Family and Religious Characteristics' Influence on Delinquency Trajectories from Adolescence to Young Adulthood

Richard J. Petts
Ball State University

This study takes a life-course approach to examine whether family and religious characteristics influence individual-level delinquency trajectories from early adolescence through young adulthood. Based on data from the NLSY79, results suggest that residing with two parents deters youths from becoming delinquent and that supportive parenting practices reduce their likelihood of becoming involved in delinquent behavior early in adolescence. There is also evidence that family and religion interact to predict delinquency trajectories. Religion enhances the effect of parental affection in deterring delinquent behavior and mitigates the increased risk of high levels of delinquent behavior among youths in single-parent families. Moreover, the findings indicate that delinquency trajectories are not immutable; family transitions are associated with increases in delinquency, but religious participation throughout adolescence and marriage are associated with declines in delinquent behavior. Overall, results suggest that family and religious characteristics continually influence the extent to which youths commit delinquent acts.

The link between age and delinquency in large populations is well-documented: participation in delinquent behavior peaks during late adolescence and declines through adulthood (Hirschi and Gottfredson 1983; Moffitt 1993). More recent studies examine individual-level variations in this pattern, exploring individuals' distinct delinquency trajectories. While much is known about these general trends, less is known about factors that predict and alter trajectories and how these effects may differ by individual. Such research is important because developmental and life-course perspectives on crime suggest that contextual factors early in life, as well as events and choices throughout the life course, influence patterns of delinquency (Farrington 2005; Sampson and Laub 1993).

Sampson and Laub's (1993, 2005) age-graded life-course theory of crime suggests that greater attachment to social institutions is linked to lower levels of delinquency. This theory, along with a general social-control perspective (Durkheim [1897] 1951; Hirschi 1969), suggests that family and religion may be especially important influences on patterns of delinquency because they are primary sources of social control, support, and integration. Numerous studies examine how family characteristics affect delinquency trajectories, but little is known about the influence of religion on delinquency trajectories or how family and religion may interact to shape patterns of delinquency.

This study aims to better understand patterns of delinquent behavior by estimating trajectories of delinquency (defined as vandalism, theft, and assault) and examining how family and religion influence these pathways. Three basic questions guide this study: (1) What patterns of delinquent behavior do youths exhibit from

Direct correspondence to Richard J. Petts, Department of Sociology, Ball State University, North Quad 205, Muncie, IN 47306 (rjpetts@bsu.edu). I would like to thank Chris Knoester, Elizabeth Cooksey, Robert L. Kaufman, Korie Edwards, Amy L. Holliday, and a number of anonymous reviewers for their helpful comments on earlier versions of this article.

early adolescence through young adulthood? (2) How do family and religious characteristics early in adolescence influence individuals' delinquency trajectories? (3) And how do family and religious changes in adolescence and young adulthood alter delinquency trajectories? Family and religion might be independently related to delinquency trajectories; greater support from parents and greater attachment to religious institutions might deter youths from becoming delinquent. Alternatively, family and religion might work together to influence delinquency; religion may enhance parent–child relationships or compensate for a lack of social support and control in some families, reducing participation in delinquent behavior. Furthermore, family and religious changes may alter delinquency trajectories by increasing or decreasing social control and integration for individuals (Elder 1998; Sampson and Laub 2005).

To explore these questions, I use data from the National Longitudinal Survey of Youth (NLSY79) and employ a group-based method of trajectory analysis (Nagin 1999, 2005). Previous studies of delinquency trajectories are often constrained by the use of small, isolated samples (e.g., Nagin and Land 1993) and primarily focus on whether childhood factors predict patterns of delinquency (e.g., Chung et al. 2002). This study improves on these limitations by using a relatively large sample from a national longitudinal dataset and focusing on how factors throughout adolescence shape delinquency trajectories.

