of life events revolves around the topic of desistance (Horney et al, 1995; Laub and Sampson, 2003; Mischkowitz, 1994; Sampson and Laub, 1993; 2005; Shover, 1983; Uggen, 2000). This body of literature, thus, focuses on the cessation of criminal activity. In contrast, the evaluation of adolescent peer groups focuses on the ability of one's friends to socialize others and the facilitation of criminal acts through deviant peers. The current research, however, proposes that looking at these two realms of research in concert will be informative for understanding a criminal career as it unfolds because they are intricately related. More specifically, I suggest that adolescent peers shape the likelihood of experiencing desistance promoting life events, making them both part of the same ongoing process.

The criminal career paradigm advocates that the major causes of criminal behavior vary according to the life stage of an individual (e.g. childhood versus adolescence), and therefore, it is necessary to evaluate behavior over time in order to understand how it is shaped (Blumstein et al., 1986; Blumstein et al., 1988). As a result, life course criminology emerges as a theoretical framework that accounts for these ideas and suggests that, specifically in the transition to adulthood, securing

social bonds through certain life events (e.g. marriage, education, and employment) is important for increasing the likelihood of desisting from criminal behavior (Laub and Sampson, 2003; Sampson and Laub, 1993). Research highlights that the benefit of these events happens through an array of processes that can vary across individuals. Here, researchers start to uncover how people with seemingly similar backgrounds often follow different life paths in adulthood (Sampson and Laub, 2005).

Literature on the role that deviant peers play in triggering or amplifying delinquency during adolescence illuminates another aspect of shaping one's criminal career. Similar to the study of life events, the influence of peers involves a variety of processes, such as social control, learning, and opportunity. Although deviant peers consistently emerge as one of the strongest correlates of adolescent delinquent behavior (Akers, 2000), debate still exists over the causal processes and research suggests that both selection and socialization are at play. In turn, this relationship appears to be much more complex than originally theorized and understanding the variety of processes by which adolescent peers can influence prosocial and deviant behavior highlights an earlier life stage where the pathways of seemingly similar people begin to diverge.

Although both of these research streams illuminate different processes that shape one's criminal career, there is also an opportunity to investigate their direct intersection. In fact, researchers who recognize the utility of including peers in discussions about one's criminal career suggest that peers may mediate the relationship between certain life events and desistance (Simons et al., 2002; Warr, 1998; Wright and Cullen, 2004). This research is informative for articulating the

mechanisms by which life events translate into turning points and promote desistance. The focus here, however, is on adulthood friendships and still neglects the role of adolescent peers.

By acknowledging that (1) one's life course does not begin with adult life events and (2) the likelihood of experiencing these potential turning points is not randomly distributed, the current study enhances the investigation of the nexus between peers and life events in two ways. First, it will shift the focus to the interplay between life events and peers that occurs *prior to* these potential turning points. Thus far, scholars focus on the role of life events as turning points as being exogenous to desistance, which highlights the turning points as catalysts of change within a trajectory. Factors influencing the pathway to these turning points have yet to be explored, however, and given the many ways that peer networks shape behavior and the position of adolescence as the life stage directly preceding experiences with adulthood life events, this influence could be a promising start.

In fact, the criminological explanation for who experiences turning points has only been discussed in the realm of selection effects (Gottfredson, 2005). This static perspective (also called the population heterogeneity hypothesis) suggests that one with an underlying criminal propensity will naturally progress through a self-selection process in which he/she is more likely to engage in deviant behavior and less likely to participate in conventional activities (e.g. marriage, education, employment). With regard to selection into turning points, however, this perspective has not been empirically evaluated, nor has the competing dynamic perspective. In recognition of this other view, also referenced as the state dependence hypothesis, the current

research draws attention to peers in the context of other variables that are cognizant of the population heterogeneity/state dependence divide, suggesting that both sides should be included.

Second, the research investigating the intersection of peers and life events thus far relies on one-dimensional measures of peers (exposure) and overlooks properties of the networks (Giordano et al., 2003; Simons et al., 2002; Warr, 1998). These investigations quantify one's exposure to deviant behavior by the number of friends involved in delinquency. Research also suggests the utility of moving past the mere presence or absence of deviant peers by incorporating network characteristics. This method focuses on the actual meaning of the relationships between friends or characteristics of the linkages among peer group members (see Agnew, 1991; DeKemp et al, 2006; Haynie, 2001; 2002; Haynie and McHugh, 2003; Haynie et al., 2005; Jaccard et al, 2005). Complementing the study of deviant peers with a network perspective provides a more nuanced understanding of both the positive and negative influences peers can have on an individual's behavior (Simons et al., 2002; Wright and Cullen, 2004).

The criminal career and life course perspectives serve as justification for this investigation by sensitizing us to specific characteristics of a criminal career (e.g. turning points and desistance), providing empirical support for turning points, and suggesting that influential factors vary by life stage. Together, these factors provide a motivation for exploring this intersection earlier in the process when peers are thought to be particularly salient, namely adolescence (Warr, 2002). By looking at involvement in turning points as endogenous to background characteristics, social

control, learning, and opportunity structuring, the current research will address an empirical void in the literature, clarify theoretical processes, and provide potential avenues for policy intervention.

The reality is that people make choices to engage in certain activities (e.g. marriage, education, employment), sometimes knowingly or sometimes as part of a chain of causal events that lead an individual through certain experiences. Perhaps the root of these choices lies in who the individual decides to socialize with and how those peers shape the individual's beliefs and participation in conventional activities. Although we cannot make people participate in these events, we may be in the position to alter the choice to participate by influencing factors that shape these experiences. That being said, scholars state that one of the impediments to taking this step has been a lack of sophisticated data that provide more detailed peer network information (Haynie, 1999). The emergence of new data with more nuanced measures (i.e. AddHealth), however, can address this limitation.

To fully understand the benefits of the current investigation, I will first detail how theoretical perspectives and empirical support combine to provide a justification for this inquiry. Then, a closer look at the data and methods being employed to answer the questions of interest will be outlined. Finally, the results of the analyses and the large-scale implications of the investigation will be discussed. After all, in light of research showing that although most antisocial adults were antisocial children, most antisocial children do not become antisocial adults, identifying where the paths of similar individuals begins to diverge is important to the field of criminology (Gove, 1985; Laub and Sampson, 2003; Robins, 1978; Sampson and

Laub, 1993). In the end, this investigation will fill a gap in our knowledge surrounding this process by looking at how peers interact with network characteristics to influence participation in prosocial adult outcomes that facilitate desistance.

Chapter 2: Literature Review

Blumstein, Cohen, and Farrington (1988; see also Blumstein et al., 1986) argue that there are two potential avenues for reducing crime. First, we must reduce the fraction of the population that ever commits crime (i.e. prevalence), and second, we must reduce the number of crimes being committed by those who have already started a criminal career (i.e. incidence). A sizeable amount of research exists on prevention programs and techniques (e.g. schools, parenting classes, social service agencies) used to prevent the onset of criminal behavior from both a theoretical and policy perspective. Understanding how and why offenders stop committing crime, however, is a critical component that "has been the subject of little empirical research and relatively neglected by theory" (Farrall and Bowling, 1999:253). As a result, Farrall and Bowling (1999:265) call for a "programme of research on desistance from crime which investigates offending from the perspective of the individual but which takes account of the social structure within which his or her actions unfold." Researchers are responding to this call by investigating life events (e.g. marriage and employment) that may spark the desistance process in recognition that lives are not only shaped by individual differences, but also by the context in which people live their lives and interact with others (for example, Sampson and Laub, 1993, 2003; Shover and Thompson, 1992; Warr, 1998).

The study of desistance moved to the forefront of criminological research during the criminal career debate of the 1980s and 1990s, which challenged the field of criminology to look at the entirety of one's criminal career rather than focusing on one stage of an individual's life (e.g. childhood). The criminal career paradigm, and

the resulting theoretical framework of life course criminology, allow for the possibility of different casual factors at different stages of one's life. Through the recognition of these ideas criminologists are sensitized to many new concepts that are valuable in the development of theory (Blumstein et al., 1988). Recent work by many individuals (e.g. Sampson and Laub, Nagin and Land, and Moffitt) develops this perspective by focusing on these new ideas within the study of crime, such as the evaluation of stability and change in people's criminal behavior. The desire to unveil how and why criminal careers of individuals with similar backgrounds vary and, more specifically, why offenders stop committing crime requires researchers to look within individuals. In doing so, an assessment of what increases or decreases one's level of criminal activity can provide great insight.

Within the context of looking at one's criminal career, key concepts relevant to continuity and change emerge that are crucial to the present research. The first major concept within the life course perspective is a trajectory. This is a "pathway of development over the live course marked by a sequence of transitions" (Piquero and Mazerolle, 2001:ix). The second concept is a transition, or life event. Life events are events people experience that are embedded within their trajectory. These life events can reinforce the trajectory one is on or, conversely, redirect one's developmental trajectory (Rutter and Rutter, 1993). When a life event evokes a substantial change in one's developmental pathway (i.e. turns one's life around) this event may be coined a turning point (Piquero and Mazerolle, 2001). It is this third concept of a turning point that is most germane to the study of desistance, for altering one's criminal trajectory can facilitate the termination of criminal activity. Although theorists vary on the

specific role that these concepts play for certain individuals¹, they are now incorporated into many different theories of criminal behavior over the life course and are integral to understanding the processes of stability and change.

What are Turning Points?

Recent research shows that experiencing certain life events (e.g. marriage, employment, military service, education), during times of transition can increase the likelihood of desisting from criminal behavior. As a result, these events have been labeled 'turning points' in the life course criminology literature, for their ability to turn the lives of offenders toward conventional activities. There are multiple theoretical justifications and mechanisms for why and how one ceases criminal activity, but an exploration of the empirical support for turning points will provide a beneficial backdrop for their understanding. The term "turning point" originated with an investigation by Sampson and Laub (1993) in their attempt to illustrate how social bonds in adulthood can alter the trajectory of criminal offenders.

Sampson and Laub (1993; Laub and Sampson, 2003) rely on data that began as a three wave prospective study of juvenile and adult crime by Sheldon and Eleanor Glueck (1950). These data include a sample of 500 male delinquents along with a matched sample of 500 non-delinquents, as well as a "wealth of information on social, psychological, and biological characteristics, family life, school performance, work experiences, and other life events" (Sampson and Laub, 1993:28). Sampson

¹ For example, Moffitt (1993) and Patterson and Yoerger (1993) argue that people can be grouped based on the nature of change and stability into different typologies of individuals, whereas Sampson and Laub (1993, 2003) suggest that offenders are on a continuum and that many life events and turning points influence stability and/or change differently based on the individual.

and Laub reconstructed and reanalyzed the original data on these subjects from ages 14, 25, and 32 and supplemented with new official data collection up to age 45 for the original formation of their theory. In their original quantitative analyses the main findings were that marital attachment, job stability, and commitment to educational and occupational goals were associated with decreases in adult crime (Sampson and Laub, 1993).

Later they added more quantitative data as well as qualitative follow-up interviews with some members of the delinquent sample to extend their analyses to age 70. Self-identified turning points included being married, serving in the military, being sent to the Lyman School for Boys, residential relocation, and becoming involved in meditation. Interestingly, employment was not named as a turning point, but quantitative analyses suggest that job stability is influential for sustaining desistance. In addition, some participants who did not desist in adulthood identified lack of education as a missed turning point (Laub and Sampson, 2003). Although Sampson and Laub (1993) originally suggested that in order for marriage to increase the chance of desistance the quality of marriage was important, these later analyses found that simply being in a marital union made desistance more likely (Laub and Sampson, 2003; Sampson and Laub, 2005).

From this empirical investigation, Sampson and Laub created an Age Graded Theory of Informal Social Control as a way to generalize the importance of turning points. In its original form their theory can be broken down into three parts. Part one seeks to explain juvenile delinquency. Part two discusses stability of offending (i.e. the tendency for juvenile offenders to become adult offenders). Here, they coin the

term 'cumulative continuity' and suggest that delinquent behavior, as well as other things, 'closes doors' for juveniles to engage in conventional activities. Lastly, Sampson and Laub also seek to explain change in offending, specifically why most juvenile offenders do not become criminal adults. Here they argue that it is the quality and strength of social ties in adulthood that strongly influence whether one will engage in crime. Experiencing certain life events (e.g. education, job stability, marriage) increases one's social bonds in adulthood. These bonds are considered social capital and decrease the probability of criminal offending because people do not want to jeopardize these conventional relationships. Importantly, they stress that although juvenile delinquency may negatively influence one's ability to gain this social capital as an adult, the development of these bonds reduce the likelihood of later offending independent of childhood experiences (Sampson and Laub, 1993).

It is important to note that support for this theory and turning points extend well beyond empirical investigations by Sampson and Laub. Researchers are finding that these events lead to desistance through a direct relationship (Ayers et al., 1999; Beaver, 2001; as did Laub and Sampson, 2005; Sampson and Laub, 1993), an indirect relationship (Simons et al, 2002; Warr, 1998; Wright and Cullen, 2004), and a combination thereof (Maume, Ousey, and Beaver, 2005). It is important to assess whether the value of experiencing these prosocial adult events transcends time. In particular, given changes in patterns of these events in recent years compared to the times of data collection for the Glueck sample, there is an increasing acknowledgement that these life events can be transient and that once an individual enters a certain state (e.g. marriage) they may not remain in that state (Laub and

Sampson, 2005). As times change, then, it is necessary to assess whether there is still a benefit to experiencing these events although some may be fleeting.

The local life circumstances research addresses this concern and suggests that although these transitions may not last, they do produce changes in one's life circumstances that translate into short-term changes in criminal behavior (Blokland and Nieuwbeerta, 2005; Horney et al., 1995; Nagin and Land, 1993; Piquero et al, 2002), and can still potentially initiate the desistance process. This literature specifically illustrates that life events structure an individual's routine activities, and in turn, opportunities for engaging in crime. The support of this literature extends to involvement in many prosocial life events, including marriage (Blokland and Nieuwbeerta, 2005; Horney et al, 1995), schooling (Beaver, 2001; Horney et al., 1995; Stouthamer-Loeber et al, 2004), and employment (Stouthamer-Loeber et al, 2004; Uggen, 2000) while also evaluating negative life circumstances (e.g. drug use) and their inhibitory effect on desistance. The support from this literature is important and shows that this process 'holds up' across a variety of methodological specifications.

As a result of the mounting empirical support for the benefits of prosocial life events, theorists have undertaken the task of theoretically justifying these findings and articulating a variety of mechanisms by which life events translate into turning points so that a better understanding of the desistance process results. These explanations begin, however, with experiencing the turning point and leave the understanding of what factors impact the likelihood of participating in certain life events undeveloped. In response to this void, the current research shifts these

prosocial events, which are traditionally used as independent variables, to outcomes of interest in an attempt to shed light on an earlier stage of the process.

<u>A Shift in Focus</u>

It is crucial to recognize that in looking at one's criminal career as a pathway, this pathway does not begin with prosocial adult events and it is unlikely that turning points occur randomly. Laub and Sampson (1993:320) once stated that "perhaps the key idea is ultimately a simple one- the adult life course matters, regardless of how one gets there" and "if opportunity matters for criminal events, surely it matters for the establishment of strong employment and marital bonds." This statement highlights one potential process (i.e. opportunity structuring) that shapes who does and does not experience turning points. It is likely, however, that there are many influential factors that shape the opportunities for and pathways to conventional activities. This is an empirical question, however, that has not been extensively addressed in the criminological literature. This research will expand the literature in two ways. First, it shifts the focus on prosocial life events to outcomes of interest, and second, it highlights the intricate role of adolescent peer networks through the use of improved data and measurement.

Prosocial Life Events as Outcomes

Sampson and Laub (1993; 2003) discuss the life course as a pathway or trajectory that travels through certain turning points that facilitate desistance. Education, marriage, and employment are acknowledged as key factors along one's developmental pathway that have this unique relationship with criminal activity.

Most research thus far investigates the role of turning points by only evaluating how they impact later criminal activity. These inquiries, however, are only looking at the later stage of one's trajectory, and scholars are calling for a more complete understanding of one's pathway. More specifically, "if we are to understand the developmental processes associated with turning point effects we need to consider the hypothesized environmental influence that is thought to bring about the effect" (Rutter, 1996:619). Additionally, Stouthamer-Loeber et al. (2004:899) comment that research neglects to focus on positive outcomes in adulthood and that this is crucial to the study of desistance "where it is important to explain not just how and why delinquency ceases, but also how and why positive adaptation develops, because the decline in delinquency may be causally related to improvements in other domains of adjustment." A first step in addressing these concerns is to evaluate prosocial life events as outcomes in order to uncover how people reach these events.

Although criminologists have started to investigate why people turn to convention and away from criminal activity later in life, the focus has been on the ability of childhood/adolescent risk factors to directly predict desistance. Depending on the methods used, conclusions vary. For example, Sampson and Laub (2005) comment on the inability of their childhood/adolescent risk factor scale to predict trajectories of offending, but some researchers take issue with this assertion (Robins, 2005). The main arguments against this finding are two-fold. First, combining all 13 factors into one measure of risk may dilute the potential explanatory power of certain items (Robins, 2005). Second, this lack of significance may be due to the

homogeneity of their sample, with the entire sample being white males in juvenile reformatories (Robins, 2005).

Unlike Sampson and Laub's (2005) childhood/adolescent risk factor assessment, other research find support for the predictive power of certain risk factors by evaluating variables separately and using heterogeneous samples. Specifically, research points to low physical punishment from caretaker, good relationships with peers, and low peer substance abuse in increasing the likelihood of desistance, while being manipulative, high peer delinquency, and having a positive attitude toward delinquency as lowering the probability of desistance (Stouthamer-Loeber et al., 2004). In addition, Chung et al. (2002) found a host of factors using the Seattle Social Development Project, including early aggression, poor family management, peer, school, and neighborhood influences, to be influential in predicting offending patterns through the transition to young adulthood (see Ayers et al., 1999 for similar findings). These findings illustrate the direct effect of childhood/adolescent characteristics on desistance. It is worth highlighting that peer related variables are among those that consistently emerge as influential and that these variables were absent in Sampson and Laub's assessment.

Much of the above referenced literature, though, only finds these predictors to be influential for desistance in late adolescence or early adulthood. In the interest of also understanding processes leading to desistance later in life, shifting the focus to predicting influential events along the developmental trajectory can be beneficial. Here, we can uncover an indirect influence on desistance through experiences with life events that have been shown to decrease criminal activity. It is this indirect

impact that is the focus of the current research and the above literature is helpful for drawing attention to certain factors that may be influential. For example, these factors that directly promote desistance in late adolescence may also impact later desistance for others by shaping experiences with conventional activities.

In addition to taking a lead from criminological literature, one has the added benefit of learning from other literatures that traditionally use prosocial life events as the main outcomes of interest, though from a different discipline. It is important to note that for years sociologists have been expressing the importance and value of evaluating prosocial adult events as outcomes in the status attainment literature (Alexander and Campbell, 1964; Davies and Kandel, 1981; Duncan, Haller, and Portes, 1968; Haller and Butterworth, 1960; Picou and Carter, 1976; Sewell, Haller, and Portes, 1969; Wilson and Portes, 1975; Woelfel and Haller, 1971). This literature addresses childhood and adolescent factors that work in concert to promote prosocial adaptation in adulthood. Among these factors research suggests the benefit of prosocial peers for promoting these conventional activities, as well as a host of other influences. As a result, the status attainment literature provides direction for this investigation, but it does not delve into the intricacies of peer relationships or comment on the role of peer *deviance*, as does this investigation. Some support for predictors of prosocial outcomes also exists within criminology, although empirical investigations are minimal. For example, Robins (1966) found strong relationships between childhood antisocial behavior and outcomes such as adult employment, occupational status, job stability, income, and mobility. In addition, Sampson and Laub found in their 1990 reanalysis of the Glueck data that "childhood antisocial

behavior strongly predicted not just adult criminality but outcomes as diverse as joblessness, divorce, welfare dependence, and educational failure" (1992:69). Again, these analyses do not pay particular attention to the role of deviant peers.

Accordingly, the shift to prosocial adult outcomes as endogenous to other influential factors is not novel and can be beneficial for the field of criminology. The current research promotes the idea of viewing the criminal career as a continual process in which there are many causal links that need to be connected in order to gain an understanding of how things unfold. Most literature focuses on the predictive power of individual attributes or variables without accounting for the contextual factors or how processes are generated. McGloin (2007) argues that while we should not abandon a focus on variables these investigations should be complemented by research on process (see also, Gifford-Smith, Dodge, Dishion, and McCord, 2005). The current research argues that a focus on adolescent peer networks will be valuable for understanding a variety of processes that generate individual behavior and shape one's trajectory.

Why a Focus on Peers?

Peers are a worthy focus given the foundation across disciplines suggesting their relationship with prosocial life events, as well filling both a theoretical and empirical void in the life course criminology literature. The life course framework embraces the idea that different factors are influential in shaping one's behavior at various life stages (Mears and Field, 2002; Shover and Thompson, 1992; Thornberry, 1987). Explanations and empirical investigations, however, focus on early childhood factors and adult social bonds, largely neglecting the life stage of adolescence. Some

researchers specifically reference the importance of adolescent factors on this transition. For example, Southamer-Loeber and colleagues (2004:897) comment on the importance of the "domains of individual, family, and peer factors measured from early adolescence onward" for the transition to adulthood. In addition, "serious and prolonged involvement in delinquent behavior is likely to adversely influence social relations with family and peers, belief systems, and the success and timing of transitions into adult roles and the life course" (Thornberry, 1997:4).

Many theorists discuss how the influence of peers is relatively weak early in childhood but becomes increasingly powerful in adolescence, the life stage just prior to the life events of interest (Chung et al., 2002; Nagin et al., 2003; Thornberry and Krohn, 1997; Warr, 2002). In fact, when plagued by other barriers to success (e.g. concentrated disadvantage) "to the extent that residents do cooperate or assist others, it is solely within the context of close friendship ties" (Smith, 2005:12; see also Kollock, 1994). Therefore, peers seem to have a logical place in the development of one's life course, but their influence on the pathway to prosocial outcomes has not been fully articulated. Furthermore, there are a host of criminological theories that explain the variety of processes in which peers can be influential for positive and negative outcomes. In turn, it appears that peers may play a much more integral role in one's criminal career than life course theories currently suggest.

In addition to filling a theoretical void, an empirical void can also be addressed. Similar to the way the status attainment literature provides support for evaluating prosocial adult outcomes, it also lends justification for the focus on peers by illustrating how prosocial peers can have a protective effect by turning adolescents

on to these conventional activities. While this literature provides a basis for the claim that adolescent peers may influence prosocial adult outcomes, there are many ways it can be updated and enhanced to address certain limitations and make it more relevant to the criminological field. Most relevant to criminology is assessing the role of deviant peers in addition to prosocial peers, which is nearly vacant in the empirical literature. There are also many data limitations that can be addressed which, in the end, will better articulate the true influence of peers. Specifically, using current and diverse samples (compared to the all male samples collected in the 60s and 70s that are traditionally used), as well as peer self-report data will be beneficial in light of conventions that have shifted, specifically with regard to education.

On a related front, literature suggests that the impact of peers may vary across certain characteristics, such as the intimacy of the peer group, but data constraints have prevented these ideas from being empirically evaluated in prior investigations. Nuanced concepts and data are now available to empirically test these ideas with the added benefit of encompassing more representative samples than were previously available. A deeper understanding of the process by which peers can shape later outcomes is now possible and the current investigation hopes to achieve just that by distinguishing one's interactions with peers across a host of network characteristics that will take us beyond a classification of one's peer network as 'good' or 'bad.' Incorporating a network perspective into the study of interactions among individuals has only recently permeated criminological research, although its utility has been suggested for many years. It is also worth noting that while newly available data will enhance the current inquiry, data alone do not justify this investigation. In addition, a

theoretical rationale for the importance of turning points and how peers and network characteristics may influence turning points is another critical component. I have commented on how there are many criminological theories to suggest the importance of peers, but the next step is to better understand specifically how existing criminological theory and limited empirical evidence combine to justify an investigation of how deviant peers influence prosocial life events.

<u>Theoretical Perspectives</u>

Many criminological theories offer different explanations for empirical relationships (Blokland and Nieuwbeerta, 2005; Piquero et al., 2002). For example, some theories cite factors (e.g. turning points or peers) as criminogenically meaningful for shaping individual behavior while others explain the same relationships as a reflection of propensity. One of the primary frameworks for studying the relationship between turning points and desistance includes dynamic versus static theories. Simply stated, dynamic theories believe that turning points have a causal relationship with decreasing criminal activity. These theories argue that there is something about experiencing conventional adulthood life events that has the ability to alter one's criminal pathway. In contrast, static theories suggest that stable individual differences (e.g. self-control) are the sole cause of criminal behavior and other life activities (e.g. education and employment) and, therefore, view the empirical relationships between turning points and desistance as purely spurious. In the interest of shifting focus to the influence of peers pre-turning points to uncover how individuals select into these life events this same dynamic versus framework can

be used and an understanding of how it applies to the study of peers will be beneficial.

A large body of literature cites association with delinquent peers in adolescence as one of the most consistent correlates with an individual's own delinquent activities (Agnew, 1991; Giordano et al., 2003; Haynie, 2001, 2002; Matsueda and Anderson, 1998; Warr, 2002; Warr and Stafford, 1991), but static and dynamic justifications for this finding exist. The selection argument, which is similar to the static approach mentioned above, suggests an underlying propensity drives both deviant behavior and selection of friends. The more dynamic approach suggests that one's friends are part of a socialization process and, therefore, play a meaningful role in shaping one's behavior. Although traditional conversations surrounding these theoretical frameworks revolve around crime as an outcome, the current research suggests that the mechanisms proposed in these models also explain the potential for peers to influence positive life events as well.

The current research is in no way meant to be a direct test of any particular theory, instead believing in the value of multiple theories. The focus of this research is to comment on a process; that of a criminal career as it unfolds, and highlight a void in our understanding of this process. The dynamic and static perspectives provide a common ground for understanding a wide spectrum of behavior over the life course, from who selects into turning points to what transpires after these experiences. Given the utility of this framework, the current investigation relies on this context and expects support for both dynamic and static influences. Therefore, an

explanation of what these perspectives mean for the potential influence of deviant peers on prosocial adult events is necessary.

The Dynamic Perspective: Turning Points and Peers are Meaningful

Dynamic theories, which are supportive of the state dependence hypothesis, advocate that a transformation of life circumstances can alter the probability of future behavior through time varying influences. Therefore, these theories view the relationship between life events and desistance as one of substantive meaning and also view the relationship between peers and behavior as meaningful. These theories, such as Sampson and Laub's Age Graded Theory of Informal Social Control, suggest that although there is a general cause of crime (bonds to conventional institutions), the importance of certain bonds varies during certain life stages, and therefore, changes in life circumstances can directly affect criminal behavior in adulthood (Sampson and Laub, 1993). It is important to note that these theories do not negate the existence of propensity for criminal behavior, but believe that this propensity can be ameliorated or altered based on life events (Laub and Sampson, 2003; Sampson and Laub, 1993).²

Dynamic theories gain praise for addressing the "fundamental mistake to see agents and structures as being separate: neither the agent nor the structure truly 'exists' independently of one another" and acknowledging the impact of a variety of factors (Farrall and Bowling, 1999:255). This approach is particularly well suited for

² Gidden's (1984) structuration theory is another example of a dynamic theory. His theory, whose complexities are beyond the scope of this research, in general calls for the recognition that no level of explanation (micro or macro) alone sufficiently explains behavior and that lives are continually being recreated. His concept of critical situations, which disrupt one's current routine activities and can offer new opportunities for success, is similar to Sampson and Laub's turning points (Farall and Bowling, 1999: 255; see also Giddens, 1984).

the study of peers and turning points because of the likelihood that desistance is produced "through an interplay between individual choices, and a range of wider social forces, institutional and societal practices which are beyond the control of the individual" (Farrall and Bowling, 1999: 261). Another benefit of the dynamic viewpoint is that it suggests the generality of these processes and does not view offenders as fitting into categories in which only certain processes operate for certain individuals. Instead, all offenders' trajectories can be continually shaped to varying degrees. As a result, they can better account for the heterogeneity of outcomes that result from seemingly similar individuals in early childhood. Sampson and Laub's Age Graded Theory of Informal Social Control (previously discussed) is an example of this dynamic perspective that lays the foundation for the importance of prosocial life events in adulthood by suggesting that individual differences in childhood can be altered and ameliorated through the acquisition of social bonds later in life. Without an appreciation for the value of these experiences through its growing empirical support (for examples, see Sampson and Laub, 1993, 2003; Mischkowitz, 1994; Shover, 1983; Uggen, 2000), there would be no reason to investigate factors that increase their likelihood.

It is under this dynamic perspective that theories also suggest that peers have substantive meaning and play a causal role in this explanation of an individual's behavior. As a result, the current study suggests that there are multiple ways in which peers can impact one's behavior, both deviant and conventional, and therefore can shape the pathways to prosocial outcomes. These influences revolve around learning mechanisms, structuring opportunities, and social control. Learning theories,

specifically differential association (Sutherland, 1947) and social learning theory (Akers, 1998) assert that the normative processes of the delinquent peer group create and sustain delinquents (Akers, 1998; Sutherland, 1947). More specifically, Sutherland's differential association theory (1947) discusses that deviant peers provide access to definitions favorable to the violation of law. Through interactions with these peers one can learn to adopt these delinquent norms. Akers (1998) later expanded upon Sutherland's ideas suggesting that these definitions and deviant norms translate into delinquent behavior through modeling and reinforcement. Having delinquent peers provides models whose behavior can be imitated, and because one is surrounded by other deviants who are unlikely to see the actions as problematic, individuals are more likely to be rewarded for committing crime, which in turn, reinforces the behavior. Researchers argue that this process is particularly salient during adolescence due to the significant amount of time spent with peers (Warr, 2002) and empirically this perspective has earned substantial support (Akers et al., 1979; Matsueda, 1982; Matsueda and Heimer, 1997; Thornberry and Krohn, 1997; Warr and Stafford, 1991).

There is still some contention within this perspective as to the exact mechanisms underlying the socialization process. For example, some research suggests that what one's friends do is more important than what they say (focusing on the role of imitation/modeling) (Hochstetler et al, 2002; Warr and Stafford, 1991), while others believe that an individual needs to adopt the delinquent beliefs/attitudes of his/her friends before engaging in criminal behavior as suggested by Sutherland (1947), while still others believe that this is a process of social pressure from friends

to act in a certain way (Matza, 1964; Short and Strodbeck, 1965). Regardless of the actual mechanism of learning criminal behavior they all agree that peers can facilitate delinquent behavior within an individual. The current research suggests that the limits of this learning do not end with deviant attitudes or delinquent behavior, but can extend to beliefs and behaviors regarding conventional activities as well. In fact, one of the principles of differential association specifically addresses the idea that the process of learning criminal behavior through associations with others is no different than the learning process for any other activity (Sutherland, 1947). Therefore, in the same way that deviant peers influence delinquent behavior, friends are also likely to influence one's attitudes and behaviors in regard to conventional behaviors, including thoughts on marriage, going to college, and getting a job.

To be sure, research has made it clear that just as deviant peers can be detrimental to one's development, prosocial peers can be beneficial (Ayers et al., 1999; Krohn, 1986; Piquero et al., 2005; Stouthamer-Loeber et al., 2004). Therefore, it is likely that associating with conventional peers can impact the learning and adaptation of conventional norms and promote activities that are traditional, indicating a causal influence of peers on a variety of behaviors. The status attainment literature also provides support for this mechanism. In particular, Picou and Carter's (1976) comparison between the influence of peers and parents concludes that peer modeling has the strongest impact on educational and occupational outcomes, and Alexander and Campbell (1964) illustrate that an individual is more likely to actually attend college if his best friend goes. This process suggests that adolescents model their prosocial peers and are rewarded in regard to these outcomes, but individuals
with deviant peers will not have these same models and may be rewarded by their peers for deviant behavior, which limits the likelihood of conventional activities.

Situational theories suggest another mechanism by which peers can shape one's activities, namely opportunity structuring. Routine Activity Theory is most relevant to this sphere of explanation through its recognition for the necessity of opportunity for a criminal event to take place and the role of social conditions in creating situations conducive to crime (Horney et al, 1995). As an extension of that idea, it is plausible to see how one's relationships with friends can structure either the opportunity for crime or the ability for one to recognize an opportunity. Again, similar to criminal opportunity, opportunities for conventional life events must be present and recognized in order for one to capitalize on them.

Routine Activity Theory emphasizes the role of social conditions in creating situations conducive to crime. Cohen and Felson (1979) suggest that in order for a crime to occur three elements must converge in time and space: (1) motivated offender, (2) suitable target, and (3) absence of a capable guardian. Although this theory was originally offered to explain repeat victimization, it has more recently been applied to offending patterns. Specifically, Osgood et al.'s (1996) interest is to extend the routine activity perspective in two ways. The first is to explain variation in individuals' rates of offending. Second, they apply this framework to a broader range of deviant behavior, as opposed to a focus on predatory offenses, which was proposed by the original theorists (Osgood et al, 1996)

Research by Osgood et al. (1996) proposes that situations conducive to deviance are more prevalent during unstructured socializing with peers in the absence

of authority figures. They argue that the presence of peers makes deviant acts easier and more rewarding, the absence of authority figures will reduce the potential for social control responses, and the lack of structure will leave time available for deviance. This research points to the importance of opportunity for the occurrence of criminal activity, as well as the importance of peers in providing opportunity (see also Haynie and Osgood, 2005; Osgood and Anderson, 2004). Routine Activity Theory takes motivation as a given and, therefore, sees fluctuation in the nature and frequency of crime as a function of opportunity (McGloin, Sullivan, Piquero and Pratt, 2007). Thus, in relationship to delinquent peers, Warr (2002:86) comments that "participating in criminal networks can significantly increase opportunities for crime, because the opportunities known to or available to one individual become available to others." From this viewpoint, "opportunity is not only temporally and spatially structured, but *socially* structured as well, and opportunities for crime have as much to do with relations among offenders as with those between offenders and victims" (Warr, 2002:86). Rational choice theory (Clark and Cornish, 1985) complements this perspective by highlighting how peers can impact one's *perceived* opportunities as well as the alleged costs and benefits of criminal and noncriminal activity (Uggen and Kruttschnitt, 2001; Weerman, 2003). In general, interpersonal relationships play a significant role in creating the "situational impression" that crime is beneficial (Hoschstetler, 2001).

There is no reason to believe that criminal opportunities are the only opportunities that are socially structured. In a similar fashion your peers can provide actual opportunities for meeting a significant other or connections to job

opportunities. Additionally, peers are likely to influence perceptions of costs and rewards associated with engaging in certain activities when the opportunities present themselves based on peers' experiences with similar situations. For example, friends in adolescence may influence one's perceptions of whether or not going to college is necessary or if trying to get a job to make money right away is more beneficial. Similarly, observation of peer experiences with dating may alter one's perceptions of the benefits of a relationship. Here, it can be understood how relationships with peers can allow for certain opportunities while constraining others dependent upon the context of the group and, in essence, dictate certain behaviors from individuals within those networks.

Although my predominant focus is on learning and opportunity influences since they have been neglected in discussions of turning points, it is important to acknowledge other potential theoretical contributions to this process. Discussions of the importance of social bonds in adolescence most often reference Hirschi's social control theory (1969). This theory is helpful for understanding how strong attachment to prosocial peers, parents, and school are beneficial for constraining deviant impulses of individuals. Adolescents with deviant friends, therefore, are less likely to be subject to this control mechanism because they lack attachments to individuals who promote convention, and in turn, are less likely to participate in prosocial activities. Given the reference to social control theory in discussions of conventional behavior, this perspective is necessary to acknowledge.

The empirical research to date focusing on the role of *deviant* adolescent peers in shaping the pathway to positive adult outcomes that may promote desistance is

nearly non-existent. A notable exception is Hagan's (1993:468) evaluation of social embeddedness of crime and unemployment in which he states that a "missing piece in the literature that links crime and unemployment involves an understanding of the proximate causes of joblessness in the lives of individuals." Using the work of Granovetter (1992; 1973) as a justification, Hagan (1993:468) suggests that events are "not determined solely by individual propensities or states, but more significant, by socially structured connections between individuals" and evaluates the impact of a variety of factors (e.g. parent convicted before age 10, previous conviction, IQ, leaving school) including peer delinquency on unemployment in young adulthood. He found that those with delinquent adolescent friends were more likely to be unemployed in adulthood because having deviant friends impacted one's own delinquency, which in turn, decreased the chances of legitimate employment. While this research highlights the utility of studying deviant peers in conjunction with prosocial outcomes, it is clear that more empirical investigations are needed.

Considering Peer Networks

Keeping in mind that one of the contributions of the current investigation is the inclusion of a network perspective, it is beneficial to highlight how this perspective 'fits in' with the idea of peers shaping the pathway to turning points and these theoretical justifications. Characteristics of people's networks and position within a network change over time as members of the group come and go. Therefore, the discussion of their potential influence fits nicely within the dynamic perspective. Before discussing the specific network characteristics, a brief understanding of what a network perspective entails will be helpful.

The study of peer networks pushes investigations to characterize the linkages among friends within a group. This research acknowledges that all members of a peer group do not interact in the same manner. Instead, members are linked in various degrees according to characteristics of the group. The study of social networks extends to a number of diverse areas. Originally, network analysis was used as a way to graphically display data on the ties between individuals (Moreno, 1947) and by anthropologists investigating the structure of relations mainly in tribal villages (Coles, 2001). Over time, however, its use has permeated quantitative analyses that seek to comment on the impact of group level structure as well as one's individual position within a network. The field of criminology has not fully embraced the network approach, with much of the more recent social network literature focusing on job referral networks (Lin, 1999; Smith, 2005), but some criminologists have taken the steps necessary to integrate the concepts at the core of social network analysis into the study of crime. Most extensively, researchers are relying heavily on network analysis in the investigation of co-offending groups and gang behavior (McGloin, 2005; Pettersson, 2003; Sarnecki and Pettersson, 2001; Weerman, 2003), while others apply this approach to the study of adolescent friendship networks (Haynie, 2001, 2002; O'Neill and McGloin, 2006; Schreck et al. 2004). It is this last empirical venture that most directly informs the current investigation.

This network approach is relevant to learning, opportunity, and control processes within peer relationships and helps to account for heterogeneity of outcomes in young adulthood by highlighting the multitude of levels of involvement

with peers that one can have, resulting in many possible pathways. Research suggests that it is important to characterize one's relationship with his/her social network, both at the group level and the individual level (Haynie, 2001). Therefore, the current research will capture both of these levels by evaluating five social network characteristics (density, centrality, and popularity, attachment, and involvement) and their relevance to these theoretical frameworks will be discussed. It is worth noting that each of these network characteristics may have a direct impact on the outcomes of interest. Although these direct effects will be mentioned, I believe that their true influence emerges when viewed through the lens of the level of deviance in the peer group because high levels of these characteristics may 'play out' differently depending on the behavioral context of the group as primarily prosocial versus deviant.

First, density is a group level characteristic that measures the cohesion of the social network. Literature defines density as the number of ties present in the friendship network divided by the number of possible ties (Haynie, 2002; 2001; Krohn, 1986) and is reflective of the idea of social connectedness that social capital researchers allude to (Coleman, 1990, Laub and Sampson, 1993). A dense network suggests that a group of friends are all linked with each other as opposed to people outside the network that may be linked with only one or two members. From a learning perspective the more cohesive a group the more interaction among the members, which leads to greater communication and observation. That being said, there are greater opportunities for exchange of definitions, models of behavior, and reinforcement for that behavior given that is accepted by those around the individual

(Agnew, 1991; Giordano et al., 1986; Haynie, 2001). Additionally, in a high density network, because members are all connected, it is easy for opportunities available to one member to reach many other members as well. Granovetter (1973) also suggests that as a group becomes more cohesive it is less likely that outside influences that go against the norms of the group will infuse their way into the group allowing for the norms of the group to sustain over time (see also, Burt, 2001). Additionally, from an opportunity perspective outside opportunities are less likely to be available to members of cohesive networks.

