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## Do Social Bonds Matter for Emerging Adults?

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### Abstract

The extent to which social bonds and turning points influence criminal activity has been the focus of much empirical research. However, there have been few empirical studies exploring social bonds and turning points and offending for those who have experienced emerging adulthood, a recently identified stage of the life course. Using data from the National Longitudinal Study of Adolescent Health we examined if indicators of social bonds and turning points were predictors of criminal offending. Several of the turning points and social bonds included in these analyses were found to influence decreases in criminal offending for a cohort of emerging adults. We extend previous research by examining the influence of social bonds and turning points on patterns of criminal offending during emerging adulthood.

### INTRODUCTION

Criminological theories, particularly those rooted in a sociological perspective, have typically explained crime in terms of social bonding, arguing that social bonds and relationships can influence desistance or end criminal behavior (see Hirschi 1969). Recently life course or developmental criminology has gained prominence (see Laub and Sampson 2003; Thornberry 1997). The life course perspective complements criminological theories focused on social bonding because it focuses on identifying factors related to both stability and change in offending behaviors. The theory posits that crime is the result of a lack of social controls typically built through social bonds and turning points such as employment and marriage.

A key theme developed from this perspective is that changes in social bonds created by marriage, having children, employment, and military service can alter or “knife off” offending trajectories. In recent years, several prominent social scientists have studied how many of these agents of social control—such as employment and marriage have been altered due to a new stage of the life course known as emerging adulthood (Arnett 2000). This “new” stage of the life course may alter social relationships by delaying traditional turning points and changes in the formation of social bonds frequently associated with a reduction in

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criminal behavior. As a result, traditional social bonds and turning points may not have the same influence on offending for recent cohorts of young people.

For example, it is unclear if the processes of social bonding through marriage or employment are different for emerging adults compared to prior generations. We must consider if social bonds and turning points will continue to “work” to reduce offending for those experiencing emerging adulthood as they have for prior generations (see Laub and Sampson 2003). This issue is important because reduced social bonds and delayed turning points may lead to an extension of the active period of offending past the traditional age where many studies have found individuals desisted from crime and delinquency (usually the late teens—see Gottfredson and Hirschi 1990). If young people offend for longer periods of time, this could inundate the already overwhelmed criminal justice system with a massive influx of young offenders. Additionally, offenders in the emerging adulthood stage may not be afforded the same leeway as younger offenders. They may, instead, be subject full adult penalties, and perhaps more importantly, the same social stigma commonly attached to adult offenders.

This article examines if social bonds and turning points identified in prior studies are effective for those who have experienced emerging adulthood. Specifically examining this issue in light of two questions: Do social bonds reduce offending for emerging adults? and Do age-graded life course transitions (turning points) reduce crime for emerging adults as they have for prior generations?

## **SOCIAL CONTROL THEORY AND THE AGE-GRADED THEORY OF SOCIAL CONTROL**

Understanding the process of desistance is critical to conceptualizing the role of social controls and turning points in influencing offending. In 1993, Sampson and Laub explained that desistance is a process that occurs over time and social bonds developed during adulthood, in particular a strong marriage and attachment to employment, may explain changes in offending behavior. In other words having strong social bonds to agencies such as employment and marriage can explain desistance in adulthood even in an individual previously engaged in crime and delinquency. Using data from the Gluecks’ Unraveling Juvenile Delinquency project (Glueck and Glueck 1950), Sampson and Laub compared 500 delinquent and 500 non-delinquent males to identify factors that influenced desistance. The results of their study found that factors such as job stability, a strong attachment to ones job, marriage, and ties to family were related to reductions in offending.

Continuing their research in the area of desistance, Laub and Sampson (2001:3) identified core elements of desistance including aging, marriage, legal employment, and the decision to “go straight.” Aging has been identified by other researchers (see Gottfredson and Hirschi 1990) as a major influence on desistance. Further, Laub and Sampson (2001) stated that the decision to turn away from offending is vital as individuals re-evaluate the costs and benefits of crime.

Other studies such as Farrington and West (1995) have supported Laub and Sampson’s argument that turning points and social bonds can influence desistance. Using data from the Cambridge Study in Delinquent Development, Farrington and West’s (1995) found that marriage reduced offending; a finding consistent with Laub and Sampson’s research. This parallels the findings of Maruna (2001) who examined participants in the Liverpool Desistance Study. Maruna (2001) examined differences between persistent and desisting offenders and found there were two opposing perspectives in the sample.<sup>1</sup> Persistent offenders utilized a “condemnation script” to rationalize their offending patterns. These

individuals felt doomed to a life of crime despite their desire to change and viewed themselves as victims of circumstance, unable to control their own destiny (Maruna 2001).

Maruna (2001) found offenders that had desisted employed a “redemptive script” in which they “make good” by rewriting their shameful pasts into a prelude for a productive and socially responsible life. This cognitive transformation allowed former offenders to reinterpret their past experiences with drugs and crime as learning experiences that had made them wiser people. This cognitive transformation gave former offenders a mechanism through which they could find a moral purpose, and allowed them to utilize their experiences to assist not only themselves, but others seeking to desist as well.