CONCEPTUAL FRAMEWORK

Patterns of Delinquent Behavior over the Life Course

Numerous studies focus on patterns of delinquency throughout the life course, examining when individuals first become delinquent, how frequently youths engage in delinquent activity, and the age at which desistance begins. Although aggregate studies suggest that youths typically become delinquent in adolescence and desist by adulthood, this pattern does not hold true for everyone. Individual patterns of delinquency vary greatly; some people never become delinquent, others become delinquent at some point (differing in their rate of delinquency and age at which they become delinquent) and desist later in life, and still others remain delinquent throughout their lives (Piquero 2008; Raudenbush 2001). It is thus reasonable to expect that various groups of individuals follow different delinquency trajectories.

Although there is much debate as to whether delinquent individuals belong to distinct groups or fall somewhere on a continuous distribution of delinquent behavior, taking a group-based approach to studying delinquency is useful because it provides a simplified description of the larger (and possibly continuous) distribution of delinquent behavior patterns that exist in the population (Osgood 2005). Indeed, numerous scholars have used a group-based approach to uncover unique patterns of delinquent behavior (Piquero 2008). Moffitt (1993), for example, suggests that there are three groups of individuals: a group of adolescence-limited delinquent individuals who become delinquent in adolescence and desist by young adulthood, a smaller group of life-course persistent individuals who exhibit antisocial behavior throughout their lives, and a small group of individuals who never become delinquent. Other research finds similar trajectories, but many scholars suggest there are more than three distinct delinquency trajectories (Chung et al. 2002; Piquero 2008).

Overall, research on delinquency trajectories shows that levels of delinquency change as people transition through life stages and experience various life events. To better understand longitudinal patterns of delinquency, it is therefore important to take a life-course approach that allows for an assessment of how factors throughout one's life may shape behavior. Sampson and Laub's (1993, 2005) age-graded theory of crime, for example, suggests that although childhood factors may set people on particular pathways of delinquency, life events and choices can lead to increases or decreases in delinquent behavior later in life. Specifically, Sampson and Laub (1993) argue that strong social bonds early in life reduce one's likelihood of becoming delinquent due to greater informal social control, and that increases or decreases in social attachments explain variations in delinquent behavior throughout the life course. Building on this theory, I take a life-course approach in this study to focus on how attachments to family and religion may work individually and together to influence delinquency trajectories from adolescence into adulthood.

Family Characteristics and Delinquent Behavior

Most criminological theories suggest that family socialization is an important factor in determining whether youths become delinquent (Unnever, Cullen, and Agnew 2006). Families are a primary source of social integration and social control, providing youths with a feeling of belonging, as well as establishing both formal and informal boundaries that limit the possibility that youths will engage in delinquent activities (Durkheim [1897] 1951; Hirschi 1969). Various aspects of youths' family context, such as family structure, family processes, and parental resources, may contribute to social integration and social control and influence youths' delinquency trajectories.

Family structure is one factor that may predict patterns of delinquent behavior. Parents play an essential role in children's lives by teaching norms and values, regulating behavior, and providing emotional and financial support (Demuth and Brown 2004; McLanahan and Sandefur 1994; Warr 1993). Two parents may be better equipped than a single parent to provide this support to their children, resulting in increased well-being (McLanahan and Sandefur 1994). By contrast, single parents may have less time to invest in their children, and the stress of raising a child by oneself may limit the support provided by a single parent. Consequently, children in single-parent families are more likely to be unsupervised, which may lead to increased delinquency (Demuth and Brown 2004; Warr 1993). Similarly, the stress of family disruptions for youths with stepparents may result in greater delinquency (Kirby 2006; McLanahan and Sandefur 1994). Residing in a stable, two-parent family may thus prevent youths from ever becoming delinquent.