Haynie (2001:1005), however, stresses that high density does not necessitate delinquency, it only predicts similar behaviors among the peers by stating, "very dense social networks facilitate common identities and constrain the behavior of their members to be consistent with the network's behavior, whether that is toward delinquency or not." Smith (2005:10) echoes this sentiment outside the realm of delinquency stating that, in general, due to the overwhelming connectedness of individuals in a dense network structure "there is little that anyone can do without having others in the network discover their actions. This monitoring capacity is key if sanctions are to be imposed for noncompliance, and if members are to be kept in line." This complements the idea that dense networks are able to constrain the behavior of its members better than loose-knit networks (Podolny and Baron, 1997) and the empirical finding of pervasive homophily within adolescent peer groups (Ennett and Bauman, 1996; Kandel, 1978). This idea of constraint is complementary of social control processes. With the finding that the influence of density is not limited to deviant behavior, the possibility is left open that this group level structure

may constrain other behaviors, such as conventional life events. The likelihood of someone experiencing a turning point can be a reflection of how constrained their behavior is by their peer group. In a cohesive network, if the peer group supports the prosocial activities, one will be more likely to conform and pursue certain activities, but in a deviant network this likelihood may be diminished. This is particularly relevant in research that suggests that the mechanisms of cohesiveness can also work in a prosocial manner when there is a dense network of conventional youth (Krohn, 1986; Piquero et al., 2005). After all, the density of your peer group is directly related to your connectedness to other individuals, and in turn, your access to the opportunities of those individuals, such as job referrals, educational support, or dating prospects. Given that the overall influence of density is that it leads to like behaviors, being in a dense network of deviant individuals is likely to promote deviant activities as opposed to conventional behaviors such as marriage, education, and employment.

Unlike density, which is a group level measure of network structure, centrality captures the individual's position within the network structure. Centrality represents how embedded an individual is within a network. This concept relates to peer investigations by suggesting that how embedded an individual is in a criminal network can influence the extent to which he/she adopts criminal beliefs and engages in learned behavior through modeling and reinforcement. A person who is central to the peer network simply has more sources of the norms/attitudes within that group, behavioral models, and reinforcement than a peripheral member who is more likely to have connections to individuals outside of the group. Given that central members are less likely to have friends outside of the group they are more likely to place

importance on their friendships within the network because it is their primary source for peers. In turn, the meaning of this learning environment will be more important than a peripheral member who may be more susceptible to outside influence, in turn, limiting the amount of control over the individual's behavior (Sutherland, 1947, Granovetter, 1973). As a result, the more central an individual, the more constrained their behaviors and attitudes are going to be, further promoting deviant behaviors in a deviant network.

Also relevant to opportunity theories, research suggests that embeddedness is related to the concept of constraining one's opportunities due to a lack of outside influences (Granovetter, 1973; Hagan, 1993). Some suggest that while being a highly central individual constrains one's information and opportunities to those acceptable to the group, being less central in a deviant peer group will result in a variety of opportunities. In this case more peripheral members, who have weaker ties to the deviant network, are more likely to "form bridges that link individuals to other social circles for information not likely to be available in their own circles" (Coles, 2001; Lin, 1999:469; see also Granovetter, 1973). This new information acquired outside of their immediate network can open up new possibilities. This is suggestive of the idea that perhaps less central individuals in deviant networks will still have opportunities outside of the network for gaining access to prosocial activities, such as employment referrals. This process is also possible in the opposite context meaning that peripheral members in prosocial networks may be less committed to a conventional lifestyle and more prone to imitation or opportunities outside of the group, which may be deviant in nature.

Empirical support for the importance of centrality can be found in gang literature. Specifically, research comparing core gang members (high centrality) to peripheral members finds greater levels of involvement in delinquency among core members (Klein, 1995; Peterson et al., 2001). This literature also references greater constraint on central members resulting in difficulty leaving the gang (Horowitz, 1983; McGloin, 2005). Haynie's work (2001) confirms the importance of one's individual position within everyday adolescent peer networks. Researchers also reference the benefits of looking at centrality/embeddedness specific to the idea of turning points (Hagan, 1993; Uggen, 2000). For example, "theories of criminal embeddedness suggest that juvenile crime isolates adolescents from education and work networks that help initiate and sustain adult employment" (Uggen, 2000:534; see also Hagan, 1993). Specifically, Hagan (1993:469) states that "contacts with criminal friends are more likely to integrate youths into the criminal underworld than into referral networks for legal employment." Similarly, embeddedness in a criminal network may increase the likelihood of expulsion or dropping out of school, which negatively impacts one's ability for later educational success. Here, it becomes clear that this concept is related to prosocial outcomes. He proceeds by saying that an ideal explanation of the structure of criminal embeddedness would utilize data that detailed the connections among the individuals in the network (Hagan, 1993), and the current research utilizes more recent and nuanced data to do just that. Although literature has not specifically evaluated the influence of centrality on marriage one can anticipate its potential impact. Those deeply embedded in a deviant network may be less attractive to those looking to pursue a serious relationship leading to marriage.

Popularity is defined by the number of friendship nominations an individual receives from other adolescents (Haynie, 2001). Research suggests that popular adolescents have more to lose by not conforming to the behaviors of the people around them who provide them with their high status (Haynie, 2001; Rebellon, 2006) and that adolescents' reputations are a product of their own network of relationships (Smith, 2005). Farrall and Bowling (1999) talk about the idea of an individual's social identity, which dictates certain behaviors as a result of what he/she and others normally expect of someone in that position. Often times, for adolescents this behavior is dictated by their peers and being accepted. In fact, Shover and Thompson (1992:97) find that "the probability of desistance from criminal participation increases as expectations for achieving friends, money, autonomy and happiness via crime decrease," highlighting the importance of friends for shaping criminal activity. In the case of an adolescent network, popular individuals are more likely to be penalized for not acting in accordance with the group norms and to receive social reinforcement (e.g. being popular) for acting in compliance with the desires of the group (Cillessen and Rose, 2005; Eder, 1985). This is particularly problematic in adolescence when traits associated with deviance (e.g. risky and impulsive behavior) are seen as admirable qualities. In turn, while the direct impact of popularity may promote conventional activities (e.g. commitment to education, marriage, or job stability), high popularity within a deviant network may decrease these traditional activities in order to maintain a popular status among delinquent friends.

To be sure, literature shows adolescent offenders often cite gaining status within a friendship network as the reason for committing delinquent acts (Cillessen

and Mayeux, 2004; Cillessen and Rose, 2005; Rebellon, 2006; Rose et al., 2004; Weerman, 2003). In turn, much of what is associated with being deemed popular necessitates delinquent activity. Rebellon (2006) offers three reasons delinquent activity promotes popularity among peers: (1) the delinquent may provide entertainment for his/her peers (e.g. pranks, fights), (2) the delinquent may provide resources to the group that were not otherwise available (e.g. taking a car without permission to provide a ride for friends), and (3) the risk involved with delinquency can signal a 'nerve' or bravery to stand by friends in times of trouble. In this case, the popularity gained from deviant behavior acts as the social reinforcement referenced in the socialization model. However, in purely prosocial networks deviant behaviors are less likely to promote popularity.

Popularity can also be relevant to turning points as outcomes. In general, popular adolescents may have more connections and access to opportunities for certain outcomes. Research, however, highlights the importance of context when dealing with popularity. Smith (2005) references the importance of adolescent popularity in connection with employment when describing research in which teenage subjects withhold places of employment from their peers due to the potential for ridicule. Here, it suggests peer groups as a point of reference for what types of jobs are acceptable and, therefore, individuals may not take advantage of opportunities for employment unless the job meets certain standards. In the same respect, adolescents can use peers as a point of reference for education. Being friends with deviant individuals who are not committed to education will necessitate similar behavior to gain popularity within the network. Popularity can also influence the prospect of

marriage. At first glance a popular individual may appear more attractive as a potential partner. However, if an individual is popular within a deviant peer group their attractiveness to prosocial individuals may diminish.

Attachment and involvement with peers are also network characteristics. Unlike the previously discussed measures that focus on the structure and pattern of one's linkages in a network, attachment and involvement characterize the nature and quality of linkages between individuals. Hirschi's (1969) social control theory first introduced the concept of attachment. He suggests that high levels of attachment to parents, friends, and school would lead to conformity due to social control processes that would restrict one's impulses for deviance. Other researchers, however, suggest that the Hirschi's assertion will only prevail if the attachment is to prosocial individuals and that the opposite relationship can ensue if highly attached to deviant others.

For example, the social capital perspective argues that the ability to facilitate social control is characterized by overlapping and interdependent social networks and 'connectedness' (Coleman, 1990, Laub and Sampson, 1993), an idea that is illustrated with peers in Krohn's (1986) work on multiplexity. Multiplexity refers to the "number of different role relations any two people have with one another or the number of contexts or foci in a relationship" (Krohn, 1986:S83; see also Fischer at al., 1977). Adolescents who are committed to conventional activities are more likely to spend time in multiple contexts (e.g. school, home, church) and interact with their peers in multiple foci, including activities with adults who exercise control over the adolescents, which in turn reduces the likelihood of deviant behavior. In contrast,

deviant youth tend to pull away from contexts that necessitate conventional behaviors and support social control, in turn, strengthening attachment to friends who also shy away from convention and allowing them to become more embedded in a deviant lifestyle. Here, we see that the end result is dictated by the type of friends one is attached to. Agnew (1991) also argues that the impact of delinquent peers on delinquency is conditioned by attachment to peers.

From a learning perspective, it is more likely that one will place value in the environment and reinforcement if the individual feels close to his/her peers. Also, the more attached one is to peers within the network, the less likely one is to take advantage of opportunities presented by those with whom there is a low level of attachment, who are also more likely to be outside of the network. This can be particularly problematic in a deviant context given Warr's (1993) findings that delinquent friends tend to be "sticky" and once acquired, they are not quickly lost, in turn, promoting greater levels of attachment.

Developmental psychology literature shows that the quality of attachment is also influential for prosocial processes (Barry and Wentzel, 2006; Berndt and Perry, 1986). Specifically, Barry and Wentzel (2006) find that the impact of a friend's prosocial behavior on an individual's prosocial goal pursuit is moderated by the quality of the attachment. Although their research does not focus on adult outcomes, it is suggestive of a process in which the level of attachment to peers matters, as well as the context of the behaviors. Collectively, it is suggested that high attachment with prosocial friends will increase prosocial outcomes, but conversely, high attachment with deviant peers may decrease one's potential for experiencing prosocial outcomes.

Determining whether this process influences adult outcomes still needs to be empirically evaluated, but one can see the possibility. Being highly attached to deviant friends who shy away from conventional activities (e.g. marriage, education, legitimate employment) will increase the importance of learning and opportunities for deviance from these peers and decrease the control of deviant impulses, instead promoting deviance.

One's level of involvement with his/her peers is most relevant to the opportunity perspective. Given research by Osgood and his colleagues that continually show that unstructured socializing with peers is more conducive to deviance, the amount of time one spends with peers should be influential in shaping outcomes (Haynie and Osgood, 2005; Osgood and Anderson, 2004; Osgood et al., 1996). Although Osgood's work suggests that large amounts of socializing with peers will lead to deviance regardless of the delinquency of the peer group, other research suggests a conditioning effect. For example, Agnew (1991) found the impact of time spent with peers was mediated by the type of delinquency of one's peers (minor vs. serious delinquency) and was amplified when one's friends were serious delinquents. This finding held true regardless of whether it was predicting minor or serious delinquency in the individual. Therefore, it still seems that context is important.

It could also be that the amount of time spent with peers can be relevant from a learning perspective as well. The more time one spends with peers, the greater frequency of interaction and access to learning mechanisms (e.g. models and reinforcement) the individual has. Therefore, in a prosocial network the amount of

time spent with peers may actually increase adoption of prosocial attitudes and behaviors, and over time lead to prosocial adult outcomes. For example, an individual who spends a lot of time with friends from school who are committed to education may be more likely to value educational achievement and, in turn, be more likely to succeed in college. Oppositely, spending a lot of time with deviant friends who are less likely to have this commitment to education or be interested in stable employment or relationships and more interested in hanging out with friends, may decrease the likelihood of these prosocial activities. It can also limit one's access to legitimate opportunities for these activities because time is being spent with deviants who do not these opportunities themselves. Also, potential employers can view someone who spends most of their time with deviant peers as unreliable or risky employees. Similarly, potential spouses may be less willing to commit to someone who is most interested in hanging out with deviant friends.

The Impact of Expectations

The discussion of peers and network characteristics thus far has revolved around their direct impact on attainment of prosocial adult outcomes. There is another dynamic factor, however, that plays a role in this social process, namely, expectations. Whereas my primary focus is on whether peers directly shape the pathways to college, marriage, and job stability through learning, opportunity, and control, given the importance of expectations in the status attainment literature I would be remiss to ignore the possibility of an indirect influence of peers through expectations. Empirically, research shows a direct link between one's desires and expectations for certain life events and the attainment of the event (Alexander and Campbell, 1964; Davies and Kandel, 1981; Duncan, Haller, and Portes, 1968; Haller

and Butterworth, 1960; Picou and Carter, 1976; Sewell, Haller, and Portes, 1969; Wilson and Portes, 1975; Woelfel and Haller, 1971). This persistent relationship necessitates taking two steps in the current investigation. First, it is necessary to control for the influence of expectations on attainment when assessing the direct impact of other variables on prosocial outcomes to be sure not to overestimate their importance.

Second, it will be beneficial to investigate the relationship between peers and expectations to comment on the potential role of expectations as a mediator between peers and prosocial life events. The status attainment literature does not suggest that these expectations form out of thin air. Instead, research highlights a variety of factors that help to shape one's expectations for attaining adulthood events. In particular, literature discusses the ability for peers to shape one's expectations, and as a result, the pathway to attainment (Alexander. and Campbell, 1964; Davies and Kandel, 1981; Haller and Butterworth, 1960; Picou and Carter, 1976). Specifically, the status attainment literature highlights that in addition to acting as models, peers and parents can act as definers in which the aspirations and expectations of the significant others shape the individuals' definitions, attitudes, and expectations for educational and employment outcomes (Picou and Carter, 1976; Woelfel and Haller, 1971). This idea is akin to the importance of definitions in criminological learning theories (Akers, 1998; Sutherland, 1947). In recognition of this potential indirect relationship with the outcomes of interest I will also investigate expectations as a mediator between peer network influences and the life events. This will be accomplished by first confirming that expectations are significant predictors of the

life events, and second, by investigating whether peers and network characteristics predict one's expectations, while controlling for the influence of other characteristics.

While my investigation focuses on the variety of dynamic processes involved with peers prior to turning points, it is worth highlighting that some existing research offers support for these processes later in one's criminal career. Indeed, researchers implicate peers in the specific mechanisms by which life events translate into turning points, such as a shift away from peer related activities to family relationships and replacing deviant networks with networks of prosocial co-workers (for examples see Sampson and Laub, 2005; Warr, 1998; Wright and Cullen, 2004). With this empirical support for the dynamic influence of peers in adulthood, it is logical to investigate these processes in adolescence when peers are most important to individuals to evaluate their potential influence on the acquisition of social bonds and activation of social capital. Overall, the dynamic perspective views social interaction processes as meaningful, but there is a competing perspective to acknowledge that asserts that peers have no impact on deviant or prosocial behavior.

The Static Perspective: Reflections of Propensity

In contrast to the dynamic perspective, static theories attribute criminal activity to an underlying individual characteristic, or latent trait, which forms one's criminal propensity (Gottfredson and Hirschi, 1990; Wilson and Herrnstein, 1985). As opposed to influences that change over time, this propensity is seen as a time invariant trait that influences not only one's criminal behavior but also development in other domains of their life, such as marriage or employment. This static perspective suggests that any correlations between life events and crime are spurious

because they are both caused by the same underlying trait (Blokland and Nieuwbeerta, 2005)³. Additionally, this perspective suggests that deviant peers have no causal influence on individual behavior. Claiming that 'birds of a feather flock together,' in this situation, delinquent adolescents naturally select into peer groups of similar individuals. In turn, the deviant peer group is merely a reflection of this selection as opposed to any causal process. As a result, this perspective is not open to dynamic influences and the idea that one's static characteristics can be ameliorated or changed by adult social bonds (Gottfredson, 2005). In fact, the only theoretical discussion of the pathway to turning points thus far relies on this perspective, suggesting that whether one chooses to engage in prosocial adult outcomes is a reflection of their underlying propensity for these events (Gottfredson, 2005).

A variety of theories exist suggesting different factors that shape one's propensity, such as parental criminality (Farrington et al, 1975), impulsivity (Wilson and Herrnstein, 1985) and heredity (Rowe and Osgood, 1984). There are two main factors, however, that get significant attention and likely play an influence for prosocial outcomes. The first is Gottfredson and Hirschi's (1990) General Theory of Crime, which is one of the most cited static theories for explaining criminological processes. In general, this theory states that crime is a result of low self-control, that low self-control is established through parental socialization between the ages of 8 and 10, and that it remains stable over the life course. This alleged stability leads

³ This perspective is also discussed in terms of the population heterogeneity hypothesis. According to this perspective "there is heterogeneity within the population in a time-stable characteristic that affects the probability of antisocial conduct early in life and at all subsequent points" (Nagin and Paternoster, 2000:119). While this propensity impacts crime, it is not influenced by criminal or conventional events and experiences (Nagin and Paternoster, 2000). As a result, the propensity perspective suggests that high levels of propensity would increase involvement with deviant peers and negatively impact the likelihood of turning points due to one's stable propensity for deviance.

Hirschi and Gottfredson (1983) to conclude that the rank order of individuals with regard to their propensity remains the same over time and that criminal activity peaks in adolescence and terminates late in adolescence/early adulthood for all individuals due to a direct impact of age. Some of the major characteristics associated with low-self control are impulsivity, risk taking, and being physical as opposed to mental (Gottfredson and Hirschi, 1990). As a result, self-control influences one's capacity to resist the temptation of easy and immediate gratification and, therefore, those with low self-control are more likely to engage in criminal behavior (Nagin and Paternoster, 2000). From this perspective low self-control individuals are also more likely to socialize with deviant others, participate in deviant activities across multiple contexts, and in turn, are less likely to engage in conventional activities.

In fact, Gottfredson's (2005) research represents the sole discussion of criminological theory in relation to the pathway to turning points and states that "once created, these differences [in propensity] influence both the tendency to commit crimes and delinquencies and the environments and life circumstances that make delinquency or crime (events) more or less likely" (Gottfredson, 2005: 48). Therefore, all of these observed relationships are a mere reflection of a selection process in which those with an underlying propensity for criminal behavior self-select (or do not select) into certain events that promote (or inhibit) criminal behavior (Piquero et al, 2002). For example, Evans et al., (1997) find that attitudinal and behavioral measures of low-self control have an impact on adult criminality, but also a host of other outcomes, including disintegrating family relationships, attachment to church, having criminal associates and values, educational attainment/occupational status, and

residing in a neighborhood perceived to be disorderly. This research further underscores the host of processes influenced by one's self-control, beyond just criminal activity.

The status attainment literature expands the static perspective beyond the traditional criminological focus on self-control and highlights another factor that speaks to individual-level propensity for these prosocial outcomes, namely, IQ. This literature suggests two different pathways to prosocial life events with regard to IQ. First, high mental capacity, as reflected by IQ, increases one's likelihood of success in school which, in turn, influences one's expectations for and attainment of later educational success and employment. Second, this literature illustrates an indirect impact of IQ through significant others' influence (i.e. peers, parents, and teachers), and specifically focuses on how IQ shapes friendships. Given the homophily that persists within friendship groups (Ennett and Bauman, 1996; Kandel, 1978), adolescents tend to socialize with others of similar mental abilities. In turn, these friendships contribute to the formation of one's expectations for conventional activities. The status attainment research consistently finds support for this indirect impact of IQ (Sewell, et al. 1969) and many also find direct influences in addition to the indirect (Duncan et al., 1968; Picou and Carter, 1976; Wilson and Portes, 1975; Woelfel and Haller, 1971). In general, these findings suggest that higher levels of IQ increase the likelihood of socializing with peers who have high aspirations and increases one's own expectations and attainment of prosocial outcomes (i.e. education and employment), suggesting the importance of these background characteristics for the processes being investigated. Here we can see how criminology and other

disciplines embrace the importance of static characteristics for shaping one's experiences with conventional adult activities.

A Theoretical Middle Ground: Both Perspectives Matter

The current research investigates peers as a dynamic influence on shaping experiences with turning points, given that previous research has not empirically evaluated this possibility. Importantly, this research also recognizes that propensity still plays a role in shaping one's criminal career, and in turn sees both static and dynamic factors as important. This perspective can be viewed as a theoretical middle ground that, indeed, has found much support. To be sure, Nagin and Paternoster (2000) clearly illustrate that the processes of population heterogeneity (propensity based) and state dependence (a transformation of life circumstances that alters the probability of future behavior) are not incompatible. In fact, they comment on the continued importance of both of these processes across a host of methodological specifications and the need for accounting for both processes to understand the complexities of continuity and change over time (Nagin and Paternoster, 2000). This sentiment has found considerable empirical support in the field.

Empirically, the importance of propensity with regard to peer investigations has found support; however, research suggests that this model cannot provide a complete explanation for delinquent behavior because dynamic variables continually emerge as influential (Evans et al., 1997; Haynie, 1999; Laub and Sampson, 2003; Pratt and Cullen, 2000; Sampson and Laub, 1993).⁴ Although the focus of this

⁴ A third perspective, typological theories, argue that offenders can be prospectively grouped, with each group following a certain pathway over time (Moffitt, 1993; Patterson and Yoerger, 1993). They acknowledge stability of offending for certain individuals, specifically those with an underlying

investigation is to unveil whether dynamic factors, specifically peers, matter and not to evaluate interactions between population heterogeneity and state dependence variables, it is beneficial to review research that illustrates the importance of both types of influences. For example, both Thornberry (1987) and Tittle et al. (2004) suggest that static characteristics contribute to individual differences in criminal behavior and the selection of peers, but also find support for dynamic socialization by friends within one's peer group. Morselli and colleagues also suggest the importance of evaluating both network structure and self-control in their research on criminal earnings and mentoring and found the concepts to be inter-related (Morselli and Tremblay, 2004; Morselli, Tremblay and McCarthy, 2006).

The current investigation hypothesizes that deviant peers are meaningful in the prediction of turning points, suggesting a more dynamic approach. In acknowledgement that one's propensity can shape one's selection of friends and experiences with those friends and other activities, and especially in light of the literature showing how static and dynamic processes work together, it is critical to control for background characteristics to truly isolate the impact of peers. Like many others, I suggest that the maximum potential of these justifications lies in the recognition that they most likely work in concert instead of independent of each other (Elliott and Menard, 1996; Matsueda and Anderson, 1998; Thornberry et al., 1994). Therefore, this investigation relies on the idea that propensity and turning points 'matter.' Although the exact process of how life events translate into turning points

propensity, but also start to acknowledge the potential for change in offending for individuals with a low propensity. From this perspective, Moffitt (1993) suggests that the relationship between life events and desistance is spurious for high propensity individuals (life course persistent), but causal for those without a propensity for deviance (adolescence limited).

can vary across individuals, what is pertinent to the current investigation is that *somehow* experiencing these life events promotes desistance. As a result, what is crucial to understand is how to get people to experience these events and it is this void in our understanding that I aim to address.

<u>A Uniform Process? Considerations of Gender and Race</u>

In addition to understanding the pathways to turning points it is beneficial to know whether these processes are uniform across different people. Literature suggests that many processes operate differently across gender and race and that considering these differences is valuable for policy decisions. For example, predictors of antisocial behavior vary by gender (Broidy et al, 2003) and the desistance process may exhibit gender differences (Giordano et al., 2003; Uggen and Kruttschnitt, 1998). More germane to the current research, literature questions whether adolescent friendships exert unique impacts for males and females and Whites and African Americans (Giordano et al., 2003; Ladd, 1999; Marcus, 1996; Simpson and Elis, 1995).

Research points to two different parts of the process by which deviant peers can be detrimental that can vary by gender and race. First, some literature suggests that the influence of deviant peers itself varies. Still, there is little consistency among these findings. For example, some research identifies deviant peers being influential for males and having no effect on females (Mears et al, 1998; Piquero et al, 2005) and others finding significant influences in opposite directions, exhibiting an amplification effect for males, but an inhibitory effect for females (Kruttschnitt,

1996). Other research, however, finds no differential impact of peers by gender and suggests the same process across race (Hartjen and Priyadarsine, 2003).

Second, other literature suggests that while the impact of peers is uniform across certain characteristics, the likelihood of socializing with deviant peers varies by race and gender. Specifically, gender differences are relevant to the opportunity perspective given Broidy and Agnew's (1997) suggestion that males are more likely to associate with deviant others and, in turn, have more opportunities for criminal activity. On a related note, Goldstein and colleagues (2005) find that although peers impact all adolescents similarly, males and Whites are more likely than females and African Americans to spend unstructured socializing with peers. Other research suggests that a lack of family cohesion and low levels of closeness with fathers is responsible for contact with deviant peers and that females are more susceptible to these influences (Werner and Silbereisen, 2003).

Simpson and Elis (1995) suggest evaluations of interactions between gender and race are most telling. Specifically, their research suggests that peer influence is strongest for white males. However, another piece of the puzzle deals with educational aspirations, which begins to highlight that peer influences have a unique relationship with many other factors. For example, while identifying 'other youth' as most influential in one's life had its largest impact on the deviant behavior of white males, delinquency for others (i.e. white females and black males) is caused by low educational aspirations of friends. Oppositely, having peers with high educational aspirations is a protective factor, one that is more likely to benefit females since girls

use their friends to discuss educational plans and to regulate their attitudes and aspirations (Simpson and Elis, 1995).

This body of literature evaluating the impact of gender and race processes surrounding peers has relied on deviant behavior as the outcome of interest. The work of Simpson and Elis (1995), however, highlights how one's gender and race in conjunction with peers can also impact attitudes and aspirations, especially educational. This is a sentiment similar to that in the status attainment literature that cites peer influences are stronger for girls than boys when evaluating educational plans as an outcome (Davies and Kandel, 1981). Even so, our understanding of gender differences in the development of prosocial outcomes is limited and even more so with race. In light of studies illustrating the variety of processes that vary by gender and race, recent research suggests the utility of evaluating these characteristics more closely in the study of group processes (McGloin, 2007). Although these potential differences are not the primary focus of the current research, this investigation will address this possibility by evaluating the influence of peers on prosocial outcomes by gender and race.

Hypotheses and Concept Map

Overall, this investigation is interested in evaluating the role that adolescent peers play in shaping one's pathway to turning points. In acknowledgement of the importance of static characteristics the direct impact of deviant peers, as well as the conditioning effect of network characteristics on deviant peers, for prosocial outcomes will be assessed using a model of static characteristics as a base. The research hypotheses for the current investigation are as follows:

Hypothesis 1

As peer deviance increases, the likelihood of experiencing turning points, specifically marriage, education, and employment, decreases.

Hypothesis 2

The effect of deviant peers will be amplified by network characteristics. Individuals experiencing high levels of density, centrality, popularity, attachment, and involvement in deviant peer networks will be less likely to experience turning points.

Hypothesis 3

Peer deviance and the conditioning effect of network characteristics will have an indirect effect on prosocial outcomes through an individual's expectations. Individuals who are part of deviant peer networks, and even more so those with high levels of density, centrality, popularity, attachment, and involvement within deviant networks, will have lower expectations for marriage, education and employment, which, in turn, decreases the likelihood of these outcomes. Concept Map

Below is a concept map of the current investigation. Solid pathways mark the hypothesized relationships and dotted lines

represent pathways being controlled for.



Chapter 3: Data and Methods

<u>Sample</u>

This study utilizes multiple components of the Add Health survey data. The original data reflect a nationally representative sample of adolescents who were in grades 7-12 at Wave I. Data collection began with an in-school survey administered to approximately 90,000 students during the 1994-1995 school year. These students were nested within 129 randomly selected schools stratified by region, urbanicity, school type, ethnic mix, and size.⁵ From the in-school survey, the Add Health researchers created a network data set that contained detailed information on adolescent friendship nominations. In-depth follow-up interviews were then conducted between April 1995 and December 1995 with approximately 20,000 students from the school-based sample (about 200 from each pair of high and "feeder" junior high schools, stratified by grade and sex) in the respondents' home. In addition, a resident parent of the participants filled out an additional survey. Wave I adolescents were followed up between April and August of 1996 for a Wave II inhome interview and again between August 2001 and April 2002 for the Wave III inhome interview so that the impact of adolescent factors on young adulthood (ages 18-29) could be assessed.

The current research requires measures from each of these Add Health components. After merging all necessary elements, a dataset of approximately 10,000 individuals remain (i.e., individuals who have valid data at each point of data collection). Admittedly, this sample size is remarkably smaller than the original Add

⁵ For a detailed description of the Add Health research design see the project's website at http://www.cpc.unc.edu/projects/addhealth/design.html.

Health sample, and analyses rely on an even smaller number of respondents due to purposeful selection of subjects meeting certain criteria and missing data. The next section, therefore, explores these layers of data loss to assess the potential impact on later results. Table 1 below provides the weighted descriptive statistics for the final sample and illustrates that the sample at Wave I has an average age of 15, is 48% female, and 73% white.

Variable Name	Valid N	Mean	Standard Deviation
<u>Dependent Variables</u>			
Married	6616	.23	.42
Job Stability	6622	.49	.50
College Graduate	6620	.14	.34
Independent Variables			
Age	4948	15.42	1.14
Female	6623	.48	.50
White	6620	.73	.45
Two-parent house	4806	.72	.45
Public Assistance	5748	.11	.31
Income	5029	43.55	49.96
Parents Married	5760	.71	.46
Parent Graduated College	5720	.35	.48
Parent Works	6480	.92	.26
Self-Control	6395	.36	4.27
IQ	6331	99.80	15.08
Marriage Expectations	6598	3.17	1.12
College Expectations	6592	3.68	1.26
Job Expectations	6578	3.28	1.03
Peer Deviance	3799	.26	1.04
School Attachment	6458	3.68	.91
Parental Attachment	6580	4.77	.58
Friend Attachment	6569	4.23	.82
Friend Involvement	6619	1.20	1.02
Density	3862	.39	.20
Centrality	4660	.80	.63
Popularity	4660	4.59	3.75

Table 1: Weighted Descriptive Statistics

Sample Reduction

There are four primary layers of sample reduction in the current research: attrition, reducing the sample to relevant subjects, missing network data, and listwise deletion. While Table 2 provides a condensed explanation of all data reduction, an understanding of each layer is essential. As with most longitudinal research, attrition of participants will occur between data collection points. For example, the Add Health sample began with about 90,000 students for the Wave I in-school survey. They reduced that sample to about 20,0000, however, when they chose the sample of students to follow up for the in home interviews. The next step of data loss reduces the sample to 17,700 participants who also had a parent participate in data collection. The sample is further reduced to 10,828 individuals, representing those who were successfully followed up at Waves II and III and provided all of the necessary information for constructing sample weights. This first layer of data loss, sample attrition, can be addressed using sampling weights.

In fact, failing to account for the design implications of large- scale survey data inherent in the data collection of Add Health can result in biased parameter estimates, as well as incorrect variance estimates given this complicated sample design (Chantala and Tabor, 1999). Therefore, it is necessary to apply the grand sample weights constructed by the AddHealth team in order to make the sample representative.⁶ These grand sample weights were adjusted at each wave of data collection to account for the individuals who were unable to be followed up at Waves II or III for a variety of reasons (e.g. death, away on military duty, moved and could

⁶ For a detailed description on the sampling strategy and the creation of the grand sample weights, see "Grand Sample Weights" by Roger Tourangeau and Hee-Choon Shin available at: http://www.cpc.unc.edu/projects/addhealth/pubs/guides

not be located). Using these adjusted weights ensures that the sample of individuals interviewed at each wave 'look like' the original sample.

The next layer of data loss is due to the decision to limit the sample to individuals meeting certain criteria. Of the 10,828 subjects, I removed those who were not age 21 or older at Wave III, leaving the 7,933 respondents who were old enough to have had the opportunity to graduate from college, a primary outcome of interest. Also, given the employment outcome, which captures employment in the 2 years prior to Wave III, limiting the sample to this age group prevents full time employment in high school from being included in the measure. This is necessary given that full time employment in high school is viewed in the literature as a risk factor, not a turning point. Next, I removed those who were enrolled as full time college students during Wave III, resulting in 6,623 participants. It is beneficial to remove these subjects from the sample because they are not in the position at Wave III to have experienced college graduation and are much less likely to have experienced the other two outcomes while in enrolled in college full time. Counting these individuals the same as subjects who had the opportunity but did not capitalize on it would be misleading and could alter the results.⁷

The next layer of sample reduction removes those who are missing the necessary network variables constructed by the AddHealth researchers. This data loss is due to sampling decisions made by the AddHealth researchers. Specifically, this study relies on measures of the properties of one's peer network (e.g. density, centrality) and AddHealth researchers made a decision that network measures would only be created for those schools that had over 50% of students present for the in-

⁷ In order to investigate a potential selection bias, I ran the analyses with keeping full time college students in the sample and the results were not substantively different from the results presented.

school survey. As a result, all of the individuals within certain schools are missing data on network variables (n=1,963), leaving 4,660. In light of the fact that entire schools are prevented from having these data and there is no way to get these data, I investigated the potential bias by running analyses to see if the schools that are included in the network data varied on school level characteristics (i.e. average class size, school size, urbanicity, type of school, and region) from those that are excluded. This is necessary given that school characteristics may impact some of the key independent variables of interest. For example, smaller schools are more likely to have dense networks. This investigation reveals that the only variable in which a significant relationship emerges is region, with slightly more schools from the south being included in the network data. This is the only reduction in sample size that occurs at the school level.

Next, certain network variables being used in the current investigation rely on the participant's send network (i.e. only the individuals the participant nominates as friends). AddHealth researchers only created these measures, however, if the individual had at least two "nominateable" friends, meaning that at least two friends were in the subject's school and could be assigned an identification number based on the school roster. This criterion prevents 798 students from having complete data, leaving 3,862. In the end, it is worthwhile to compare those who still remain after these groups are 'cut' from the sample to those who were excluded in order to assess any potential bias. To assess the potential impact of excluding these groups of individuals from the analyses I investigated the differences between those excluded from the analyses and those that remain. Although many differences emerge as statistically significant they lack substantive meaning. For example, statistically, the

groups differ on their expectations to graduate college but in reality those that are excluded have a mean of 3.93 (SD=1.18) and those who are included have a mean of 3.83(SD=1.18). The most substantive differences on the independent variables are that 53% of the subjects remaining in the sample are female compared to 48% of those excluded and that only 42% of those excluded live in a two parent household compared to 73% for those remaining in the sample.

The final reason for missing data is listwise deletion, which removes 1,474 individuals from the sample, leaving 2,388, because they are missing data on any of the other independent variables. Despite the fact that there are many methods of dealing with missing data (e.g. dummy variable adjustment, multiple imputation, maximum likelihood) and that listwise deletion results in a large reduction in sample size, it is still cited as one of the most conventional and valid ways of dealing with missing data (Allison, 2002). More specifically, when the probability of missing data does not depend on both the dependent and independent variables, logistic regression with listwise deletion is unproblematic (Allison, 2002). Given the number of variables with missing data, "filling in" the data using these other means may undermine the validity of the results and listwise deletion seems to be the logical choice. I did, however, investigate the potential impact of listwise deletion by conducting analyses to evaluate the differences between the subjects who have complete data and those who do not on the independent variables. Many differences emerge as statistically significant but, again, are not substantive. For example, school attachment is a statistically significant difference between those with and without complete data but the actual values are 3.62 on the scale for subjects with incomplete data and 3.78 for subjects with complete data. The most meaningful differences that

emerge are that 82% of those with complete data are white versus 68% of those with incomplete data and that only 31% of those with incomplete data live in a two-parent household compared to 77% of those with complete data.⁸

Given that some differences do emerge between those who were intended to be in the sample and those that are actually used in the analyses, it is necessary to consider the implications of these differences. In general, the drop in sample size due to the multiple layers of sample reduction can result in a loss of statistical power that prevents analyses from revealing a significant relationship between variables. However, certain layers of reduction also limit the generalizability of the findings, specifically when dealing with the Add Health network measures. In light of the decisions made by Add Health researchers, these measures only capture in-school networks and individuals who were able to nominate at least two in-school friends. These decisions are potentially problematic for two reasons. First, one's most deviant peers may be more likely to be friends outside of school and are not captured in the peer deviance measure, in turn, underestimating the actual influence of peer deviance. Second, while capturing the pathway to deviance involving association with deviant peers, these measures do not capture a second potential pathway to deviance, specifically isolation from peers.

Given my interest in differences across gender and race, and that these variables were among the substantive differences for those who were excluded from the sample and those who remained, I further investigated this potential impact. Logistic regression analyses predicting exclusion from the sample reveal that age, gender, and race significantly predict whether or not a respondent is excluded. While

⁸ Although primary analyses will rely on listwise deletion, as a final sensitivity test for the results, the analyses were also conducted utilizing a dummy variable adjustment for variables with 10% missing data and no substantive differences emerged.

the significance of age is expected given that being 21 or older was part of the criteria for inclusion, the impact of race and gender must be kept in mind while evaluating differences between sub-samples. In addition, once the peer deviance and network characteristics are added to this analysis, gender is no longer a significant predictor of exclusion, suggesting that the gender influence operates through the shaping of peer relationships. This adds caution to the interpretation of findings related to the peer variables. In light of the fact that differences emerge in the exploration of sample reduction it is possible that the results will be tempered by this limitation. It is necessary, then, to qualify the findings in regards to the results of the attrition analysis.

Valid N	Explanation		
90,118	Number of surveys administered for the in-school data		
20,745	Number of adolescents followed up for in-home surveys at Wave I		
17,700	Number of parent questionnaires collected at Wave I		
10,828	Number of individuals who had valid data from: Wave I in-school,		
	Wave I, II, and III in-home surveys, Wave I parent survey, and all		
	necessary information for creating sampling weights		
7,933	Number of individuals from the above sample that were age 21 or older		
	at Wave III		
6,623	Number of individuals from the above sample that were not full-time		
	college students at Wave III		
4,660	Number of individuals from the above sample with valid network data		
3,862	Number of individuals from the above sample with valid send network		
	data		
2,388	Number of individuals with complete data (i.e those remaining after		
	listwise deletion on all independent variables)		

Table 2: Description of Sample Reduction

Dependent Variables

The dependent variables of interest represent life events that have been established in the literature as promoting desistance from criminal activity during the transition from adolescence to adulthood.
Marriage

There is some debate in the field as to whether the institution of marriage or the quality of one's marriage facilitates desistance. Empirical support exists for both sides of this argument (Blokland and Nieuwbeerta, 2005; Horney et al, 1995; Laub and Sampson, 2003, Sampson and Laub, 1993). The Add Health data only allow for an analysis of whether the respondent ever married. The survey does not consist of any questions evaluating the quality of one's marriage and simply asks the respondent "how many times have you been married?" Given that very few people had been married more than once, this dependent variable is a dichotomous outcome with "1" representing individuals who have married or "0" for those who have not experienced this event. This variable is measured at Wave III and, given the sample reduction, only reflects individuals who are 21 or older. In addition, I calculated the respondents' age at first marriage and am only using individuals who were married at age 18 or later given that some may consider marriage at an earlier age to be detrimental to one's future (Rutter, 1996). In the sample in use, 23% of the respondents got married.

Employment

The employment literature also varies on the characteristics of employment that are beneficial; however, researchers tend to agree that stability of full-time employment is most influential for desistance (Laub and Sampson, 2003; Sampson and Laub, 1993; Uggen, 2000). The Wave III survey addresses full time employment with two questions that were combined to create a job stability variable. The job stability outcome is a dichotomous measure representing stable full time employment for the years 2000 and 2001 (the most recent two years from the Wave III interviews).

This operationalization is being used for two reasons. First, Wave III interviews began in August 2001 and, therefore, individual employment history for the year 2001 does not reflect an entire year for many participants. Therefore, the year 2000 is also included to capture a longer period of job stability. Second, given that the youngest respondent at Wave III is 21, following back two years still prevents this variable from including full time employment in high school. This is important since some literature suggests full time employment in high school to be a risk factor for deviance as opposed to a turning point (Uggen, 2000; Wright et al. 2002; see also Apel et al., 2007).

This variable is created by combining the respondents' responses to the following questions: (1) "When you worked in 2000, did you work full time or part time?" (2) "Did you work the entire year?" (3) "When you worked in 2001, did you work full time or part time?" (4) "Did you work the entire year?" Full time employment is defined in the survey as 35 hours a week or more for one employer. A subject receives a "1" for job stability if they had full time employment for both years and they worked the entire year for both years.⁹ Although this is a conservative measure it will prevent those who only had full time employment for a limited time, with periods of unemployment, from being credited with stable full time employment. In the current sample, 49% of the subjects have stable full time employment.