Other researchers have supported or offered alternatives to Laub and Sampson’s view of desistance. Warr (1998) explored the role of marriage and how it influenced a reduction in time spent with delinquent peers. Using data from the National Youth Survey, Warr (1998) found that those who married spent significantly less time with friends. Warr’s findings suggest that the turning point of marriage, by itself does, not influence desistance. Rather marriage influences other social relationships, in particular those with peers that ultimately influence the desistance process. Giordano and colleagues (2002) offered an alternative to Laub and Sampson’s focus on the importance of marriage and job stability. Using a sample of male and female youths who participated in an earlier study, Giordano et al. (2002) used a symbolic interaction perspective incorporating both quantitative and qualitative methods to examine the influence of adult social bonding on offending. In contrast to Laub and Sampson (1993), Giordano et al. (2002) found neither marriage nor job attachment were related to desistance. Giordano et al. explained the contrast between their findings and Laub and Sampson’s as possibly being the result of increased racial heterogeneity of their sample and changes in life experience from the 1950s to the 1990s (1052). Further, few in Giordano et al.’s (2002) sample were married or had full-time employment when they collected their follow-up data. It is important to note that Giordano et al. (2002) did find a small sub-sample of individuals that had more traditional elements of social controls and lower levels of involvement in crime compared with those who did not have these social controls (1052). The findings of Giordano et al. suggest that recent social changes (such as emerging adulthood) may change the way traditional social bonds and turning points “work” to decrease offending. These various perspectives on desistance provide a basis for which we can explore the role of social bonds and turning points and their influence on offending.

Do social bonds (or lack thereof) cause crime? This is one of the core questions of criminological theories. According to Hirschi (1969) social control can be defined as a real or possible reward for conforming to social norms, which can be positive or negative, external or internal. Social bonds prevent crime and deviance by forming attachments between the individual and conventional values, beliefs, and conventional agents of social control such as teachers, employers, and peers. Those who are strongly bonded to conventional norms and values are less likely to participate in criminal and deviant behavior for fear of risking their (conventional) social bonds.

Hirschi (1969) identified four ways in which social bonds may manifest themselves: attachment, commitment, involvement, and belief in conventional social institutions. For example, an individual who has conformed to conventional social norms, has built attachments, is involved in conventional activities, and believes in the legitimacy of social institutions develops pro-social bonds that discourage criminal involvement. Conventional bonds and relationships may also prevent building bonds to deviant subcultures. Involvement in conventional society and activities like work are also time consuming. If an

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<sup>1</sup>Maruna’s sample consisted of 55 men and 10 women, 30 desisting and 20 persistent.

individual is involved in conventional, pro-social activities, they may have less time to participate in criminal and deviant behavior. Finally, a strong belief in conventional norms and values encourages respect for laws. The core idea of social control theory—that crime and deviance are most likely to occur when social bonds are attenuated or dissolved—mirrors Laub and Sampson’s age-graded theory of informal social control (Laub and Sampson 1993). Laub and Sampson’s theory built on the foundation that Elder (1985) laid that focused on the importance of both formal and informal agents of social control and how they varied across the life course in their ability to influence desistance. However, Laub and Sampson focused on the role of age-graded, informal social controls as “reflected in the structure of interpersonal bonds linking members of society to one another and to wider social institutions (e.g., work, family, school)” (Laub and Sampson 1993:303).

A key concept in Laub and Sampson’s model was the role of turning points such as marriage, employment, and military service, in understanding the process of change in an offender (Laub and Sampson 2003). Turning points were defined by Elder (1985) as a changes in the life course that have the ability to alter an individual’s life trajectory. Laub and Sampson (1993) conceptualized turning points as a process that occurs over time, not a drastic change that occurs quickly. To put it another way, turning points may be the causative agent that starts the process of change in an individual. For example, getting married may not instantly cause an individual to cease offending, but may instead start a process through which an individual gradually moves toward building conventional bonds to their spouse while distancing themselves from deviant peers.

Empirical studies of Hirschi’s theory have had mixed results. Some scholars found support for social control theory. Massey and Krohn (1986) found commitment level predicted delinquency and that control theory was better at predicting female rather than male delinquency. Agnew (1985) looked at the role of parental bonds, finding that boys without fathers were more likely to be seized by police compared to those who had a father in the home. Chambliss (1988) found a counterintuitive finding: the stronger a male’s social bond was to delinquent peers, the less likely he was to participate in delinquency. Other studies have looked at other forms of social bonds, in particular religion. Some, such as Hirschi and Stark (1969), have found no relationship between religious participation and self-reported delinquency, whereas others have found that church attendance reduced drug and alcohol use (Higgins and Albrecht 1977).

Other researchers have combined elements of social control theory with other models. Payne and Salotti (2007) used data from 747 self-report surveys from a sample of college students to compare social control and social learning theory both separately and together to predict college student’s deviant behavior. They concluded that elements of both theories were strongly correlated with drug and alcohol use, but correlations were more robust when aspects of both theoretical models were merged. This may suggest that combining aspects of both social control theory as well as the age-graded theory of informal social control may prove to be especially productive in explaining criminality.

Like social control theory, the age-graded theory of informal social control has been subject to extensive empirical testing. Some prior research found support for the role of turning points and informal social bonds in reducing crime (Laub and Sampson 2003). For example, King and colleagues (2007) used data from the National Youth Survey to examine the role of marriage in increasing social control and reducing offending. The study provided support for Laub and Sampson’s theory, finding that for males marriage suppresses offending; however, for females the effect is less robust, suggesting that the impact of turning points on reducing criminality may vary by gender.

Other studies have found that some of the turning points identified by Laub and Sampson may not decrease offending. Recall that military service was a turning point away from crime (for most) of the men in Laub and Sampson's sample. However, using data from the Marion County Youth Survey, Wright and colleagues (2005) found that service in Vietnam acted as a turning point *toward* increased drug use. In another study, Uggen (2000) examined the role of employment as a turning point using data from the National Supported Work Demonstration Project, finding that work acted as a turning point away from crime for offenders over the age of 27, but did not act as a turning point for younger offenders.