Education

Commitment to conventional education is identified as one of the adult social bonds that prevent persistent criminal behaviors (Beaver, 2001; Rand, 1987; Sampson

⁹ Wave III of the Add Health data collection included an Event History Calendar. This calendar was not used as a data collection instrument but consisted of pre-loaded public events, as well as personal events and relationship information provided by the respondent to act as memory prompts any time a respondent needed to retrospectively recall information.

and Laub, 1993; Shover, 1996). Investigating education as an outcome is particularly relevant in today's world given that people are attending school for longer periods of time and the likelihood that it may delay other traditional adult roles (e.g. marriage and full-time employment). A dichotomous measure collected at Wave III of whether or not the respondent graduated from college represents the education turning point. Although some literature identifies graduating from high school as a turning point in one's life course, many of these studies utilize samples from time periods when the opportunity for a college education was not as widespread as current times (Arum and Beattie, 1999; Sampson and Laub, 1993; Thornberry et al., 1985). More recently, however, researchers are finding support for college as a turning point (Beaver, 2001; Shover, 1996). This is likely due to a shift in conventional standards in which a college degree today is the equivalent to a high school diploma of years past. Due to the fact that many longitudinal data sets, such as the Glueck data, began data collection when college education was not the norm, using high school graduate as an outcome made sense. However, arguments for education as a turning point rely on the ideas of commitment to conventional education and opening doors to more opportunities for future success. Research is mounting citing the long-term benefits of a college degree by increasing job opportunities and higher earnings (Foote 1998; Gardner and Lee, 1995; Handerson and Ottinger, 1985). In order to reflect "convention" consistent with the time period, graduating college is used in the present study, an outcome that 14% of the sample experienced.

Independent Variables

Peer Deviance

Gottfredson and Hirschi (1990) believe that because the measurement of peer deviance in most research relies on the individual's report of his or her friends' behavior it more likely reflects the respondent's behavior or the perception of friends' behavior, and therefore, argue that the relationship between peer and self delinquency is partly reflective of a measurement contamination effect (see also Hirschi and Gottfredson, 2000). Although researchers have recognized the potential overestimation of the deviant peers-delinquency relationship (Bauman and Fisher, 1986; Kandel, 1996; Weerman and Smeenk, 2005), research relying on friends' selfreports show that this relationship still persists (Bauman and Fisher, 1986; Haynie, 2001; 2002; Haynie and Osgood, 2005). However, it is sensible to use measures that rely on peer self-reports when possible and the Add Health data allow for this possibility.

The in-school interviews at Wave I asked students detailed questions about their friendships and allowed respondents to identify up to five male and five female friends. In order to record identification numbers for the friendship nominations, rosters of the respondent's own school as well as their feeder school were provided. Invalid IDs were assigned to those nominations that did not appear on either roster. Given the nature of the sampling design, most of the nominated friends were also interviewed. Therefore, it was possible to link the self-reported deviance of the friends to the respondents' friendship nominations to capture a more accurate depiction of the level of deviant behavior within the respondents' peer network.

The following deviant behaviors were captured with the Wave I in-school survey: smoked cigarettes; drank alcohol; got drunk; did something dangerous because they were dared to; lied to guardians; or, skipped school without an excuse. The students were asked how often they participated in the activities in the past year and responses were measured on a scale of zero to six: (0) never; (1) once or twice; (2) once a month or less; (3) two or three days a month; (4) once or twice a week; (5) three to five days a week; and, (6) nearly everyday. Admittedly, these are minor forms of deviance and more serious delinquency measures would have been preferred, but the use of these items is consistent with past research (Haynie, 2001; Schreck et al., 2004). In an attempt to capture more serious deviance I also include a measure of how often in the previous year the respondent got into a physical fight (0: never, 1: 1 or 2 times, 2: 3 to 5 times, 3: 6 or 7 times, 4: more than 7 times). Given the age of the respondents in the present sample many of these items are not considered illegal. These items are, however, considered antisocial activities and while they may be statistically normal (i.e. most adolescents have engaged in these activities) they are socially abnormal.

The Add Health researchers used the aforementioned in-school delinquency items to create seven variables representing the average deviant behavior of the nominated friends for each individual item. ¹⁰ These seven items are used to create a factor representing the level of peer deviance within ones peer network for the current

¹⁰ The respondent's send network is being used because research investigating the impact of deviant peers traditionally identifies the peer group from the subject's perspective and it is more theoretically consistent with both the socialization and selection arguments. Although the respondents were limited to 10 friendship nominations, only 3% of respondents in the sample under use identified the maximum number of ten friends. Therefore, using the send and receive network to construct the peer delinquency measure is likely to incorporate the actions of those that the respondent does not value, and in turn, would be less influential on the individual's behavior.

analyses.¹¹ Factor loadings for each individual item are above .40 and the factor explains about 50% of the variance, confirming that these items are tapping into an underlying concept, namely deviant behavior.¹² The Add Health average measures were only created for friends identified within the same school and therefore reflect the average deviance of friends within the same school. Although this is not ideal because students may have friends outside of the school, this is an acknowledged limitation of the data.

Network Characteristics

This study focuses on five measures of network structure that capture group and individual level processes: density, centrality, popularity, attachment and involvement.

<u>Density</u>. Density is a group level measure of network cohesion. In order to maintain measurement and conceptual consistency, a measure of the density of the respondent's send network is being used. Density can range from 0 to 1 with 1 reflecting a network in which all members are directly connected to each other (Wasserman and Faust, 1994). The average density for the current sample is .39 and 5% of the sample belongs to a fully cohesive network (density=1). The density measure was constructed by AddHealth researchers using respondents' in-school

¹¹ A factor is used for the peer deviance measure because it does not force each item in the measure to count equally and provides much greater variation than a variety scale by incorporating frequency of offending as well as variety. All analyses, however, were compared to models utilizing a variety scale and were not substantively different.

¹² A factor analysis of these items only extracts one component with the following factor loadings: smoked cigarettes: .757; drank alcohol: .864; got drunk: .862; did something dangerous because they were dared to: .619; lied to guardians: .554; skipped school: .635; serious physical fight: .427. To be sure that these less serious items are tapping into the concept of deviance, I placed them into a factor with more serious delinquency measures from the in-home interviews. Both the minor and serious measures hung together, which further justifies the use of the less serious acts. The more serious delinquency items from in-home cannot be used as the primary measure given the sample design, which limited the number of friends who were followed up at home and only allows for network construction for about 15% of the sample.

survey data (Wave I) and represents the number of ties in the respondent's send network divided by the number of possible ties in the total send network using the following equation (where S equals the total ego-send network and s equals the number of nodes in S).

$$ESDEN_{i} = \frac{\sum S}{s * (s - 1)}$$

<u>Centrality</u>. Centrality represents an individual's position within a network. Highly central individuals have a lot of ties to individuals within the network whereas peripheral members may only be connected to a few members of the network. There are multiple measures of centrality, however, the Bonacich Centrality measure has been favored by researchers (Bonacich, 1987). The benefit to this measure is that it goes beyond the respondent's connections and also accounts for the prominence, or social position, of the individual's friends. It does this by taking the respondent's centrality and weighting it by the centrality of those to whom he/she is connected (Hanneman and Riddle, 2005). This allows for much more variation on the centrality measure. For example, two individuals with the same position within the network can have different values for centrality if one is friends with other central members and the other is friends with peripheral members of the group. Greater centrality is reflected by higher values on this variable. Again, this variable was created by the AddHealth researchers using Wave I in-school data and the equation below (where α is a scaling vector, $\beta = .1$, I is an identity matrix, and X equals the total friendship network.

BCENT10
$$X(\alpha, \beta)_i = \alpha (I - \beta X)^{-1} XI$$

<u>Popularity.</u> The number of times a subject is nominated by others is called an individual's "in-degree" and is reflective of one's popularity within the network from the Wave I in-school survey. As reported in Table 1, the popularity scores for the current sample range from 0 to 30 with a mean of 4.59. Therefore, the average subject had between 4-5 people in the sample nominate him or her as a friend. <u>Attachment.</u> Friend attachment is measured by one question during the Wave I inhome interview that asked the subjects their overall feeling on how much the respondents' friends care about them: (1) not at all; (2) very little; (3) somewhat; (4) quite a bit; or, (5) very much. The mean attachment level for the current sample is 4.23 with 84% of the sample responding quite a bit or very much.

<u>Involvement.</u> Friend involvement is measured using one question from the Wave I in-home interview. The question asked the respondent to choose on a scale of zero to three (not at all, one or two times, three or four times, or five or more times) how often he/she "hung out" with his/her friends in the past week. The mean level of friend involvement is 1.2, meaning that on average respondents hung out with their friends 1-4 times in the previous week.

Expectations

One's expectations are important to include in the analyses given the way one's aspirations shape the likelihood of an outcome. It is intuitive, and supported in the status attainment literature, that one is more likely to participate in an activity (e.g. college) if they expect and aspire to achieve that goal. Additionally, peers are cited as influential in shaping one's expectations for traditional life events, specifically, education and employment (Alexander, Jr. and Campbell, 1964; Davies and Kandel, 1981; Haller and Butterworth, 1960; Picou and Carter, 1976). Therefore,

expectations represent an additional dynamic component (along with peers) of the process underlying prosocial adult outcome. Wave II of the Add Health survey asked respondents about their expectations on each of the outcomes of interest. Keeping temporal ordering in mind, there is an added benefit to measuring these items at Wave II given that deviant peers are being measured using Wave I data and peers are thought to help shape these expectations. Specifically, the respondents answer "What do you think the chances are that each of the following things will happen to you: graduate from college, be married by the age of 25, and you will have a middle-class income by the age of 30?" The responses include (1) almost no chance, (2) some chance, but probably not, (3) a 50-50 chance, (4) a good chance, and (5) almost certain. Individual items representing college expectations (mean=3.7), marriage expectations (mean=3.2), and employment expectations (mean=3.3) will be used in the analyses.

Social Control

When comparing the selection and socialization perspectives, most often research examining the impact of network characteristics has focused on the core elements of social control (e.g., attachment, involvement) as opposed to self-control when accounting for the selection perspective. In light of Sampson and Laub's (1993; Laub and Sampson; 2003) argument that social bonds can attenuate or ameliorate the impact of propensity, it is necessary to account for any impact these bonds during adolescence may have on propensity, selection of friends, and the likelihood of experiencing later life events. Attachment and involvement with parents, friends, and school are all identified as important influences in an individual's life according to social control theory (Hirschi, 1969). Given that attachment and

involvement with friends are being used as network characteristics, parental and school attachment from the Wave I in-home interviews are included as controls to account for this perspective. Parental attachment is measured by how much the respondent believes his/her parents care about them: (1) not at all; (2) very little; (3) somewhat; (4) quite a bit; or, (5) very much. On average, the sample scored 4.8, indicating high levels of parental attachment. School attachment is operationalized by the mean value of the respondents' strength of agreement with three questions ranging from 0 (strongly disagree) to 5 (strongly agree): last year you felt close to people at school; felt like you were part of the school; and, you were happy to be at school (alpha=.787). 3.68 is the mean score on school attachment for the current sample.

Background Characteristics

Self-Control

There are many criminological theories that posit that an underlying trait or propensity naturally separates people into those that do and do not commit crime and that this same propensity is responsible for their experiences, or lack thereof, with certain life events. Within conversations regarding turning points, literature has discussed the idea of propensity from a self-control perspective. Inclusion of selfcontrol is necessary in order to account for possibility that low self-control underlies one's criminal activity, choice of friends, and involvement in adult prosocial events. From a propensity perspective, inclusion of this variable would render the relationship between adolescent peers and turning points spurious (Gottfredson, 2005; Gottfredson and Hirschi, 1990) while others would argue that this individual level

characteristic can be altered or ameliorated through experiences with conventional activities (Laub and Sampson, 2003; Sampson and Laub, 1993).

The Wave I in-home survey includes a variety of measures that tap into this concept of self-control from which a self-control scale is created. Subjects were asked how much they agreed with the following statements: (1) when you have a problem to solve one of the first things you do is get as many facts about the problem as possible; (2) when you are attempting to find a solution to a problem you usually try to think of as many different ways to approach the problem as possible; (3) when making decisions you generally use a systematic method for judging and comparing alternatives; (4) after carrying out a solution to a problem you usually try to analyze what went right and what went wrong; (5) how often do you have trouble paying attention in school in the past year; (6) have you had trouble getting your homework done in the past year; and, (7) have you had trouble keeping your mind on what you were doing during the past year. The first four measures were on a scale of one (strongly agree) to five (strongly disagree), the next two were on a 0 (never), 1 (just a few times), 2 (about once a week), 3 (almost everyday) and 4 (everyday) scale, and responses on the final question ranged from zero to three (never or rarely, sometimes, a lot of the time, most/all of the time). A sum of the z-scores of these seven items was used given that the questions relied on different scales (alpha=.693). Higher values on this variable indicate less self-control. These measures tap into some of Gottfredson and Hirschi's (1990) characteristics of low self-control, specifically, being physically as opposed to mentally oriented, short sighted and impulsive. Admittedly, this measure does not capture the characteristics of being insensitive or risk-taking, however supplemental analyses investigating the convergent validity of

this measure reveal that it operates as low self-control is expected according to Gottfredson and Hirschi (1990).¹³

IQ

Both the criminological and status attainment literatures acknowledge the importance of one's IQ. Criminological research suggests that IQ is related to one's delinquent behavior, but recent research also suggests that it has a unique relationship with one's level of self-control, school performance, and delinquent peer associations (McGloin, Pratt, and Maahs, 2004). In addition, the status attainment literature highlights the importance of cognitive ability in shaping one's friendships and expectations for traditional life events (Davies and Kandel, 1981; Haller and Butterworth, 1960; Picou and Carter, 1976; Sewell, Haller, and Portes, 1969; Wilson and Portes, 1975). The researchers of Add Health rely on an abridged version of the Peabody Picture Vocabulary Test (PPVT) as a measure of one's cognitive ability. The reliability and validity of this test as a measure of verbal intelligence is well established (see McGloin et al., 2004). Although some question the reliability of the PPVT on certain populations (e.g. mentally handicapped), for general populations it

¹³ According to Gottfredson and Hirschi (1990) low self-control is a result of ineffective parenting and would manifest itself in a host of imprudent behavior (not just delinquent activity). They also suggest that males are likely to have lower self-control than females. Recognizing that the measure of selfcontrol being used does not rely on traditional behavioral measures or the conventional Grasmick scale for attitudinal measures, the measure's convergent validity was assessed in regard to Gottfredson and Hirschi's expectation. Here it was found that this measure of self-control operates as expected in each situation. First, using age, gender, and race as controls, lower levels of parental supervision in the current sample predicts lower levels of self-control. This measure also significantly predicts a variety of deviant acts, including sexual impulsivity, wearing a seat belt, and wearing a helmet on a bike/motorbike. Finally, a significant gender difference exists within the sample in use, with males exhibiting less self-control compared to females. There are two reasons why these traditional behavioral measures are not used as the primary measure of self-control. First, the sexual impulsivity questions are only asked of those students who have had sexual experiences and relying on this measure decreases the sample size by approximately 1,000 respondents. Second, while these alternative measures do tap into one's behavior, they are also a reflection of one's opportunity for these experiences, and therefore, capture more than one's self-control.

has been cited as a predictor of performance on the Wechsler Preschool and Primary Scale of Intelligence for young children (Vance, West, and Kustick, 1989) and a satisfactory screening test of intelligence (Carvajal, Hayes, Miller, Wiebe, and Weaver, 1993). In addition, many studies comment on the high correlations (.60 and above) between the PPVT and Wechsler for vocabulary, verbal IQ, and full IQ (Carvajal, Hayes, Miller, Wiebe, and Weaver 1993; Hodapp and Gerken, 1999). The current study, therefore, uses the standardized scores of the sample as a measure of IQ. Within a range of 14 to 131, the mean IQ of the sample is 100, which is consistent with the standard for IQ tests to be designed with an average score of 100 (Kanaya, Scullin, and Ceci, 2003).

Parental Modeling

The status attainment literature draws a distinction between significant others acting as definers (i.e. shaping one's attitudes) and as models (i.e. directly shaping one's behavior) in the influence on one's behaviors (Picou and Carter, 1976; Woelfel and Haller, 1971). Some literature isolates the differential impact of parents and peers, suggesting that their impact may vary according to outcome (e.g. education versus occupation aspirations) (Davies and Kandel, 1981; Picou and Carter, 1976). For example, some research finds parents to be more influential for long-term goals and aspirations, but peers to have a greater impact on short-term goals such as education (Herriott, 1963; Picou and Carter, 1976). Given these findings and the current research's interest on the role of peers, it is necessary to control for the potential impact that parents play as models for an adolescent's behavior. In response to this need, each of the analyses include a measure of the subject's parental models for the outcomes of interest. Using the subject's responses to questions on the Wave I

in-home interview, these measures include 3 dichotomous variables representing whether the subject lives in a home with parental figures that are married (71 %), whether either of the subject's parents graduated from college (35%), and whether either of the subject's resident parents works (92%).

Demographics

Various demographic variables that are shown to influence one's underlying tendency as well as opportunities to engage in certain activities (delinquent and nondelinquent) are also being included in analyses. Some research suggests that these variables not only impact who adolescents choose as friends, but certain characteristics of their friendship groups as well (Cairns et al., 1995; Pettersson, 2003; Yanovitzky; 2005).

<u>Age.</u> Age is a continuous variable from Wave I and ranges from 13-19. Inclusion of this variable is crucial given the age range of participants at Wave III that range from 21 to 27, with a mean of 22. Given this range some individuals have had more time to transition into conventional adult roles and controlling for this differential transitioning time is necessary. This is also relevant given the conventional ages for participating in certain adult outcomes. For example, marriage and stable full time employment are likely to occur at later ages compared to samples in other research (i.e. Glueck data) given the increase in opportunities and likelihood of college for more recent samples. Additionally, the human development literature suggests that there are various stages to adulthood and that the impact of various milestones may vary according to the stage of adulthood (Sigelman & Rider, 2003). In a similar fashion, some criminological researchers suggest that 'emerging adulthood' is a distinct developmental stage that is characterized by the exploration of many life

possibilities (Arnett, 2000; Piquero at al., 2002), while Sampson and Laub's (1993) theoretical model delineates between the transition to adulthood (ages 17-25) and young adulthood (ages 25-32). Finally, it is plausible that experiencing some life events earlier than traditionally expected may actually be detrimental to one's future, highlighting another reason to account for one's age (Uggen, 2000; Wright et al. 2002; see also Apel et al., 2007).

<u>Gender.</u> Gender is a dichotomous variable in which '0' represents male and '1' represents female. The current sample is 48% female. Given the literature previously discussed about the importance of gender within a host of processes (Broidy and Agnew, 1997; Broidy et al, 203; Giordano et al., 2003; Kruttschnitt, 1996; Marcus, 1996; Uggen and Krutschnitt, 1998), its inclusion is necessary.

<u>Race</u>. Race is also included in light of research suggesting its association with delinquent behavior, friendship choices, expectations, and the ability to achieve certain prosocial outcomes (Goldstein et al., 2005; Simpson and Elis, 1995). The race of the individual is coded as white (=1) and non-white (=0) and the sample in use is 73% white.¹⁴

<u>Family structure</u>. This variable is created using the respondent's household roster from Wave I to identify individuals living in a household with two parental figures. This variable is included because it has the potential to influence the supervision of adolescents and amount of time one spends with peers, which in turn can influence

¹⁴ The non-white race category includes respondents who are African American, Asian or Pacific Islander, American Indian or Native American, or other. Some may suggest that while Asian participants are a minority, their experiences with certain events (e.g. education) are more similar with Caucasian experiences than other minorities. As a result, analyses were re-run with Asian participants (n=94) recoded and included with the Caucasian respondents and results are not substantially different from those reported.

opportunities for crime and how entrenched one becomes in a peer network. 72% of the respondents in the current sample live in a two-parent household.¹⁵

Socioeconomic Status. Research suggests that concentrated disadvantage among the poor negatively impacts achieving traditional adult roles (Smith, 2005). The status attainment literature also stresses the importance of SES in structuring one's friendships, aspirations for later success in life, and opportunities for attainment of certain events (Sewell et al, 1969; Wilson and Portes, 1975). Therefore, two measures of SES are included as controls. First, a measure of the family's household income, as reported by the parent who participated in the parental survey during the Wave I in-home interview, is included. For the current sample, the average household income in the year 1995 was \$44,000. A measure of extreme poverty is also being included from the parental survey at Wave I and reflects a "1" if the primary parental figure receives public assistance (11% of the sample) and a "0" if not.¹⁶ Although extreme poverty may be captured by very low values on family income, the measure of public assistance is being incorporated for two reasons: (1) if people are aware that someone is on public assistance having that label may have adverse effects, or alternatively, (2) receiving public assistance may provide certain opportunities that

¹⁵ Two-parent family and parents married have a .69 correlation. Both variables are retained in the analyses because, conceptually, they tap into two different ideas. Specifically, whether one's parents are married represents a potential for modeling behavior in the marriage analyses and two-parent family taps into supervision. Keeping both in the models reveal different impacts for the two variables and allows for the individuals who live with two parental figures who may not be married to be captured. Given the high correlation, however, analyses were run without two-parent in the models and there were no substantive differences.

¹⁶ Parental responses, as opposed to student responses, regarding public assistance were used given that the public assistance is likely to be received by the parent and that many of the students responded "I don't know" which would have to be treated as missing data, in turn, further reducing the sample size.

are not available to people who have a low income and are not on public assistance and may impact the outcomes of interest (for example, college scholarships).¹⁷

Analytic Strategy

The analyses for each of the primary dependent variables of interest proceed in three stages. Theoretical and empirical arguments for the static perspective argue that an individual's background factors lay the foundation for later involvement in certain activities (e.g. criminal behavior, marriage, education) and that later dynamic factors are a result of these background characteristics and, therefore, will not have a direct relationship with the outcomes of interest. Dynamic theories, on the other hand, suggest that certain dynamic influences (e.g. peers and expectations) can attenuate one's individual background. To comment on this debate the first set of models evaluate the impact of static background characteristics. Second, the peer and network variables are added to the models to see if their inclusion matters directly or alters the influence of the background characteristics. The final stage of analysis include the individual's expectations for certain life events since they are a result of both the static characteristics and peer influences according to previous literature and the impact of their inclusion on both static and peer variables are assessed.

Prior to running specific analyses, it is beneficial to account for the design of Add Health using statistical software (i.e. Stata) that employs specific commands for analyzing data from complex surveys (Chantala and Tabor, 1999). As previously mentioned, these data include adolescents who were clustered within schools and these clusters were sampled with unequal probability. In addition, initial interests of

¹⁷ Comparisons were made between models using both measures of SES and those only using family income and results were identical.

the Add Health researchers called for particular groups of individuals to be oversampled (e.g. certain ethnicities, disabled individuals, and a genetic sample). Using these specially designed commands in conjunction with the sampling weights (previously discussed) allows for the oversampling of certain groups and addresses the unequal probability of selection of schools and students within those schools.¹⁸

As previously discussed, the primary dependent variables of interest are dichotomous outcomes. Although applying the linear probability model (i.e. ordinary least squares) to a dichotomous outcome does not affect the interpretation of the parameters, certain assumptions of linear regression modeling are automatically violated (Long, 1997). For example, the linear probability model will predict outcomes that are negative or greater than 1. With a binary dependent variable, these predictions are nonsensical. This method also leads to problems with heteroskedasticity, non-normal error terms, and functional form (Long, 1997). As a result of the assumption violations inherent in applying linear regression to yes/no outcomes, the binary response model (e.g. logit, probit) was created which uses a continuous latent variable (y*) to avoid these issues. Given the binary nature of the dependent variables it is necessary to rely on a binary response model and, therefore, analyses predicting marriage, education, and employment will rely on logistic regression (Long, 1997).

A final supplementary analysis will evaluate a potential indirect impact of one's level of peer delinquency and network structure on adolescents' expectations

¹⁸ It is worth noting that the use of survey commands does not allow for the computation of model statistics. Model statistics rely on a likelihood ratio test, which uses maximum likelihood estimation. An assumption of maximum likelihood estimation is that the observations are independently and identically distributed. Given the need to specify sampling weights, PSU's, and strata when using survey estimators this assumption is not met. As a result, likelihood ratio tests and the computation of pseudo R-squared are not valid with survey data.

for the outcomes of interest. This outcome is measured on a scale from 1 (little to no expectation) to 5 (almost certain). As a result, the outcome can be ranked from low to high and can, therefore, being considered ordinal suggesting an ordered logistic regression for this analysis. Whereas many analyses treat ordinal dependent variables as if they were interval, in turn, numbering them sequentially and utilizing the linear regression model, this can be problematic (Long, 1997). That method would assume that the intervals between adjacent categories are equal. That assumption is not instinctively met in the current investigation. Therefore, using the linear regression model could result in misleading results (McKelvey and Zavoina, 1975). On a related front, the current research suggests that there is a clear ordering to the dependent variable and does not propose that the regression models should vary according to the level of expectation. As a result, an ordered logistic regression seems to be a better analytic method than a multinomial logistic regression, which could result in inefficient estimates (Long, 1997).

Chapter 4: Results

The following chapter details the results of all analyses according to outcome of interest. The results begin with marriage, followed by job stability, and then education.¹⁹ Within each of these outcomes of interest the main effects of the variables will be explored first, followed by the conditioning effect of the network variables, and lastly, analyses by gender and race. Results are arranged this way so that changes in the pattern of results for each outcome can be assessed. The final set of results includes supplemental analyses exploring the indirect effect of peers through expectations.

<u>Marriage</u>

The marriage results indicate that static characteristics play a very large role in who does and does not get married. Demographic characteristics, parental modeling, and, on occasion, IQ are influential. An individual's expectations are also important. Although the level of peer deviance in one's network does not directly influence this outcome, some conditioning effects emerge. Interestingly, influential factors for marriage vary significantly by gender and race and while the significant peer variables are consistent with my hypotheses in the full sample, some findings in the sub-samples are opposite what would be expected.

¹⁹ Given that this investigation is built on the idea of marriage, job stability, and education as turning points, supplemental analyses were conducted to comment on the validity of these events as turning points for the current sample. First, I generated a measure or Wave III deviance based on the respondent's reports of their deviant activities within the 12 months prior to Wave III. I then investigated the relationship the prosocial life events and this measure of young adulthood deviance. Although these analyses cannot speak to causal order because all of the measures were collected during Wave III, it is worth noting that each of the turning points (marriage, job stability, and college graduate) had the expected negative relationship with wave III deviance. I also ran negative binomial regressions predicting wave III deviance using each of the turning points as an independent variable as well as demographic controls. Here, I found that all had a negative relationship with wave III deviance and marriage and education reached statistical significance.

Main Effects

Table 3 displays the results from the logistic regression analyses predicting marriage for the main effects of all independent variables. As stated in the section on analytic strategy, the analyses begin with demographics, static characteristics, and controls for social control.²⁰ Here, in Model 1, demographics and static characteristics are influential. When looking at demographics, older individuals, females, and whites are more likely to be married than their younger, male, and minority counterparts. For static characteristics, IQ is influential with individuals possessing a higher IQ being less likely to be married by Wave III as well as some of the parental modeling variables. Specifically, if the respondents' parents are married they are more likely to have gotten married, but if they have a parent who graduated college they are less likely to have gotten married by Wave III.

Model 2 adds the level of peer deviance to the model and although peer deviance does not directly impact the marital status of the individual, it does eliminate the significance of whether or not the respondent's parents are married. Model 4 adds the respondents' expectations to the model. Again, these expectations are measured at Wave II and, according to the status attainment literature, can be influenced by static factors and peers, which is why they are being added to the model after these other factors. The addition of expectations in Model 4 removes the impact of IQ, which could mean that one's IQ actually influence their expectations, a sentiment supported by status attainment literature (Alexander and Campbell, 1964; Davies and Kandel, 1981; Duncan, Haller, and Portes, 1968; Haller and Butterworth, 1960; Picou and Carter, 1976; Sewell, Haller, and Portes, 1969; Wilson and Portes,

²⁰ Analyses investigating demographics and static characteristics alone (without social control variables) were identical to those with parental and school attachment. Given the lack of differences only the models including these controls are reported, but the others are available upon request.

1975; Woelfel and Haller, 1971). More specifically, if one expects to be married by the age of 25 they are more likely to be married and if the respondent expects in adolescence to graduate from college they are less likely to be married at Wave III. The addition of network characteristics either without expectations (Model 3) or with expectations (Model 4) does not alter any of the findings. None of the network characteristics have a significant impact on the marriage outcome and IQ is only influential in the model without expectations.

	, Regi coston	mouchs for	Mainage Ot	icome, mani i
Variable	Model 1	Model 2	Model 3	Model 4
	n= 3055	n=2406	n=2399	n=2385
	В	В	В	В
	(SE)	(SE)	(SE)	(SE)
Age	.278***	.341***	.343***	.357***
8	(.060)	(.071)	(.072)	(.071)
Female	.682***	.761***	.751***	.707***
	(.137)	(.153)	(.155)	(.161)
White	1.056***	.977***	.985***	.845***
	(.177)	(.212)	(.217)	(.220)
Two-Parent	086	144	137	158
	(.196)	(.220)	(.217)	(.228)
Public Assistance	.196	.328	.319	.252
	(.268)	(.327)	(.340)	(.364)
Income	004*	003	002	002
	(.002)	(.002)	(.002)	(.002)
Self-Control	.015	.010	.012	.002
	(.016)	(.017)	(.018)	(.019)
Ю	008*	009*	010*	007
C C	(.004)	(.005)	(.005)	(.006)
Parents Married	.479*	.404	.395	.327
	(.227)	(.245)	(.244)	(.249)
Parent Graduated	631***	615***	618***	565**
College	(.159)	(.164)	(.165)	(.164)
Parent Works	381	121	132	240
	(.224)	(.283)	(.287)	(.293)
Parental Attachment	084	105	101	101
	(.114)	(.139)	(.136)	(.164)
School Attachment	043	065	069	086
	(.067)	(.070)	(.071)	(.079)
Peer Deviance		020	018	025
		(.065)	(.065)	(.065)
Density			158	085
			(.410)	(.421)
Centrality			046	043
5			(.194)	(.205)
Popularity			.012	.012
			(.017)	(.018)
Friend Attachment			004	007
			(.096)	(.108)
Friend Involvement			052	090
			(.073)	(.072)
Marriage Expectations				.461***
С г сыз				(.088)

Table 3: L	ogistic Reg	gression Mo	odels for	Marriage (Dutcome: I	Main	Effects
------------	-------------	-------------	-----------	------------	-------------------	------	---------

College Expectations				146*
I-h E-m-stations				(.065)
Job Expectations				.049
Constant	-4.869***	-5.776***	-5.607***	-6.823***
	(1.307)	(1.452)	(1.433)	(1.465)
* = p<.05, ** = p <.01, *	*** = p <.001			

Conditioning Effects

In addition to the main effects of the variables of interest, one of the major goals of this research is to investigate the conditioning impact of the network variables on peer deviance by looking at interaction terms between peer deviance and each of the network characteristics.²¹ The models in Table 4 should be looked at in pairs with each pair investigating the conditioning effect of a certain network characteristic, first without expectations in the model and then with expectations in the model. Regardless of the network characteristic being explored, the influences of age, gender, race, and having a parent who graduated college remain unchanged. IQ only remains influential when exploring the interactions between peer deviance and centrality and peer deviance and popularity; however, this influence still disappears with the addition of expectations. The impact of marital and college expectations also do not alter from the previous models, regardless of the interaction terms. Drawing specific attention to the conditioning effect of network characteristics only one emerges as statistically significant. As seen in Models 13 and 14 by looking at the interaction between peer deviance and involvement, the more time one spends in a deviant peer group the less likely they are to get married, a finding that remains with the inclusion of expectations.

²¹ As suggested by some researchers to reduce potential collinearity problems between the main effects and interaction terms, I mean-centered the interaction terms and re-ran the analyses (Jaccard, 2001). These analyses were identical to the results reported.

Variable	Model 5 n=2399	Model 6 N=2385	Model 7 N=2399	Model 8 N=2385	Model 9 N=2399	Model 10 N=2385	Model 11 N=2399	Model 12 N=2385	Model 13 N=2399	Model 1 N=2385
	B	B	B	B	B	B	B	B	B	B
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)
Age	.343***	.357***	.343***	.357***	.344***	.358***	.344***	.358***	.347***	.360***
8-	(.071)	(.071)	(.072)	(.072)	(.072)	(.071)	(.071)	(.071)	(.072)	(.071)
Female	.753***	.706***	.752***	.708***	.750***	.704***	.752***	.709***	.747***	.699***
	(.155)	(.162)	(.157)	(.164)	(.155)	(.160)	(.155)	(.161)	(.158)	(.162)
White	.976***	.839***	.989***	.846***	.983***	.842***	.992***	.854***	.977***	.839***
	(.216)	(.218)	(.216)	(.219)	(.217)	(.221)	(.218)	(.222)	(.218)	(.222)
Two-Parent	138	161	138	159	134	148	122	141	136	150
	(.219)	(.229)	(.219)	(.231)	(.218)	(.229)	(.214)	(.225)	(.214)	(.224)
Public Assistance	.314	.244	.319	.252	.322	.255	.319	.248	.287	.222
	(.341)	(.364)	(.341)	(.365)	(.342)	(.367)	(.339)	(.363)	(.332)	(.357)
Income	002	002	002	002	002	002	002	002	002	002
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Self-Control	.012	.002	.012	.002	.011	.002	.002	.002	.013	.003
	(.018)	(.019)	(.018)	(.019)	(.018)	(.019)	(.018)	(.019)	(/018)	(.020)
IQ	009	.002	010*	007	009*	007	010*	007	009	006
	(.005)	(.019)	(.005)	(.005)	(.005)	(.006)	(.005)	(.006)	(.005)	(.006)
Parents Married	.403	.336	.396	.328	.395	.323	.389	.318	.374	.299
	(.246)	(.250)	(.245)	(.250)	(.245)	(.251)	(.242)	(.245)	(.240)	(.243)
Parent Graduated	622***	570**	618***	565**	615***	558**	609***	557**	622***	562**
College	(.167)	(.167)	(.165)	(.163)	(.165)	(.165)	(.165)	(.164)	(.167)	(.168)
Parent Works	137	250	132	240	126	230	138	247	116	217
	(.288)	(.291)	(.287)	(.293)	(.291)	(.296)	(.286)	(.293)	(.291)	(.295)
Parental	096	097	101	102	101	103	097	098	100	103
Attachment	(.135)	(.162)	(.136)	(.164)	(.136)	(.164)	(.135)	(.163)	(.139)	(.165)
School	072	089	069	086	069	085	068	085	069	088
Attachment	(.070)	(.078)	(.071)	(.079)	(.071)	(.079)	(.071)	(.079)	(.072)	(.080)
Peer Deviance	.114	.112	009	011	052	096	321	360	.386*	.421*
	(.153)	(.167)	(.091)	(.094)	(.094)	(.096)	(.236)	(.256)	(.148)	(.166)
Density	073	.004	160	088	163	094	159	089	137	064
	(.422)	(.436)	(.415)	(.428)	(.412)	(.424)	(.410)	(.421)	(.419)	(.430)
Centrality	041	039	044	041	042	036	044	040	052	051
	(.193)	(.344)	(.190)	(.200)	(.194)	(.206)	(.194)	(.205)	(.192)	(.203)
Popularity	.012	.013	.012	.012	.010	.009	.011	.012	.012	.012
	(.017)	(.018)	(.017)	(.018)	(.017)	(.018)	(.017)	(.018)	(.017)	(.018)

 Table 4: Logistic Regression Models for Marriage Outcome: Interaction Effects

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Friend	004	006	004	007	006	009	031	034	004	007
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Attachment	(.095)	(.107)	(.096)	(.108)	(.095)	(.106)	(.098)	(.110)	(.095)	(.107)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Friend	052	090	052	090	052	090	052	089	008	046
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Involvement	(.073)	(.072)	(.073)	(.072)	(.073)	(.072)	(.073)	(.072)	(.077)	(.076)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Peer Dev. X	293	303								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Density	(.326)	(.344)								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Peer Dev. X			012	019						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Centrality			(.110)	(.111)						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Peer Dev. X					.007	.015				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Popularity					(.017)	(.018)				
Attachment(.052)(.057)Peer Dev. X200**222**Involvement200**222**Marriage464***464***463***463***464***Expectations(.088)(.088)(.088)(.088)(.090)College142*147*146*Expectations(.067)(.066)(.066)(.069)(.066)(.065) <td>Peer Dev. X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>.071</td> <td>.078</td> <td></td> <td></td>	Peer Dev. X							.071	.078		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Attachment							(.052)	(.057)		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Peer Dev. X									200**	222**
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Involvement									(.057)	(.067)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Marriage		.464***		.461***		.464***		.463***		.464***
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Expectations		(.088)		(.088)		(.088)		(.088)		(.090)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	College		142*		147*		146*		144*		154*
Job Expectations $.046$ $.049$ $.048$ $.047$ $.061$ (.097)(.097)(.097)(.097)(.098)(.100)Constant-5.682***-6.902***-5.603***-6.815***-5.620***-6.861***-5.541***-6.768***-5.805***-7.013***(1.441)(1.476)(1.427)(1.459)(1.430)(1.464)(1.428)(1.461)(1.413)(1.439)	Expectations		(.067)		(.066)		(.069)		(.066)		(.065)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Job Expectations		.046		.049		.048		.047		.061
Constant -5.682^{***} -6.902^{***} -5.603^{***} -6.815^{***} -5.620^{***} -6.861^{***} -5.541^{***} -6.768^{***} -5.805^{***} -7.013^{***} (1.441)(1.476)(1.427)(1.459)(1.430)(1.464)(1.428)(1.461)(1.413)(1.439)			(.097)		(.098)		(.097)		(.098)		(.100)
(1.441) (1.476) (1.427) (1.459) (1.430) (1.464) (1.428) (1.461) (1.413) (1.439)	Constant	-5.682***	-6.902***	-5.603***	-6.815***	-5.620***	-6.861***	-5.541***	-6.768***	-5.805***	-7.013***
		(1.441)	(1.476)	(1.427)	(1.459)	(1.430)	(1.464)	(1.428)	(1.461)	(1.413)	(1.439)

Gender and Race

Tables 5 through 10 investigate the differential impact of peers across gender and race. With regard to gender, while many patterns mirror those in the full sample and do not differ between males and females, there is one exception. Simply looking at the patterns of significance between the male and female, there appears to be many differences. However, further investigating the relationships by testing for differences between the slope coefficients highlights that many do not significantly differ.²² In fact, the only statistically significant difference between samples is the positive impact of marriage expectations for females. More relevant to the question of interest, none of the peer variables (peer deviance, network characteristics, or interaction terms) appear to be influential for whether or not males marry.

From a race perspective the patterns are more divergent. When looking at the white sample, the significant influences are very similar to the overall model. When comparing the White and minority samples, however, some significant differences emerge. Specifically, belonging to a family who receives public assistance as an adolescent decreases the likelihood of being married at Wave III in many of the minority models, but does not for the white sample. Turning attention to the influence of peers, higher levels of peer deviance increase the likelihood of marriage only for minorities. This impact is further conditioned by certain network characteristics with the more central and more attached a minority is in a deviant peer group the more likely they are to be married at Wave III. The conditioning effect of

²² All differences across gender and race sub-samples are assessed by testing for differences in the slope coefficients across samples using the following equation, as suggested by Paternoster et al. (1998). $Z=(b1-b2)/\sqrt{(SE_{b1}^2+SE_{b2}^2)}$

involvement, also continues to emerge as significant and negative, as it does in the

full and white samples.