## WHY EXAMINE EMERGING ADULTHOOD?

Two key questions arise from the theoretical discussion above: (1) Do the effects of social bonds still work to reduce crime as they have done in the past, and (2) Do the effects of traditional turning points still operate to reduce crime as they have in the past? Empirical evidence is needed to address these concerns for a recently identified stage of the life course, "emerging adulthood" (Arnett 1994:200). However, first we need to address why the emergent adulthood phase of the life course is a period of interest and what it may mean for social controls. To accomplish this we examine how emerging adulthood evolved, how the social experiences of emerging adults may differ from prior generations, and the findings of prior research that has examined offending during emerging adulthood.

We begin by examining how the emerging adulthood stage of the life course evolved, and how those who have experienced the stage of emerging adulthood differ from prior generations. There are several major changes that have led to the development of emerging adulthood as a distinct stage of the life course. First, beginning in the 1960s, both men and women in the United States increasingly delayed marriage or did not marry at all (Espenshade 1985). Marriage is considered one of the key transitions to adulthood (Cote 2000), and acts as a socializing institution that requires conformity to conventional social norms (Arnett 1998; Laub and Sampson 2003).

Second, beginning in the 1960s young adults started becoming parents later in life (Wilkie 1981). By the early 1980s about one third of women waited until they were 25 years or older to have their first child (Wilkie 1981). Baldwin and Nord (1984) reported that the increase in the age of women having their first child was most prevalent for women aged 30–34 years increasing from 7.3 per 1000 in 1970 to 14.6 per 1000 in 1982. Further, Baldwin and Nord (1984) reported between 1970 and 1981 the number of childless women between the ages of 18 and 34 rose from 18 to 28%, supporting the idea that parenthood was being postponed till later in life. If emerging adults are postponing parenthood they may not be "forced" to take on the adult roles and responsibilities that parenthood often entails.

Next, changes to the economy led many youths to no longer have the prospect of earning enough money to support a middle-class lifestyle without post-high school education. This was a substantial departure from the experiences of their parents and grandparents (Arnett 2000; Cote and Allahaar 1995). As the U.S. economy moved away from manufacturing toward a service-based economy, young people have increasingly faced "education inflation," an increase in the credentials needed to get a decent job (Cote and Allahaar 1995).

Another economic shift occurred in the 1970s when the United States experienced a large increase in overall earnings inequality and educational salary differentials. As a result, those with lower levels of education experienced large declines in earnings (Katz 1994). Further, the cost of living increased between the late 1960s and the early 1980s, as reflected in the cost of tuition, apartment rent, homes, automobiles, and general household expenses (Okimoto and Stegall 1987). Higher costs of living led many young adults to postpone leaving home or forced them to return home after living independently because of the

inability to be financially independent. The increased cost of living and education forced more young people to postpone customary turning points of marriage, completion of education, and having children until they could be financially independent.

These trends in marriage, parenting, education, the economy, and employment have led to the evolution of emerging adulthood as a unique stage of the life course. This phase in the life course has altered the timing of traditional turning points and the establishment of social bonds. This may have lead many young people to postpone transitions until their mid-twenties or later, leaving the early twenties to function as a period of extended adolescence, largely open for identity exploration and criminal offending behaviors (Chassin et al. 2002).

Several studies have examined crime and delinquency during the phase of emerging adulthood. Piquero et al. (2002) examined the impact of emergent adulthood on the criminal activity of male parolees released from the California Youth Authority between the ages of 21 and 28. They found that arrest rates for both nonviolent and violent offenses peaked in the early 20 s, the phase now identified as emerging adulthood. One of the strongest arguments for the influence of emerging adulthood on offending came from Moffitt et al. (2002). Using a more recent wave of data from the Dunedin study, Moffitt et al. found that at age 26, some adolescent limited offenders had many legal and personal problems including mental health problems, property offenses, financial problems, and substance dependence. Moffitt et al. stated members of the Dunedin cohort may still be experiencing many of these problems in their early 20 s because of a “new developmental stage called *emerging adulthood*” (200). Moffitt et al.’s (2002) conclusion supports the idea that emerging adulthood may have influenced the offending patterns of the Dunedin sample as they matured. The findings of the aforementioned studies suggest emerging adulthood is an important area of inquiry and may be influencing offending of young people.

## LIMITATIONS OF PRIOR RESEARCH

The aforementioned studies support the argument that emerging adulthood is an important new stage of the life course. However, life course criminology has yet to incorporate emerging adulthood. Prior studies such as Moffitt and colleagues (2001) stopped short of examining the latter stages of emerging adulthood in the Dunedin study where the effects of emerging adulthoods delayed transitions would appear.

Previous research in the area of emerging adulthood (Arnett 1998, 2000, 2001) has largely addressed risky behaviors like smoking, alcohol consumption, drunk driving, and dangerous sexual behaviors, but has not examined actual criminal offending. The limited research on criminal offending during emerging adulthood (Piquero et al. 2002) used data from the California Youth Authority that may not be generalizable to a national population because the sample consisted only of serious juvenile offenders instead of a general population sample of those in their late teens and early twenties.

Since emerging adulthood is a new area of study and criminal offending within a cohort of emerging adults is largely unexplored, this study breaks new ground by examining the possibility of emerging adulthood altering social bonds and turning points. Analysis of the offending of a cohort of emerging adults may provide new information on the way life course theorists view social bonds and turning points.