Variable	Model 15		Мо	del 16	Мо	del 17	Model 18		
	Female n=1582	Male n=1473	Female n=1317	Male n=1089	Female n=1314	Male n=1085	Female n=1308	Male N=1077	
	В	В	В	В	В	В	В	В	
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	
Age	.232**	.319**	.285**	.421***	.282**	.423***	.286**	.422***	
0	(.070)	(.109)	(.079)	(.113)	(.081)	(.112)	(.083)	(.112)	
White	1.189***	.851**	1.150***	.637	1.155***	.674	.940**	.665	
	(.231)	(.315)	(.274)	(.355)	(.274)	(.370)	(.284)	(.367)	
Two-Parent	156	020	338	.166	325	.165	414	.161	
	(.272)	(.289)	(.289)	(.353)	(.281)	(.344)	(.297)	(.346)	
Public Assistance	030	.601	.219	.419	.187	.422	.104	.426	
	(.312)	(.429)	(.355)	(.766)	(.354)	(.768)	(.397)	(.784)	
Income	005	003	005	000	004	000	004	000	
	(.004)	(.003)	(.004)	(.002)	(.004)	(.002)	(.004)	(.002)	
Self-Control	.008	.023	.009	.014	.008	.015	011	.011	
	(.021)	(.029)	(.023)	(.036)	(.023)	(.037)	(.026)	(.040)	
Ю	009	008	007	011	007	012	001	012	
- 2	(.007)	(.006)	(.008)	(.006)	(.008)	(.007)	(.009)	(.007)	
Parents Married	340	779	466	331	458	333	363	355	
i urento murrea	(259)	(398)	(276)	(414)	(271)	(404)	(286)	(409)	
Parent Graduated	- 503*	- 796**	- 497*	- 879**	- 497*	- 838**	- 460*	- 743**	
College	(196)	(259)	(223)	(261)	(222)	(272)	(224)	(265)	
Parent Works	- 483	(.239)	(.223)	0.48	(.222)	008	(.22+)	(.205)	
I dient works	(283)	(334)	(338)	(347)	(338)	(356)	(370)	(314)	
Dorontol	(.285)	(.334)	(.338)	(.347)	(.558)	(.330)	(.370)	(.314)	
Attachmont	042	107	117	031	099	030	114	030	
Sahaal	(.144)	(.201)	(.100)	(.237)	(.137)	(.237)	(.203)	(.239)	
Attachmont	104	.030	140	.000	123	(140)	141	.032	
Attachinent Deer Devienee	(.001)	(.151)	(.080)	(.136)	(.080)	(.140)	(.099)	(.134)	
Peer Deviance			.080	197	.085	197	.001	180	
			(.085)	(.108)	(.085)	(.117)	(.085)	(.108)	
Density					004	415	.165	388	
					(.466)	(.762)	(.498)	(.//)	
Centrality					127	.004	133	.006	
					(.232)	(.323)	(.245)	(.339)	
Popularity					.006	.020	.005	.023	
					(.022)	(.036)	(.023)	(038)	
Friend					037	000	048	002	
Attachment					(.126)	(.150)	(.140)	(.156)	
Friend					038	049	079	077	
Involvement					(.084)	(.123)	(.092)	(.118)	
Marriage							.599***	.257	
Expectations							(.115)	(.139)	
College							191*	117	
Expectations							(.082)	(.123)	
Job Expectations							050	.160	
							(.143)	(.118)	
Constant	-3.240*	-5.772**	-3.952*	-7.777***	-3.676*	-7.596**	-4.806*	-8.355***	
	(1.572)	(2.067)	(1.737)	(2.10)	(1.812)	(2.108)	(1.970)	(2.257)	

 Table 5: Logistic Regression Models for Marriage Outcome: By Gender

* = p<.05, ** = p <.01, *** = p <.00

Variable	Model 19	Model 20	Model 21	Model 22	Model 23	Model 24	Model 25	Model 26	Model 27	Model 28
	n=1314	n=1308								
	B	B	B	B	B	B	B	B	B	B
	(SE)									
Age	.285**	.288**	.281**	.285**	.281**	.287**	.284**	.291**	.293**	.298**
	(.081)	(.084)	(.081)	(.084)	(.081)	(.084)	(.081)	(.084)	(.083)	(.085)
White	1.144***	.933**	1.167***	.948**	1.156***	.939**	1.167***	.956**	1.166***	.959**
	(.274)	(.283)	(.277)	(.286)	(.274)	(.284)	(.277)	(.286)	(.278)	(.287)
Two-Parent	333	418	330	419	328	408	309	391	323	394
	(.281)	(.296)	(.277)	(.289)	(.282)	(.298)	(.285)	(.303)	(.273)	(.289)
Public Assistance	.177	.093	.177	.087	.188	.103	.189	.097	.162	.077
	(.358)	(.397)	(.350)	(.393)	(.353)	(.398)	(.350)	(.392)	(.344)	(.384)
Income	005	004	004	004	004	004	004	004	004	004
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Self-Control	.008	010	.009	010	.008	011	.008	010	.006	013
	(.024)	(.027)	(.024)	(.027)	(.024)	(.027)	(.024)	(.027)	(.023)	(.027)
IQ	007	001	008	002	007	001	007	002	006	.000
	(.008)	(.009)	(.008)	(.009)	(.008)	(.009)	(.008)	(.009)	(.008)	(.009)
Parents Married	.469	.370	.456	.360	.460	.359	.454	.353	.448	.34
	(.270)	(.285)	(.266)	(.278)	(.271)	(.287)	(.271)	(.285)	(.259)	(.275)
Parent Graduated	512*	468*	498*	462*	499*	456*	488*	447*	492*	448
College	(.229)	(.231)	(.220)	(.220)	(.222)	(.225)	(.220)	(.220)	(.225)	(.229)
Parent Works	263	427	257	425	253	417	276	455	202	358
	(.340)	(.367)	(.340)	(.373)	(.338)	(.369)	(.333)	(.365)	(.358)	(.382)
Parental	101	116	092	103	098	117	105	123	081	100
Attachment	(.155)	(.203)	(.158)	(.206)	(.158)	(.208)	(.157)	(.206)	(.164)	(.204)
School	127	143	128	145	125	142	122	138	136	151
Attachment	(.085)	(.098)	(.086)	(.098)	(.086)	(.099)	(.086)	(.098)	(.089)	(.101)
Peer Deviance	.258	.184	.191	.214	.104	.022	351	591	.616**	.581**
	(.181)	(.198)	(.125)	(.123)	(.145)	(.135)	(.445)	(.496)	(.193)	(.210)
Density	.111	.250	027	.122	000	.157	016	.149	.071	.218
	(.451)	(.483)	(.455)	(.488)	(.476)	(.507)	(.463)	(.495)	(.484)	(.520)
Centrality	122	130	116	120	130	125	121	122	111	123
2	(.231)	(.244)	(.227)	(.235)	(.226)	(.240)	(.231)	(.243)	(.228)	(.239)
Popularity	.008	.006	.005	.004	.007	.003	.005	.004	.005	.004
	(.023)	(.023)	(.022)	(.023)	(.022)	(.023)	(.022)	(.022)	(.022)	(.022)
Friend	032	045	042	055	036	049	068	095	041	049
Attachment	(.125)	(.139)	(.125)	(.139)	(.126)	(.139)	(.129)	(.143)	(.124)	(.137)
Friend	038	078	034	074	038	079	038	079	.021	025
Involvement	(.085)	(.093)	(.084)	(.093)	(.084)	(.093)	(.084)	(.092)	(.086)	(.091)
Peer Dev. X	372	259								
Density	(385)	(398)								

 Table 6: Logistic Regression Predicting Marriage Outcome: Interaction Effects for Females

Peer Dev. X			140	203						
Centrality			(.137)	(.136)						
Peer Dev. X					004	.008				
Popularity					(.024)	(.023)				
Peer Dev. X							.099	.148		
Attachment							(.095)	(.111)		
Peer Dev. X									268**	265**
Involvement									(.083)	(.088)
Marriage		.599***		.602***		.601***		.605***		.590***
Expectations		(.115)		(.115)		(.116)		(.117)		(.115)
College		186*		198*		191*		191*		202*
Expectations		(.083)		(.083)		(.082)		(.082)		(.085)
Job Expectations		052		052		050		051		036
		(.141)		(.144)		(.142)		(.143)		(.146)
Constant	-3.813*	-4.896*	-3.637*	-4.732*	-3.680*	-4.801*	-3.549	-4.630*	-4.234*	-5.327**
	(1.795)	(1.952)	(1.795)	(1.960)	(1.813)	(1.976)	(1.812)	(1.987)	(1.795)	(1.933)

Table 7: Logistic Regression Predicting Marriage Outcome: Interaction Effects for Males

Variable	Model 19 n=1085	Model 20 n=1077	Model 21 n=1085	Model 22 n=1077	Model 23 n=1085	Model 24 n=1077	Model 25 n=1085	Model 26 n=1077	Model 27 n=1085	Model 28 n=1077
	В	В	В	В	В	В	В	В	В	В
	(SE)	(SE)	(SE)	(SE)						
Age	.421***	.419***	.423***	.422***	.425***	.423***	.424***	.423***	.421***	.417***
	(.112)	(.113)	(.111)	(.111)	(.111)	(.112)	(.112)	(.113)	(.111)	(.111)
White	.665	.659	.660	.62	.668	.657	.671	.661	.670	.656
	(.369)	(.367)	(.363)	(.363)	(.375)	(.374)	(.366)	(.362)	(.371)	(.367)
Two-Parent	.176	.172	.184	.186	.166	.170	.156	.149	.164	.157
	(.350)	(.352)	(.358)	(.364)	(.349)	(.353)	(.346)	(.348)	(.344)	(.347)
Public Assistance	.413	.410	.413	.409	.445	.448	.421	.425	.421	.427
	(.767)	(.783)	(.747)	(.756)	(.768)	(.788)	(.765)	(.780)	(.766)	(.782)
Income	000	000	000	000	000	000	000	000	000	000
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Self-Control	.015	.011	.017	.012	.016	.012	.015	.011	.016	.013
	(.037)	(.040)	(.036)	(.039)	(.037)	(.040)	(.037)	(.040)	(.037)	(.040)
IQ	012	012	011	012	012	012	012	012	012	012
	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)
Parents Married	.333	.359	.317	.333	.343	.357	.340	.364	.328	.344
	(.408)	(.416)	(.416)	(.423)	(.404)	(.411)	(.400)	(.404)	(.406)	(.410)
Parent Graduated	836**	739**	836**	742**	831**	735**	845**	748**	838**	740**
College	(.273)	(.267)	(.272)	(.266)	(.271)	(.263)	(.271)	(.265)	(.272)	(.266)
Parent Works	.096	.047	.086	.038	.141	.100	.090	.043	.098	.051
	(.353)	(.313)	(.352)	(.316)	(.378)	(.342)	(.359)	(.316)	(.356)	(.315)

Parental	017	011	020	018	019	018	041	042	035	042
Attachment	(.230)	(.233)	(.231)	(.234)	(.238)	(.240)	(.240)	(.243)	(.238)	(.240)
School	.054	.022	.064	.034	.065	.037	.061	.033	.061	.030
Attachment	(.141)	(.133)	(.141)	(.135)	(.143)	(.137)	(.140)	(.134)	(.141)	(.134)
Peer Deviance	057	.010	305*	306	291	296	028	.011	122	002
	(.248)	(.224)	(.152)	(.156)	(.175)	(.177)	(.396)	(.440)	(.269)	(.282)
Density	379	346	409	384	423	397	418	388	414	382
	(.790)	(.806)	(.768)	(.782)	(.773)	(.791)	(.762)	(.775)	(.761)	(.774)
Centrality	.006	.008	014	016	.005	.006	.005	.007	000	006
	(.324)	(.340)	(.306)	(.321)	(.327)	(.345)	(.323)	(.338)	(.325)	(.341)
Popularity	.021	.023	.020	.023	.018	.020	.020	.022	.020	.023
	(.036)	(.038)	(.035)	(.037)	(.035)	(.037)	(.036)	(.038)	(.036)	(.038)
Friend	003	006	004	004	004	005	.014	.014	.002	.001
Attachment	(.151)	(.157)	(.150)	(.157)	(.151)	(.157)	(.156)	(.162)	(.150)	(.156)
Friend	049	076	045	072	050	077	048	076	044	065
Involvement	(.123)	(.118)	(.124)	(.120)	(.122)	(.117)	(.123)	(.118)	(.127)	(.123)
Peer Dev. X	343	476								
Density	(.456)	(.431)								
Peer Dev. X			.130	.145						
Centrality			(.150)	(.150)						
Peer Dev. X					.020	.024				
Popularity					(.026)	(.030)				
Peer Dev. X							041	048		
Attachment							(.096)	(.107)		
Peer Dev. X									035	086
Involvement									(.123)	(.130)
Marriage		.266		.263		.264		.256		.264
Expectations		(.138)		(.139)		(.139)		(.140)		(.141)
College		116		116		114		120		119
Expectations		(.123)		(.122)		(.125)		(.122)		(.122)
Job Expectations		.157		.155		.154		.162		.166
		(.118)		(.116)		(.117)		(.118)		(.121)
Constant	-7.617**	-8.408***	-7.652***	-8.439***	-7.723***	-8.515***	-7.614***	-8.359***	-7.550**	-8.260***
	(2.116)	(2.266)	(2.101)	(2.252)	(2.114)	(2.258)	(2.111)	(2.259)	(2.109)	(2.246)

Variable	Mo	del 29	Мо	del 30	Mo	del 31	Мо	del 32
	White	Minority	White	Minority	White	Minority	White	Minority
	n=2112	n=943	n=1729	n=677	n=1726	n=673	n=1717	n=668
	В	В	В	В	В	В	В	В
	(SE)	(SE)						
Age	.245***	.482***	.326***	.478**	.333***	.488**	.355***	.446**
e	(.064)	(.132)	(.075)	(.160)	(.076)	(.167)	(.076)	(.154)
Female	.722***	.473	.815***	.427	.816***	.319	.781***	.325
	(.144)	(.384)	(.161)	(.397)	(.162)	(.424)	(.171)	(.452)
Two-Parent	219	.603	308	.596	301	.630	306	.637
	(.210)	(.339)	(.232)	(.488)	(.230)	(.472)	(.233)	(.508)
Public Assistance	.578	830*	.810*	-1.288*	.809	-1.214*	.760	-1.263
	(.332)	(405)	(.403)	(.585)	(.414)	(.569)	(431)	(.640)
т	(.332)	(.103)	(.103)	(.505)	(.111)	(.50))	(.151)	(.010)
Income	004	003	003	001	002	000	002	000
	(.002)	(.005)	(.002)	(.004)	(.002)	(.004)	(.002)	(.004)
Self-Control	.017	017	.009	000	.010	002	001	009
	(.017)	(.037)	(.019)	(.036)	(.020)	(.037)	(.021)	(.041)
IQ	007	012	007	021	007	018	003	022*
	(.005)	(.008)	(.005)	(.011)	(.006)	(.012)	(.007)	(.010)
Parents Married	.470	.430	.455	.236	.454	.242	.375	.138
	(.266)	(.277)	(.282)	(.346)	(.279)	(.375)	(.276)	(.389)
Parent Graduated	632**	670	616**	580	617**	651	550**	665
College	(.190)	(.343)	(.195)	(.359)	(.197)	(.387)	(.194)	(.403)
Parent Works	350	602	199	032	178	163	360	098
	(.256)	(.500)	(.320)	(.770)	(.322)	(.729)	(.328)	(.741)
Parental	079	.013	097	.140	102	.357	109	.428
Attachment	(.134)	(.230)	(.151)	(.377)	(.147)	(.389)	(.178)	(.406)
School	050	.096	103	.248	111	.330	114	.259
Attachment	(.077)	(.116)	(.080)	(.162)	(.081)	(.183)	(.088)	(.164)
Peer Deviance			082	.388*	082	.377*	101	.389*
			(062)	(174)	(062)	(155)	(059)	(159)
Density			(- 296	776	- 220	646
Density					(421)	(865)	(430)	(910)
Centrality					003	- 465	- 004	- 473
Contrainty					(195)	(301)	(207)	(402)
Popularity					006	(.391)	(.207)	070
ropularity					(018)	.002	(010)	.070
Friend					(.018)	(.040)	(.019)	(.047)
Attachmont					(110)	.004	(122)	(281)
Enjand					(.110)	(.244)	(.122)	(.201)
Involvement					014	1/8	047	239
Mania					(.077)	(.147)	(.077)	(.137)
Marriage							.440***	.3/9***
Expectations							(.095)	(.170)
College							18/**	.052
Expectations							(.069)	(.206)
JOD Expectations							.045	003
0	0.465%	0.70 () **	4.550-00	0.407.5	4.400	10.005	(.10/)	(.185)
Constant	-3.465*	-8.736**	-4.559**	-9.407/**	-4.420**	-10.997/**	-5.841***	-11.706**
	(1.406)	(2.433)	(1.475)	(3.478)	(1.398)	(3.679)	(1.405)	(3.718)

Table 8: Logistic Regression Predicting Marriage: By Race

Variable	Model 33 n=1726	Model 34 n=1717	Model 35 n=1726	Model 36 n=1717	Model 37 n=1726	Model 38 n=1717	Model 39 n=1726	Model 40 n=1717	Model 41 n=1726	Model 42 n=1717
	B (SE)									
Age	.333***	.355***	.333***	.354***	.334***	.357***	.334***	.356***	.335***	.357***
U	(.075)	(.075)	(.076)	.076	(.076)	(.075)	(.176)	(.076)	(.076)	(.075)
Female	.817***	.781***	.819***	.785***	.817***	.779***	.817***	.782***	.814***	.775***
	(.162)	(.172)	(.164)	.174	(.161)	(.169)	(.162)	(.170)	(.165)	(.172)
Two-Parent	302	306	305	310	299	296	293	294	309	311
	(.231)	(.233)	(.229)	.232	(.231)	(.233)	(.227)	(.229)	(.227)	(.228)
Public Assistance	.808	.759	.802	.755	.814	.767	.809	.760	.769	.717
	(.413)	(.430)	(.421)	.438	(.417)	(.437)	(.413)	(.432)	(.403)	(.421)
Income	002	002	002	002	002	002	002	002	002	002
	(.002)	(.002)	(.002)	.002	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Self-Control	.010	001	.010	001	.010	001	.010	001	.011	000
	(.020)	(.021)	(.020)	.021	(.020)	(.021)	(.020)	(.021)	(.020)	(.022)
IQ	007	003	008	003	007	003	007	003	007	002
	(.006)	(.007)	(.006)	.007	(.006)	(.007)	(.006)	(.007)	(.006)	(.007)
Parents Married	.456	.377	.454	.377	.455	.372	.450	.370	.443	.357
	(.278)	(.275)	(.277)	.276	(.279)	(.279)	(.277)	(.274)	(.275)	(.272)
Parent Graduated	618**	551**	618*	550**	611**	539**	613**	546**	621**	551**
College	(.199)	(.197)	(.196)	.193	(.198)	(.196)	(.196)	(.193)	(.198)	(.197)
Parent Works	178	360	176	357	171	350	179	362	149	308
	(.323)	(.328)	(.323)	.328	(.326)	(.330)	(.323)	(.328)	(.327)	(.330)
Parental	100	108	103	110	103	111	100	108	107	115
Attachment	(.147)	(.177)	(.148)	.178	(.147)	(.178)	(.147)	(.177)	(.150)	(.177)
School	112	115	113	115	110	112	111	113	112	116
Attachment	(.081)	(.088)	(.081)	.088	(.081)	(.088)	(.081)	(.088)	(.082)	(.089)
Peer Deviance	048	073	028	051	135	196	224	283	.263	.295
	(.155)	(.171)	(.098)	.099	(.101)	(.102)	(.265)	(.289)	(.151)	(.171)
Density	271	200	307	231	307	239	300	225	280	205
-	(.450)	(.465)	(.422)	.434	(.424)	(.435)	(.420)	(.429)	(.434)	(.446)
Centrality	.004	004	.012	.004	.008	.006	.003	003	005	013
-	(.195)	(.206)	(.191)	.203	(.197)	(.209)	(.1950	(.207)	(.195)	(.207)
Popularity	.006	.008	.006	.007	.003	.004	.006	.007	.006	.008
1 5	(.018)	(.019)	(.018)	.019	(.017)	(.018)	(.018)	(.019)	(.018)	(.019)
Friend	021	017	021	018	024	022	034	033	016	014
Attachment	(.109)	(.121)	(.110)	.122	(.109)	(.121)	(.114)	(.125)	(.109)	(.121)
Friend	014	047	014	047	014	047	014	047	.023	008
Involvement	(.077)	(.077)	(.076)	.076	(.077)	(.077)	(.077)	(.077)	(.079)	(.080)
Peer Dev. X	077	063								
Density	(.360	(.387)								

Table 9: Logistic Regression Predicting Marriage Outcome: Interaction Effects for Whites

Peer Dev. X			071	065						
Centrality			(.110)	(.111)						
Peer Dev. X					.010	.019				
Popularity					(.018)	(.020)				
Peer Dev. X							.033	.042		
Attachment							(.060)	(.066)		
Peer Dev. X									166*	192*
Involvement									(.063)	(.074)
Marriage		.441***		.439***		.445***		.441		.446***
Expectations		(.095)		(.096)		(.096)		(.095)		(.097)
College		187*		189**		188**		187		191**
Expectations		(.071)		(.070)		(.070)		(.070)		(.068)
Job Expectations		.044		.045		.043		.044		.049
		(.107)		(.107)		(.107)		(.107)		(.108)
Constant	-4.444**	-5.861***	-4.391**	-5.803***	-4.436**	-5.891***	-4.388**	-5.811***	-4.570**	-6.012***
	(1.418)	(1.425)	(1.399)	(1.401)	(1.392)	(1.402)	(1.394)	(1.402)	(1.381)	(1.385)

Table 10: Logistic Regression Predicting Marriage Outcome: Interaction Effects for Minorities

Variable	Model 33 n=673	Model 34 n=668	Model 35 n=673	Model 36 n=668	Model 37 n=673	Model 38 n=668	Model 39 n=673	Model 40 n=668	Model 41 n=673	Model 42 n=668
	В	В	В	В	В	В	В	В	В	В
	(SE)									
Age	.512**	.470**	.527**	.472**	.509**	.458**	.462**	.419*	.545**	.488**
	(.172)	(.156)	(.163)	(.154)	(.167)	(.156)	(.174)	(.159)	(.159)	(.149)
Female	.342	.373	.317	.325	.276	.287	.295	.313	.285	.281
	(.421)	(.457)	(.412)	(.442)	(.420)	(.445)	(.422)	(.449)	(.434)	(.457)
Two-Parent	.613	.610	.806	.769	.723	.701	.662	.682	.850	.862
	(.463)	(.497)	(.485)	(.511)	(.484)	(.516)	(.487)	(.517)	(.448)	(.498)
Public Assistance	-1.394*	-1.429*	-1.327*	-1.347*	-1.220*	-1.274	-1.263*	-1.340	-1.264*	-1.295*
	(.604)	(.652)	(.590)	(.661)	(.589)	(.664)	(.599)	(.672)	(.545)	(.600)
Income	.000	.000	.000	.000	.000	000	.000	.000	000	001
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.005)	(.004)	(.004)
Self-Control	.009	.004	005	011	004	011	.002	003	.010	.002
	(.039)	(.043)	(.039)	(.041)	(.037)	(.041)	(.040)	(.043)	(.040)	(.045)
IQ	015	020*	016	020*	016	020*	020	025*	016	020*
	(.011)	(.009)	(.011)	(.010)	(.011)	(.010)	(.011)	(.010)	(.011)	(.010)
Parents Married	.174	.056	.092	.008	.183	.092	.268	.145	.059	029
	(.367)	(.381)	(.374)	(.394)	(.360)	(.379)	(.416)	(.420)	(.359)	(.377)
Parent Graduated	630	626	648	644	610	631	614	616	682	658
College	(.379)	(.393)	(.390)	(.397)	(.383)	(.398)	(.382)	(.393)	(.380)	(.397)

Parent Works	235	218	254	163	175	114	225	178	263	169
	(.762)	(.785)	(.753)	(.762)	(.735)	(.743)	(.724)	(.738)	(.732)	(.745)
Parental	.321	.381	.324	.402	.345	.418	.409	.491	.423	.482
Attachment	(.348)	(.373)	(.359)	(.387)	(.400)	(.415)	(.332)	(.360)	(.394)	(.407)
School	.304	.226	.316	.238	.318	.254	.351	.281	.323	.257
Attachment	(.182)	(.162)	(.174)	(.162)	(.179)	(.163)	(.197)	(.170)	(.181)	(.173)
Peer Deviance	1.019**	1.043**	080	.044	.075	.164	-1.242	-1.530	.844**	.841**
	(.374)	(.364)	(.252)	(.259)	(.190)	(.197)	(.883)	(.858)	(.288)	(.311)
Density	.885	.758	.839	.649	.877	.721	.914	.770	.892	.773
•	(.851)	(.858)	(.872)	(.916)	(.859)	(.902)	(.883)	(.917)	(.891)	(.916)
Centrality	415	430	526	534	453	457	418	418	493	479
•	(.383)	(.396)	(.433)	(.440)	(.385)	(.399)	(.391)	(.401)	(.398)	(.402)
Popularity	.082	.072	.084	.075	.078	.068	.079	.069	.077	.063
	(.047)	(.048)	(.049)	(.049)	(.048)	(.048)	(.045)	(.047)	(.048)	(.048)
Friend	022	055	.009	024	015	035	083	127	015	034
Attachment	(.243)	(.280)	(.258)	(.290)	(.244)	(.280)	(.228)	(.261)	(.257)	(.290)
Friend	176	231	176	226	158	221	173	237	111	186
Involvement	(.146)	(.136)	(.144)	(.138)	(.149)	(.140)	(.151)	(.138)	(.155)	(.145)
Peer Dev. X	-1.335	-1.330								
Density	(.798)	(.686)								
Peer Dev. X			.685*	.509*						
Centrality			(.261)	(.248)						
Peer Dev. X					.082	.059				
Popularity					(.051)	(.049)				
Peer Dev. X							.373	.445*		
Attachment							(.205)	(.201)		
Peer Dev. X									300*	286*
Involvement									(.125)	(.130)
Marriage		.589**		.548**		.567**		.619**		.551**
Expectations		(.180)		(.177)		(.175)		(.172)		(.178)
College		.085		.068		.042		.085		.025
Expectations		(.198)		(.197)		(.209)		(.197)		(.206)
Job Expectations		029		026		009		057		.053
		(.185)		(.182)		(.180)		(.182)		(.191)
Constant	-11.241**	-11.844	-11.534**	-11.914**	-11.403**	-11.920**	-10.461**	-11.122**	-12.251**	-12.736**
	(3.697)	(3.716)	(3.605)	(3.706)	(3.680)	(3.759)	(3.773)	(3.709)	(3.685)	(3.770)
* 05 **	01 ****	201								

Job Stability

The models investigating job stability for the full sample show that there are very few significant predictors for this outcome. Demographics, again, emerge as significant as does popularity and one of the interactions with peer deviance. The stories told across sub-samples, however, are very divergent depending on whether the sample is male, female, white, or minority. It is also worth noting that many of the peer findings are in the opposite direction as hypothesized.

Main Effects

The results for job stability in Table 11 show considerable consistency across models. Similar to the marriage outcome, demographics appear to be most significant. Older individuals and whites have higher likelihood of experiencing job stability while females are less likely to exhibit stable employment compared to males. Model 1 also shows that the higher one's family income during adolescence the less likely they are to have stable employment as a young adult. This relationship, however, no longer exists once peer deviance is added to the models. Although peer deviance does not have an impact on job stability as an outcome, in addition to influencing the income variable its inclusion also alters the impact of age, rendering this variable insignificant. The addition of expectations to the model does not change any of the previous findings, nor are the adolescent expectations variables influential for later job stability. Including network characteristics in the model does not affect any other relationships, but a significant relationship emerges between popularity and job stability. As seen in Models 3 and 4, adolescents who are more popular within their peer group have a higher likelihood of securing stable employment in early

adulthood (both with and without expectations in the model). None of the other network characteristics are influential for job stability.

Variable	Model 1	Model 2	Model 3	Model 4
	n=3057	n=2409	n=2402	n=2388
	В	В	В	В
	(SE)	(SE)	(SE)	(SE)
Age	.114*	.100	.100	.095
-	(.047)	(.052)	(.052)	(.053)
Female	568***	567***	603***	609***
	(.096)	(.109)	(.118)	(.119)
White	.514***	.525**	.499**	.500**
	(.139)	(.168)	(.166)	(.168)
Two-Parent	140	198	202	190
	(.143)	(.162)	(.161)	(.161)
Public Assistance	.002	122	119	128
	(.227)	(.287)	(.293)	(.291)
Income	004*	003	003	003
	(.015)	(.002)	(.002)	(.002)
Self-Control	005	006	005	007
	(.004)	(.016)	(.016)	(.016)
IQ	005	007	007	006
	(.004)	(.004)	(.004)	(.004)
Parents Married	.240	.195	.209	.190
	(.155)	(.175)	(.179)	(.180)
Parent Graduated	208	195	214	223
College	(.114)	(.130)	(.125)	(.126)
Parent Works	054	.146	.141	.126
	(.224)	(.256)	(.255)	(.255)
Parental Attachment	.017	.092	.091	.096
	(.132)	(.139)	(.142)	(.142)
School Attachment	.097	.098	.092	.095
	(.062)	(.075)	(.077)	(.078)
Peer Deviance		015	025	031
		(.070)	(.070)	(.072)
Density			244	241
5			(.340)	(.342)
Centrality			161	158
			(.123)	(.124)
Popularity			.034*	.033*
1 5			(.014)	(.014)
Friend Attachment			.031	.039
			(.089)	(.093)
Friend Involvement			016	014
			(.066)	(.068)
Marriage Expectations			/	.041
6 1				(.052)
College Expectations				010
6 r				(.056)
Job Expectations				062
r				(.075)
Constant	-1.568	-1.681	-1.668	-1.565
	(974)	(1.060)	(1.054)	(1.052)

Table 11: Logistic Regression Predicting Job Stability: Main Effects

* = p < .05, ** = p < .01, *** = p < .001
Conditioning Effects

Table 12 shows the impact of interaction terms between peer deviance and network characteristics both without and with expectations. Including the interactions does not alter any of the main effects previously stated. Gender, race, and popularity all retain their significance. This table also illustrates that only one network characteristic has a conditioning effect on peer deviance. Although the level of peer deviance did not have a direct relationship with job stability (as seen in Table 11), the interaction between peer deviance and peer attachment does matter. In particular, the more attached one is to a deviant network the more likely that individual is to experience later job stability. This finding is in the opposite direction as hypothesized.

Gender and Race

Across models for the male sample (Table 13 and 15), being white, popular, and expecting to be married by the age of 25 all increase the likelihood that one experiences stable employment in young adulthood. Also, similar to the full sample, although unexpected, the more attached one is to a deviant peer network the greater the chances of job stability. Unlike the full sample, however, the negative relationship between family income in adolescence and later job stability that disappeared with the inclusion of peer deviance remains in all models utilizing the male sample. The picture for females is even more simplistic than the males, with race being the only consistent predictor of job stability across models. In particular, white females are significantly more likely to exhibit stable employment compared to minority females. The only other variable that occasionally emerges as significant is

IQ (Models 15 and 28), with a higher IQ decreasing the chances of job stability for females, although it is borderline significant in the other female models. Although these patterns of significance across the male and female sub-sample appear divergent, the only statistically significant difference between slope coefficients is found with marriage expectations, which are positively associated with job stability for the male sample.

The only consistent influences in the white sample are gender and IQ. Being a white female decreases the probability of stable employment compared to white men and whites with higher IQs are less likely to have achieved stable employment by Wave III. The only significant peer influence mirrors the full sample with higher attachment in a deviant network benefiting an individual with regards to job stability in early adulthood. While older individuals consistently achieve stable employment more often in the minority sample in all of the models, the significant impact of gender does not hold up across models. Specifically, the addition of network characteristics renders the negative relationship between being female and job stability insignificant. Another notable finding is that once the network variables are added (Table 16, Model 31) the level of peer deviance is influential, although in an unexpected direction, with higher levels of peer deviance being beneficial for later job stability. None of the network characteristics matter directly, nor do they condition the impact of deviant peers. It is important to highlight, however, that the negative impact of being female in the white sample and the positive conditioning influence of attachment for the minority sample are not statistically significant from their counterparts in the minority and white samples, respectively. All other differences, though, are statistically significant.

Variable	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14
	n=2402	n=2388	n=2402	n=2388	n=2402	n=2388	n=2402	n=2388	n=2402	n=2388
	В	В	В	В	В	В	В	В	В	В
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)
Age	.010	.094	.010	.094	.100	.095	.105*	.100	.099	.094
	(.052)	(.052)	(.051)	(.052)	(.052)	(.052)	(.051)	(.052)	(.052)	(.053)
Female	604***	610***	606***	612***	605***	611***	603***	611***	603***	608***
	(.118)	(.119)	(.118)	(.118)	(.119)	(.119)	(.119)	(.120)	(.119)	(.119)
White	.494**	.496**	.493**	.494**	.496**	.497**	.524**	.526**	.500**	.501
	(.167)	(.169)	(.167)	(.169)	(.165)	(.168)	(.163)	(.166)	(.167)	(.170)
Two-Parent	202	190	196	183	187	187	162	149	204	192
	(.162)	(.161)	(.162)	(.162)	(.160)	(.160)	(.160)	(.160)	(.163)	(.163)
Public Assistance	123	131	121	129	126	126	119	128	115	123
	(.292)	(.291)	(.291)	(.289)	(.291)	(.291)	(.299)	(.299)	(.289)	(.288)
Income	003	003	003	003	003	003	003	003	003	003
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Self-Control	005	007	005	007	007	007	004	006	005	007
	(.016)	(.016)	(.015)	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)
IQ	007	006	007	006	006	006	007	006	007	006
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Parents Married	.212	.193	.205	.186	.190	.190	.198	.178	.213	.195
	(.180)	(.181)	(.179)	(.180)	(.180)	(.180)	(.178)	(.179)	(.184)	(.185)
Parent Graduated	215	225	214	224	212	221	197	209	213	223
College	(.124)	(.126)	(.125)	(.126)	(.125)	(.126)	(.126)	(.128)	(.125)	(.126)
Parent Works	.138	.123	.140	.125	.148	.134	.126	.111	.141	.126
	(.256)	(.256)	(.256)	(.256)	(.259)	(.259)	(.258)	(.259)	(.255)	(.255)
Parental	.093	.098	.092	.097	.091	.096	.111	.116	.090	.095
Attachment	(.143)	(.142)	(.142)	(.141)	(.142)	(.141)	(.141)	(.141)	(.142)	(.142)
School	.091	.094	.093	.096	.092	.095	.097	.100	.092	.095
Attachment	(.077)	(.078)	(.077)	(.078)	(.077)	(.079)	(.076)	(.078)	(.077)	(.078)
Peer Deviance	.030	.022	069	080	053	065	910**	929**	077	089
	(.110)	(.116)	(.098)	(.100)	(.126)	(.131)	(.318)	(.324)	(.196)	(.196)
Density	211	209	235	232	247	244	241	239	246	244
-	(.337)	(.337)	(.341)	(.343)	(.339)	(.340)	(.340)	(.342)	(.337)	(.339)
Centrality	159	156	167	165	159	156	162	159	160	157
-	(.122)	(.124)	(.123)	(.125)	(.124)	(.125)	(.124)	(.126)	(.123)	(.125)

 Table 12: Logistic Regression Predicting Job Stability: Interaction Effects

Popularity	.034*	.033*	.034*	.033*	.032*	.031*	.033*	.031*	.034*	.033*
	(.014)	(.014)	(.014)	(.014)	(.015)	(.015)	(.014)	(.014)	(.014)	(.014)
Friend	.030	.039	.030	.038	.029	.038	044	037	.031	.039
Attachment	(.089)	(.093)	(.089)	(.093)	(.089)	(.092)	(.093)	(.097)	(.090)	(.093)
Friend	017	014	017	014	017	014	017	013	021	019
Involvement	(.066)	(.068)	(.067)	(.068)	(.066)	(.068)	(.065)	(.067)	(.069)	(.070)
Peer Dev. X	121	117								
Density	(.198)	(.203)								
Peer Dev. X			.058	.064						
Centrality			(.078)	(.078)						
Peer Dev. X					.006	.007				
Popularity					(.017)	(.018)				
Peer Dev. X							.207**	.210**		
Attachment							(.071)	(.072)		
Peer Dev. X									.026	.028
Involvement									(.075)	(.074)
Marriage		.042		.042		.043		.045		.042
Expectations		(.052)		(.053)		(.053)		(.053)		(.052)
College		008		008		009		001		009
Expectations		(.057)		(.056)		(.056)		(.056)		(.056)
Job Expectations		063		063		063		071		063
		(.075)		(.075)		(.075)		(.074)		(.074)
Constant	-1.696	-1.596	-1.679	-1.581	-1.678	-1.580	-1.552	-1.455	-1.645	-1.538
	(1.060)	(1.059)	(1.047)	(1.045)	(1.044)	(1.041)	(1.040)	(1.042)	(1.076)	(1.073)

Variable	Мо	del 15	Мо	del 16	Mo	del 17	Mo	del 18
	Female n=1584	Male n=1473	Female n=1319	Male n=1090	Female n=1316	Male n=1086	Female n=1310	Male n=1078
	В	В	В	В	В	В	В	В
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)
Age	.161*	.082	.141	.073	.149	.064	.143	.065
-	(.073)	(.067)	(.080)	(.078)	(.081)	(.078)	(.080)	(.080)
White	.444*	.591**	.401*	.700**	.412*	.587	.469*	.572*
	(.175)	(.180)	(.199)	(.218)	(.204)	(.219)	(.207)	(.221)
Two-Parent	056	231	001	399	.016	411	.044	404
	(.195)	(.208)	(.174)	(.263)	(.174)	(.261)	(.176)	(.266)
Public Assistance	195	.262	304	.241	330	.272	322	.250
	(.324)	(.342)	(.378)	(.502)	(.381)	(.523)	(.382)	(.525)
Income	002	007**	002	005*	002	005*	002	005*
	(.002)	(.002)	(.003)	(.002)	(.002)	(.002)	(.002)	(.002)
Self-Control	013	/006	004	004	002	000	002	004
	(.014)	(/021)	(.016)	(.006)	(.016)	(.023)	(.018)	(.024)
IO	011*	.001	009	004	009	003	011	002
- ((.005)	(.006)	(.005)	(.006)	(.005)	(.006)	(.005)	(.006)
Parents Married	.219	255	.192	.180	.191	.220	.186	.210
	(.209)	(.224)	(216)	(253)	(215)	(.265)	(216)	(271)
Parent Graduated	- 167	- 236	- 140	- 241	- 129	- 310	- 142	- 306
College	(163)	(149)	(188)	(171)	(183)	(186)	(184)	(191)
Parent Works	194	- 319	202	046	156	068	145	062
i dient works	(309)	(401)	(382)	(483)	(390)	(481)	(387)	(467)
Parental	(.505)	(.401)	200	- 060	207	(.401)	215	- 036
Attachment	(123)	(107)	(144)	(208)	(155)	(212)	(156)	(212)
School	036	(.197)	(.144)	(.200)	(.155)	(.212)	(.130)	(.212)
Attachment	.030	(006)	.005	(102)	.072	(105)	.072	(108)
Paar Davianaa	(.070)	(.090)	(.085)	(.102)	(.005)	(.105)	(.085)	(.108)
Peer Devlance			.019	058	.021	030	.021	034
Dansity			(.068)	(849)	(.071)	(.115)	(.073)	(.117)
Density					401	024	430	009
Controllitor					(.491)	(.563)	(.494)	(.503)
Centrality					125	195	134	188
D 1 1					(.198)	(.152)	(.200)	(.157)
Popularity					.015	.050*	.016	.050
D · · · ·					(.019)	(.024)	(.019)	(.025)
Friend					012	.073	.005	.074
Attachment					(.114)	(.124)	(.116)	(.128)
Friend					064	.031	056	.028
Involvement					(.077)	(.092)	(.077)	(.095)
Marriage							064	.162*
Expectations							(.072)	(.078)
College							.019	017
Expectations							(.092)	(.079)
Job Expectations							047	076
							(.107)	(.107)
Constant	-2.969*	709	-3.284*	849	-2.991*	-1.168	-2.632	-1.549
	(1.257)	(1.567)	(1.370)	(1.734)	(1.331)	(1.692)	(1.345)	(1.696)

Table 13: Logistic	Regression	Predicting	Job	Stability:	Bv	Gender
			0~~		~ ./	0

Variable	Model 19	Model 20	Model 21	Model 22	Model 23	Model 24	Model 25	Model 26	Model 27	Model 28
	n=1316	n=1310								
	B	B	B	B	B	B	B	B	B	B
	(SE)									
Age	.151	.146	.018	.142	.149	.143	.151	.145	.146	.140
	(.081)	(.080)	(.082)	(.081)	(.082)	(.080)	(.082)	(.081)	(.081)	(.080)
White	.405	.462*	.418*	.474*	.413*	.470*	.426*	.479*	.417*	.472*
	(.205)	(.208)	(.205)	(.209)	(.204)	(.208)	(.203)	(.208)	(.207)	(.211)
Two-Parent	.011	.039	.013	.042	.011	.038	.030	.057	.010	.038
	(.176)	(.178)	(.172)	(.174)	(.172)	(.175)	(.176)	(.178)	(.176)	(.179)
Public Assistance	338	331	336	329	329	322	330	323	320	313
	(.378)	(.379)	(.383)	(.383)	(.382)	(.383)	(.384)	(.385)	(.372)	(.372)
Income	002	008	002	002	002	002	002	002	002	002
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Self-Control	002	002	002	002	002	001	003	002	002	001
	(.016)	(.018)	(.016)	(.018)	(.016)	(.017)	(.016)	(.018)	(.016)	(.018)
IQ	009	010	010	011	010	011	009	011	010	011*
	(.005)	(.005)	(.005)	(.005)	(.005)	(.006)	(.005)	(.005)	(.005)	(.006)
Parents Married	.198	.194	.191	.185	.195	.191	.192	.186	.202	.195
	(.218)	(.218)	(.213)	(.214)	(.213)	(.213)	(.217)	(.218)	(.220)	(.222)
Parent Graduated	136	151	128	141	131	145	116	130	132	146
College	(.184)	(.186)	(.182)	(.183)	(.183)	(.184)	(.185)	(.186)	(.182)	(.183)
Parent Works	.150	.140	.153	.141	.157	.146	.128	.118	.145	.129
	(.392)	(.388)	(.390)	(.386)	(.391)	(.387)	.392()	(.387)	(.394)	(.390)
Parental	.204	.213	.212	.221	.210	.220	.199	.208	.198	.206
Attachment	(.156)	(.158)	(.158)	(.160)	(.157)	(.159)	(.157)	(.158)	(.157)	(.158)
School	.070	.071	.070	.071	.073	.074	.076	.076	.075	.076
Attachment	(.086)	(.085)	(.085)	(.084)	(.085	(.084)	(.084)	(.084)	(.084)	(.084)
Peer Deviance	.135	.139	.094	.092	.057	.066	578	531	162	165
	(.134)	(.142)	(.145)	(.144)	(.135)	(.134)	(.400)	(.390)	(.170)	(.168)
Density	343	391	410	458	394	441	414	459	426	474
	(.483)	(.488)	(.484)	(.487)	(.483)	(.487)	(.490)	(.493)	(.494)	(.497)
Centrality	121	129	- 120	128	130	140	117	- 126	130	- 139
contrainty	(197)	(199)	(194)	(197)	(200)	(204)	(197)	(200)	(199)	(202)
Popularity	016	016	014	015	016	017	014	015	015	016
ropularity	(019)	(019)	(019)	(019)	(020)	(020)	(019)	(020)	(019)	(019)
Friend	- 009	007	- 015	002	- 011	006	- 046	- 272	- 011	005
Attachment	(115)	(117)	(113)	(115)	(114)	(116)	(116)	(117)	(114)	(116)
Friend	- 064	- 056	- 061	- 054	- 063	- 056	- 064	- 057	- 078	- 071
Involvement	(077)	030	(077)	034	003	050	004	(077)	078)	(078)
Deer Dev Y	248	(.077)	(.077)	(.070)	(.077)	(.077)	(.077)	(.077)	(.078)	(.078)
Donsity	240	237								
Density	(.238)	(.208)								