## METHODS

Data for this study were taken from the National Longitudinal Study of Adolescent Health (Add Health). Add Health is a longitudinal study of adolescents and young adults who were enrolled from 7th through 12th grade during the 1994–1995 academic year (Harris et al.

2003). The purpose of the Add Health study was to create a sample that was nationally representative of adolescents and to collect data that would measure the impact of social environment including the effects of peers, family, education, religion, and community on adolescent health and general well-being in the United States (Harris et al. 2003). The study was mandated by the U.S. Congress in the National Institute of Health Revitalization Act of 1993. These data are available through Sociometrics either as a full sample restricted use data file or a publically accessible file with a limited sample. The latter version was used for this study.

Add Health data have been collected in three longitudinal “waves.” Wave 1 was collected between April and December of 1995 and consisted of more than 21,000 in-school and in-home self-report interviews of participants ranging in age from 11 through 21. Interview topics included information on employment experience, educational aspirations and expectations, substance use, criminal activities, the ordering of events leading to romantic and sexual partnerships, peer networks, and family composition and relationships (Udry 1998). Wave 2 data were collected approximately one year later and included follow-up questions on the same topics noted above. Wave 3 data were collected between August 2001 and April 2002 when participants were between the ages of 18 and 26 (Udry 2003). Analyses for this study were conducted on wave 3 data because at this point in the study, sample participants were in emerging adulthood phase.

The Add Health study was chosen for several reasons. First, the survey provides comprehensive information on one of the most recent cohorts expected to experience emergent adulthood. Next, the sample size of 4,880 is large enough to conduct sophisticated statistical analyses (Stevens 1996). Second, these data contain demographic variables as well as measures of employment, education, social bonds and turning points (e.g., marital status, having children, closeness of relationship to parents), and military service that are similar to the variables discussed in Hirschi’s (1969) and Laub and Sampson’s (2003) study. Third, the survey data captured information on a diverse range of delinquent and criminal activity (e.g., stealing, sexual assault, shoplifting, vandalism), with respondents reporting involvement in these acts on a scale ranging from 0 (never) to 3 (5 or more times). Collecting data from a broad representative sample has been encouraged by researchers who have stated that to effectively detect correlates of persistent crime or psychopathology it is best to utilize representative population samples rather than delinquent only samples (Moffitt 1993).

Limitations of these data must be noted. Ideally, we would like to conduct a retrospective study analyzing the influence of emerging adulthood on offending over the life course. However, since we are examining this phenomenon as they occur and only one wave of data are available that examines individuals during emerging adulthood, we are currently limited to a cross sectional analysis. As the Add Health study is currently ongoing it will soon become possible to conduct analyses that are longitudinal. A longitudinal study will be able to provide more information about the long-term influence of emerging adulthood on crime and deviance. Common to many large scale longitudinal studies, sample attrition occurs over time and some participants either skip or refuse to answer certain questions dealing with topics such as socioeconomic status and income. Because of this we have used other indicators of economic stability, discussed below.

### **Measuring Social Bonds and Turning Points**

To examine the effects of demographic variables, age and gender were included in the models. Age was measured as a continuous variable. The relationship between age and crime is a contentious one, with some arguing that the age–crime curve is invariant across historical period, geographic location, or other cultural factors (Gottfredson and Hirschi 1990). The opposing viewpoint is that the age–crime curve does vary in factors like gender



and type of crime (Moffitt et al. 2001; Moffitt 1993; Farrington 1986). While this study does not seek to test the age–crime curve, we hypothesized that if the core research question is supported this may support the latter viewpoint that the age–crime curve does demonstrate variance based on factors such as delayed turning points. Descriptive statistics can be found in Table 1.

Gender was coded as “0” for female and “1” for male. Gender is of interest because prior studies have been focused largely on males. Belknap (2007) argues that female criminality has been largely unexplored relative to male criminality; including gender in this study will address this criticism and provide an examination of the possible differences in male and female offending during emerging adulthood. Further, inclusion of gender allows this study to examine if the turning points and social bonds that were so effective for the men in Laub and Sampson’s study are also effective for women.

A series of life-course transition and social bond indices were created from wave 3 of the Add Health survey. The first is *marital status* that was included as a dichotomous variable (0 = no; 1 = yes). Since getting married is a traditional turning point, we would expect a significant relationship between being single and engaging in crime at wave 3. This hypothesis reflects the findings of Laub and Sampson’s (2003) work that marriage is an effective bond that may reduce criminality.

A second turning point indicator was whether the subject *has any children* (0 = no; 1 = yes). We hypothesize that those who had children would be less likely to commit crime because parental responsibilities inhibit deviance by reducing discretionary time. As with marriage, parenting was identified by the men in Laub and Sampson’s (2003) study as an important turning point, with many of the men discussing how having a child lead them to take on the “adult” responsibilities of parenthood. Next, we created a 2-item *parental bonds* scale based on prior studies (Barnes and Beaver 2008; Boutwell and Beaver 2008; Beaver et al. 2010) that have used the Add Health data. Items included: how close did the respondent feel they were to their mother and how close did they feel toward their dad? Responses to each question were z-scored and summed in additive scales with higher values reflecting greater level of parental attachment. We hypothesized that those with greater levels of parental attachment would be less likely to offend. Parental attachment reflects Hirschi’s (1969) argument that this bond is important to prevent delinquency.

To find out whether military service had an effect on crime, a variable that measured military service (0 = no; 1 = yes) was included. Laub and Sampson’s (2001) research found that military service acted as a turning point away from crime for previous generations, and military service has often been identified as a social marker of adulthood (Okimoto and Stegall 1987). We hypothesized that those who serve in the military will have lower rates of offending.