Table 14: Logistic Regression Predicting Job Stability Outcome: Interaction Effects for Females

Peer Dev. X			093	092						
Centrality			(.145)	(.142)						
Peer Dev. X					007	009				
Popularity					(.021)	(.021)				
Peer Dev. X							.135	.125		
Attachment							(.091)	(.088)		
Peer Dev. X									.092	.093
Involvement									(.078)	(.076)
Marriage		064		062		065		059		058
Expectations		(.072)		(.071)		(.071)		(.070)		(.072)
College		.023		.017		.020		.019		.220
Expectations		(.093)		(.092)		(.092)		(.093)		(.092)
Job Expectations		049		048		048		048		052
		(.107)		(.107)		(.106)		(.107)		(.105)
Constant	-3.07*	-2.720*	-2.967*	-2.608*	-3.000*	-2.640	-2.843*	-2.504	-2.820*	-2.456
	(1.32)	(1.339)	(1.33)	(1.342)	(1.337)	(1.352)	(1.344)	(1.358)	(1.352)	(1.360)

Table 15: Logistic Regression Predicting Job Stability Outcome: Interaction Effects for Males

1 abic 15. Lug	Table 15. Dogistic Regression Fredering Job Stability Outcome, interaction Effects for Mates										
Variable	Model 19 n=1086	Model 20 n=1078	Model 21 n=1086	Model 22 n=1078	Model 23 n=1086	Model 24 n=1078	Model 25 n=1086	Model 26 n=1078	Model 27 n=1086	Model 28 n=1078	
	В	В	В	В	В	В	В	В	В	В	
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	
Age	.065	.065	.615	.062	.064	.064	.069	.070	.065	.066	
	(.078)	(.080)	(.077)	(.078)	(.078)	(.079)	(.077)	(.079)	(.078)	(.079)	
White	.590**	.573*	.562*	.544*	.577*	.560*	.636**	.627**	.587**	.569**	
	(.219)	(.221)	(.221)	(.224)	(.221)	(.222)	(.210)	(.211)	(.213)	(.214)	
Two-Parent	412	404	384	372	410	405	351	347	404	396	
	(.261)	(.267)	(.268)	(.274)	(.261)	(.268)	(.262)	(.267)	(.260)	(.266)	
Public Assistance	.273	.250	.248	.224	.287	.270	.292	.273	.265	.242	
	(.523)	(.525)	(.520)	(.522)	(.252)	(.526)	(.532)	(.537)	(.520)	(.523)	
Income	005*	005*	005*	005*	005*	005*	005*	005*	005*	005*	
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	
Self-Control	001	004	.001	002	000	004	.001	002	.002	001	
	(.023)	(.024)	(.023)	(.024)	(.023)	(.024)	(.023)	(.024)	(.024)	(.025)	
IQ	003	002	002	001	003	002	003	002	003	002	
-	(.006)	(.006)	(.006)	(.006)	(.006)	(.006)	(.006)	(.006)	(.006)	(.006)	
Parents Married	.219	.209	.195	.179	.224	.215	.198	.184	.203	.192	
	(.265)	(.270)	(.266)	(.272)	(.267)	(.274)	(.266)	(.272)	(.269)	(.275)	

Parent Graduated	311	307	309	307	306	302	298	302	320	314
College	(.188)	(.192)	(.184)	(.189)	(.183)	(.189)	(.181)	(.187)	(.183)	(.189)
Parent Works	.070	.063	.063	.058	.104	.109	.120	.115	.058	.049
	(.479)	(.466)	(.492)	(.478)	(.494)	(.479)	(.496)	(.484)	(.478)	(.047)
Parental	055	038	036	017	043	025	.013	.032	064	050
Attachment	(.214)	(.215)	(.215)	(.215)	(.206)	(.206)	(.208)	(.208)	(.211)	(.211)
School	.147	.151	.147	.153	.148	.153	.145	.150	.152	.157
Attachment	(.106)	(.108)	(.105)	(.108)	(.106)	(.109)	(.103)	(.106)	(.104)	(.107)
Peer Deviance	089	068	182	201	119	135	-1.081**	-1.12**	.131	.157
	(.171)	(.176)	(.150)	(.158)	(.198)	(.203)	(.406)	(.421)	(.307)	(.322)
Density	047	018	.014	.034	020	005	004	.009	025	010
	(.558)	(.555)	(.561)	(.563)	(.566)	(.566)	(.577)	(.578)	(.573)	(.575)
Centrality	196	188	218	216	194	187	202	200	208	204
	(.152)	(.157)	(.152)	(.155)	(.152)	(.157)	(.154)	(.160)	(.157)	(.162)
Popularity	.050*	.050*	.050*	.050*	.048	.046	.051*	.050*	.051*	.051*
	(.024)	(.025)	(.024)	(.025)	(.025)	(.025)	(.238)	(.024)	(.025)	(.025)
Friend	.074	.075	.065	.065	.069	.069	035	040	.075	.076
Attachment	(.125)	(.130)	(.013)	(.127)	(.122)	(.126)	(.124)	(.129)	(.121)	(.126)
Friend	.031	.028	.035	.034	.031	.028	.028	.026	.048	.047
Involvement	(.092)	(.095)	(.093)	(.096)	(.093)	(.095)	(.091)	(.094)	(.097)	(.100)
Peer Dev. X	.074	.031								
Density	(.281)	(.286)								
Peer Dev. X			.166	.194						
Centrality			(.124)	(.126)						
Peer Dev. X					.015	.019				
Popularity					(.028)	(.029)				
Peer Dev. X							.248**	.258**		
Attachment							(.094)	(.097)		
Peer Dev. X									089	100
Involvement									(.120)	(.126)
Marriage		.161*		.169*		.167*		.168*		.169*
Expectations		(.078)		(.080)		(.080)		(.079)		(.078)
College		018		011		013		.006		021
Expectations		(.080)		(.079)		(.079)		(.078)		(.079)
Job Expectations		076		084		080		091		071
_		(.107)		(.108)		(.109)		(.107)		(.107)
Constant	-1.153	-1.541	-1.219	-1.635	-1.235	-1.651	-1.166	-1.568	-1.125	-1.528
	(1.693)	(1.700)	(1.683)	(1.685)	(1.682)	(1.683)	(1.666)	(1.677)	(1.660)	(1.667)

Variable	Model 29		Model 30		Mo	del 31	Model 32		
	White	Minority	White	Minority	White	Minority	White	Minority	
	n=2113	n=944	n=1730	n=679	n=1727	n=675	n=1718	n=670	
	В	В	В	В	В	В	В	В	
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	
Age	.094	.237*	.059	.404**	.621	.419**	.057	.411**	
e	(.054)	(.105)	(.059)	(.127)	(.060)	(.124)	(.060)	(.126)	
Female	606***	450*	601***	437*	638***	397	638***	402	
	(.118)	(.174)	(.125)	(.197)	(.131)	(.229)	(.129)	(.231)	
Two-Parent	207	.027	302	311	309	012	297	.004	
	(.160)	(.289)	(.195)	(.363)	(.195)	(.360)	(.197)	(.375)	
Public Assistance	169	.174	262	.017	257	.038	269	.015	
	(.293)	(.333)	(.339)	(.426)	(.355)	(.408)	(.356)	(.412)	
Income	003	009	002	007	002	008	002	007	
	(.002)	(.005)	(.002)	(.005)	(.002)	(.006)	(.002)	(.005)	
Self-Control	015	.044	012	.035	011	.037	013	.035	
	(.015)	(.031)	(.016)	(.033)	(.016)	(.034)	(.016)	(.035)	
10	- 011*	009	- 012*	007	- 012*	008	- 011*	009	
12	(004)	(008)	(005)	(009)	(005)	(009)	(005)	(009)	
Parents Married	299	105	351	- 267	369	- 349	355	- 376	
i arents Married	(170)	(314)	(202)	(403)	(207)	(380)	(208)	(393)	
Parent Graduated	- 220	- 126	-172	- 198	(.207)	- 188	- 204	- 228	
College	(135)	(200)	(140)	(247)	(143)	(248)	(146)	(244)	
Darent Works	(.155)	043	(.149)	(.247)	- 007	(.240)	(.140)	355	
	(288)	(420)	(313)	(536)	(307)	(518)	(314)	(515)	
Donomtol	(.200)	(.420)	(.313)	(.330)	(.307)	(.318)	(.314)	(.515)	
Attachmant	.004	211	.108	457	.134	337	.104	555	
Attachment	(.101)	(.180)	(.170)	(.245)	(.172)	(.204)	(.1/1)	(.201)	
School	.063	.208	.080	.157	.007	.18/	.070	.194	
Attachment	(.069)	(.128)	(.082)	(.161)	(.084)	(.151)	(.085)	(.148)	
Peer Deviance			078	.267	088	.292*	095	.288*	
D			(.075)	(.134)	(.075)	(.135)	(.078)	(.140)	
Density					236	188	233	195	
					(.410)	(.710)	(.413)	(.732)	
Centrality					123	170	120	170	
					(.142)	(.276)	(.146)	(.282)	
Popularity					.029	.071	.027	.074	
					(.015)	(.046)	(.016)	(.044)	
Friend					.054	211	.060	185	
Attachment					(.100)	(.173)	(.105)	(.180)	
Friend					.007	109	.010	105	
Involvement					(.075)	(.124)	(.076)	(.134)	
Marriage							.024	.061	
Expectations							(.062)	(.125)	
College							008	041	
Expectations							(.063)	(.124)	
Job Expectations							059	096	
-							(.092)	(.150)	
Constant	145	-4.235*	170	-5.466*	321	-5.333*	201	-5.040*	
	(1.11)	(1.950)	(1.205)	(2.35)	(1.223)	(2.481)	(1.208)	(2.475)	

Table 16:	Logistic	Regression	Predicting	Job	Stability:	Bv	Race
				0~~		~ ./	

Variable	Model 33	Model 34	Model 35	Model 36	Model 37	Model 38	Model 39	Model 40	Model 41	Model 42
	n=1727	n=1718								
	В	В	В	В	B	В	В	В	В	В
	(SE)									
Age	.062	.057	.062	.057	.063	.058	.067	.062	.062	.056
	(.060)	(.060)	(.059)	(.060)	(.060)	(.060)	(.060)	(.060)	(.060)	(.060)
Female	638***	639***	641***	644***	640***	642***	640***	644***	636***	637***
	(.131)	(.129)	(.131)	(.129)	(.131)	(.130)	(.132)	(.131)	(.133)	(.131)
Two-Parent	309	298	301	290	304	293	271	259	314	302
	(.196)	(.198)	(.198)	(.200)	(.196)	(.198)	(.193)	(.195)	(.202)	(.204)
Public Assistance	257	270	249	260	244	256	254	266	224	235
	(.356)	(.356)	(.349)	(.350)	(.353)	(.353)	(.372)	(.373)	(.346)	(.346)
Income	002	002	003	003	002	002	002	002	002	002
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Self-Control	011	013	011	013	011	014	010	012	012	014
	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)	(.017)
IQ	012*	011*	011*	011*	011*	011*	012*	011*	012*	012*
	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)
Parents Married	.371	.357	.366	.351	.372	.358	.359	.345	.384	.371
	(.207)	(.209)	(.208)	(.209)	(.210)	(.211)	(.203)	(.205)	(.216)	(.217)
Parent Graduated	198	205	196	204	189	196	180	189	195	202
College	(.143)	(.146)	(.143)	(.146)	(.144)	(.147)	(.145)	(.148)	(.143)	(.146)
Parent Works	007	.001	007	.001	.014	.023	010	002	020	011
	(.307)	(.314)	(.309)	(.316)	(.317)	(.323)	(.319)	(.326)	(.308)	(.314)
Parental	.156	.165	.157	.166	.155	.165	.171	.181	.159	.170
Attachment	(.173)	(.172)	(.171)	(.171)	(.170)	(.169)	(.171)	(.171)	(.170)	(.169)
School	.066	.068	.069	.072	.069	.072	.070	.072	.065	.068
Attachment	(.084)	(.085)	(.084)	(.086)	(.085)	(.086)	(.083)	(.085)	(.084)	(.085)
Peer Deviance	054	063	164	177	183	198	881*	899*	297	310
	(.121)	(.126)	(.103)	(.106)	(.131)	(.136)	(.357)	(.363)	(.223)	(.224)
Density	212	209	224	219	254	251	254	251	247	244
5	(.408)	(.408)	(.413)	(.416)	(.407)	(.409)	(.413)	(.416)	(.401)	(.403)
Centrality	122	119	138	136	116	112	126	123	117	113
	(.142)	(.146)	(.144)	(.149)	(.145)	(.148)	(.145)	(.148)	(.143)	(.147)
Popularity	.029	.027	.029	.028	.024	.022	.028	.026	.029	.027
1 opulation	(.015)	(.016)	(.015)	(.015)	(.016)	(.016)	(.015)	(.016)	(.015)	(.015)
Friend	.054	.060	.051	.057	.047	.053	023	019	.051	.058
Attachment	(.101)	(.105)	(.101)	(.105)	(.100)	(.105)	(.110)	(.114)	(.102)	(.107)
Friend	.006	.010	.006	.010	.006	.010	.006	.010	013	010
Involvement	(075)	(076)	(075)	(077)	(075)	(076)	(074)	(075)	(080)	(082)
Peer Dev X	- 075	- 072				(.070)		(.075)	(.000)	(
Density	(220)	223								
Density	(.220)	.223								

Table 17: Logistic Regression Predicting Job Stability Outcome: Interaction Effects for Whites

Peer Dev. X			.097	.106						
Centrality			(.092)	(.092)						
Peer Dev. X					.019	.021				
Popularity					(.018)	(.018)				
Peer Dev. X							.186*	.189*		
Attachment							(.079)	(.080)		
Peer Dev. X									.098	.101
Involvement									(.086)	(.086)
Marriage		.025		.027		.029		.028		.023
Expectations		(.061)		(.063)		(.063)		(.062)		(.061)
College		007		005		008		.001		007
Expectations		(.064)		(.063)		(.063)		(.063)		(.065)
Job Expectations		060		061		061		065		062
		(.092)		(.092)		(.092)		(.090)		(.091)
Constant	344	225	351	242	355	250	171	058	255	127
	(1.230)	(1.217)	(1.208)	(1.194)	(1.200)	(1.185)	(1.217)	(1.207)	(1.251)	(1.236)

Table 18: Logistic Regression Predicting Job Stability Outcome: Interaction Effects for Minorities

Variable	Model 33 n=675	Model 34 n=670	Model 35 n=675	Model 36 n=670	Model 37 n=675	Model 38 n=670	Model 39 n=675	Model 40 n=670	Model 41 n=675	Model 42 n=670
	В	В	В	В	В	В	В	В	В	В
	(SE)	(SE)	(SE)							
Age	.421**	.412**	.419**	.408**	.416**	.406**	.416**	.407**	.435**	.426**
	(.124)	(.126)	(.123)	(.126)	(.124)	(.127)	(.122)	(.124)	(.130)	(.132)
Female	400	406	391	393	-374	376	393	398	403	404
	(.230)	(.231)	(.227)	(.228)	(.233)	(.234)	(.228)	(.228)	(.224)	(.226)
Two-Parent	006	.012	030	020	032	018	.025	.044	.045	.060
	(.363)	(.379)	(.366)	(.379)	(.363)	(.379)	(.358)	(.376)	(.367)	(.380)
Public Assistance	009	028	.054	.034	.044	.022	.029	.004	.054	.271
	(.411)	(.415)	(.413)	(.415)	(.411)	(.415)	(.410)	(.415)	(.414)	(.417)
Income	007	006	008	007	008	007	007	006	008	007
	(.006)	(.005)	(.006)	(.005)	(.006)	(.006)	(.006)	(.005)	(.006)	(.005)
Self-Control	.041	.040	.037	.035	.037	.035	.038	.036	.041	.039
	(.034)	(.035)	(.034)	(.035)	(.034)	(.035)	(.035)	(.036)	(.034)	(.035)
IQ	.009	.010	.008	.009	.008	.009	.008	.009	.009	.010
	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)
Parents Married	367	396	328	349	327	353	360	388	403	428
	(.381)	(.396)	(.387)	(.398)	(.378)	(.391)	(.384)	(.398)	(.390)	(.400)
Parent Graduated	194	236	187	226	203	243	189	235	200	237
College	(.245)	(.243)	(.249)	(.246)	(.249)	(.246)	(.243)	(.237)	(.244)	(.241)
Parent Works	.359	.297	.422	.365	.402	.343	.383	.320	.384	.333
	(.533)	(.529)	(.516)	(.512)	(.512)	(.509)	(.523)	(.520)	(.505)	(.504)

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Parental	352	367	334	348	336	351	306	320	314	331
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Attachment	(.258)	(.255)	(.269)	(.267)	(.271)	(.267)	(.256)	(.252)	(.264)	(.260)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	School	.180	.186	.190	.198	.199	.207	.199	.206	.182	.192
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Attachment	(.151)	(.149)	(.151)	(.148)	(.150)	(.146)	(.152)	(.148)	(.150)	(.147)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Peer Deviance	.532*	.522*	.355	.365	.404*	.405*	521	582	.537	.532
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(.250)	(.252)	(.213)	(.218)	(.184)	(.192)	(.720)	(.735)	(.296)	(.310)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Density	109	120	210	224	228	239	105	109	140	147
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		(.666)	(.687)	(.704)	(.732)	(.713)	(.738)	(.692)	(.710)	(.708)	(.728)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Centrality	154	157	180	180	175	174	161	161	173	169
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		(.275)	(.282)	(.276)	(.284)	(.277)	(.285)	(.275)	(.281)	(.279)	(.285)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Popularity	.069	.072	.072	.074	.069	.071	.071	.074	.068	.071
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		(.046)	(.045)	(.046)	(.045)	(.045)	(.044)	(.046)	(.045)	(.046)	(.045)
Attachment $(.173)$ $(.181)$ $(.174)$ $(.181)$ $(.172)$ $(.180)$ $(.181)$ $(.187)$ $(.168)$ $(.174)$ Friend 109 103 109 106 113 111 106 099 094 092 Involvement $(.124)$ $(.135)$ $(.124)$ $(.134)$ $(.125)$ $(.135)$ $(.123)$ $(.133)$ $(.124)$ $(.134)$ Peer Dev. X 530 515 $$ $$ $$ $$ $$ $$ $$ $$ Density $(.422)$ $(.436)$ $$ $$ $$ $$ $$ $$ $$ $$ Peer Dev. X $$ $$ 091 111 $$ $$ $$ $$ $$ Centrality $(.422)$ $(.436)$ $$ 091 111 $$ $$ $$ $$ $$ $$ Peer Dev. X $$ $$ 091 111 $$ $$ $$ $$ $$ Popularity $$ $$ $$ $$ $$ $$ $$ $$ $$ Peer Dev. X $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ Popularity $$ $$ $$ $$ $$ $$ $$ $$ $$ Peer Dev. X $$ $$ $$ $$ $$ $$ $$ </td <td>Friend</td> <td>221</td> <td>196</td> <td>212</td> <td>186</td> <td>209</td> <td>183</td> <td>246</td> <td>225</td> <td>218</td> <td>191</td>	Friend	221	196	212	186	209	183	246	225	218	191
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Attachment	(.173)	(.181)	(.174)	(.181)	(.172)	(.180)	(.181)	(.187)	(.168)	(.174)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Friend	109	103	109	106	113	111	106	099	094	092
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Involvement	(.124)	(.135)	(.124)	(.134)	(.125)	(.135)	(.123)	(.133)	(.124)	(.134)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Peer Dev. X	530	515								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Density	(.422)	(.436)								
Centrality $(.216)$ $(.216)$ Peer Dev. X0.033034Popularity $(.044)$ $(.044)$ $(.044)$ Peer Dev. X1.86.200Attachment $(.173)$ $(.176)$ Peer Dev. X $(.173)$ $(.176)$ Peer Dev. X $(.144)$ $(.148)$ Marriage0.059 0.071 0.668 0.072 0.660 Expectations(.126)(.124)(.125)(.125)(.128)(.127)College029 -0.044 -0.043 -0.034 -0.057 Expectations(.126)(.125)(.125)(.124)(.122)(.122)	Peer Dev. X			091	111						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Centrality			(.216)	(.216)						
Popularity(.044)(.044)Peer Dev. XAttachment(.173)(.176)Peer Dev. XInvolvement146145Marriage0.590.0710.0680.0720.060Expectations(.126)(.124)(.125)(.128)(.127)(.127)College029044043034057Expectations(.126)(.125)(.125)(.124)(.122)(.122)(.122)(.124)(.122)	Peer Dev. X					033	034				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Popularity					(.044)	(.044)				
Attachment(.173)(.176)Peer Dev. X146145Involvement(.144)(.148)Marriage0.590.0710.0680.0720.060Expectations(.126)(.124)(.125)(.128)(.127)College029044043034057Expectations(.126)(.125)(.125)(.124)(.122)(.122)(.122)	Peer Dev. X							.186	.200		
Peer Dev. X146145Involvement146145Marriage0.0590.0710.0680.0720.060Expectations(.126)(.124)(.125)(.125)(.128)(.127)College029044043034057Expectations(.126)(.125)(.125)(.124)(.122)(.122)	Attachment							(.173)	(.176)		
Involvement $(.144)$ $(.148)$ Marriage 0.059 0.071 0.068 0.072 0.060 Expectations $(.126)$ $(.124)$ $(.125)$ $(.128)$ $(.127)$ College 029 044 043 034 057 Expectations $(.126)$ $(.125)$ $(.125)$ $(.124)$ $(.122)$ $(.122)$	Peer Dev. X									146	145
Marriage .059 .071 .068 .072 .060 Expectations (.126) (.124) (.125) (.128) (.127) College 029 044 043 034 057 Expectations (.126) (.125) (.125) (.124) (.122)	Involvement									(.144)	(.148)
Expectations $(.126)$ $(.124)$ $(.125)$ $(.128)$ $(.127)$ College029044043034057Expectations $(.126)$ $(.125)$ $(.125)$ $(.125)$ $(.124)$ $(.122)$	Marriage		.059		.071		.068		.072		.060
College 029 044 043 034 057 Expectations (.126) (.125) (.125) (.124) (.122)	Expectations		(.126)		(.124)		(.125)		(.128)		(.127)
Expectations (.126) (.125) (.124) (.122)	College		029		044		043		034		057
	Expectations		(.126)		(.125)		(.125)		(.124)		(.122)
Job Expectations102094092115081	Job Expectations		102		094		092		115		081
(.153) (.149) (.149) (.150) (.149)			(.153)		(.149)		(.149)		(.150)		(.149)
Constant -5.269* -4.987* -5.317* -5.026* -5.240* -4.952 -5.321* -5.031* -5.670* -5.384*	Constant	-5.269*	-4.987*	-5.317*	-5.026*	-5.240*	-4.952	-5.321*	-5.031*	-5.670*	-5.384*
(2.453) (2.450) (2.495) (2.496) (2.520) (2.518) (2.431) (2.427) (2.590) (2.573)		(2.453)	(2.450)	(2.495)	(2.496)	(2.520)	(2.518)	(2.431)	(2.427)	(2.590)	(2.573)

Education

Although some variables I would expect to matter do not, the education analyses are most consistent with the expectations of the research hypotheses. Again, demographics and static characteristics continue to emerge as significant and social control surfaces as an important factor for education, unlike the previous outcomes. In addition, the level of peer deviance and many of the network characteristics exert significant effects on education. Similar to the marriage outcome, one's expectations are also influential. Again, some differences emerge between gender and race groups.

Main Effects

Model 1 in Table 19 shows that demographics, static characteristics, parental modeling, and social control are all influential for predicting which adolescents will go on to graduate from college. Looking at demographics, older subjects are more likely to have graduated from college and females and minorities have a higher chance of graduating. When considering economic factors adolescents in families receiving public assistance are less likely to graduate. Also, those with low self-control are less likely to graduate from college while the higher one's IQ, the greater their chance of being a college graduate. Having a parent that graduated from college also increases ones odds of graduating from college, as does having a strong attachment to school during adolescence. Unlike the other two outcomes, peer deviance does have a direct impact on graduating from college with higher levels of peer deviance decreasing the likelihood of achieving this life event (Model 2) and adding expectations to the models (Model 4) alters the significance of certain

variables. Specifically, gender, race, and self-control all lose significance when expectations are included. Also, students who expect to graduate from college and expect to achieve a middle class income by the age of 30 are more likely to graduate, while those who expect to be married by the age of 25 are less likely. The inclusion of network characteristics in Model 3 shows that the structure of one's network and an individual's position within the network are influential and reduces the relationship between public assistance and college graduation to insignificant. Density, centrality, and popularity all have positive relationships with graduating from college, underscoring the idea that, in general, being in a dense network and being in a central or popular position within a network can be beneficial. Peer attachment and peer involvement, however, do not have this same effect. The next set of results evaluates whether the impact of network characteristics interacts with the level of peer deviance.

Variable	Model 1	Model 2	Model 3	Model 4
	N=3057	N=2408	N=2401	N=2387
	В	В	В	В
	(SE)	(SE)	(SE)	(SE)
Age	.631***	.714***	.728***	.741***
	(.066)	(.079)	(.079)	(.079)
Female	.684***	.466**	.400*	.298
	(156)	(.169)	(.178)	(.196)
White	466*	438*	564*	402
	(.182)	(.211)	(.224)	(.230)
Two-Parent	.315	.280	.293	.207
	(.229)	(.267)	(.266)	(.278)
Public Assistance	-1.247**	-1.026*	830	756
	(.384)	(.401)	(.427)	(.448)
Income	.009	.008	.007	.006
	(.005)	(.005)	(.005)	(.004)
Self-Control	051*	044	055*	031
	(.021)	(.024)	(.026)	(.027)
IQ	.065***	.063***	.066***	.059***
	(.007)	(.008)	(.009)	(.009)
Parents Married	.109	.163	.060	.151
	(.222)	(.265)	(.288)	(.308)
Parent Graduated	.829***	.752**	.722**	.667**
College	(.204)	(.215)	(.212)	(.201)
Parent Works	.568	.313	.431	.236
	(.608)	(.569)	(.650)	(.658)
Parental Attachment	.046	.055	017	005
	(.201)	(.226)	(.237)	(.236)
School Attachment	.430***	.400***	.267*	.230
	(.099)	(.106)	(.108)	(.127)
Peer Deviance		301**	287**	227*
		(.092)	(.097)	(.098)
Density			1.775***	1.695**
-			(.483)	(.492)
Centrality			.729***	.611***
-			(.170)	(.167)
Popularity			.062**	.065***
			(.018)	(.017)
Friend Attachment			.039	053
			(.131)	(.137)
Friend Involvement			025	001
			(.091)	(.100)
Marriage Expectations				272***
				(.075)
College Expectations				.646***
				(.098)
Job Expectations				.410***
*				(.077)
Constant	-21.847***	-22.281***	-23.789***	-25.836***
	(1.814)	(1.851)	(1.894)	(1.916)

 Table 19: Logistic Regression Predicting College Graduate: Main Effects

Variable	Model 5 N=2401	Model 6 N=2387	Model 7 N=2401	Model 8 N=2387	Model 9 N=2401	Model 10 N=2387	Model 11 N=2401	Model 12 N=2387	Model 13 N=2401	Model 1 N=2387
	R=2401	R	R	R	R	R=2507	R R	R=2507	R	R=2507
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)
Age	730***	741***	729***	742***	730***	743***	728***	740***	728***	741***
1150	(078)	(079)	(080)	(080)	(080)	(080)	(079)	(080)	(079)	(078)
Female	401*	296	398*	298	398*	292	399*	298	397*	286
remuie	(179)	(196)	(177)	(196)	(177)	(.194)	(178)	(196)	(.174)	(.191)
White	- 550*	- 388	- 571*	- 413	- 568*	- 409	- 564*	- 406	- 562	- 397
() Inte	(220)	(227)	(224)	(229)	(225)	(231)	(224)	(230)	(223)	(230)
Two-Parent	.290	.205	.304	.222	.304	.225	.291	.201	.290	.201
1	(265)	(.274)	(267)	(276)	(265)	(.274)	(.264)	(.278)	(.268)	(275)
Public Assistance	791	727	831	757	824	751	829	757	822	732
	(.432)	(.450)	(.427)	(.447)	(.429)	(.448)	(.427)	(.449)	(.429)	(.445)
Income	.007	.006	.007	.006	.007	.006	.007	.006	.007	.006
	(.005)	(.004)	(.005)	(.005)	(.005)	(.004)	(.005)	(.005)	(.005)	(.005)
Self-Control	055*	031	056*	031	055**	031	055*	031	055*	031
ben control	(.026)	(.027)	(.026)	(.027)	(.288)	(.027)	(.026)	(.026)	(.026)	(.026)
IO	.066	.059***	.066***	.059***	.066***	.059***	.066	.059***	.066***	.059***
C C	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)
Parents Married	.062	.151	.052	.139	.055	.140	.060	.151	.063	.155
	(.288)	(.306)	(.291)	(.311)	(.288)	(.306)	(.288)	(.309)	(.291)	(.306)
Parent Graduated	.733**	.677**	.721**	.667**	.726**	.673**	.721**	.664**	.721**	.667**
College	(.209)	(.198)	(.212)	(.201)	(.213)	(.202)	(.212)	(.202)	(.212)	(.200)
Parent Works	.443	.232	.427	.230	.434	.249	.433	.244	.431	.246
	(.649)	(.128)	(.651)	(.659)	(.650)	(.663)	(.649)	(.658)	(.650)	(.660)
Parental	026	014	020	010	025	017	018	007	016	002
Attachment	(.239)	(.238)	(.236)	(.236)	(.235)	(.235)	(.237)	(.236)	(.238)	(.239)
School	.272*	.232	.268*	.231	.267*	.227	.267*	.228	.267*	.231
Attachment	(.107)	(.128)	(.109)	(.129)	(.107)	(.125)	(.108)	(.129)	(.108)	(.128)
Peer Deviance	534**	458*	355*	313	351*	320*	240	069	347	394
	(.197)	(.209)	(.171)	(.179)	(.144)	(.155)	(.373)	(.386)	(.205)	(.207)
Density	1.723***	1.657**	1.776***	1.698**	1.770***	1.687**	1.776***	1.699**	1.770***	1.683**
	(.471)	(.478)	(.484)	(.493)	(.487)	(.491)	(.480)	(.492)	(.480)	(.490)
Centrality	.722***	.606***	.729***	.613***	.731***	.615***	.729***	.612***	.729***	.610***
-	(.170)	(.167)	(.171)	(.170)	(.173)	(.170)	(.170)	(.166)	(.171)	(.168)
Popularity	.061**	.064***	.062**	.065***	.062**	.065***	.062**	.065***	.062**	.065***
	(.018)	(.017)	(.018)	(.017)	(.018)	(.017)	(.018)	(.017)	(.018)	(.017)

 Table 20: Logistic Regression Predicting College Graduate: Interaction Effects

Friend Attachment	.037	054 (138)	.039	055 (136)	.038	056 (137)	.041	047 (141)	.039	057 (137)
Friend	026	003	029	002	026	002	025	001	025	000
Involvement	(.092)	(.100)	(.091)	(.099)	(.091)	(.099)	(.091)	(.010)	(.091)	(.100)
Peer Dev. X	.523	.492								
Density	(.307)	(.333)								
Peer Dev. X			.076	.096						
Centrality			(.165)	(.176)						
Peer Dev. X					.012	.017				
Popularity					(.021)	(.022)				
Peer Dev. X							011	036		
Attachment							(.087)	(.092)		
Peer Dev. X									.028	.079
Involvement									(.083)	(.080)
Marriage		275***		271***		268***		274***		270**
Expectations		(.074)		(.074)		(.073)		(.074)		(.075)
College		.640***		.648***		.650***		.645***		.653***
Expectations		(.098)		(.096)		(.098)		(.098)		(.099)
Job Expectations		.417		.408***		.411***		.412***		.409***
		(.079)		(.078)		(.078)		(.079)		(.077)
Constant	-23.769***	-25.764***	-23.780***	-25.836***	-23.801***	-25.874***	-23.789***	-25.843***	-23.790***	-25.883***
	(1.903)	(1.922)	(1.893)	(.1910)	(1.906)	(1.934)	(1.892)	(1.913)	(1.897)	(1.942)

Conditioning Effects

The pattern of results seen in Table 19 remains in Table 20 when the conditioning effects are being evaluated. The main effects remain and the inclusion of expectations continues to change the significance of some variables. Interestingly, and against my hypotheses, none of the network characteristics condition the impact of peer deviance. Therefore, the level of peer deviance alone is influential and does not vary by one's network structure, position, or quality of friendships.

Gender and Race

Tables 21 through 23 compare the predictors of college graduate between males and females. Similar to the full sample, many of the independent variables emerge as significant for both genders and are consistent with the hypotheses. That being said, only one difference between males and females emerges as statistically significant. Specifically, growing up in a two-parent home increases a male's likelihood of graduating from college but does not impact a female. For both males and females increasing levels of peer deviance is unfavorable for one's chances of graduating from college. Although this relationship sometimes becomes insignificant when expectations are added to the model, possibly suggesting an indirect impact on the outcome through expectations.

The pattern of significant predictors for college graduate varies greatly between the white and minority sample. In particular, high levels of school attachment is influential and beneficial in the white sample, but not for minorities. Although college and employment expectations benefit both groups, marriage expectations only matter for white respondents and is seen as detrimental. With

regard to network characteristics, the white sample mirrors the full sample, with density, centrality, and popularity all exhibiting positive relationships with the college degree outcome. For the minority participants, however, only being popular increases their likelihood of obtaining a college degree. Finally, when looking at peer deviance, high levels of peer deviance in one's peer network is detrimental for graduating college for whites, but has no significant impact for minorities. While these differences seem substantial, the only differences between the white and minority sub-samples that reach statistical significance are in the direct effect of density and centrality, which are both beneficial at high levels for the white sample but are not influential for minorities.

Variable	Mod	lel 15	Moo	lel 16	Mo	del 17	Moo	lel 18
	Female	Male	Female	Male	Female	Male	Female	Male
	n=1584	n=1473	n=1319	n=1089	n=1316	n=1085	n=1310	n=1077
	В	В	В	В	В	В	В	В
	(SE)	(SE)	(SE)	(SE)				
Age	.614***	.662***	.669***	.781***	.683***	.802***	.692***	.830***
	(.092)	(.087)	(.104)	(.108)	(.102)	(.109)	(.101)	(.117)
White	535**	345	549*	257	683**	366	574*	139
	(.193)	(.358)	(.207)	(.456)	(.231)	(.473)	(.258)	(.453)
Two-Parent	148	1.001**	097	.862*	073	.821	181	.888*
	(.350)	(.319)	(.384)	(.403)	(.380)	(.415)	(.391)	(.435)
Public Assistance	-1.465**	-1.045	-1.265*	705	920	647	983	384
	(.455)	(.624)	(.478)	(.721)	(.537)	(.728)	(.547)	(.641)
Income	.006	.013***	.005	.013**	.005	.012**	.005	.012**
	(.006)	(.003)	(.005)	(.004)	(.004)	(.004)	(.004)	(.003)
Self-Control	056**	058	051*	044	055*	062	029	037
	(.021)	(.035)	(.0234)	(.040)	(.025)	(.042)	(.026)	(.046)
IQ	.065***	.065***	.061***	.068***	.064***	.070***	.257***	.061**
	(.008)	(.014)	(.008)	(.017)	(.009)	(.017)	(.009)	(.017)
Parents Married	.352	168	.332	055	.177	092	.311	269
	(.335)	(.284)	(.371)	(.327)	(.380)	(.361)	(.382)	(.374)
Parent Graduated	.943***	.748*	.820**	.714*	.779**	.698*	.706**	.641*
College	(.254)	(.302)	(.258)	(.331)	(.264)	(.317)	(.245)	(.315)
Parent Works	242	+++	408	+++	221	+++	521	+++
	(.575)		(.586)		(.751)		(.696)	
Parental	.278	246	.293	175	.236	255	.201	211
Attachment	(.301)	(.268)	(.319)	(.292)	(.355)	(.299)	(.341)	(.295)
School	.451***	.387*	.442***	.289	.314**	.160	.290*	.083
Attachment	(.107)	(.158)	(.101)	(.174)	(.106)	(.163)	(.111)	(.213)
Peer Deviance			235	399**	267*	348*	222	264
			(.130)	(.140).	(.134)	(.155)	(.140)	(.152)
Density					1.806**	1.595**	1.650**	1.595**
5					(.607)	(.555)	(.605)	(.576)
Centrality					.717**	.702**	.645**	.540*
5					(.211)	(.248)	(.205)	(.254)
Popularity					.064**	.062*	.057*	.076*
					(.022)	(.030)	(.022)	(.031)
Friend					043	.094	122	031
Attachment					(.159)	(.183)	(.169)	(.181)
Friend					.052	143	.078	131
Involvement					(.099)	(.128)	(.105)	(.137)
Marriage							196	384*
Expectations							(.105)	(.165)
College							.720***	.601***
Expectations							(.129)	(.141)
Job Expectations							.355**	.499***
i i i i i i i i i i i i i i i i i i i							(.114)	(.131)
Constant	-20.986***	-20.798***	-21.115***	-22.727***	22.647***	24.021***	-24.901***	-25.980***
	(2.858)	(2.588)	(2.880)	(3.044)	(2.904)	(2.873)	(2.844)	(2.949)
	(((3,000)	(31011)	((=:0/0)	(=	(

Table 21: Logistic Regression Predicting College: By Gender

+++ Given the lack of variation in the parent works measure in the male sample, this variable was dropped.

Variable	Model 19 n=1316	Model 20 n=1310	Model 21 n=1316	Model 22 n=1310	Model 23 n=1316	Model 24 n=1310	Model 25 n=1316	Model 26 n=1310	Model 27 n=1316	Model 28 n=1310
	B (SE)									
Age	.673***	.683***	.685***	.698***	.687***	.697***	.684***	.692***	.681***	.692***
	(.101)	(.101)	(.104)	(.103)	(.104)	(.104)	(.103)	(.102)	(.104)	(.101)
White	669**	560*	690**	590*	691**	585*	682**	574*	674**	564*
	(.228)	(.256)	(.228)	(.251)	(.233)	(.259)	(.231)	(.259)	(.231)	(.261)
Two-Parent	080	179	051	132	037	132	071	181	078	188
	(.378)	(.384)	(.366)	(.367)	(.370)	(.380)	(.378)	(.391)	(.375)	(.379)
Public Assistance	862	949	921	993	917	991	919	985	891	956
	(.550)	(.552)	(.538)	(.547)	(.541)	(.552)	(.537)	(.551)	(.536)	(.545)
Income	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Self-Control	055*	028	055*	029	056*	030	055*	029	055*	028
	(.025)	(.027)	(.025)	(.026)	(.026)	(.026)	(.025)	(.026)	(.025)	(.026)
IQ	.064***	.057***	.064***	.057***	.064***	.058***	.064***	.057***	.063***	.057***
	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)
Parents Married	.178	.300	.167	.283	.156	.277	.178	.311	.185	.319
	(.383)	(.379)	(.378)	(.374)	(.377)	(.380)	(.379)	(.383)	(.377)	(.375)
Parent Graduated	.808**	.730**	.775**	.695**	.784**	.712**	.781**	.705**	.778**	.709**
College	(.264)	(.244)	(.265)	(.248)	(.265)	(.246)	(.264)	(.245)	(.262)	(.242)
Parent Works	208	517	224	532	224	533	224	519	229	536
	(.748)	(.700)	(.754)	(.703)	(.750)	(.702)	(.748)	(.694)	(.753)	(.703)
Parental	.254	.214	.224	.179	.211	.169	.234	.202	.240	.197
Attachment	(.361)	(.348)	(.350)	(.337)	(.358)	(.346)	(.350)	(.337)	(.360)	(.346)
School	.313**	.286*	.318**	.296*	.314**	.287*	.316**	.289*	.318**	.298*
Attachment	(.106)	(.111)	(.109)	(.113)	(.106)	(.111)	(.108)	(.112)	(.108)	(.113)
Peer Deviance	626*	493	358	392	386*	370	353	171	500	537
	(.245)	(.274)	(.227)	(.249)	(.193)	(.235)	(.553)	(.558)	(.274)	(.292)
Density	1.725**	1.590**	1.806**	1.663**	1.792**	1.633**	1.801**	1.652**	1.765**	1.601**
•	(.592)	(.588)	(.613)	(.623)	(.611)	(.607)	(.601)	(.603)	(.603)	(.598)
Centrality	.707**	.638**	.723**	.665**	.729**	.661**	.717**	.645**	.713**	.635**
-	(.209)	(.205)	(.217)	(.218)	(.209)	(.203)	(.212)	(.206)	(.210)	(.205)
Popularity	.063**	.056*	.064**	.057*	.064**	.057*	.064**	.057*	.064**	.057*
1 2	(.022)	(.022)	(.022)	(.022)	(.022)	(.023)	(.022)	(.022)	(.022)	(.022)
Friend	062	131	039	116	047	125	044	121	048	138
Attachment	(.162)	(.172)	(.158)	(.169)	(.160)	(.171)	(.159)	(.171)	(.159)	(.169)
Friend	.055	.079	.049	.070	.050	.075	.052	.078	.062	.092
Involvement	(.099)	(.105)	(.100)	(.106)	(.098)	(.104)	(.099)	(.104)	(.102)	(.107)
Peer Dev. X	.736	.553								
Density	(.430)	(.059)								

 Table 22: Logistic Regression Predicting College Outcome: Interaction Effects for Females

Peer Dev. X			.102	.193						
Centrality			(.204)	(.232)						
Peer Dev. X					.022	.027				
Popularity					(.029)	(.033)				
Peer Dev. X							.019	011		
Attachment							(.120)	(.120)		
Peer Dev. X									.106	.144
Involvement									(.116)	(.114)
Marriage		196		197		192		196		182
Expectations		(.105)		(.107)		(.107)		(.105)		(.107)
College		.706***		.727***		.721***		.720***		.735***
Expectations		(.128)		(.126)		(.130)		(.129)		(.134)
Job Expectations		.362**		.356**		.363**		.355**		.350**
		(.115)		(.115)		(.116)		(.114)		(.115)
Constant	-22.462***	-24.723***	-22.658***	-24.100***	-22.630***	-24.951***	-22.648***	-24.904***	-22.593***	-24.905***
	(2.90)	(2.831)	(2.905)	(2.818)	(2.893)	(2.828)	(2.909)	(2.837)	(2.938)	(2.879)

(2.90) (2)

Table 23: Logistic Regression Predicting College Outcome: Interaction Effects for Males

Variable	Model 19 n=1085	Model 20 n=1077	Model 21 n=1085	Model 22 n=1077	Model 23 n=1085	Model 24 n=1077	Model 25 n=1085	Model 26 n=1077	Model 27 n=1085	Model 28 n=1077
	В	В	В	В	В	В	В	В	В	В
	(SE)									
Age	.807***	.833***	.803***	.830***	.802***	.830***	.803***	.830***	.801***	.833***
	(.109)	(.116)	(.109)	(.117)	(.109)	(.117)	(.109)	(.117)	(.108)	(.118)
White	354	125	363	130	366	141	369	141	367	134
	(.467)	(.446)	(.466)	(.444)	(.472)	(.451)	(.475)	(.458)	(.472)	(.454)
Two-Parent	.815	.876*	.819	.885*	.821	.889*	.812	.882*	.832*	.876*
	(.416)	(.434)	(.421)	(.438)	(.418)	(.436)	(.414)	(.434)	(.410)	(.426)
Public Assistance	640	364	645	373	647	387	644	381	651	380
	(.734)	(.647)	(.734)	(.653)	(.728)	(.646)	(.731)	(.645)	(.728)	(.644)
Income	.012**	.012**	.012**	.012**	.012**	.012**	.012**	.012**	.012**	.012***
	(.004)	(.003)	(.004)	(.003)	(.004)	(.003)	(.004)	(.003)	(.004)	(.003)
Self-Control	062	038	062	037	062	036	062	037	061	037
	(.042)	(.045)	(.042)	(.046)	(.043)	(.046)	(.042)	(.046)	(.042)	(.045)
IQ	.070***	.061***	.070***	.061***	.070***	.061***	.070***	.061**	.070***	.061***
	(.017)	(.017)	(.017)	(.017)	(.017)	(.017)	(.017)	(.017)	(.017)	(.017)
Parents Married	080	248	089	260	092	269	087	266	100	267
	(.362)	(.378)	(.368)	(.384)	(.363)	(.375)	(.363)	(.378)	(.365)	(.372)
Parent Graduated	.701*	.647*	.699*	.649*	.698*	.652*	.696*	.650*	.701*	.649*
College	(.313)	(.312)	(.314)	(.318)	(.320)	(.317)	(.319)	(.320)	(.318)	(.315)

Parent Works	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++
Parental	275	236	255	213	254	212	262	215	261	204
Attachment	(.295)	(.293)	(.299)	(.293)	(.297)	(.296)	(.296)	(.292)	(.304)	(.299)
School	.171	.096	.160	.084	.160	.081	.162	.085	.162	.081
Attachment	(.164)	(.212)	(.162)	(.212)	(.158)	(.203)	(.161)	(.208)	(.164)	(.213)
Peer Deviance	514	464	-329	204	344	289	191	198	240	392
	(.300)	(.315)	(.227)	(.239)	(.244)	(.252)	(.436)	(.490)	(.349)	(.343)
Density	1.572**	1.590**	1.595**	1.599**	1.595**	1.592**	1.598**	1.595**	1.589**	1.606**
	(.546)	(.571)	(.555)	(.576)	(.553)	(.573)	(.555)	(.576)	(.556)	(.581)
Centrality	.703**	.544*	.703**	.547*	.702**	.539*	.705**	.542*	.698**	.546*
	(.248)	(.254)	(.241)	(.249)	(.246)	(.252)	(.245)	(.251)	(.247)	(.257)
Popularity	.061*	.076*	.062*	.076*	.062*	.077*	.062*	.076*	.062*	.077*
	(.030)	(.031)	(.030)	(.031)	(.030)	(.031)	(.030)	(.031)	(.030)	(.031)
Friend	.096	025	.095	026	.094	032	.103	026	.096	032
Attachment	(.182)	(.180)	(.183)	(.181)	(.183)	(.180)	(.184)	(.188)	(.183)	(.182)
Friend	144	132	144	134	143	131	142	131	139	137
Involvement	(.129)	(.139)	(.126)	(.136)	(.129)	(.137)	(.129)	(.137)	(.129)	(.141)
Peer Dev. X	.390	.457								
Density	(.409)	(.451)								
Peer Dev. X			021	065						
Centrality			(.261)	(.266)						
Peer Dev. X					001	.005				
Popularity					(.037)	(.040)				
Peer Dev. X							037	016		
Attachment							(.108)	(.121)		
Peer Dev. X									051	.063
Involvement									(.129)	(.132)
Marriage		386*		386*		381*		384*		-388*
Expectations		(.165)		(.161)		(.154)		(.164)		(.169)
College		.601***		.601***		.604***		.600***		.607***
Expectations		(.143)		(.142)		(.142)		(.141)		(.142)
Job Expectations		.501***		.502***		.498***		.500***		.500***
_		(.132)		(.129)		(.128)		(.130)		(.133)
Constant	-24.047***	-25.994***	-24.025***	-26.002***	-24.021***	-25.983***	-24.032***	-25.975***	-23.962***	-26.075***
	(2.903)	(2.968)	(2.883)	(2.985)	(2.877)	(2.953)	(2.868)	(2.949)	(2.867)	(3.010)

 $\underbrace{(2.505)}_{* = p < .05, ** = p < .01, *** = p < .001}$

+++ Given the lack of variation in the parent works measure in the male sample, this variable was dropped

Variable	Mod	lel 29	Mo	del 30	Mod	lel 31	Moo	del 32
	White	Minority	White	Minority	White	Minority	White	Minority
	n=2112	n=945	n=1729	n=679	n=1726	n=675	n=1717	n=670
	В	В	В	В	В	В	В	В
	(SE)							
Age	.688***	.447**	.769***	.508**	.775***	.619**	.793***	.674**
	(.072)	(.141)	(.083)	(.184)	(.084)	(.218)	(.082)	(.212)
Female	.650**	.807**	.409	.740*	.349	.806*	.246	.786*
	(.194)	(.282)	(.206)	(.346)	(.213)	(.358)	(.236)	(.353)
Two-Parent	.634*	322	.606	397	.635	519	.462	.421
	(.307)	(.287)	(.344)	(.345)	(.337)	(.364)	(.320)	(.454)
Public Assistance	-1.931*	-1.190*	-1.580	-1.012	-1.446	-1.003	-1.478	981
	(.891)	(.507)	(.903)	(.633)	(.944)	(.623)	(1.006)	(.721)
Income	.009	.007	.008	.006	.007	.005	.007	.003
	(.005)	(.004)	(.006)	(.005)	(.005)	(.006)	(.006)	(.005)
Self-Control	047	069*	038	071	520	082	024	073
	(.026)	(.031)	(.029)	(.040)	(.032)	(.042)	(.032)	(.039)
IQ	.067***	.061***	.062***	.064***	.064***	.075***	.056***	.073***
	(.009)	(.011)	(.009)	(.012)	(.011)	(.014)	(.011)	(.0138)
Parents Married	.084	.177	.127	.156	.010	.048	.161	109
	(.300)	(.327)	(.350)	(.374)	(.371)	(.425)	(.383)	(.490)
Parent Graduated	.871***	.704*	.836***	.381	.819***	.316	.726**	.433
College	(.223)	(.308)	(.227)	(.353)	(.225)	(.398)	(.220)	(.369)
Parent Works	1.079	.051	.595	.137	.738	.150	.468	.069
	(.784)	(.883)	(.640)	(1.038)	(.755)	(1.108)	(.768)	(1.155)
Parental	.073	148	.141	338	.061	371	.087	461
Attachment	(.264)	(.251)	(.286)	(.288)	(.311)	(.226)	(.305)	(.283)
School	.504***	.150	.441**	.233	.305*	.132	.269	.019
Attachment	(.118)	(.128)	(.125)	(.141)	(.126)	(.152)	(.152)	(.149)
Peer Deviance			280**	422	260*	470	190	549
			(.092)	(.225)	(.100)	(.262)	(.096)	(.284)
Density					2.116***	107	2.098***	802
					(.557)	(.876)	(.570)	(.918)
Centrality					.901***	.092	.804***	109
					(.180)	(.283)	(.172)	(.340)
Popularity					.036*	.221***	.039*	.220***
					(.016)	(.057)	(.018)	(.054)
Friend					.049	.007	075	045
Attachment					(.163)	(.239)	(.162)	(.232)
Friend					029	049	003	040
Involvement					(.112)	(.123)	(.124)	(.153)
Marriage							265**	301
Expectations							(.088)	(.164)
College							.630***	.880***
Expectations							(.111)	(.198)
Job Expectations							.402***	.389*
1							(.091)	(.193)
Constant	-24.602***	-15.622***	24.630***	-15.948***	-26.129***	-19.197***	27.826***	-22.494***
	(2.071)	(3.036)	(2 183)	(3.279)	(2, 270)	$(4\ 489)$	(2.288)	(4.021)

Table 24: Logistic Regression Predicting College: By Race

Variable	Model 33 n=1726	Model 34 n=1717	Model 35 n=1726	Model 36 n=1717	Model 37 n=1726	Model 38 n=1717	Model 39 n=1726	Model 40 n=1717	Model 41 n=1726	Model 42 n=1717
	B	B	B	B	B	B	B	B	B	B (SF)
A	(SE)	(SE) 702***	(SE)							
Age	$.//0^{****}$.792***	.//3****	./94***	.//8****	./9/****	.//0****	./95***	.//3****	./9/****
г. 1	(.083)	(.082)	(.085)	(.085)	(.087)	(.084)	(.085)	(.083)	(.083)	(.079)
Female	.349	.245	.348	.246	.347	.238	.350	.245	.346	.231
тр ((.214)	(.236)	(.213)	(.236)	(.212)	(.235)	(.213)	(.237)	(.208)	(.230)
Two-Parent	.637	.463	.641	.469	.647	.481	.641	.467	.634	.462
	(.337)	(.317)	(.337)	(.320)	(.336)	(.320)	(.332)	(.318)	(.336)	(.312)
Public Assistance	-1.431	-1.4/1	-1.435	-1.468	-1.440	-1.483	-1.447	-1.479	-1.443	-1.471
-	(.946)	(1.005)	(.941)	(1.004)	(.945)	(1.009)	(.943)	(1.006)	(.944)	(1.015)
Income	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007
	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)	(.005)	(.006)
Self-Control	052	024	052	023	052	023	052	023	052	024
	(.032)	(.032)	(.032)	(.032)	(.032)	(.032)	(.032)	(.032)	(.032)	(.032)
IQ	.064***	.056***	.064***	.056***	.064***	.056***	.064***	.0556***	.063***	.055***
	(.011)	(.011)	(.010)	(.010)	(.010)	(.010)	(.011)	(.010)	(.011)	(.011)
Parents Married	.008	.159	.009	.157	.011	.157	.011	.162	.012	.163
	(.375)	(.383)	(.371)	(.386)	(.370)	(.382)	(.370)	(.382)	(.372)	(.379)
Parent Graduated	.828***	.733**	.820***	.728**	.828***	.735**	.822***	.729**	.818***	.724**
College	(.223)	(.217)	(.225)	(.222)	(.227)	(.223)	(.226)	(.222)	(.226)	(.218)
Parent Works	.740	.456	.731	.461	.734	.473	.735	.462	.735	.467
	(.752)	(.765)	(.756)	(.769)	(.752)	(.770)	(.752)	(.764)	(.755)	(.773)
Parental	.052	.079	.057	.084	.049	.074	.062	.089	.064	.096
Attachment	(.314)	(.308)	(.310)	(.304)	(.309)	(.304)	(.312)	(.305)	(.316)	(.310)
School	.308*	.269	.307*	.270	.304*	.264	.306*	.270	.305*	.272
Attachment	(.126)	(.153)	(.129)	(.154)	(.125)	(.149)	(.127)	(.153)	(.126)	(.153)
Peer Deviance	475*	374	329	250	365*	315	419	312	320	412
	(.213)	(.225)	(.192)	(.195)	(.164)	(.166)	(.428)	(.430)	(.246)	(.256)
Density	2.032***	2.035***	2.115***	2.098***	2.102***	2.079***	2.110***	2.094***	2.111***	2.082***
	(.539)	(.548)	(.560)	(.572)	(.559)	(.567)	(.551)	(.567)	(.554)	(.568)
Centrality	.895***	.800***	.897***	.800***	.906***	.809***	.900***	.803***	.902***	.804***
	(.179)	(.172)	(.174)	(.168)	(.184)	(.177)	(.179)	(.171)	(.180)	(.172)
Popularity	.036*	.039*	.037*	.040*	.036*	.039*	.036*	.039*	.036*	.039*
	(.016)	(.018)	(.016)	(.018)	(.016)	(.017)	(.016)	(.018)	(.016)	(.018)
Friend	.045	077	.047	077	.044	082	.041	082	.047	086
Attachment	(.164)	(.163)	(.163)	(.161)	(.162)	(.160)	(.164)	(.166)	(.163)	(.162)
Friend	028	003	030	004	032	006	030	004	030	005
Involvement	(.113)	(.124)	(.113)	(.125)	(.113)	(.124)	(.112)	(.124)	(.112)	(.124)
Peer Dev. X	.452	.386								
Density	(.350)	(.380)								

 Table 25: Logistic Regression Predicting College Outcome: Interaction Effects for Whites

Peer Dev. X			.076	.065						
Centrality			(.193)	(.202)						
Peer Dev. X					.019	.022				
Popularity					(.025)	(.025)				
Peer Dev. X							.037	.028		
Attachment							.101	(.104)		
Peer Dev. X									.027	.101
Involvement									(.103)	(101)
Marriage		269**		263**		259**		264**		266**
Expectations		(.088)		(.085)		(.086)		(.088)		(.090)
College		.624***		.631***		.635***		.631***		.639***
Expectations		(.112)		(.110)		(.111)		(.111)		(.112)
Job Expectations		.407***		.400***		.403***		.401***		.405***
		(.093)		(.093)		(.091)		(.093)		(.091)
Constant	-26.060***	-27.703***	-26.113***	-27.822***	-26.150***	-27.878***	-26.132***	-27.823***	-26.137***	-27.922***
	(2.290)	(2.293)	(2.266)	(2.282)	(2.283)	(2.299)	(2.278)	(2.286)	(2.285)	(2.340)

(2.290) (2) * = p < .05, ** = p < .01, *** = p < .001

Table 26: Logistic Regression Predicting College Outcome: Interaction Effects for Minorities

Variable	Model 33 n=675	Model 34 n=670	Model 35 n=675	Model 36 n=670	Model 37 n=675	Model 38 n=670	Model 39 n=675	Model 40 n=670	Model 41 n=675	Model 42 n=670
	В	В	В	В	В	В	В	В	В	В
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)
Age	.615**	.668**	.613**	.674**	.616**	.669**	.635**	.693**	.616**	.670**
C .	(.215)	(.205)	(.217)	(.218)	(.224)	(.218)	(.221)	(.216)	(.218)	(.211)
Female	.811*	.782*	.816*	.786*	.809*	.791*	.797*	.774*	.793*	.771*
	(.362)	(.358)	(.355)	(.354)	(.359)	(.353)	(.354)	(.349)	(.358)	(.359)
Two-Parent	540	422	585	420	539	452	542	438	556	458
	(.373)	(.463)	(.348)	(.438)	(.384)	(.452)	(.372)	(.435)	(.370)	(.476)
Public Assistance	921	929	979	982	-1.004	987	-1.001	-1.016	990	951
	(.649)	(.743)	(.628)	(.726)	(.623)	(.722)	(.650)	(.747)	(.619)	(.742)
Income	.005	.003	.005	.003	.005	.003	.005	.003	.006	.003
	(.005)	(.005)	(.006)	(.005)	(.006)	(.005)	(.005)	(.005)	(.006)	(.005)
Self-Control	085*	074	081	073	081	072	080	071	084*	074
	(.042)	(.039)	(.042)	(.039)	(.041)	(.039)	(.043)	(.039)	(.042)	(.039)
IQ	.076***	.073***	.075***	.073***	.075***	.073***	.077***	.075***	.075***	.073***
	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)
Parents Married	.079	091	.106	110	.066	081	.066	096	.081	079
	(.428)	(.497)	(.412)	(.479)	(.435)	(.488)	(.429)	(.474)	(.428)	(.510)
Parent Graduated	.325	.442	.337	.433	.315	.428	.287	.406	.314	.435
College	(.394)	(.366)	(.392)	(.369)	(.397)	(.368)	(.387)	(.358)	(.395)	(.368)
Parent Works	.196	.086	.136	.069	.139	.056	.200	.112	.166	.096
	(1.110)	(1.170)	(1.100)	(1.154)	(1.112)	(1.148)	(1.103)	(1.144)	(1.11)	(1.170)

Parental	365	459	364	462	364	444	397	488	386	471
Attachment	(.232)	(.281)	(.227)	(.285)	(.223)	(.295)	(.223)	(.281)	(.225)	(.283)
School	.142	.028	.134	.019	.133	.015	.122	.004	.130	.008
Attachment	(.156)	(.152)	(.150)	(.149)	(.150)	(.150)	(.152)	(.150)	(.152)	(.155)
Peer Deviance	868	839	281	553	407	459	.922	1.210	652	696
	(.499)	(.533)	(.275)	(.351)	(.432)	(.387)	(1.063)	(1.056)	(.358)	(.389)
Density	.157	-544	095	802	121	830	096	755	113	817
	(.874)	(.968)	(.883)	(.917)	(.888)	(.910)	(.877)	(.913)	(.869)	(.921)
Centrality	.086	107	.036	108	.088	116	.077	119	.097	104
	(.273)	(.341)	(.313)	(.368)	(.288)	(.348)	(.285)	(.340)	(.284)	(.341)
Popularity	.223***	.220***	.221***	.220***	.218**	.217***	.224***	.226***	.222***	.222***
	(.059)	(.055)	(.056)	(.054)	(.065)	(.057)	(.057)	(.054)	(.057)	(.054)
Friend	002	056	.000	045	.010	039	033	100	.016	037
Attachment	(.238)	(.232)	(.240)	(.234)	(.237)	(.233)	(.227)	(.231)	(.240)	(.236)
Friend	049	040	049	040	-050	042	050	047	032	026
Involvement	(.124)	(.156)	(.124)	(.153)	(.122)	(.151)	(.118)	(.146)	(.123)	(.159)
Peer Dev. X	.916	.691								
Density	(.663)	(.775)								
Peer Dev. X			238	.005						
Centrality			(.284)	(.370)						
Peer Dev. X					015	024				
Popularity					(.065)	(.056)				
Peer Dev. X							317	393		
Attachment							(.236)	(.240)		
Peer Dev. X									.100	.082
Involvement									(.124)	(.162)
Marriage		293		301		302		312		294
Expectations		(.162)		(.174)		(.165)		(.163)		(.162)
College		.875***		.880***		.880***		.883***		.887***
Expectations		(.198)		(.198)		(.200)		(.200)		(.204)
Job Expectations		.391*		.389*		.393*		.406*		.380
		(.191)		(.194)		(.191)		(.196)		(.196)
Constant	-19.398***	-22.560***	-19.083***	-22.499***	-19.160***	-22.434***	-19.239***	-22.617***	-19.164***	-22.458***
	(4.543)	(4.033)	(4.465)	(4.136)	(4.572)	(4.094)	(4.395)	(3.843)	(4.485)	(4.036)

Expectations

Some of the results above suggest a potential indirect impact of peer deviance through one's expectations, especially the models in which peer deviance emerges as significant but 'drops out' once expectations are included. In addition to this empirical finding, this is a stance that is echoed in the status attainment literature. Specifically, this body of literature states that one's peers are more influential in an immediate context compared to long-term influences (Herriott, 1963; Picou and Carter, 1976). Using peers as a reference point, adolescents often look to their friends to shape their own desires and expectations and these expectations then have an effect on later prosocial outcomes. This is particularly true for more immediate goals such as education, whereas adolescents' parents may be more likely to shape expectations for marriage and employment (Davies and Kandel, 1981; see also Simpson and Elis, 1995 for the importance of peers on educational aspirations). Given that peers were not found to be as directly influential as some literature or my hypotheses expect, investigating this potential indirect impact could be fruitful.

The following analyses investigate the impact of peer deviance on one's expectations for marriage, employment, and college. Using ordered logistic regression, these models assess if, and how, the level of peer deviance shapes one's expectations for these outcomes and if this relationship is moderated by any of the network characteristics.²³ These analyses will also control for the influence of

²³ In ordered logistic regression instead of the analysis returning a constant there will be a series of 'cuts' (as seen in Tables 27-29). These 'cuts' represent the different thresholds for the response categories ranging from 1-5. Therefore, each cut point represents the start of a new observed category (i.e. almost no chance, some chance, but probably not, a 50-50 chance, a good chance, and almost certain) (Long and Freese, 2006).

background characteristics, and importantly, include the static characteristics that the status attainment literature cites as influential for shaping peers and expectations. This inquiry will be beneficial given how influential expectations are in the models above. In particular, marriage and college expectations have an impact on marriage as an outcome and marriage, college, and employment expectations are influential for graduating from college.

Variable	Model 1 n=3050	Model 2 n=2403	Model 3 n=2396	Model 4 n=2396	Model 5 n=2396	Model 6 n=2396	Model 7 n=2396	Model 8 n=2396
	B	B	B	B	B	B	B	B
	<u>(SE)</u>	(SE)	(SE)	(SE)	<u>(SE)</u>	<u>(SE)</u>	<u>(SE)</u>	<u>(SE)</u>
Age	058	044	047	047	047	046	047	048
F 1	(.038)	(.044)	(.045)	(.045)	(.045)	(.045)	(.045)	(.044)
Female	.419***	.394***	.386***	.389***	.388***	.394***	.386***	.386***
TT 71 *	(.082)	(.089)	(.091)	(.091)	(.092)	(.093)	(.091)	(.090) 7.40-tu-tu-tu
White	.665***	.586***	.549***	.55/***	.552***	.561***	.548***	.549***
-	(.108)	(.115)	(.121)	(.122)	(.123)	(.124)	(.121)	(.121)
Two-Parent	.206	.050	.024	.026	.022	.010	.023	.023
	(.164)	(.208)	(.209)	(.210)	(.207)	(.209)	(.212)	(.209)
Public Assistance	175	.151	.166	.175	.166	.161	.166	.167
	(.178)	(.194)	(.200)	(.197)	(.199)	(.196)	(.200)	(.201)
Income	001	001	001	001	001	001	001	001
	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)
Self-Control	.009	.013	.013	.013	.013	.014	.013	.013
	(.014)	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)	(.016)
IQ	005	004	004	004	004	005	004	004
	(.003)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Parents Married	.188	.292*	.320*	.313*	.321*	.327*	.320*	.322*
	(.131)	(145)	(.147)	(.147)	(.146)	(.148)	(.147)	(.148)
Parent Graduated	146	127	138	136	138	149	139	137
College	(.119)	(.138)	(.129)	(.130)	(.130)	(.132)	(.128)	(.128)
Parent Works	227	.175	.214	.220	.215	.186	.215	.214
	(.223)	(.292)	(.318)	(.312)	(.316)	(.311)	(.319)	(.318)
Parental	.045	.078	.030	.026	.029	.026	.029	.030
Attachment	(.095)	(.110)	(.112)	(.113)	(.114)	(.112)	(.113)	(.112)
School	.134*	.133*	.103	.105	.103	.104	.103	.103
Attachment	(.054)	(.061)	(.062)	(.062)	(.061)	(.064)	(.063)	(.062)
Peer Deviance		073	082	172	060	.029	036	112
		(.049)	(.050)	(.087)	(.098)	(.081)	(.232)	(.130)
Density			138	190	142	126	138	139
			(.223)	(.227)	(.218)	(.226)	(.223)	(.222)
Centrality			.043	.040	.046	.037	.044	.044
			(.093)	(.092)	(.095)	(.091)	(.093)	(.093)
Popularity			.008	.008	.008	.012	.008	.008
			(.014)	(.014)	(.014)	(.013)	(.014)	(.014)
Friend			.091	.091	.091	.096	.095	.091
Attachment			(079)	(079)	(079)	(079)	(085)	(079)
Friend			.070	.071	.070	.069	.070	.068
Involvement			(056)	(057)	(057)	(057)	(057)	(055)
Peer Dev. X				.199			(
Density				(179)				
Density				(.1/)				

 Table 27: Ordinal Regression Predicting Marriage Expectations

Peer Dev. X					029					
Centrality					(.104)					
Peer Dev. X						024				
Popularity						(.013)				
Peer Dev. X							011			
Attachment							(.053)			
Peer Dev. X								.015		
Involvement								(.057)		
Cut 1	-2.673**	-1.925*	-1.811*	-1.860*	-1.816*	-1.852*	-1.806*	-1.820*		
	(.816)	(.846)	(.881)	(.888)	(.887)	(.883)	(.886)	(.880)		
Cut 2	-1.289	580	454	503	460	495	449	463		
	(.85)	(.851)	(.894)	(.900)	(.901)	(.898)	(.900)	(.893)		
Cut 3	.551	1.258	1.396	1.347	1.390	1.357	1.401	1.387		
	(.801)	(.851)	(.898)	(.905)	(.906)	(.904)	(.905)	(.898)		
Cut 4	2.155**	2.906	3.056**	3.008	3.050**	3.020**	3.060**	3.046**		
	(.785)	(.833)	(.879)	(.885)	(.886)	(.885)	(.885)	(.878)		
* = p<.05, ** = p <.01, *** = p <.001										

Table 28: Ordinal Regression Predicting Employment Expectations

Variable	Model 1 n-3050	Model 2 n-2403	Model 3 n-2396	Model 4 n-2396	Model 5 n-2396	Model 6 n-2396	Model 7 n-2396	Model 8 n-2396
	R	R	R	R	R	R	R	R
	(SE)							
Age	.041	.056	.056	.056	.056	.056	.057	.054
	(.039)	(.044)	(.043)	(.043)	(.043)	(.043)	(.042)	(.043)
Female	.355***	.307**	.250*	.250*	.249*	.252*	.250*	.252*
	(.091)	(.099)	(.108)	(.108)	(.108)	(.108)	(.108)	(.108)
White	.151	.045	.005	.001	.001	.008	.012	.006
	(.113)	(.128)	(.133)	(.134)	(.133)	(.135)	(.132)	(.132)
Two-Parent	.242	.279	.242	.242	.245	.240	.254	.233
	(.163)	(.190)	(.194)	(.194)	(.195)	(.194)	(.197)	(.197)
Public Assistance	208	151	097	101	099	098	098	089
	(.208)	(.229)	(.242)	(.247)	(.244)	(.243)	(.244)	(.242)
Income	.001	.001	.001	.001	.001	.001	.001	.001
	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)
Self-Control	027*	020	019	018	018	018	018	019
	(.011)	(.011)	(.012)	(.012)	(.012)	(.012)	(.012)	(.011)
IQ	.011**	.014**	.014**	.014**	.014**	.014**	.014**	.014**
-	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Parents Married	202	235	202	200	204	202	206	191
	(.152)	(.169)	(.175)	(.174)	(.175)	(.175)	(.174)	(.175)
Parent Graduated	.007	017	035	036	035	038	029	033
College	(.100)	(.109)	(.108)	(.107)	(.107)	(.107)	(.107)	(.108)
Parent Works	319	138	043	047	044	049	049	045
	(.236)	(.258)	(.275)	(.273)	(.274)	(.276)	(.272)	(.272)
Parental	.107	.103	.034	.035	.034	.034	.043	.033
Attachment	(.100)	(.093)	(.102)	(.102)	(.102)	(.102)	(.106)	(.103)
School	.251***	.271***	.204**	.203**	.205**	.204**	.206**	.204**
Attachment	(.052)	(.056)	(.060)	(.061)	(.060)	(.060)	(.060)	(.060)
Peer Deviance		034	030	.003	049	001	320	151
		(.043)	(.040)	(.114)	(.075)	(.058)	(.246)	(.121)
Density			.196	.220	.200	.199	.199	.193
5			(.337)	(.351)	(.336)	(.338)	(.337)	(.337)
Centrality			.355**	.357**	.352**	.353**	.356**	.359**
2			(.127)	(.127)	(.129)	(.127)	(.126)	(.127)
Popularity			000	000	000	.001	001	000
± J			(.015)	(.015)	(.015)	(.014)	(.015)	(.015)
Friend			.161*	.161*	.161*	.162*	.134	.161*
Attachment			(.068)	(.069)	(.069)	(.068)	(.077)	(.069)

(054)
(.0.54)
.059
(.055)
1.126
(.759)
2.608**
(.780)
4.517***
(.785)
6.642
(.804)

As expected, Tables 27 and 28 above confirm that the peer variables are not significant predictors of marriage and employment expectations, but Table 29 below uncovers an influential impact for education. Here, it is seen in models 2 and 3 that the higher the level of peer deviance in one's adolescent network the less likely they are to expect to graduate from college. From a protective perspective, the more attached one is to his/her friends the more likely they are to expect to graduate (model 3), but the impact of attachment changes when in a deviant network. Specifically, model 7 shows that the more attached one is within a deviant peer group one's expectations for graduating from college significantly decrease.

Table 27. Oruman Regression Fredering Contege Expectations										
Variable	Model 1 n=3050	Model 2 n=2403	Model 3 n=2396	Model 4 n=2396	Model 5 n=2396	Model 6 n=2396	Model 7 n=2396	Model 8 n=2396		
	В	В	В	В	В	В	В	В		
	(SE)	(SE)	(SE)							
Age	003	.033	.034	.035	.036	.034	.031	.036		
	(.048)	(.062)	(.064)	(.064)	(.062)	(.063)	(.063)	(.064)		
Female	.708***	.640***	.520***	.519***	.525***	.521***	.518***	.516***		
	(.095)	(.107)	(.111)	(.111)	(.112)	(.110)	(.109)	(.111)		
White	380**	377**	377**	353*	357**	369**	384**	382**		
	(.114)	(.131)	(.136)	(135)	(.133)	(.135)	(.135)	(.136)		
Two-Parent	.283	.181	.152	.154	.140	.148	.129	.160		
	(.154)	(.183)	(.174)	(.175)	(.175)	(.175)	(.171)	(.173)		

Table 29: Ordinal Regression Predicting College Expectations

Public Assistance	501	363	314	302	320	316	314	333
	(.259)	(.283)	(.286)	(.279)	(.283)	(.284)	(.286)	(.288)
Income	.005*	.006*	.006*	.006*	.006*	.006*	.006*	.006*
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Self-Control	072***	073***	068***	070***	069***	068***	069***	067***
	(.015)	(.015)	(.015)	(.015)	(.015)	(.015)	(.015)	(.016)
IQ	.027***	.027***	.026***	.026***	.026***	.023***	.026***	.027***
	(.003)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Parents Married	166	132	092	105	081	090	082	106
	(.158)	(.181)	(.180)	(.179)	(.181)	(.180)	(.177)	(.179)
Parent Graduated	.528***	.503***	.499***	.505***	.500***	.494***	.485***	.496***
College	(.116)	(.129)	(.124)	(.126)	(.125)	(.123)	(.125)	(.123)
Parent Works	029	004	.021	.037	.012	.006	.030	.023
	(.252)	(.292)	(.292)	(.297)	(.291)	(.298)	(.295)	(.294)
Parental	.101	.125	.028	.020	.028	.027	.017	.029
Attachment	(.098)	(.111)	(.113)	(.113)	(.110)	(.113)	(.110)	(.110)
School	.319***	.299***	.225**	.229**	.224**	.226**	.227**	.227**
Attachment	(.057)	(.074)	(.078)	(.078)	(.077)	(.077)	(.077)	(.079)
Peer Deviance		220***	205**	424**	059	130	.418	052
		(.061)	(.062)	(.143)	(.093)	(.097)	(.318)	(.148)
Density			.389	.243	352	394	.373	.403
Density			(250)	(258)	(256)	(.249)	(.247)	(.254)
Centrality			394**	384**	411**	388**	392**	389**
Contrainty			(124)	(124)	(128)	(125)	(126)	(126)
Popularity			.010	.010	.010	.013	.010	.010
ropulaity			(015)	(015)	(015)	(015)	(015)	(015)
Friend			313***	318***	316***	315***	365***	314***
Attachment			(081)	(081)	(079)	(081)	(079)	(082)
Friend			- 171**	- 173**	- 172**	- 170**	- 171**	- 157**
Involvement			(059)	(059)	(058)	(- 016)	(059)	(059)
Peer Dev X			()	479	(.050)	(.010)	(.057)	(.057)
Density				(252)				
Peer Dev X				(.232)	- 195			
Centrality					(098)			
Peer Dev X					(.090)	- 016		
Popularity						(014)		
Peer Dev X						(.01+)	- 147*	
Attachment							(073)	
Peer Dev X							(.073)	- 075
Involvement								(072)
Cut 1	1 808	2 267	2 085*	2 006*	2 087*	2 050*	3 088*	(.072)
Cut I	(1.070)	(1.287)	2.905	2.900	(1.384)	(1.408)	(1.403)	$(1 \ 1 \ 0)$
Cut 2	(1.070)	(1.207)	(1.400)	(1.400)	(1.304)	(1.408)	(1.403)	(1.419)
Cut 2	(1.045)	(1, 242)	(1.240)	(1, 251)	(1,228)	(1, 251)	(1.245)	(1, 262)
Cut 3	(1.045)	(1.243) 1 168***	(1.J+7) 5 918***	(1.331) 5 1/0***	(1.320)	(1.331) 5 102***	(1.343) 5 310***	(1.303) 5 300***
Cut 3	(1.045)	(1.227)	(1.249)	(1.250)	(1.229)	(1.250)	(1 244)	(1.262)
Cut 4	(1.04 <i>J)</i> 5 622***	(1.237)	(1.340)	(1.330) 6 777***	(1.320) 6 85/***	(1.330) 6 825***	(1.344)	(1.303)
Cut 4	(1.051)	(1.240)	(1 265)	(1.269)	(1.245)	(1.267)	(1.261)	(1 200)
	(1.001)	(1.249)	(1.303)	(1.308)	(1.343)	(1.307)	(1.301)	(1.300)

Delinquent Sub-sample

Some may suggest that an event is only a 'turning point' for those that are on a delinquent trajectory and, therefore, the sample should only include established delinquents. There are two primary reasons that all adolescents are included in the sample. First, the delinquency measures only reflect deviant activity for the 12 months prior to the questionnaire. Although 81% of the sample indicated some form of deviance in that time period, relying on only those individuals would exclude those students who may not have been delinquent at Wave I but engaged in deviance prior to Wave III when the outcomes were measured. In particular, this may be the case for those adolescents at the lower end of the age distribution at Wave I. Second, recent support for turning points in the literature utilizes general population samples (e.g. National Youth Survey), further supporting the generality of these processes (Warr, 1998; Wright et al., 2001; Wright and Cullen, 2004). Although these events may not be responsible for turning one's life around, experiencing prosocial adult outcomes may help non-delinquent youth maintain a crime free life course into adulthood. For these reasons, I decided to use a general population sample.

Even so, I repeated the analyses using only those adolescents who admitted to past deviant behavior at Wave I. The substantive results of these supplemental analyses mirror the results explained above, with two exceptions: (1) the more attached one is in a deviant peer network the more likely that individual is to be married at Wave III, and (2) individuals in a high density deviant network are more likely to graduate college than their low density counterparts. While the first difference is a finding that emerged earlier among the male and white sub-samples, the second is a new relationship that goes against my hypothesis.²⁴

²⁴ Appendix 2 includes tables of the models for the delinquent sample that differ from the original analyses. Complete results on the delinquent sample are available upon request.

<u>Summary</u>

Overall, these results are only partially supportive of the hypotheses. In fact, they reveal that predictors of marriage, job stability, and obtaining a college degree vary significantly. The first hypothesis, which evaluates the impact of the level of peer deviance, is only supported for the education outcome. Specifically, the more deviant one's peer network is, the less likely the individual is to graduate from college. This hypothesis is not supported for job stability or marriage; the level of peer deviance is not a significant predictor of either of these outcomes. Hypothesis two, which assesses network characteristics as a mediator is minimally supported. There is one exception, however, for the marriage outcome. In particular, the more involved one is within a deviant peer network the less likely that individual will be married. The only other significant moderator is attachment in the employment models; however, higher attachment within a deviant network increases the likelihood of job stability, which goes against this hypothesis. Similar to hypothesis one, hypothesis three is only supported for education. Specifically, the higher the level of peer deviance within an individual's network the less likely that individual will expect to graduate from college. This relationship is further amplified with high levels of attachment between the deviant friends, but none of the other network characteristics condition this relationship. Peers are not influential, however, for employment or marriage expectations.

These results also reveal a small number of differences in the impact of peer deviance and network characteristics for shaping the pathway to prosocial adult outcomes across gender and race. In particular, when predicting college, density and

centrality are only beneficial for whites. Also, in the marriage models, marital expectations are beneficial for females but not males and peer deviance increases the likelihood of marriage for minorities but not their white counterparts. Furthermore, higher levels of peer deviance increase the likelihood of job stability among minorities and higher IQ decreases job stability in the white sample. Although these differences illustrate some of the complexities amidst these relationships, there are many more consistencies than differences across sub-samples. It will be beneficial, then, to take a step back and assess what these findings mean collectively.

Chapter 5: Conclusions

The goal of this research is to begin to understand the pathway to prosocial adult outcomes in one's life course, with specific attention paid to the role of deviant peer networks. Specifically, using the AddHealth data, this inquiry evaluates if the level of deviance within one's adolescent peer network influences their likelihood of being married, having stable employment, or a obtaining a college degree in early adulthood. Furthermore, this research incorporates network characteristics as a way to better define the relationships between the subject and his/her friends to see if certain traits condition the impact of peer deviance. Importantly, these questions are addressed while also accounting for the impact of static characteristics and other potentially relevant dynamic factors. Overall, the findings show that the level of peer deviance is only influential for graduating from college and that network characteristics rarely act as moderators of peer deviance. In addition, an indirect impact of peer deviance is also uncovered when predicting whether one graduates from college. From these general findings, there are five major implications that should be considered.