To examine the influence of employment on crime two variables were examined: *hours worked per week* and *how satisfied are you with your job* (higher score = greater level of satisfaction). We hypothesized that those who worked more hours would have had less time to participate in criminal behavior, and those that had higher levels of job satisfaction would have had stronger bonds to employment and therefore would have been less likely to offend. Both social bonding and the age-graded theory of social control incorporate bonds to conventional institutions (such as employment) and having less available time to participate in crime as important components of employment and job satisfaction. For example, men in Laub and Sampson’s (2003) sample stated how having a boss that believed in them, as well as a job that kept them busy, was important in pulling them out of a criminal lifestyle.

The role of education was examined using *highest grade completed* (higher score = more education). Completing higher education has traditionally acted as a social marker of adulthood (Cote 2000). Those who have higher levels of education typically have greater levels of social capital, earn higher salaries, and are less likely to engage in crime. Hirschi (1969) extensively discussed the role of education as a commitment to conventional society. In particular, Hirschi explored the relationship between level of education and educational aspiration with reducing delinquent acts. Since we are examining an older sample, we can include actual level of education attained to explore how this influenced crime during emerging adulthood.

The addition of indices gauging economic well-being and property owned are included because economic instability has been identified as a characteristic of emerging adulthood (Arnett 2005; Cote 2000). Those in emerging adulthood have less stable employment and income, and as a result, have less stability and weaker social bonds. We hypothesized that those with greater levels of economic instability (higher score = less economic stability) and less property owned would be more likely to offend. It was expected that those who are offenders are less likely to own property because of their failure to reach turning points. The indices we adopted were derived from previous studies such as Haynie and colleagues (2008). The scale consisted of whether one owned the following items: a residence (house, condo, or mobile home), a motor vehicle (car, truck, or motorcycle), or a computer. The index also includes a question on whether one had a checking account and a credit card. Higher scores on the property owned scale indicated greater levels of property ownership.

The second index created was economic well-being. It was based on responses to the following questions: “in the past 12 months was there a time when...” “... you were without telephone service because you did not have enough money to pay the bill,” “... did not have enough money to pay the full amount of rent or mortgage,” “... were evicted from house/apartment for not paying the rent or mortgage,” “... did not pay the full amount of gas, electric, or oil company would not deliver,” and “... needed to see a doctor or go to the hospital because you could not pay the bill.” The men in Laub and Sampson’s sample cited economic factors such as income as influential in their decision to offend.

The final variable examined was *attendance at religious services* (higher score = a greater level of participation). Prior studies have argued that emerging adults are less likely to engage in religious services (Arnett 1998), and that religious participation acts to inhibit deviance (Laub and Sampson 2001). We expected that those that had higher levels of religious participation would have had lower rates of offending. Religious participation was identified by Hirschi (1969) and Laub and Sampson (2003) as an important social bond in reducing crime and delinquency.

### Outcome Variable

In order to explore the relationship between turning points, social bonds and crime during emerging adulthood a 12-item composite scale ( $\alpha = .74$ ) that measured offending was created based on similar scales conducted by prior researchers using Add Health data. Each question included in the outcome index explored the respondent’s crime activity during the past 12 months (see Appendix A). Responses for the items were coded 0 = never, 1 = one or two times, 2 = three or four times, and 3 = five or more times.

### ANALYTICAL PLAN

The analysis for this study consisted of two main steps. First, the direction and strength of the relationships between the demographic and independent variables and the outcome variable were explored using correlational analysis and Mann-Whitney U tests (see Table 2).

Next, a series of negative binomial regression models were run to examine which of the control and independent variables predict offending. Negative binomial regression was used due to the non-normal distribution of the outcome variable (Hilbe 2008). Model 1 included only age and gender and serves to establish a baseline for these demographic variables. Model 2 adds measures of turning points frequently associated with desistance from criminality. Finally, model 3 adds measures of social bonds identified as influencing crime. Parameters are presented as incident rate ratios (IRR) given their ease of interpretation. For example, an IRR of 1.5 would suggest a one unit change in the independent variable would be expected to increase the average predicted count on the dependent variable by 50%, while holding all independent variables constant. In contrast, an IRR of 0.50 would indicate that a one unit change in the independent variable would be expected to decrease the average predicted count of the dependent variable by 50%, while holding all other independent variables constant (Long and Freese 2006).

## RESULTS

Correlation analyses were conducted for two purposes: (1) to test for multicollinearity between the continuous independent variables and (2) to examine the strength and relationship between the independent variables and the offending scale. The results of the correlations suggested multicollinearity would not inhibit further analysis. Almost all of the independent variables had significant relationships in the expected direction with the scaled offending outcome variable (see Table 2).

Mann-Whitney U tests were conducted to test for differences on the scaled offense outcome between the following groups: males and females, those who were married and those that were not, those that had children and those that did not have children, and those that served in the military and those that had not served in the military.

Males ( $n = 2,191$ , Med. = 0.0,  $SD = 2.41$ ) scored significantly higher than females ( $n = 2,594$ , Med. = 0.0,  $SD = 1.19$ ), on the scaled offense outcome measure  $U(4,785) = 2231400$ ,  $z = -16.5$ ,  $p < .001$ . Those without children ( $n = 3,302$ , Med. = 0.0,  $SD = 2.01$ ) scored significantly higher than those with children ( $n = 1,483$ , Med. = 0.0,  $SD = 1.44$ ),  $U(4,785) = 2236339$ ,  $z = -6.18$ ,  $p < .001$ . Those who were not married at the time of the survey ( $n = 3,980$ , Med. = 0.0,  $SD = 1.98$ ) scored significantly higher than those that were married ( $n = 805$ , Med. = 0.0,  $SD = 1.27$ ),  $U(4,785) = 1349536$ ,  $z = -9.09$ ,  $p < .001$ . Finally, people in the military at the time of the survey ( $n = 73$ , Med. = 0.0,  $SD = 2.27$ ) scored significantly higher than individuals not in the military ( $n = 4,712$ , Med. = 0.0,  $SD = 1.88$ ),  $U(4,785) = 147633$ ,  $z = -2.68$ ,  $p < .01$ . To summarize, males, individuals without children, individuals that were not married, and individuals that had served in the military had significantly higher scores on the scaled crime outcome measure.

### Regression Analysis

The scaled offense variable was the outcome of these regression models; results of the final model specification will be discussed here (see Table 3 for the results of all models).<sup>2</sup> Age and gender were significant predictors of the scaled offense outcome regardless of model specification. For every additional year in age, there was a 10% decrease on the scaled

<sup>2</sup>In addition to the analyses reported here another series of models were run controlling for the number of times an individual had been arrested before the age of 18 to examine the influence of offending propensity on offending during emerging adulthood (results omitted). These models produced results nearly identical to the full models presented here. However, based on the lack of influence on arrest history, as well as our desire to focus exclusively on the role of turning points and social bonds in influencing offending during emerging adulthood, we report the results of models that do not include arrest history here.

offense outcome, (IRR = 0.90,  $p < .01$ ). Males, on average, scored higher on the scaled offense outcome (IRR = 2.9,  $p < .01$ ).

Two turning points, having children and marital status, were found to be significant predictors of offending. Those who were married had, on average, a 40% lower score on the scaled offense outcome, controlling for all other variables in the model (IRR = 0.60,  $p < .01$ ). Those who had children, compared to those who did not, had a 26% lower score on the scaled offense outcome (IRR = 0.74,  $p < .01$ ).

All included social bond indicators were significant predictors of the scaled offense outcome. Economic instability and parental attachment had the strongest relationships to offending. For economic instability, there was a 41% increase in the scaled offense variable for every standard deviation increase in the economic instability scale (IRR = 1.41,  $p < .01$ ). Parental attachment was the next strongest indicator; there was a 20% decrease in the offense scale (IRR = 0.80,  $p < .01$ ) for every standard deviation increase in parental attachment. In regards to property owned, there was a 16% decrease in the scaled offense outcome, for every standard deviation increase in the amount of property owned (IRR = 0.84,  $p < .01$ ). Religious participation was the next strongest indicator; there was a 10% decrease in the scaled offense outcome (IRR = 0.90,  $p < .01$ ) for every standard deviation increase in religious participation. The final social bond that was significant was job satisfaction. There was a 9.0% decrease in the scaled offense outcome for every standard deviation increase in the parental attachment scale (IRR = 0.91,  $p < .01$ ).

## DISCUSSION

In this study, we tested if there were correlations between the social bonds, turning points, and criminal offending during emerging adulthood. Further, we examined if these relationships persisted when entered into a regression analysis. The results of our analyses addressed two research questions: (1) Do the effects of social bonds on crime still work for emerging adults as they have in the past and (2) Do the effects of traditional turning points still operate the same today as they have in the past?

To begin, we address the findings related to the demographic variables included in our analyses. There was a significant, negative relationship found between age and offending. This supports the prior studies that have found offending decreases as people age. Gender was a significant predictor, with females having lower levels of offending. These findings were consistent with theoretical predictions, providing support for the idea that traditional turning points and social bonds still “work” for females.

In regards to the first question, all the indicators of social bonds examined were significantly related to criminal offending for emerging adults. These findings provide support for the argument that social bonds reduce criminal offending for emerging adults, as they have for prior generations. These findings suggest that Laub and Sampson’s age-graded theory of social control, as well as aspects of Hirschi’s theory of social control appear to be viable explanations for reduction in criminal offending in a cohort of emerging adults. As such, the role of social bonds in influencing crime for individuals during the emerging adulthood phase remains a promising area of criminological inquiry.

The role of economic instability and property ownership are of particular interest. Greater economic instability and lower levels of property ownership were associated with higher levels of offending. These findings are of importance for criminological theory because future studies may want to consider economic stability as a predictor of offending. The role of economics has been included in prior theoretical discussions (see Wilson 1987, 1996), but recent economic shifts that led to emerging adulthood, as well as the current economic crisis

may play a vital role in modeling the offending patterns of emerging adults. Life course theory, in particular, should place greater emphasis on economic well-being, a concept typically discussed in other theoretical arenas such as strain theory. Merton's (1938) theory argued that society places pressure on individuals to accomplish societal goals but few individuals actually have the means necessary to attain these goals. This creates strain within an individual that may result in crime and delinquency. The pressure to achieve society's (material) goals has increased since Merton first proposed his theory, yet as discussed here, many individuals have a decreased likelihood of living a middle-class lifestyle and attaining those goals. Future studies may want to integrate Arnett's theory of emerging adulthood with strain theory due to the economic downturns of the last several years.

The remaining social bonds examined—religious participation, parental attachment, and job satisfaction—all had a relationship to offending in the expected direction, with increases in these variables being associated with reduced criminal offending. These findings suggest religious participation, parental attachment, and job satisfaction are potential tools in reducing offending in emerging adults. Individuals working with offenders during the emerging adulthood phase may want to incorporate aspects of these bonds into interventions.