Discussion of Major Findings

First, peers are not impressively influential for shaping the pathway to prosocial outcomes. Specifically, the level of deviance within one's peer group is not influential for predicting experiences with marriage and job stability. The exception, however, is that peer deviance does shape whether or not one graduates from college. This conclusion is coincident with literature suggesting that peers are primarily
influential for proximate goals as opposed to long-term goals, which are more influenced by parental modeling. For example, the status attainment literature references the greater importance of peers for education related outcomes compared to employment (Herriott, 1963; Picou and Carter, 1976). This can, in part, be due to the fact that adolescents spend much of their days in school with their peers and, therefore, it is natural for them to look to peers for guidance and acceptance regarding educational aspirations.

This influence of deviant peers on graduating from college is supportive of social bond, learning, and opportunity theory. First, social bond theory suggests the importance of having strong relationships with conventional individuals, including parents, school officials, and peers. Strong relationships with these individuals naturally control one's impulses for deviant behavior. As suggested by the findings above, individuals who socialize with deviant peers, as opposed to conventional peers, are lacking this aspect of social control. Instead, they are surrounded by other deviants who will not restrain these impulses or promote prosocial activities. Second, the context of a deviant peer network also provides considerable models for imitation and reinforcement for the delinquent behavior. In turn, rewards for deviant activity from one's peers will continue to draw these adolescents away from a commitment to education, in turn, decreasing their likelihood of attaining a college degree. Finally, if socializing with deviant peers pulls one toward delinquency and away from convention, this will also shape an individual's opportunities for later prosocial activities. For example, if socializing with deviant peers increases one's likelihood of

dropping out of school or, at a minimum, decreases one's commitment to education as an adolescent, he/she is less likely to have a viable opportunity to go to college.

The overall importance of the level of deviance within one's adolescent peer network for influencing whether or not one graduates college, then, illustrates the utility in applying these theories to events outside the traditional line of inquiry with crime as an outcome. True support for these theories, however, would have emerged across all outcomes given the fact that criminological theories tend to speak about general processes. For example, learning theory states that the learning process is the same across all behaviors (Akers, 1998). Therefore, one may suspect deviant peers to also be influential for the other outcomes, which does not hold true in the current investigation. In fact, some analyses run contrary to the hypotheses and reveal that for certain individuals (i.e. minorities) higher levels of peer deviance actually increase one's likelihood of job stability at Wave III. Research suggests that this could be due to the fact that deviant youth shy away from education and, instead, pick up low paying jobs (Hagan, 1993; Sullivan, 1989). Their criminal activity, then, is used to supplement their below average incomes. In the current investigation, however, the job stability outcome does not capture type of employment and, therefore, deviant individuals who associate with deviant peers are achieving job stability earlier than their conventional counterparts who went on to college. This finding only emerged for certain individuals, however, so consideration should be given to the potential reasons for the lack of support for the detrimental impact of peer deviance across outcomes. A future section on the limitations of this investigation will highlight the

reasons why this lack of support is tied to the sample in use more so than the utility of these theories.

Second, despite the recent focus on network characteristics as a refined method of studying the impact of peers, this investigation shows almost no support for the conditioning effects of network characteristics on peer deviance for these prosocial outcomes. This should not be very surprising given that the overall effect of peer deviance was minor. This research hypothesized the effects of five different network characteristics across three outcomes, a total of fifteen potential moderating effects. In the end, only one emerged as significant in the hypothesized direction. Specifically, those highly involved with deviant peers are less likely to be married. This could simply reflect that those who spend the majority of their time socializing with deviant peers are less attractive in the marriage market. This finding is marginally supportive of social control and opportunity processes that suggest that spending spare time with peers decreases the amount of time one has to spend in traditional contexts, such as a committed relationship.

The other significant moderator that emerged ran contrary to the hypothesis and theoretical expectation. In particular, those that were highly attached to deviant networks had more success obtaining stable employment. The explanation of this finding is similar to the finding discussed above with peer deviance increasing job stability for minorities. Perhaps for individuals other than minorities this process only ensues for those highly attached to deviant networks. While one would not intuitively expect high levels of attachment in a deviant network to increase the likelihood of stable employment, literature and the results of this investigation

suggest that deviance decreases one's likelihood of attending and graduating college. If deviant individuals, then, are not enrolled in school they may be more likely to seek employment right after high school. In turn, they are more likely to have secured two years of stable employment by Wave III compared to those who went on to pursue higher education. Hagan's literature (1993) suggests that this process is particularly relevant for individuals who are deeply embedded in a deviant lifestyle, which is more likely to be those individuals with high attachment to deviant networks. In addition, within this deviant network those with higher levels of attachment may be privy to more connections and opportunities for employment through their peers compared to those with weak attachments to the group, although these jobs are likely to be low level jobs. Overall, the lack of support for network characteristics goes against many theoretical expectations of social bond and learning theory. Taken as a whole, then, these results lend caution to using traditional criminological theories to explain network influences on prosocial outcomes and if criminologists are ready to embrace a network perspective, more time needs to be spent understanding which characteristics are worthy of pursuit and critically thinking about how to incorporate these concepts into our theories.

Third, background characteristics play an important role in shaping one's experiences with prosocial life events. A variety of background characteristics included in the models emerge as significant across outcomes. In particular, demographics are among the most consistent predictors across models. Other background characteristics, particularly IQ, self-control, and SES also emerged as influential in some scenarios. Having a parent who went to college is another

background characteristic that is consistent across outcomes, increasing the likelihood of graduating from college, but decreasing one's chances of marriage and job stability. This finding, again, illustrates how intimately age, education, and the other outcomes are tied. Specifically, parents who graduated from college are likely to value education and encourage their child to pursue a college education, which would delay other outcomes. Given that the mean age of the sample at Wave III is 22, many participants are just completing college and, therefore, have not had adequate time to attain the other outcomes.

Collectively, these findings remind people that individual level traits are influential for the pathway to turning points. It is necessary to note, however, that they are influential along with dynamic factors, which has significant theoretical implications. Importantly, these results do not provide ample support for purely static criminological perspective, which proposes that one's propensity leads to a selection process in which certain individuals self-select into a deviant peer group and naturally shy away from other positive domains. Propensity theorists suggest that models including static characteristics would render the relationships between dynamic factors and the outcomes as spurious (Gottfredson, 2005). This is not the case in the results of the current investigation. Dynamic factors continue to exert an influence alongside background characteristics. While individual differences such as demographics, IQ, and self-control lay the foundation for a certain trajectory, one's pathway through life is not written in stone. Instead, social control, social learning, and opportunity processes can all play a part in shaping one's expectations and experiences, as is evidenced by the wide variety of significant predictors of prosocial

adult outcomes. That being said, criminologists need to embrace that these processes that have often been pitted against each other as rivals are actually complementary and not only for deviance, but prosocial activities as well.

In fact, the conclusion that both static and dynamic influences are important to consider in the pathway to prosocial life events fits nicely with the current theoretical trend in criminology that suggests that both population heterogeneity and state dependence processes work in concert. While certain theorists hold strongly to their assertions that individual differences are the underlying cause of deviant behavior and adult outcomes (Gottfredson and Hirschi, 1990), more recently, researchers and theorists have become open to the idea that multiple processes might be at play (Nagin and Paternoster, 1991; Tittle, Ward, and Grasmick, 2004). For example, Thornberry's interactional theory (1987) is a prime example that is supportive of both selection and socialization processes surrounding peer groups. Given the number of people that have suggested this integration and the empirical support behind this assertion (Wright et al., 2002; Unnever, Cullen, and Agnew, 2006), perhaps it is time to take the integration of these perspectives more seriously.

Interestingly, this perspective coincides with the status attainment literature, which does not suggest that static characteristics wipe away the influence of dynamic influences. Instead, this literature recognizes that while many background characteristics retain a direct relationship with the outcomes of interest, much of their impact is indirect through peers and expectations (Alexander and Campbell, 1964; Davies and Kandel, 1981; Duncan, Haller, and Portes, 1968; Haller and Butterworth, 1960; Picou and Carter, 1976; Sewell, Haller, and Portes, 1969; Wilson and Portes,

1975; Woelfel and Haller, 1971). The results of some analyses support this notion with IQ and self-control sometimes losing their significance when expectations are added to the models. In the end it is clear that the pathway to prosocial outcomes is not only static or only dynamic and as scholars wrestle with how to integrate these ideas they should also remain cognizant of the influence of one's expectations.

Fourth, expectations are an important part of the pathway to prosocial life events and peers exert an indirect impact on some prosocial events through their influence on expectations. Specifically, expectations variables are influential for marriage and education outcomes and peers have a unique relationship with expectations for college that impact educational attainment and marriage. Expectations can be likened to one's attitudes and beliefs about the likelihood of an event, supporting the idea that one's attitudes can be learned through interaction with peers. This learning process, however, only ensues for educational aspirations and, again, highlights the more immediate influence of peers. The investigation of expectations also has theoretical implications for social control theory. Specifically, the conditioning effect of attachment for educational expectations draws attention to the importance of context when studying peers. Although social control theory would suggest that a high level of attachment to peers is beneficial for adolescents, the reality is that the type of network one is attached to can influence the type of control exerted. That being said, when highly attached to deviant peers the result is more likely to be deviant expectations, which suggests the importance of promoting attachment to prosocial individuals. As a result, it is important for the field to be

cognizant of the indirect impact of peers on one's expectations, and account for these perceptions and cognitions in criminological theories.

Finally, these findings are complicated by the fact that some differences emerged across gender and race sub-samples. Although tests for differences between slope coefficients revealed that many of these patterns were not statistically significant, a few did remain. For example, as previously discussed, peer deviance shapes the job stability of minorities and marriage differently than the other groups. Importantly, early work in life course criminology was built on limited samples (e.g. Glueck data) of white males in juvenile reformatories. Although the benefit of certain life events has been tested on more diverse samples, there has been very little research done to investigate the uniformity of the pathway to these events across gender and race. Evaluating one's criminal career as a pathway, the current investigation only looks at one portion of this pathway and finds some differences in the factors shaping the experiences of males versus females and whites versus minorities.

As a result of the fact that few researchers have evaluated these differences over time, it is difficult to understand the meaning of these disparities. These are empirical questions that need to be further investigated. For example, when predicting marriage, expectations are influential for females but not males. Perhaps this is a reflection of the fact that conventionally females expect to get married and think about marriage at younger ages than males, and therefore, in adolescence may not yet have expectations for marriage, let alone marriage by the age of 25. Another difference for marriage is that being on public assistance only hinders minorities.

This may be a reflection of concentrated disadvantage. Research shows that poverty has been, and still is, more prevalent among minorities (Smith, 2005). As a result, minorities are more likely to be on public assistance, which may decrease attractiveness to potential spouses. Centrality and attachment also act as moderators of peer deviance, increasing marriage for the minority sample only.

These differences need to be couched in the recognition that there are many more similarities between the sub-samples than differences. This investigation, then, can get added to the literature that fails to reach a consensus in regard to the influence of peers across groups (Hartjen and Priyadarsine, 2003; Kruttschnitt, 1996; Mears et al, 1998; Piquero et al, 2005) and begins a body of literature investigating the uniformity of the pathway to turning points. In the end, the mechanisms underlying these similarities and differences are not fully understood, which highlights the need to continue investigations of this sort. It is also necessary to remember, however, that these findings are somewhat clouded by the fact that race and gender are predictors of those individuals who were excluded from the sample, therefore, these results may be reflections of this selection bias.

Collectively, these results further underscore the complexities involved in understanding one's life course. Whereas peers are influential in certain situations, they are far from the primary influence and must be considered alongside demographics, background characteristics, and other dynamic influences. More generally, a theoretical implication of the current research results from the focus on prosocial adult outcomes. In light of the life course literature and theories suggesting the importance of prosocial life events as facilitators of desistance, these events are

worthy of deeper consideration. It is necessary for us to gain a better understanding of the situations that precede these events and how crime and delinquency alter one's experiences. Criminological theories tend to focus on crime as an outcome of interest, but this investigation illustrates one of many ways that evaluating the impact of deviance on conventional outcomes can be beneficial. It is, therefore, time to consider incorporating prosocial outcomes into criminological theories. With theoretical and empirical support for understanding the pathways to turning points and knowledge of how deviance impacts these processes we can build a foundation for policy that not only decreases criminal activity but also promotes prosocial behavior. Now that there is an understanding of what the results of this investigation mean it will be beneficial to turn our attention to the policy implications of these findings so that we understand the utility of them for influencing individuals' behavior.

Policy Implications

One of the goals of criminal justice practitioners, researchers, and theorists alike is to uncover ways to stop crime from occurring. Relying only on enduring propensity as the pathway to desistance-promoting events does not leave much room for influencing the process. Perhaps breaking up delinquent networks early on and promoting prosocial networks can increase the probability of adopting a conventional lifestyle and experiencing these events. The results of this investigation are extremely encouraging from a policy perspective. While it is beneficial to know that experiencing certain life events is important for desistance, the problem lies in our inability to force these experiences on individuals. That being said, our hope for

influencing these processes lies in our ability to uncover what factors facilitate or hamper one's likelihood of these events. Only then can we identify *if* there are potential avenues for intervention and *how* to promote prosocial outcomes. The results of this investigation are a positive first step in this agenda.

These analyses highlight the many factors that help to shape one's pathway to prosocial adult outcomes. The general benefit to finding that dynamic factors are influential in addition to static characteristics is that dynamic factors are amenable to intervention and change over time. As a result, this research illuminates numerous areas to focus policy efforts but draws particular attention to those that can be used to alter expectations and educational achievement. Most germane to my research interests are utilizing peers to impact change. It is important to note, however, that because peers were only found to be influential for education, peer-related policy implications are only relevant for altering the pathway to educational aspirations and attainment. Taken together, the analyses revealing peer deviance as detrimental for education outcomes in conjunction with literature stating the protective effect of prosocial peers, building strong, positive friendships will be a fruitful area of intervention. Research by Dishion and colleagues reference the variety of ways understanding the processes by which peer networks influence adolescent behavior can be beneficial, including not segregating deviant kids into environments where they only spend time with other deviants and increasing time with prosocial adolescents (Dishion, Patterson, Stoomiller, and Skinner, 1991; Gifford-Smith, 2005). Programs of this nature can be valuable in multiple realms, but will be particularly advantageous from an educational standpoint. Programs that alter one's peer network

in a way that will decrease the amount of deviance one is subjected to can support educational attainment. In addition, using programs such as mentoring which are aimed at increasing attachment to prosocial individuals may decrease attachment with deviant peers. Given that high attachment to deviant peers significantly depletes one's expectations for graduating college, this is a promising avenue for intervention.

Overall, programs that foster attachment to school, given its impact on educational expectations and attainment, will be beneficial. Whether or not these programs use peers as the mechanism to foster the attachment is less important than increasing one's commitment to education. At the very least, Wilson, Gottfredson and Najaka (2001) suggest that school based prevention programs are effective for decreasing dropout and non-attendance. Keeping kids in the school is a first step for increasing commitment and attachment to education. Additionally, research shows the potential for positive school experiences to increase the tendency for adolescents to engage in planning life transitions (e.g. marriage and careers) and is associated with "a much improved social outcome in adult life" (Rutter, 1996: 612). Rutter (1996) also suggests that this process is more influential for deviant youth given that they are less likely to have sources and rewards for prosocial behavior in other domains of their lives (e.g. friends and family) than prosocial youth who have these models across multiple contexts. Another reason education is a worthy place to focus intervention efforts is the fact that obtaining a college degree can open many doors for individuals in their search for employment. In turn, those who are committed to education are more likely to also obtain job stability and research references the cumulative advantage to experiencing multiple turning points (Piquero et al, 2002;

Smith and Sherman, 1992; Toby, 1957). In addition, those who graduate from college may be more attractive in the marriage market, also increasing the likelihood of experiencing this turning point. In the end, although many of the dynamic policy implications suggest influencing education, either directly or through peers, the benefits of these policies can impact other prosocial life events as well.

This is not to suggest that dynamic processes are the only worthwhile policy efforts. IQ and self-control are both background characteristics that can be altered, however, the limitation is that they necessitate early intervention. That being said, being proactive can be beneficial. For example, strengthening relationships between children and parents will facilitate greater monitoring of a child's behavior and recognition and punishment of deviant behavior, which according to Gottfredson and Hirschi (1990) fosters high levels of self-control. Given that the status attainment literature suggests the importance of cognitive function for shaping peer relationships and expectations, early intervention programs aimed at increasing one's mental capacity could prove worthwhile primarily for educational expectations. Research on the success of interventions by focusing on responsivity factors also highlights the importance of these characteristics. "The responsivity principle refers to delivering an intervention that is appropriate and matches the abilities and styles of the client" (Listwan, Cullen, and Latessa, 2006:22). In particular, focusing on responsivity factors such as personality and intelligence can impact how individuals respond or are amenable to treatment. For example, using an assessment that requires a normal range of cognitive functioning will not be valuable for low-functioning individuals and,

therefore, understanding how these factors impact these processes will allow us to identify and screen out those that will not benefit (Listwan et al., 2006).

Of course, there are certain factors, namely demographics, which cannot be subject to change. This does not mean, however, that these static factors are useless for policy because demographic influences can help navigate our intervention efforts. For example, given the findings that peers are generally influential through their impact on education and we know that females are already more likely to consult with friends on educational plans, perhaps we need programs that will facilitate this sort of communication among males. Also, in light of the finding that females are more likely to graduate from college, which can increase later success in life, we should focus on programming that increases boys' commitment to education or access to higher education. Previous research on prosocial adult outcomes focuses on male only samples or males and females together and rarely considers racial differences. In the current research, the gender and race specific results provide insight into differences by demographics and highlight the utility of this approach. In turn, these differences can guide research and policy efforts. Even more so, the overwhelming similarities across sub-samples provides encouragement for implementing comprehensive programs that will benefit multiple individuals.

Lastly, parental modeling through having a parent that went to college increases expectations for college and the likelihood of graduating from college. This is likely due to the parents encouraging college as well as the perception by the adolescent that if his/her mom or dad had the opportunity to graduate college then he/she will likely be afforded the opportunity as well. With increases in opportunities

for college and shifts in educational conventions, over time, the likelihood that a child will have at least one parent who graduated from college will naturally increase and promote this desire in younger generations. This suggests, however, the value of educational opportunities and suggests the importance of making sure these opportunities remain through various policies (e.g. scholarships and financial aid) in order to increase adolescents' expectations and aspirations to get a college degree.

Clearly, there are many potential ways that pathways to prosocial adult outcomes can be shaped, as is evidenced in the current research. From a policy perspective, this investigation highlights various ways to intervene and influence the likelihood of turning points before it is too late. This research, however, is only a first-look at these potential pathways to prosocial life events. Future research is necessary, then to confirm the above results and uncover which policy recommendations will be most fruitful.

Limitations

While a few of the findings that emerged were as expected, most were not as hypothesized or coincident with criminological theory. It will be valuable, then, to take a step back and assess whether this is due to inadequacies of the theory or the sample and data used in the this investigation. Specifically, there are five limitations of the current study worthy of highlighting. Only through recognition of these limitations can one adequately qualify the research findings.

The first limitation revolves around the age of the sample. The fact that 80% of the sample in use is between the ages of 21 and 23 greatly limits the likelihood of experiencing each of these traditional adult activities. Also, in light of the shift in

conventions that has increased the likelihood of going to college, many of these outcomes can be viewed as competing events because one who goes to college is likely to delay the other outcomes. Specifically, using an older sample would provide greater variation in the outcomes and, hopefully, allow us to navigate through 'real' influences or those that are artifacts of age of the subjects and timing of data collection. It is necessary then, to view the results through this lens and recognize that perhaps the reason peer deviance among minorities increases the likelihood of marriage and job stability is because minorities are less likely to go to college and, therefore, these other outcomes are not being delayed in the minority population. In addition, given the age of the respondents, it is likely that the education results are most valid given that traditional experiences with marriage and job stability that would be viewed as turning points are limited. It is possible, then, that the theories involving turning points are not incorrect, but instead, we need more time to assess them with the given sample.

Second, using more serious forms of delinquency would be a considerable improvement over the current research. Due to the minor nature of the deviance captured in the current measure, the majority of individuals had high levels of peer deviance, which greatly limits our ability to capture differences. It is possible, then, that this measure does not tap into actual delinquency and more accurately captures normative peer processes. Utilizing data that measures more serious delinquent acts may capture a more realistic variation in adolescent behavior. This research does have the added benefit over other research that it relies on peer self-reports as opposed to perceptions of peer behavior, and it should be recognized that other research has

relied on minor forms of deviant behavior when studying the influence of peers (Haynie, 2001; Schreck et al., 2004). That being said, the current results should not be discredited, and instead, future research is needed using peer self-reports of serious delinquency to shed greater light on these relationships.

Third, this investigation only captures peer networks in school. Research suggests that in adolescence school is the primary place from which youth choose their friends (Ennett and Bauman, 1993), but it not fully inclusive. There are two potential problems with using this school based sample that may impact the validity of the current findings. First, one's peers from outside of school may be more deviant than their in-school friends, which prevent the peer deviance measure from accurately depicting the level of deviance within one's network. Second, even if deviant individuals are registered students at the school and get nominated, if they are less likely to be in school due to their deviant nature, then it is likely that they did not fill out the school survey. As a result, other students who nominate those individuals will have incomplete network data and, therefore, be excluded from analyses. This missing data further qualifies the results of this investigation.

Next, the sample used in this investigation does not include isolates. Similar to association with deviant friends, peer rejection and isolation could potentially impact one's pathway to prosocial activities. The focus of the current investigation was, however, on the impact of association with deviant peers. That being said, while this is a limitation of the data it is not necessarily a flaw in the current research. This limitation should instead be viewed as a key indicator for future research for evaluating an alternative peer influence on the experiences with turning points.

The fifth limitation deals with the systematic differences that emerged between individuals that remained in the sample and those that were excluded through the multiple levels of data reduction. This significantly impacts the external validity and generalizability of the results. Replication of these results using a sample that is not plagued with missing data would greatly increase the validity of these findings. Specifically, the fact that race and gender were significant predictors of exclusion lends extra caution to the interpretation of the race and gender differences in the relationships across sub-samples, and therefore, these relationships need to be further investigated.

Overall, there are many findings to take away from the current investigation, but it is necessary to qualify these findings within the realm of individuals that they apply, and these limitations do just that. In light of the fact that the sample is unlikely to capture the most deviant individuals and most deviant peers this investigation can be viewed as a relatively conservative test of these relationships. The fact that some of these relationships emerged as significant, then, is telling and begs further exploration. In the end, even with these limitations, support was found for both selection and socialization theories, and therefore, I would argue that criminological theories are helpful in explaining prosocial adaptation. The shortcomings of this investigation, then, do not lie in a flawed framework, but instead fall on inadequacies of the sample and further research using improved data will be beneficial.

Future Research

This research and its limitations can act as a stepping stone for further research. In general, given that this is the first investigation of its kind, it is necessary to solidify these findings by replicating them using a variety of samples and methodologies. In addition, there are some specific avenues for future research that will also be beneficial to the field that can build on the current investigation and expand our understanding of the intricacies of these relationships.

The first three suggestions center around investigations that were not possible with the AddHealth data. The first involves involvement with the criminal justice system. Some literature suggests that deviant peers are most influential by influencing the delinquent behavior of an individual and this involvement with deviant behavior hampers future conventions (Hagan, 1993). Specifically with regard to these prosocial outcomes, being officially labeled by the criminal justice system inhibits one's ability to attain these life events (Lanctot et al., 2007; Laub and Sampson, 1993; Sampson and Laub, 1997). Therefore, future research should uncover whether the level of deviance among a peer group influences the likelihood of getting caught up in the criminal justice system and the resulting impact of that label on reaching these potentially life altering events. Next, while some gender and racial differences are present in the current research, there were not enough individuals with complete data to look at sub-samples by gender and race combinations. Given that all individuals possess both gender and race, analyses of this type would be beneficial for understanding their joint impact. Third, investigations would benefit from more detailed outcome measures. Some people suggest that the quality of these life events

is imperative for whether or not the experience translates into a turning point. For example, future research could look at the quality of one's marriage, type of employment, and level of academic performance in college.

Unlike the previous avenues for future research, the last suggestion will be possible using the AddHealth data in due time. Specifically, a longer follow-up period would capture more experiences with these life events and would eliminate the major caveat of the current results dealing with the respondents' ages being tied to their opportunity to have experienced each outcome of interest. In addition, a longer follow-up would provide another wave of deviant behavior, which would be beneficial for confirming these outcomes as desistance promoting life events. Fortunately, the AddHealth data will allow for this inquiry upon release of the Wave IV data.

This research has been fruitful from a theoretical, methodological, and policy perspective. Addressing methodological issues from previous research, this investigation lends support for the idea that population heterogeneity and state dependence are not mutually exclusive processes, and instead, work in concert. That being said, a call is being made for "greater integration of bio-psycho-social perspectives" of behavior (Ladd, 1999:354). This investigation has also been beneficial for shaping policy efforts. Although the process by which these prosocial life events translate into turning points varies by individual, and there is still debate over whether entering these events is enough or if certain characteristics are necessary, what *is* necessary is experiencing the event. Therefore, understanding how to influence these experiences, since we cannot force these life events upon people, is

a worthwhile pursuit. The overall conclusion of this investigation is a general one. The relationship between peers and prosocial adult outcomes is complex; peers are only modestly influential for shaping the pathways to marriage, job stability, and obtaining a college degree, *but* so are many other factors.

Appendix	Appendix 1: Correlation Matrix												
	Peer	Marriage	College	Job	Self-	IQ	Public	Two-Parent	Income				
	Deviance	Expectations	Expectations	Expectations	Control		Assistance						
Peer Deviance	1.00												
Marriage	00	1.00											
Expectations	.00	1.00											
College	19	.05	1.00										
Expectations													
Job	05	.39	.28	1.00									
Expectations													
Self-Control	.11	.00	22	08	1.00								
IQ	01	01	.17	.10	.05	1.00							
Public	.02	00	08	06	01	12	1.00						
Assistance													
Two-Parent	04	.07	.10	.07	.01	.13	15	1.00					
	0.0	20	10	0.5		16		16	1.00				
Income	00	.00	.13	.05	.02	.16	14	.16	1.00				
Dogont Works	02	02	05	04	02	08	21	16	10				
ratent works	02	.05	.05	.04	.02	.08	51	.10	.10				
Parent College	- 11	- 02	22	05	- 00	16	- 12	05	19				
i arent conege	.11	.02	.22	.05	.00	.10	.12	.05	.19				
Parents Married	05	.06	.06	.02	.01	.08	24	.69	.19				
White	.15	.14	06	.04	.10	.22	09	.13	.07				
Female	05	.09	.14	.06	04	08	.06	.01	01				
Age	.06	02	.01	.03	08	.01	04	.03	.03				
School	12	.05	.20	.12	29	01	01	.06	.02				
Attachment													

Appendices

	Peer	Marriage	College	Job	Self-	IQ	Public	Two-Parent	Income
	Deviance	Expectations	Expectations	Expectations	Control		Assistance		
Parental	02	.01	.11	.05	14	.06	02	.02	.01
Attachment									
Friend	.00	.06	.14	.10	13	.06	03	.03	.03
Attachment									
Friend	.12	.03	03	.06	.03	.01	04	.00	.06
Involvement									
Density	03	.01	01	02	.05	06	02	01	.06
Centrality	09	.03	.17	.12	09	.08	06	.07	.03
Dopularity	02	05	14	10	02	07	07	00	06
ropulatity	.02	.05	.14	.10	02	.07	07	.09	.00
Peer Deviance	.90	.01	16	04	.11	.01	.00	03	.01
X Density									
Peer Deviance	.80	.00	17	04	.10	02	.02	04	.00
X Centrality									
Peer Deviance	.78	01	16	04	.10	02	.01	04	01
X Popularity									
Peer Deviance	.98	00	19	04	.11	01	.02	04	00
X Attachment									
Peer Deviance	.90	.00	19	05	.12	.00	.01	04	.00
X Involvement									
	Parent	Parent	Parents	White	Female	Age	School	Parent	Friend Attachment
	Works	College	Married				Attachment	Attachment	
Parent Works	1.00	1.00							
Parent College	.09	1.00	1.00						
White	.17	.03	1.00	1.00					
Famala	.02	11	.13	1.00	1.00				
Age	02	00	05	08	- 06	1.00			
School	01	.02	.04	05	00	- 01	1.00		
Attachment	.01	.01	.00	.05	.05	.01	1.00		
Parental	.04	.05	.02	.00	.00	.01	.12	1.00	
Attachment									
Friend	.02	.03	00	.05	.19	.02	.18	.24	1.00
Attachment									

	Parent	Parent	Parents	White	Female	Age	School	Parent	Friend Attachment
	Works	College	Married			-	Attachment	Attachment	
Friend	01	.01	02	.11	06	.03	.00	.06	.12
Involvement									
Density	.04	.04	.01	03	.07	.07	08	02	00
Centrality	.01	.03	.06	.03	00	04	.22	.09	.06
Popularity	.03	.07	.08	.13	.05	00	.13	.03	.14
Peer Deviance	02	09	04	.12	03	.07	13	02	00
X Density									
Peer Deviance	01	11	03	.17	02	.04	09	02	00
X Centrality									
Peer Deviance	03	10	04	.17	01	.04	08	02	.02
X Popularity									
Peer Deviance	02	11	05	.15	04	.06	12	02	.04
X Attachment									
Peer Deviance	01	10	05	.16	06	.07	11	02	.00
X Involvement									
	Friend	Density	Centrality	Popularity	Peer Dev X	Peer Dev. X	Peer Dev. X	Peer Dev. X	Peer Dev. X
	Friend Involvement	Density	Centrality	Popularity	Peer Dev X Density	Peer Dev. X Centrality	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend	Friend Involvement 1.00	Density	Centrality	Popularity	Peer Dev X Density	Peer Dev. X Centrality	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement	Friend Involvement 1.00	Density	Centrality	Popularity	Peer Dev X Density	Peer Dev. X Centrality	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density	Friend Involvement 1.00 .01	Density 1.00	Centrality	Popularity	Peer Dev X Density	Peer Dev. X Centrality	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality	Friend Involvement 1.00 .01 .09	Density 1.00 42	Centrality 1.00	Popularity	Peer Dev X Density	Peer Dev. X Centrality	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity	Friend Involvement 1.00 .01 .09 .13	Density 1.00 42 .02	Centrality 1.00 .35	Popularity 1.00	Peer Dev X Density	Peer Dev. X Centrality	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity Peer Deviance	Friend Involvement 1.00 .01 .09 .13 .11	Density 1.00 42 .02 .03	Centrality 1.00 .35 08	Popularity 1.00 .03	Peer Dev X Density 1.00	Peer Dev. X Centrality	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity Peer Deviance X Density	Friend Involvement 1.00 .01 .09 .13 .11	Density 1.00 42 .02 .03	Centrality 1.00 .35 08	Popularity 1.00 .03	Peer Dev X Density 1.00	Peer Dev. X Centrality	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity Peer Deviance X Density Peer Deviance	Friend Involvement 1.00 .01 .09 .13 .11 .09	Density 1.00 42 .02 .03 06	Centrality 1.00 .35 08 04	Popularity 1.00 .03 .04	Peer Dev X Density 1.00 .60	Peer Dev. X Centrality 1.00	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity Peer Deviance X Density Peer Deviance X Centrality	Friend Involvement 1.00 .01 .09 .13 .11 .09	Density 1.00 42 .02 .03 06	Centrality 1.00 .35 08 04	Popularity 1.00 .03 .04	Peer Dev X Density 1.00 .60	Peer Dev. X Centrality 1.00	Peer Dev. X Popularity	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity Peer Deviance X Density Peer Deviance X Centrality Peer Deviance	Friend Involvement 1.00 .01 .09 .13 .11 .09 .11	Density 1.00 42 .02 .03 06 02	Centrality 1.00 .35 08 04 07	Popularity 1.00 .03 .04 .12	Peer Dev X Density 1.00 .60 .70	Peer Dev. X Centrality 1.00 .76	Peer Dev. X Popularity 1.00	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity Peer Deviance X Density Peer Deviance X Centrality Peer Deviance X Popularity	Friend Involvement 1.00 .01 .09 .13 .11 .09 .11	Density 1.00 42 .02 .03 06 02	Centrality 1.00 .35 08 04 07	Popularity 1.00 .03 .04 .12	Peer Dev X Density 1.00 .60 .70	Peer Dev. X Centrality 1.00 .76	Peer Dev. X Popularity 1.00	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity Peer Deviance X Density Peer Deviance X Centrality Peer Deviance X Popularity Peer Deviance	Friend Involvement 1.00 .01 .09 .13 .11 .09 .11 .12	Density 1.00 42 .02 .03 06 02 04	Centrality 1.00 .35 08 04 07 09	Popularity 1.00 .03 .04 .12 .03	Peer Dev X Density 1.00 .60 .70 .88	Peer Dev. X Centrality 1.00 .76 .79	Peer Dev. X Popularity 1.00 .78	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity Peer Deviance X Density Peer Deviance X Centrality Peer Deviance X Popularity Peer Deviance X Attachment	Friend Involvement 1.00 .01 .09 .13 .11 .09 .11 .12	Density 1.00 42 .02 .03 06 02 04	Centrality 1.00 .35 08 04 07 09	Popularity 1.00 .03 .04 .12 .03	Peer Dev X Density 1.00 .60 .70 .88	Peer Dev. X Centrality 1.00 .76 .79	Peer Dev. X Popularity 1.00 .78	Peer Dev. X Attachment	Peer Dev. X Involvement
Friend Involvement Density Centrality Popularity Peer Deviance X Density Peer Deviance X Centrality Peer Deviance X Popularity Peer Deviance X Attachment Peer Deviance	Friend Involvement 1.00 .01 .09 .13 .11 .09 .11 .12 .16	Density 1.00 42 .02 .03 06 02 04 01	Centrality 1.00 .35 08 04 07 09 10	Popularity 1.00 .03 .04 .12 .03 .02	Peer Dev X Density 1.00 .60 .70 .88 .81	Peer Dev. X Centrality 1.00 .76 .79 .74	Peer Dev. X Popularity 1.00 .78 .74	Peer Dev. X Attachment 1.00 .89	Peer Dev. X Involvement

Variable	Model 6 n=1918 B	Model 7 n=1908 B	Model 8 n=1918 B	Model 9 n=1908 B	Model 10 n=1918 B	Model 11 n=1908 B	Model 12 n=1918	Model 13 n=1908 B	Model 14 n=1918 B	Model 15 n=1908
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)
Age	.337 ***	.341***	.338***	.341***	.339***	.344***	.338***	.342***	.339***	.344***
0	(.076)	(.075)	(.076)	(.075)	(.076)	(.075)	(.075)	(.074)	(.076)	(.075)
Female	.609***	.580**	.612***	.589**	.609***	.583**	.607***	.584**	.603***	.573**
	(.161)	(.168)	(.161)	(.169)	(.159)	(.164)	(.158)	(.165)	(.164)	(.169)
White	.942***	.813***	.955***	.823***	.953***	.820**	.970***	.841***	.940***	.813**
	(.215)	(.225)	(.217)	(.228)	(.216)	(.229)	(.218)	(.230)	(.218)	(.230)
Two-Parent	106	177	104	172	099	161	084	150	106	168
	(.266)	(.271)	(.264)	(.271)	(.265)	(.272)	(.262)	(.268)	(.261)	(.268)
Public Assistance	058	147	064	150	057	141	050	139	097	180
	(.287)	(.313)	(.285)	(.312)	(.287)	(.314)	(.287)	(.315)	(.279)	(.307)
Income	002	002	002	002	002	002	002	002	002	002
	(.001)	(.002)	(.001)	(.001)	(.001)	(.002)	(.001)	(.001)	(.001)	(.002)
Self-Control	.013	.006	.013	.005	.013	.006	.013	.007	.014	.006
	(.020)	(.023)	(.020)	(.023)	(.020)	(.023)	(.020)	(.023)	(.020)	(.024)
IO	009	007	009	007	009	007	009	007	008	006
C C	(.005)	(.006)	(.005)	(.006)	(.005)	(.006)	(.005)	(.006)	(.005)	(.006)
Parents Married	.333	.320	.327	.312	.328	.310	.321	.302	.303	.282
	(.269)	(.258)	(.265)	(.256)	(.267)	(.259)	(.265)	(.254)	(.262)	(.251)
Parent Graduated	655**	597**	652**	593**	646**	583**	632**	571**	650**	585**
College	(.205)	(.198)	(.204)	(.196)	(.204)	(.198)	(.204)	(.198)	(.206)	(.201)
Parent Works	252	379	253	375	244	364	260	383	229	339
	(.330)	(.334)	(.327)	(.335)	(.329)	(.336)	(.330)	(.338)	(.327)	(.335)
Parental	093	089	098	094	099	097	089	087	088	088
Attachment	(.158)	(.189)	(.159)	(.190)	(.159)	(.190)	(.157)	(.189)	(.161)	(.190)
School	132	129	129	125	128	124	128	124	132	130
Attachment	(.076)	(.082)	(.076)	(.083)	(.076)	(.083)	(.077)	(.082)	(.077)	(.084)
Peer Deviance	.087	.080	043	050	121	172	663*	-782*	.346	.370
	(.178)	(.191)	(.103)	(.105)	(.102)	(.101)	(.283)	(.303)	(.177)	(.193)
Density	082	028	198	146	204	157	195	148	172	120
	(.459)	(.471)	(.446)	(.455)	(.447)	(.456)	(.445)	(.452)	(.458)	(.467)
Centrality	040	039	043	040	040	033	044	039	057	057
-	(.189)	(.201)	(.190)	(.202)	(.193)	(.205)	(.191)	(.202)	(.189)	(.199)

Appendix 2a: Logistic Regression Models for Marriage Outcome: Interaction Effects for Delinquent Sub-Sample

Popularity	.019	.020	.018	.019	.014	.014	.017	.019	.019	.020
	(.020)	(.021)	(.020)	(.021)	(.020)	(.021)	(.020)	(.021)	(.020)	(.021)
Friend	.013	.010	.014	.010	.010	.006	044	052	.017	.041
Attachment	(.112)	(.127)	(.113)	(.128)	(.113)	(.128)	(.117)	(.131)	(.114)	(.129)
Friend	095	137	094	137	095	139	098	140	046	088
Involvement	(.076)	(.079)	(.076)	(.079)	(.076)	(.079)	(.076)	(.079)	(.077)	(.079)
Peer Dev. X	332	339								
Density	(.374)	(.400)								
Peer Dev. X			026	032						
Centrality			(.101)	(.106)						
Peer Dev. X					.012	.020				
Popularity					(.016)	(.017)				
Peer Dev. X							.141*	.165*		
Attachment							(.063)	(.067)		
Peer Dev. X									196**	214**
Involvement									(.069)	(.079)
Marriage		.434***		.430***		.435***		.436***		.432***
Expectations		(.094)		(.094)		(.094)		(.094)		(.095)
College		163*		168*		168*		166*		172**
Expectations		(066)		(.065)		(.065)		(.064)		(.064)
Job Expectations		.068		.072		.069		.069		.084
		(.104)		(.105)		(.104)		(.105)		(.107)
Constant	-5.111**	-6.136***	-5.044**	-6.059***	-5.074**	-6.121***	-4.849**	-5.866***	-5.281**	-6.319***
	(1.573)	(1.634)	(1.558)	(1.617)	(1.548)	(1.609)	(1.566)	(1.614)	(1.531)	(1.570)

* = p<.05, ** = p <.01, *** = p <.001

Variable	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
	n=1920	n=1910	n=1920	n=1910	n=1920	n=1910	n=1920	n=1910	n=1920	n=1910
	В	В	В	В	В	В	В	В	В	В
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)				
Age	.784***	.815***	.781***	.814***	.783***	.816***	.780***	.813***	.781***	.814***
	(.085)	(.086)	(.085)	(.087)	(.088)	(.088)	(.086)	(.087)	(.086)	(.087)
Female	.547*	.407	.538*	.402	.535*	.399	.537*	.404	.544**	.405
	(.207)	(.225)	(.206)	(.224)	(.206)	(.224)	(.206)	(.225)	(.203)	(.221)
White	480*	347	501*	370	506*	373	506	377	507*	371
	(.231)	(.257)	(.238)	(.262)	(.239)	(.262)	(.241)	(.264)	(.239)	(.262)
Two-Parent	.243	.109	.225	.088	.240	.103	.226	.080	.231	.087
	(.322)	(.303)	(.325)	(.310)	(.323)	(.307)	(.322)	(.311)	(.327)	(.311)
Public Assistance	698	722	736	737	729	730	733	737	754	748
	(.480)	(.509)	(.467)	(.503)	(.469)	(.504)	(.467)	(.505)	(.474)	(.509)
Income	.006	.005	.006	.005	.006	.005	.006	.005	.006	.005
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Self-Control	044	024	042	022	042	022	042	023	042	022
	(.026)	(.028)	(.026)	(.028)	(.026)	(.028)	(.025)	(.028)	(.026)	(.028)
IQ	.066***	.058***	.066***	.058***	.066***	.059***	.066***	.058***	.066***	.058***
	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)
Parents Married	.156	.268	.162	.278	.156	.272	.160	.279	.157	.279
	(.341)	(.349)	(.344)	(.352)	(.342)	(.350)	(.343)	(.354)	(.346)	(.352)
Parent Graduated	.770**	.700**	.762**	.692**	.764**	.695**	.758**	.682*	.765**	.693**
College	(.262)	(.257)	(.266)	(.261)	(.266)	(.261)	(.268)	(.265)	(.266)	(.261)
Parent Works	.382	.182	.369	.196	.367	.202	.371	.214	.371	.194
	(.725)	(.738)	(.727)	(.734)	(.723)	(.734)	(.723)	(.734)	(.724)	(.733)
Parental	.055	.086	.071	.100	.061	.089	.069	.096	.065	.099
Attachment	(.256)	(.244)	(.251)	(.240)	(.249)	(.239)	(.252)	(.239)	(.250)	(.240)
School	.408**	.340*	.395**	.329*	.394**	.327*	.395**	.327*	.395**	.328*
Attachment	(.125)	(.149)	(.125)	(.150)	(.125)	(.148)	(.126)	(.151)	(.125)	(.150)
Peer Deviance	643**	559*	248	201	334*	280	188	.093	139	146
	(.211)	(.227)	(.181)	(.195)	(.165)	(.182)	(.507)	(.501)	(.227)	(.218)
Density	1.700**	1.640**	1.807**	1.740**	1.796**	1.728**	1.809**	1.754**	1.823**	1.747**
-	(.545)	(.537)	(.560)	(.555)	(.560)	(.552)	(.552)	(.550)	(.556)	(.551)
Centrality	.791***	.691**	.803***	.701**	.805***	.706**	.802***	.704**	.801***	.702**
-	(.208)	(.208)	(.204)	(.205)	(.211)	(.212)	(.207)	(.206)	(.208)	(.207)

Appendix 2b: Logistic Regression Predicting College Graduate: Interaction Effects for Delinquent Sub-Sample

Popularity	.060**	.066**	.061**	.067**	.060**	.066**	.061**	.068**	.061**	.067**
	(.021)	(.021)	(.021)	(.021)	(.020)	(.020)	(.020)	(.021)	(.020)	(.020)
Friend	.091	006	.102	.002	.101	.000	.106	.017	.104	.004
Attachment	(.162)	(.159)	(.160)	(.156)	(.160)	(.156)	(.165)	(.161)	(.160)	(.156)
Friend	093	068	089	063	090	064	088	062	087	063
Involvement	(.108)	(.116)	(.109)	(.118)	(.109)	(.117)	(.109)	(.118)	(.110)	(.118)
Peer Dev. X	.776*	.752*								
Density	(.330)	(.342)								
Peer Dev. X			026	.003						
Centrality			(.159)	(.181)						
Peer Dev. X					.011	.014				
Popularity					(.022)	(.023)				
Peer Dev. X							019	.067		
Attachment							(.117)	(.119)		
Peer Dev. X									060	024
Involvement									(.095)	(.086)
Marriage		280**		275**		272**		278**		276**
Expectations		(.081)		(.081)		(.080)		(.080)		(.080)
College		.710***		.716***		.719***		.716***		.714***
Expectations		(.120)		(.118)		(.118)		(.120)		(.117)
Job Expectations		.463***		.454***		.454***		.458***		.455***
		(.093)		(.092)		(.092)		(.094)		(.092)
Constant	-25.805***	-28.473***	-25.794***	-28.538***	-25.798***	-28.588***	-25.791***	-28.592***	-25.810***	-28.537***
	(2.300)	(2.520)	(2.286)	(2.510)	(2.305)	(2.527)	(2.268)	(2.498)	(2.267)	(2.504)
* .05 ** .	01 ***	01								

* = p<.05, ** = p <.01, *** = p <.001

Bibliography

- Agnew, Robert. 1991. The interactive effect of peer variables on delinquency. *Criminology* 29(1):47-72.
- Akers, Ronald L. 2000. *Criminological Theories: Introduction, Evaluation, and Application.* Los Angeles, CA: Roxbury.