In regards to the second question, being married and having children were found to be associated with lower levels of offending. The role of marriage has changed over the last 30 years with increases in cohabitation both before and in lieu of marriage, frequent divorce, and remarriage, as well as changes in patterns of child bearing (e.g., increases in single parenting and postponing parenthood). The results of this study support the idea that being married and having children still function as social bonds and provide the same benefits as they have in previous studies.

Military service, hours worked per week, and education were not significant predictors of offending. These findings were unexpected, as prior studies have identified these factors as predictors of crime and delinquency. A likely explanation regarding military service is that only a small number of the participants ( $n = 76$ ) were actively serving in the military at the time of data collection. It should be noted that the survey was collected in late 2001/early 2002. Waves 4 and 5 of the data will most likely contain significantly more individuals actively serving in the military due to the current Middle East crisis. It is possible that job satisfaction is a more important factor than the number of hours per week an individual works.

Job satisfaction, but not the number of hours worked per week, was a significant predictor of offending. This suggests the belief that work reduces crime and delinquency by simply occupying an individual's time may be too simplistic. Since job satisfaction was significant, future studies may want to focus on it instead of the number of hours an individual works. Finally, education, which did show a weak negative relationship with offending in the correlation analysis and was significant in the turning point model (see Table 3, model 2), was not significantly associated with crime in the full model specification. It is possible that the role of education is mediated in the full model by one or more social bond. Also, many of the individuals in the sample were likely still enrolled in college, so it is possible that the full effect of education level may not be seen until a later wave of data collection.

## LIMITATIONS

Like many prior studies, the findings of this analysis answer many questions, but also bring others to the forefront. The diminished role of military service is interesting because prior studies found military service acted as a turning point away from crime and deviance for the World War II generation, but was less effective for later generations. What has yet to be

explored thoroughly is how military service has impacted emerging adults, particularly those serving in the Middle East. This current conflict, like Vietnam, has been contentious in general society, with much initial support for the military presence in the Middle East, but as time has passed, the presence of the military has become more controversial. Based on the findings of studies using samples of Vietnam veterans, it is possible that military service may act as a negative turning point for emerging adults. However, while public sentiment supporting the conflict in the Middle East has cooled over time, overall support for those in the military has remained fairly consistent. As a result, modern veterans may not experience military service as a negative turning point. Empirical examination of such hypotheses should be possible when Waves 4 and 5 of the Add Health survey become available. A detailed qualitative analysis using a sample of emerging adults would help clarify the role of military service as a turning point for modern cohorts.

There were several aspects of social control and the age-graded theory of informal social control that this study was unable to address. Starting with social bonding theory, we were unable to examine bonds and attachments, such as attachment to teachers or teacher's opinions of peers, which have previously been found to be important. Because the sample was over the age of 18, it was not possible to include these measures and the data did not contain measures that could act as proxies for individuals during the emerging adult phase. Finally, we were unable to examine the influence of socioeconomic status due to a substantial amount of participants skipping questions dealing with the topic.

Laub and Sampson conducted a series of detailed interviews with their sample that allowed them to identify relationships with in-laws, employers, and other pro-social peers as being key turning points and bonds for their sample. Being a quantitative study, Add Health is unable to provide the same level of detail and information regarding these factors. This limitation suggests that qualitative research using a sample of emerging adults is necessary.

A final limitation is that these data were limited to a sample of emerging adults in the United States. It is possible that social and cultural differences between nations may influence how turning points and social bonds operate. The forces that have shaped emerging adulthood in the United States may not operate, or may operate differently, in the various social, economic, and political environments found in different cultures. Future research may want to explore conditions in other areas of the world to examine how, or even if, the phase identified as emerging adulthood operates.

## CONCLUSION

Results supported previous findings about factors that influence participation in criminal and delinquent behaviors. In contrast to prior findings (Moffitt et al. 2001, 2002; Laub and Sampson 2003; Piquero et al. 2002), this study examined the criminogenic effects of emerging adulthood and provided empirical support for a further research examining offending in emerging adults. Studies are needed to explore the long term effects that emerging adulthood has on offending. Future studies may want to examine the influence of emerging adulthood on the long-term offending trajectories of those who have experienced emerging adulthood. From a theoretical perspective, it is possible that cohorts of emerging adults will continue to offend for longer periods of time, past the traditional peak of offending in late adolescence, causing an extension of the age-crime curve. Longitudinal studies should be conducted as the sample ages to address the influence of emerging adulthood on the age-crime curve, possibly culminating with a retrospective study similar to what Laub and Sampson conducted with the men in their sample at age 70. A final implication of this study is that many in emerging adulthood may lack the "adult" understanding of crime and deviance because of physical factors such as brain development.

Studies such as Steinberg (2005) suggest that brain development continues through the twenties, and as such emerging adulthood may have biological components that need to be examined as people age through emerging adulthood and beyond.

There are policy implications to this study as well. Many emerging adults commit crimes usually seen in adolescents, but unlike most adolescent offenders (e.g., Moffitt's AL's) they face adult prosecution and penalties. Early intervention and diversion programs such as drug courts could target those in emerging adulthood, so that they may avoid further criminogenic effects of incarceration and decrease costs to the criminal justice system. Policy makers may find it beneficial to recognize the unique age effects of emerging adulthood. Because many low-level, delinquent offenses traditionally seen in teenagers are now being seen in emerging adults, policies may need to be adapted to the needs of cohorts that differ substantially from their predecessors. Instead of adopting purely punitive or reactive measures, greater emphasis may need to be placed on primary and secondary prevention strategies (Center for Disease Control and Prevention 2004).

Targeting primary and secondary prevention strategies toward emerging adults may prove challenging. Colleges and universities appear to be a natural location for such initiatives, but not all emerging adults pursue higher education and not all higher education facilities would be able to fund intervention programs. Community based interventions for emerging adults are also an appealing option, but traditional youth centers typically do not service young adults and would face similar funding issues. Implications of emerging adulthood for criminological theory and policy have only begun to be explored.

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## Biographies

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## APPENDIX A: WAVE 3 ADD HEALTH CRIME ITEMS

Scale created by summing the following questions: In the past 12 months, how often did you . . .

- . . . deliberately damage property that didn't belong to you
- . . . steal something worth less than \$50
- . . . buy, sell, or hold stolen property
- . . . use someone else's credit card, bank card, or automatic teller card without their permission or knowledge
- . . . deliberately write a bad check
- . . . steal something worth more than \$50
- . . . use or threaten to use a weapon to get something from someone
- . . . sell marijuana or other drugs
- . . . take part in a fight where a group of your friends was against another group
- . . . use a weapon in a fight
- . . . carry a handgun to work or school

**TABLE 1**Descriptives of Independent Variables ( $N = 4,880$ )

<b>Variable</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
Age	18	28	22.00	1.81
Attendance at Religious Services	0	6	2.12	1.95
Current Job Satisfaction	1	5	3.92	0.90
Economic Instability	0	5	0.44	0.84
Highest Grade in School	6	22	13.21	1.99
Hours Worked Scale	3	80	36.67	10.00
Parental Attachment Scale	1	10	7.00	2.24
Property Owned Scale	0	5	2.74	1.33
Crime Scale (DV)	0	35	0.74	1.89

	<b>Frequency</b>	<b>Percentage</b>
<b>Currently Service in the Military</b>		
No	4,802	98.4
Yes	76	1.6
<b>Gender</b>		
Females	2,629	53.9
Males	2,253	46.1
<b>Have Any Children</b>		
No	3,363	68.9
Yes	1,517	31.1
<b>Marital Status</b>		
Not Married	4,062	83.2
Married	820	16.8

TABLE 2

Correlations Between Independent Variables and Outcome Variable ( $N = 4,880$ )

	Age	Attend religious service	Job satisfaction	Economic instability	Highest grade	Hours worked	Parental attachment	Property owned	Offending
Age	1.000								
Attend Religious Services	-0.019	1.000							
Job Satisfaction	0.017	0.047 <sup>**</sup>	1.000						
Economic Instability	0.038 <sup>**</sup>	-0.083 <sup>**</sup>	-0.051 <sup>**</sup>	1.000					
Highest Grade	0.158 <sup>**</sup>	0.197 <sup>**</sup>	0.002	-0.177 <sup>**</sup>	1.000				
Hours Worked	0.270 <sup>**</sup>	-0.055 <sup>**</sup>	0.084 <sup>**</sup>	-0.006	-0.110 <sup>**</sup>	1.000			
Parental Attach	-0.034 <sup>*</sup>	0.039 <sup>**</sup>	0.064 <sup>**</sup>	-0.084 <sup>**</sup>	-0.015	0.001	1.000		
Property Owned	0.182 <sup>**</sup>	0.093 <sup>**</sup>	0.085 <sup>**</sup>	-0.168 <sup>**</sup>	0.338 <sup>**</sup>	0.120 <sup>**</sup>	-0.009	1.000	
Offending	-0.099 <sup>**</sup>	-0.116 <sup>**</sup>	-0.041 <sup>**</sup>	0.093 <sup>**</sup>	-0.060 <sup>**</sup>	-0.008	0.057 <sup>**</sup>	-0.093 <sup>**</sup>	1.000

\*  $p < .05$ ,\*\*  $p < .01$ .

**TABLE 3**  
Negative Binomial Regression Models of Independent Variables on the Crime Scale

	Model 1		Model 2		Model 3	
	B	[SE]	B	[SE]	B	[SE]
Age	-0.14	[0.02]	-0.09	[0.02]	-0.10	[0.02]
Gender	1.09	[0.07]	1.03	[0.07]	1.06	[0.07]
Military			0.37	[0.27]	0.47	[0.26]
Children			-0.23	[0.08]	-0.31	[0.08]
Education			-0.07	[0.02]	-0.03	[0.02]
Hours Worked			-0.01	[0.01]	-0.01	[0.01]
Married			-0.65	[0.11]	-0.51	[0.11]
Religious Services					-0.10	[0.02]
Economic Instability <sup>1</sup>					0.35	[0.05]
Job Satisfaction					-0.10	[0.04]
Parental Attachment <sup>1</sup>					-0.23	[0.05]
Property Owned <sup>1</sup>					-0.17	[0.07]

\*\*  $p < .01$ .

Chi-Square = 279.47,  $Df = 2$ ,  $AIC^2 = 2.05$ .

Chi-Square = 366.5,  $Df = 7$ ,  $AIC^2 = 2.04$ .

Chi-Square = 463.81,  $Df = 12$ ,  $AIC^2 = 2.02$ .

<sup>1</sup> Values for each variable were  $z$  scored and summed.

<sup>2</sup> The Akaike Information Criterion (AIC) is based on the log-likelihood function and is a measure of model fit. Models with the smallest value are considered to have the best fit (Hilbe 2008).