_____. 1998. Social Learning and Social Structure: A General Theory of Crime and Deviance. Boston, MA: Northeastern University Press.

- Akers, Ronald L., Marvin D. Krohn, Lonn Lanza-Kaduce, and Marcia Radosevich. 1979. "Social Learning and Deviant Behavior: A Specific Test of a General Theory." *American Sociological Review* 44:636-655.
- Alexander Jr., C. Norman and Ernest Q. Campbell. 1964. "Peer Influences on Adolescent Educational Aspirations and Attainments." *American Sociological Review* 29:568-575.
- Apel, Robert, Shawn Bushway, Robert Brame, Amelia M. Haviland, Daneil S. Nagin, and Ray Paternoster. 2007. Unpacking the relationship between adolescent employment and antisocial behavior: A matched samples comparison. *Criminology* 45(1): 67-98.
- Arnett, Jeffrey Jason. 2000. "Emerging Adulthood: A Theory of Development from the Late Teens through the Twenties." *American Psychologist* 55:469-480.
- Arum, Richard and Irenee R. Beattie. 1999. "High School Experience and the Risk of Adult Incarceration." *Criminology* 37:515-540.
- Ayers, Charles D., James H. Williams, J.David Hawkins, Peggy L. Peterson, Richard F. Catalano, and Robert D. Abbott. 1999. "Assessing Correlates of Onset, Escalation, Deescalation, and Desistance of Delinquent Behavior." *Journal of Quantitative Criminology* 15(3):277-306.
- Barry, Carolyn M. and Kathryn R. Wentzel. 2006. "Friend Influence on Prosocial Behavior: The Role of Motivational and Friendship Characteristics." *Developmental Psychology* 42(1):153-163.
- Bauman, K.E. and L.A. Fisher. 1986. "On the measurement of friend behavior in research on friend influence and selection: Findings from longitudinal studies of adolescent smoking and drinking." *Journal of Youth and Adolescence* 15:345–353.

- Beaver, Kevin M. 2001. "The Influence of Marriage, Employment, and Education on Desistance from Marijuana: Examining the Impact of Life-Course Transitions in Rural and Urban Settings." University of Cincinnati Masters Thesis.
- Becker, Gary S. 1968. "Crime and Punishment: An Economic Approach." *Journal of Political Economy* 76:169-217.
- Becker, H. 1963. The Outsiders. New York: Free Press.
- Berndt, T.J. and T.B. Perry. 1986. "Children's Perceptions of Friendships as Supportive Relationships." *Developmental Psychology* 22:640-648.
- Blokland, Arjan A.J. and Paul Nieuwbeerta. 2005. "The Effect of Life Circumstances on Longitudinal Trajectories of Offending." *Criminology* 43(4):1203-1240.
- Blumstein, Alfred, Jacqueline Cohen, and David P. Farrington. 1988. "Criminal Career Research: Its Value for Criminology." *Criminology* 26:1-35.
- Blumstein, Alfred, Jacquline Cohen, Jeffrey A. Roth, and Christy A. Visher, eds. 1986. Criminal Careers and Career Criminals. Washington, D.C.: National Academy Press.
- Bonacich, Phililp. 1987. Power and centrality: A family of measures. *American Journal of Sociology* 92:1170-1182.
- Brendgen, M., F. Vitaro, and W.M. Bukowski. 2000. "Stability and Variability of Adolescents' Affiliation with Delinquent Friends: Predictors and Consequences." Social Development 9(2): 205-225.
- Broidy, Lisa and Robert Agnew. 1997. "Gender and Crime: A General Strain Theory Perspective." *Journal of Research in Crime and Delinquency* 34(3):275–299.
- Broidy, Lisa. M., Daniel S. Nagin, Richard E. Tremblay, J.E. Bates, B. Brame, B., Kenneth A. Dodge, D. Fergusson, J.L. Horwood, R. Loeber, R. Laird, D.R. Lynam, T.E. Moffitt, and G.S. Pettit. 2003. "Developmental Trajectories of Childhood Disruptive Behaviors and Adolescent Delinquency: A Six-Site, Cross-National Study." *Developmental Psychology* 39: 222-245.
- Bushway, Shawn D. 1998. "The Impact of an Arrest on the Job Stability of Young White American Men." *Journal of Research in Crime and Delinquency* 35(4):454-479.
- Bushway, Shawn D., Terence P. Thornberry, and Marvin D. Krohn. 2003.
 "Desistance as a Developmental Process: A Comparison of Static and Dynamic Approaches." *Journal of Quantitative Criminology* 19(2):129-153.

- Cairns, Robert B., Man-Chi Leung, Lisa Buchanan, and Beverley D. Cairns.1995. Friendships and social networks in adolescence: Fluidity, reliability, and interrelations. *Child Development* 66(5):1330-1345.
- Carvajal, H. H., J.E. Hayes, H.R. Miller, D.A. Wiebe, and B. Weaver. 1993.
 "Comparisons of the Vocabulary Scores and IQs on the Wechsler Intelligence Scale for Children-III and the Peabody Picture Vocabulary Test-Revised." *Perceptual and Motor Skills* 76 (1): 28-30
- Chantala, Kim and Joyce Tabor, 1999. Strategies to perform a design-based analysis using the Add Health data.
- Chapple, Constance L. 2005. Self-control, peer relations, and delinquency. *Justice Quarterly* 22(1):89-106.
- Chung, Ick-Joong, Karl G. Hill, J. Dvaid Hawkins, Lewayne D. Gilchrist, and Daniel S. Nagin. 2002. "Childhood Predictor of Offense Trajectories." *Journal of Research in Crime and Delinquency* 39(1): 60-90.
- Cillessen, Antonius H.N. and L. Mayeux. 2004. "From Censure to Reinforcement: Developmental Changes in the Association Between Aggression and Social Status." *Child Development* 75:147-163.
- Cillessen, Antonius H.N. and Amanda J. Rose. 2005. Understanding popularity in the peer system. *Current Directions in Psychological Science* 14(2):102-105.
- Cohen, Lawrence E. and Marcus Felson. 1979. "Social Change and Crime Rate Trends: A Routine Activity Approach." *American Sociological Review* 44: 588-608.
- Coleman, James S. 1990. *Foundations of Social Theory*. Cambridge, Mass.: Harvard University Press.
- Coles, Nigel. 2001. "It's Not *What* You Know- It's *Who* You Know That Counts: Analysing Serious Crime Groups as Social Networks." *British Journal of Criminology* 41:580-594.
- Clarke, Ronald V. and Derek B. Cornish. 1985. "Modeling Offenders' Decisions: A Framework for Research and Policy." In *Crime and Justice: An Annual Review of Research*, 6, edited by M. Tonry and N. Morris. Chicago: University of Chicago Press.
- Davies, Mark and Denise B. Kandel. 1981. "Parental and Peer Influences on Adolescents' Educational Plans: Some Further Evidence." *The American Journal of Sociology* 87(2):363-387.

- DeKemp, Raymond A.T., Ron H. J. Scholte, Geertjan Overbeek, and Rutger C.M.E. Engels. 2006. "Early Adolescent Deilnquency: The Role of Parents and Best Friends." *Criminal Justice and Behavior* 33(4): 488-510.
- Dishion, T. J., G.R. Patterson, M. Stoolmiller, and M.L. Skinner. 1991. "Family, School, and Behavioral Antecedents to Early Adolescent Involvement with Antisocial Peers." *Developmental Psychology*, 27:172-180.
- Duncan, Otis D., Archibald O. Haller, and Alejandro Portes. 1968. "Peer Influences on Aspirations: A Reinterpretation." *The American Journal of Sociology* 74(2): 119-137.
- Eder, Donna. 1985. "The Cycle of Popularity: Interpersonal Relations Among Female Adolescents." *Sociology of Education* 58:154-165.
- Elder, Glen H., Jr. 1985. "Perspectives on the Life Course." In *Life Course Dynamics*, edited by Glen H. Elder, Jr. Pp. 23-49. Ithaca: Cornell University Press.
- Elliott, Delbert S. and David Huizinga. 1989. "Improving Self-Reported Measures of Delinquency." In Cross-National Research in Self-Reported Crime and Delinquency, edited by Malcolm W. Klein. Dordrecht, the Netherlands: Kluwer-Nijhoff.
- Elliott, D.S. and S. Menard. 1996. Delinquent Friends and Delinquent Behavior: Temporal and Developmental Patterns. In *Delinquent and Crime: Current Theories*, edited by J. D. Hawkins. New York: Cambridge University Press.
- Ennett, Susan T. and Karl E. Bauman. 1993. "Peer Group Structure and Adolescent Cigarette Smoking: A Social Network Analysis." *Journal of Health and Social Behavior* 34: 226-236.
- Evans, T. David, Francis T. Cullen, and Velmer S. Burton, Jr. 1997. The social consequences of self-control: Testing the general theory of crime. *Criminology* 35(3): 475-504.
- Farrall, Stephen and Benjamin Bowling. 1999. "Structuration, Human Development and Desistance from Crime." *British Journal of Criminology* 39(2):253-268.
- Farrington, David P., Gwen Gundry, and D.J. West. 1975. "The Familial Transmission of Criminality." *Medicine, Science, and the Law* 15(3):117-186.
- Fischer, Claude S., Robert M. Jackson, C. Ann Stueve, Kathleen Gerson, Lynne McCallister Jones, and Mark Baldassare. 1977. *Networks and Places*. New York: Free Press.
- Gadd, David and Stephen Farrall. 2004. "Criminal Careers, Desistance and Subjectivity: Interpreting Men's Narratives of Change." *Theoretical Criminology* 8(2):123-156.

Giddens, Anthony. 1984. The Constitution of Society. Cambridge: Polity Press.

- Gifford-Smith, Mary, Kenneth A. Dodge, Thomas J. Dishion, and Joan McCord. 2005. "Peer Influence in Children and Adolescents: Crossing the Bridge from Developmental to Intervention Science." *Journal of Abnormal Psychology* 33(3):255-265.
- Giordano, Peggy C., Stephen A. Cernkovich, and Donna D. Holland. 2003. "Changes in Friendship Relations Over the Life Course: Implications for Desistance From Crime." *Criminology* 41(2):293-327.
- Giordano, Peggy C., Stephen A. Cernkovich, and M.D. Pugh.1986. "Friendships and Delinquency." *American Journal of Sociology* 91(5): 1170-1202.
- Giordano, Peggy C., Stephen A. Cernkovich, and Jennifer L. Rudolph. 2002. "Gender, Crime, and Desistance: Toward a Theory of Cognitive Transformation." *American Journal of Sociology* 107(4): 990-1064.
- Glaser, Daniel. 1969. *The Effectiveness of a Prison and Parole System* abridged ed. Indianapolis: Bobbs-Merrill.
- Glueck, Sheldon and Eleanor Glueck. 1950. *Unraveling Juvenile Delinquency*. Cambridge, MA: Harvard University Press.
- Goldstein, S.E., P.E. Davis-Keen, and Jacquelynne S. Eccles. 2005. "Parents, Peers, and Problem Behavior: A Longitudinal Investigation of the Impact of Relationship Perceptions and Characteristics on the Development of Adolescent Problem Behavior." *Developmental Psychology* 41(2): 401-413.
- Gottfredson, Michael R. 2005. "Offender Classifications and Treatment Effects in Developmental Criminology: A propensity/Event Consideration. *The ANNALS of the American Academy of Political and Social Science* 602:46-56.
- Gottfredson, Michael R. and Travis Hirschi. 1990. *A General Theory of Crime*. Stanford, CA: Stanford University Press.
- Gove, Walter R. 1985. "The Effect of Age and Gender on Deviant Behavior: A Biopyschosocial Perspective." In *Gender and the Life Course*, edited by Alice S. Rossi. New York: Aldine.
- Granovetter, Mark. 1992. "The Sociological and Economic Approaches to Labour Market Analysis: A Social Structural View." In *The Sociology of Economic Life*, edited by M. Granovetter and R. Swedberg. Boulder, CO: Westview Press.

_____.1973. "The Strength of Weak Ties." *American Journal of Sociology* 81:1287-1303.

- Grasmick, Harold G., Charles R. Tittle, Robert J. Bursik, Jr., and Bruce J. Arneklev. 1993. "Testing the Core Empirical Implications of Gottfredson and Hirschi's General Theory of Crime." *Journal of Research in Crime and Delinquency* 30(1): 5-29.
- Hagan, John. 1993. "The Social Embeddedness of Crime and Unemployment." *Criminology* 31(4):465-491.
- Haller, Archibal O. and C.E. Butterworth. 1960. "Peer Influences on Occupational and Educational Aspiration." *Social Forces* 38(4):289-295.
- Hanneman, Robert and Mark Riddle. 2005. *Introduction to Social Network Methods*. Riverside, CA: University of California, Riverside
- Hartjen, Clayton A. and S. Priyadarsini. 2003. "Gender, Peers, and Delinquency: A Study of Boys and Girls in Rural France." *Youth & Society* 34(4):387-414.
- Haynie, Dana L. 2002. "Friendship Networks and Delinquency: The Relative Nature of Peer Delinquency." *Journal of Quantitative Criminology* 18(2):99-134.

_____. 2001. "Delinquent Peers Revisited: Does Network Structure Matter?" *American Journal of Sociology* 106(4):1013-1057.

_____. 1999. "Peer Group Revisited: A Network Approach for Understanding Delinquent Adolescent Delinquency." *National Criminal Justice Reference Services* Document No. 195086.

- Haynie, Dana and Wayne Osgood. 2005. "Reconsidering Peers and Delinquency: How Do Peers Matter?" *Social Forces* 84(2):1109-1130.
- Haynie, Dana L., Peggy C. Giordano, and W.D. Manning. 2005. "Adolescent Romantic Relationships and Delinquency Involvement." *Criminology* 43(1):177-210.
- Haynie, Dana L. and Suzanne McHugh. 2003. "Sibling Deviance: In the Shadows of Mutual and Unique Friendship Effects?" *Criminology* 41(2):355-391.
- Herriot, Robert E. 1963. "Some Determinants of Educational Aspirations." *Harvard* ` *Educational Review* 33:157-77.
- Hirschi, Travis. 1969. *Causes of Delinquency*. Berkeley, CA: University of California Press.
- Hirschi, Travis and Michael R. Gottfredson. 1983. "Age and the Explanation of Crime." *American Journal of Sociology*. 89:552-584.

_____. 1995. "Control theory and the life-course perspective." *Studies of Crime and Crime Prevention* 4(2):131-42.

_____. 2000. "In Defense of Self-Control." *Theoretical Criminology* 4(1):55-69.

- Hochstetler, Andy. 2001. "Sprees and Runs: Opportunity Construction and Criminal Episodes." *Deviant Behavior: An Interdisciplinary Journal*23:45-73.
- Hochstetler, Andy, Heith Copes, and Matt DeLisi. 2002. "Differential Association in Group and Solo Offending." *Journal of Criminal Justice* 30:559-566.
- Hodapp, Albert F. and Kathryn C. Gerken. 1999. "Correlations Between Scores for Peabody Picture Vocabulary Test III and the Weschler Intelligence Scale for Children III." *Psychological Reports* 84(3):1139-1142.
- Horney, Julie, D. Wayne Osgood, and Ineke Haen Marshall. 1995. "Criminal Careers in the Short-Term: Intra-Individual Variability in Crime and its Relation to Local Life Circumstances." *American Sociological Review* 60:655-673.
- Horowitz, Ruth. 1983. *Honor and the American Dream*. New Brunswick, NJ: Rutgers University Press.
- Hughes, Margaret. 1998. "Turning Points in the Lives of Young Inner-City Men Forgoing Destructive Criminal Behaviors: A Qualitative Study." *Social Work Research* 22(3):143-151.
- Jaccard, James. (2001). *Interaction Effects in Logistic Regression* Thousand Oaks: Sage Publications.
- Jaccard, James, Hart Blanton, and Tonya Dodge. 2005. "Peer Influences on Risk Behavior: An Analysis of the Effects of a Close Friend." *Developmental Psychology* 41(1):135-147.
- Kanaya, Tomoe, Matthew H. Scullin and Stephen J. Ceci. 2003. "The Flynn Effect and U.S. Policies: The Impact of Rising IQ Scores on American Society Via Mental Retardation Diagnoses." *American Psychologist* 58: 1–13.
- Kandel, Denise B. 1996. "The Parental and Peer Contexts of Adolescent Deviance: An Algebra of Interpersonal Influences. *Journal of Drug Issues* 26(2):289-315.

_____.1978. Homophily, Selection, and Socialization in Adolescent Friendships. *American Journal of Sociology* 84: 427-436.

Kandel, Denise B., Mark Davies, and N. Baydar. 1990. "The Creation of Interpersonal Contexts: Homophily in Dyadic Relationships in Adolescence and Young Adulthood." Pp. 221-241 in *Straight & Devious Pathways From* *Childhood to Adulthood*, edited by Lee Robins and Michael Rutter. Cambridge, England: Cambridge University Press.

- Klein, Malcolm W. 1995. *The American Street Gang*. New York: Oxford University Press.
- Kollock, Peter. 1994. "The Emergence of Exchange Structures: An Experimental Study of Uncertainty, Commitment, and Trust." *American Journal of Sociology* 100(2): 313-345.
- Krohn, Marvin D. 1986. "The Web of Conformity: A Network Approach to the Explanation of Delinquent Behavior." *Social Problems* 33(6):81-93.
- Kruttschnitt, Candace. 1996. "Contributions of Quantitative Methods to the Study of Gender and Crime, or Bootstrapping Our Way into the Theoretical Thicket." *Journal of Quantitative Criminology* 12:135-161.
- Ladd, Gary W. 1999. "Peer Relationships and Social Competence During Early and Middle Childhood." *Annual Review of Psychology* 50: 333-359.
- Lanctot, Nadine, Stephen A. Cernkovich, and Peggy C. Giordano. 2007. "Delinquent Behavior, Official Delinquency, and Gender: Consequences for Adulthood Functioning and Well-Being." *Criminology* 45(1):131-157.
- Laub, John H. and Robert J. Sampson. 2003. *Shared Beginnings, Divergent Lives:* Delinquent Boys to Age 70. Cambridge, MA: Harvard University Press.

_____. 1993. "Turning Points in the Life Course: Why Change Matters to the Study of Crime." *Criminology* 31(3):301-325.

- Lemert, E. 1951. Social Pathology. New York: McGraw-Hill.
- Lin, Nan. 1999. "Social Networks and Status Attainment." *Annual Review of Sociology* 25:467-487.
- Listwan, Shelley J., Frank T. Cullen, and Edward J. Latessa. 2006. "How to Prevent Prisoner Re-Entry Programs rrom Failing: Insights from Evidence-Based Corrections." *Federal Probation*, 70(3):19 - 25.
- Long, Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables.* Thousand Oaks, CA: Sage.
- Longshore, D., E. Chang, and S. Hsieh. 2004. Self-control and social bonds: A combined control perspective on deviance. *Crime & Delinquency* 50(4):542-564.
- Marcus, Robert F. 1996. "The Friendships of Delinquents." *Adolescence* 31(121):145-159.
- Massey, James L. and Marvin D. Krohn. 1986. "A Longitudinal Examination of an Integrated Social Process Model of Deviant Behavior." *Social Forces* 65(1):106-134.
- Matsueda, Ross L. 1992. "Reflected Appraisal, Parental Labeling, and Delinquency: Specifying a Symbolic Interactionist Theory." *American Journal of Sociology* 97:1577-1611.
- Matsueda, Ross L. and K. Anderson 1998. "The Dynamics of Delinquent Peers and Delinquent Behavior." *Criminology* 36(2):269-299.
- Matsueda, Ross L., and Karen Heimer. 1997. "A Symbolic Interactionist Theory of Role Transitions, Role Commitments, and Delinquency." Pp. 163-213 in Advances in Criminological Theory, Vol. 7, Developmental Theories of Crime and Delinquency, edited by Terence P. Thornberry. New Brunswick, NJ: Transaction.
- Matza, David. 1964. Delinquency and Drift. New York: Wiley.
- Maume, Michael O., Graham C. Ousey, and Kevin Beaver. 2005. "Cutting the Grass: A Reexamination of the Link Between Marital Attachment, Delinquent Peers and Desistance From Marijuana Use." *Journal of Quantitative Criminology* 21(1): 27-53.
- McGloin, Jean M. 2007. "The Continued Relevance of Gang Membership." Criminology and Public Policy 6(2): 801-811.

_____.2005. "Policy and Intervention Considerations of a Network Analysis of Street Gangs." *Criminology and Public Policy* 4(3):607-636.

- McGloin, Jean M., Travis C. Pratt, Jeff Maahs. 2004. "Rethinking the IQ-Delinquency Relationship: A Longitudinal Analysis of Multiple Theoretical Models." *Justice Quarterly* 21(3):603-635.
- McGloin, Jean M., Chris Sullivan, Alex R. Piquero, and Travis C. Pratt. 2007. "Local Life Circumstances and Offending Specialization/Versatility: Comparing Opportunity and Propensity Models." Forthcoming in the *Journal of Research in Crime and Delinquency*.
- McKelvey, R.D. and W. Zavoina. 1975. "A Statistical Model for the Analysis of Ordinal Level Dependent Variables." *Journal of Mathematical Sociology* 4:103-120.
- Mears, Daniel P. and Samuel H. Field. 2002. "A Closer Look at the Age, Peers, and Delinquency Relationship." *Western Criminology Review* 4(1):20-29.

- Mischkowitz, R. 1994. "Desistance from a Delinquent Way of Life?" In *Cross-National Longitudinal Research on Human Development and Criminal Behavior*, edited by E.G.M. Weitekamp and H. Kerner. Dordrecht:Kluwer.
- Moffitt, Terrie. E. 1993. "Life-Course-Persistent and Adolescence-Limited Antisocial Behavior: A Developmental Taxonomy." *Psychological Review* 100:674-701.
- Moreno, Jacob L. 1947. "Contributions of Sociometry to Research Methodology in Sociology." *American Sociological Review* 12:287-292.
- Morselli, Carlo and Pierre Tremblay. 2004. "Criminal Achievement, Offender Networks, and the Benefits of Low Self-Control." *Criminology* 42(3):773-804.
- Morselli, Carlo, Pierre Tremblay, and Bill McCarthy. 2006. "Mentors and Criminal Achievement." *Criminology* 44(1): 17-43.
- Nagin, Daniel S. and Kenneth C. Land. 1993. "Age, Criminal Careers, and Population Heterogeneity: Specification and Estimation of Nonparametric, Mixed Poisson Model." *Criminology* 31(3):327-362.
- Nagin, Daniel S., Linda Pagani, Richard E. Tremblay, and Frank Vitaro. 2003. "Life Course Turning Points: The Effect of Grade Retention on Physical Aggression." *Development and Psychopathology* 15:343-361.
- Nagin, Daniel S. and Raymond Paternoster. 1991. "Population Heterogeneity and State Dependence: State of the Evidence and Directions for Future Research." *Journal of Quantitative Criminology* 16(2):117-144.

. 1994. "Personal Capital and Social Control: The Deterrence Implications of a Theory of Individual Differences in Criminal Offending." *Criminology* 32:581-606.

_____. 1993. "Enduring Individual Differences and Rational Choice Theories of Crime." *Law and Society Review* 27(3):467-496.

- O'Neill, Lauren and Jean M. McGloin. 2006. "Remembering Today What We Learned Yesterday: Self-Control and Deviant Peer Network Structure." Paper presented at the American Society of Criminology, Los Angeles, CA.
- Osgood, D. Wayne and Amy L. Anderson. 2004. "Unstructured Socializing and Rates of Delinquency." *Criminology* 42(3):519-549.
- Osgood, D. Wayne, Janet K. Wilson, Patrick M. O'Malley, Jerald G. Bachman, and Lloyd D. Johnston. 1996. "Routine Activities and Individual Deviant Behavior." *American Sociological Review* 5(61):635-655.

- Paternoster, Raymond, Robert Brame, Paul Mazerolle, and Alex Piquero. 1998. "Using the Correct Statistical Test for the Equality of Regression Coefficients." *Criminology* 36(4): 859-866.
- Patterson, Gerald R. and Karen Yoerger. 1993. "Developmental Models for Delinquent Behavior." In *Mental Disorder and Crime*, edited by Sheilagh Hodgins, Pp. 140-172. Newbury Park, CA: Sage.
- Peterson, Dana, Jody Miller, and Finn-Aage Esbensen. 2001. "The Impact of Sex Composition on Gangs and Gang Member Delinquency." *Criminology* 39(2): 411-439.
- Pettersson, Tove. 2003. "Ethnicity and Violent Crime: The Ethnic Structure of Networks of Youths Suspected of Violent Offenses in Stockholm." *Journal of Scandinavian Studies in Criminology and Crime Prevention* 4(2):143-161.
- Picou, J. Steven and T. Michael Carter. 1976. "Significant-Other Influence and Aspirations." *Sociology of Education* 49:12-22.
- Piquero, Alex R., Robert Brame, Paul Mazerolle, and Rudy Haapanen. 2002a. "Crime in Emerging Adulthood." *Criminology* 40(1):137-169.
- Piquero, Alex R., Timothy Brezina, and Michael G. Turner. 2005. "Testing Moffitt's Account of Delinquency Abstention." *Journal of Research in Crime and Delinquency* 42(1):27-54.
- Piquero, Alex R., John M. MacDonald, and Karen F. Parker. 2002b. "Race, Local Life Circumstances, and Criminal Activity." *Social Science Quarterly* 83(3):654-670.
- Piquero, Alex. R. and Paul Mazerolle, eds. 2001. *Life-Course Criminology: Contemporary and Classic Readings*. Belmont, CA: Wadsworth.
- Podolny, Joel M. and James Baron.1997. "Social Networks and Mobility in the Work Place." *American Sociological Review* 62(5): 673-694.
- Pratt, Travis C. and Francis T. Cullen. 2000. "The Empirical Status of Gottfredson and Hirschi's General Theory of Crime: A Meta-Analysis." *Criminology* 38(3):931-964.
- Rand, Alicia. 1987. "Transitional Life Events and Desistance from Delinquency and Crime." Pp. 134-162 in *From Boy to Man, From Delinquency to Crime*, edited by M.E. Wolfgang, T.P. Thornberry, and R.M. Figlio. IL: The University of Chicago Press.
- Rebellon, Cesar J. 2006."Do Adolescents Engage in Delinquency to the Social Attention of Peers? An Extension and Longitudinal Test of the Social

Reinforcement Hypothesis." *Journal of Research in Crime and Delinquency* 43(4):387-411.

Reed, Mark D. and Dina R. Rose. 1998. "Doing What Simple Simon Says? Estimation the Underlying Causal Structures of Delinquent Associations, Attitudes, and Serious Theft." *Criminal Justice and Behavior* 25(2):240-274.

Robins, Lee N. 1966. Deviant Children Grown Up. Baltimore: Williams & Wilkins.

_____. 1978. "Sturdy Childhood Predictions of Adult Outcomes. Replications from Longitudinal Studies." *Psychological Medicine* 8:611-622.

_____. 2005. "Explaining When Arrests End for Serious Juvenile Offenders: Comments on the Sampson and Laub Study." *The Annals of the American Academy of Political and Social Science* 602:57-72.

- Rose, A.J., L.P. Swenson, and E.M. Waller. 2004. "Overt and Relational Aggression and Perceived Popularity: Developmental Differences in Concurrent andP Prospective Relations." *Developmental Psychology* 40:378-387.
- Rowe, David C. and D. Wayne Osgood. 1984. "Heredity and Sociological Theories of Delinquency: A Reconsideration." *American Sociological Review* 49:526-540.
- Rutter, Michael 1996. "Transitions and Turning Points in Developmental Psychopathology: As Applied to the Age Span Between Childhood and Mid-Adulthood." *International Journal of Behavioral Development* 19:603–626.
- Rutter, Michael and Rutter, Marjorie. 1993. *Developing Minds: Challenge and Continuity Across the Lifespan*. New York: Basic Books.
- Sampson, Robert J. and John H. Laub. 2005. "A Life-Course View of the Development of Crime." *The Annals of the American Academy of Political and Social Science* 602:12-45.

______. 1997. "A Life-Course Theory of Cumulative Disadvantage and the Stability of Delinquency." Pp. 133-161 in *Developmental Theories of Crime and Delinquency*, edited by T. Thornberry. New Brunswick, NJ: Transaction Publishing.

_____. 1993. Crime in the Making: Pathways and Turning Points Through Life. Cambridge, MA: Harvard University Press.

_____. 1992. "Crime and Deviance in the Life Course." *Annual Review of Sociology* 18:63-84.

- Sarnecki, Jerzy and Tove Pettersson. 2001. "Criminal Networks in Stockholm." In *The Eurogang Paradox: Street Gangs and Youth Groups in the U.S. and Europe*, edited by Malcolm W. Klein, Hans J. Kerner, Cheryl Maxson, and Elmar G.M.Weitekamp. Amsterdam: Kluwer Academic.
- Schreck, Christopher J., Bonnie S. Fisher, and J. Mitchell Miller. 2004. "The Social Context of Violent Victimization: A Study of the Delinquent Peer Effect." *Justice Quarterly* 21(1):23-47.
- Schreck, Christopher J., Richard A. Wright, and J. Mitchell Miller. 2002. A study of individual and situational antecedents of violent victimization. *Justice Quarterly* 19(1):159-180.
- Sewell, William H., Archibald O. Haller, and Alejandro Portes. 1969. "The Educational and Early Occupational Attainment Process." *American Sociological Review* 34(1): 82-92.
- Sherman, Lawrence W. and Douglas A. Smith. 1992. "Legal and Informal Control of Domestic Violence." *American Sociological Review* 57(5):680-690.
- Short, James F., Jr., and Fred L. Strodtbeck. 1965. *Group Process and Gang Delinquency*. Chicago, IL: University of Chicago.
- Shover, Neal. 1983. "The Later Stages of Ordinary Property Offender Careers." SocialProblems 31:208-218.

_____. 1996. *Great Pretenders: Pursuits and Careers of Persistent Thieves*. CO: Westview Press, Inc.

- Shover, Neal and Carol Y. Thompson. 1992. "Age, Differential Expectations, and Crime Desistance." *Criminology* 30(1):89-104.
- Sigelman, C. K. and E.A. Rider. 2003. *Life-Span: Human Development*. Belmont, CA: Wadsworth/Thomson Learning.
- Simons, Ross L., Eric Stewart, L.C. Gordon, R.D. Conger, and Glen H. Elder, Jr. 2002. "A Test of Life-Course Explanations for Stability and Change in Antisocial Behavior From Adolescence to Young Adulthood." *Criminology* 40(2):401-434.
- Simpson, Sally S., and Lori Elis. 1995. "Doing Gender: Sorting Out the Caste and Crime Conundrum." *Criminology* 33(1):47-81.
- Smith, Sandra S. 2005. "Don't Put My Name on It': Social Capital Activation and Job-Finding Assistance Among the Black Urban Poor." *American Journal of Sociology* 111(1):1-57.

- Stouthamer-Loeber, Magda, Evelyn Wei, Rolf Loeber, and Ann S. Masten. "Desistance from Persistent Serious Delinquency in the Transition to Adulthood."*Development and Psychopathology* 16:897-918.
- Sullivan, Mercer, 1989. *Getting Paid: Youth Crime and Work in the Inner City*. New York: Cornell University Press.
- Sutherland, Edwin H. 1947. *Principles of Criminology*, 4th ed. Philadelphia, Pa.: Lippincott.
- Thornberry, Terence P. 1987. "Toward an Interactional Theory of Delinquency." *Criminology* 25(4):863-891.

_____. 1997. "Introduction: Some Advantages of Developmental and Life-Course Perspectives for the Study of Crime and Delinquency." Pp. 1-10 in *Developmental Theories of Crime and Delinquency*, edited by Terence P. Thornberry. New Brunswick, NJ: Transaction Publishing.

- Thornberry, Terence P. and Marvin D. Krohn 1997. "Peers, Drug Use, and Delinquency." Pp. 218-233 in *Handbook of Antisocial* Behavior, edited by D.M. Stoff, J. Breiling, and J. D. Maser. New York: Wiley.
- Thornberry, Terence P., Alan J. Lizotte, Marvin D. Krohn, M. Farnworth, and Sung Joon Jang. 1994. "Delinquent Peers, Beliefs, and Delinquent Behavior: A Longitudinal Test of Interactional Theory." *Criminology* 32(1):47-83.
- Thornberry, Terence P., Melanie Moore, and R.L. Christenson. 1985. "The Effect of Dropping Out of High School on Subsequent Criminal Behavior." *Criminology* 23:3-18.
- Tittle, Charles R., David A. Ward, and Harold G. Grasmick 2004. "Capacity for Self-Control and Individuals' Interest in Exercising Self-Control." *Journal of Quantitative Criminology* 20(2):143-172.
- Toby, Jackson. 1957. "Social Disorganization and Stake in Conformity: Complementary Factors in the Predatory Behavior of Hoodlums." *Journal of Criminal Law, Criminology, and Police Science* 48:12-17.
- Uggen, Christopher. 2000. "Work as a Turning Point in the Life Course of Criminals: A Duration Model of Age, Employment, and Recidivism." *American SociologicalReview* 67:529-546.
- Uggen, Christopher and Candace Kruttschnitt. 1998. "Crime in the Breaking: Gender Differences in Desistance." *Law & Society Review* 32(2): 339-366.
- Unnever, James D., Francis T. Cullen, and Robert Agnew. 2006. Why is "Bad" Parenting Criminogenic? Implications from Rival Theories. *Youth Violence and Juvenile Justice* 4(1): 3-33.

- Vance, Booney, Russ West, and Koressa Kutsick. 1989. "Prediction of Wechsler Preschool and Primary Scale of Intelligence IQ scores for Preschool Children Using the Peabody Picture Vocabulary Test--R and the Expressive One Word Picture Vocabulary Test." *Journal of Clinical Psychology* 45(4):642-644.
- Warr, Mark. 2002. Companions in Crime: The Social Aspects of Criminal Conduct. Cambridge, UK: Cambridge University Press.

_____. 1998. "Life-Course Transitions and Desistance from Crime." *Criminology* 36(2): 183-216.

_____. 1993. "Age, Peers, and Delinquency." *Criminology* 31(1): 17-40.

- Warr, Mark and Mark Stafford. 1991. "The Influence of Delinquent Peers: What They Think or What They Do?" *Criminology* 29(4):851-866.
- Wasserman, Stanley and Katherine Faust. 1994. Social Network Analysis: Methodsa and Applications. New York: Cambridge University Press.
- Weerman, Frank M. 2003. "Co-Offending as Social Exchange: Explaining Characteristics of Co-Offending." *British Journal of Criminology* 43:398-416.
- Weerman, Frank M. and W.H. Smeenk. 2005. "Peer Similarity in Delinquency for Different Types of Friends: A Comparison Using Two Measurement Methods." Criminology 43(2):499-523.
- Werner, Nicole and R.K. Silbereisen. 2003. "Family Relationship Quality and Contact with Deviant Peers as Predictors of Adolescent Problem Behaviors: The Moderating Role of Gender." *Journal of Adolescent Research* 18:454–480.
- Wilson, David B., Denise C. Gottfredson, and Stacy S. Najaka. 2001. "School –Based Prevention of Problem Behaviors: A Meta-Analysis." *Journal of Quantitative Criminology* 17(3):247-272.
- Wilson, James Q. and Richard Herrnstein. 1985. *Crime and Human Nature*. New York: Simon and Schuster.
- Wilson, Kenneth L. and Alejandro Portes. 1975. "The Educational Attainment Process: Results from a National Sample." *The American Journal of Sociology* 81(2):343-363.
- Woelfel, Joseph and Archibald O. Haller. 1971. "Significant Others, the Self-Reflexive Act and the Attitude Formation Process." *American Sociological Review* 36:74-87.

- Wright, Bradley R. Entner, Avshalom Caspi, Terrie E. Moffitt, and Phil A. Silva.
 2001. "The Effects of Social Ties on Crime Vary By Criminal Propensity: A Life- Course Model of Interdependence." *Criminology* 39(2):321-351.
- Wright, John P., David E. Carter, and Francis T. Cullen. 2005. "A Life-Course Analysis of Military Service in Vietnam." *Journal of Research in Crime and Delinquency* 42(1): 55-83.
- Wright, John P. and Francis T. Cullen. 2004. "Employment, Peers and Life-Course Transitions." *Justice Quarterly* 21(1):183-205.
- Wright, John P., Francis T. Cullen, and Nicolas Williams. 2002. "The Embeddedness of Adolescent Employment and Participation in Delinquency: A Life-Course Perspective." Western Criminology Review 4(1):2002.
- Yanovitsky, Itzhak. 2005. Sensation seeking and adolescent drug use: The mediating role of association with deviant peers and pro-drug discussions. *Health Communication* 17(1):67-89.