Family processes may also influence patterns of delinquency. Social control theory suggests that attachment to parents will result in a lower propensity to engage in delinquent behavior; youths who interact more, argue less, and receive more affection and supervision from their parents may develop stronger family bonds and consequently be less delinquent (Hirschi 1969; Sampson and Laub 1993; Simons et al. 2007). Yet authoritarian parenting may be counterproductive. Strict parenting practices may promote low self-control by limiting youths' opportunities to make independent decisions (Gottfredson and Hirschi 1990; Unnever et al. 2006). By contrast, supportive parenting allows youths some freedom to make their own decisions, increasing self-control and reducing the likelihood that youths become delinquent (Simons et al. 2005; Steinberg 2001). Overall, supportive, engaged parenting may help deter youths from becoming involved in delinquent behavior early in life. These family processes may have a weaker effect on delinquent behavior later in adolescence, however, as older youths spend more time with peers and less time with their families (Simons et al. 1994; Steinberg 2001).

Parental resources may also influence delinquent behavior. Socioeconomic disadvantages in single-parent households account for much of the variation in child outcomes in these families (Thomson, Hanson, and McLanahan 1994). Moreover, parents' age may be a valuable resource because older parents are more likely than younger parents to be employed, be in a stable family structure, and engage in positive parenting practices (Pogarsky, Thornberry, and Lizotte 2006).

Religion and Delinquent Behavior

Religion is another important source of social control that may predict delinquency trajectories. Religious institutions impose social control on youths by providing them with a normative set of standards and guidelines and by fostering social attachments to other members of the religious community (Smith 2003). These interactions and controls may help adolescents live meaningful lives and avoid destructive lifestyles (Johnson et al. 2001; Smith 2003). Involvement in a religious community may thus increase the likelihood that youths will avoid participation in delinquent activities.

Family, Religion, and Delinquent Behavior

Because the institutions of family and religion are so closely related (Thornton 1985), it is possible that these factors may work together to shape delinquency trajectories. One explanation is that families act as moral communities, increasing social control and network closure for youths by reinforcing religious norms and val-

ues within the home (Bader and Desmond 2003; Pearce and Haynie 2004). Specifically, the moral community hypothesis suggests that religious involvement is more likely to deter delinquent activity when it occurs within a broader religious community in which norms and values are reinforced by others (Stark 1996). Although a family is not a community per se, religious parents may increase the likelihood that youths are immersed in a religious community by providing religious teachings and engaging in parenting practices that reinforce religious values, reducing the likelihood that youths become delinquent (Bader and Desmond 2003; Myers 1996; Smith 2003).

Within a religious family, the deterrent effect of supportive parenting practices on delinquency may be amplified. Religious parents often place more significance on family relationships and find greater meaning in these relationships than do nonreligious parents (Mahoney et al. 2003; Wilcox 1998). In addition, religious families have the benefit of a supportive community to assist parents and to help monitor and supervise youths (Smith 2003). Residing in a religious family may therefore enhance the influence of supportive parenting practices on delinquency by both increasing the social control and support youths receive from family members and exposing youths to a broader religious community that reinforces the values being taught within the home.

Religion may also compensate for a lack of social integration and control in some families. Religious institutions provide resources, such as support networks and teachings, to help individuals cope with and find meaning in stressful events (Smith 2003). These resources may be especially beneficial to youths who reside in potentially stressful family structures, such as single-parent families or stepfamilies (Kirby 2006; McLanahan and Sandefur 1994). To deal with the difficulties in their family life, youths may turn to religion to find the social control that is lacking in their families. Religious participation may thus be a strong delinquency deterrent for youths raised in nontraditional family structures because these youths are likely to benefit from the social support and control that religious institutions provide.

Religion may not always lead to lower delinquency, however. The moral community hypothesis suggests that religion's deterrent effect is most effective when individuals are enmeshed within a religious community that shares similar beliefs (Stark 1996). When religious beliefs are not shared, religiosity may not have the same effect on delinquency. While religion can be a cohesive force for families that share religious beliefs, religious differences between parents and children may weaken parent–child relationships, increase family conflict, and contribute to higher delinquency among youths (Pearce and Haynie 2004).

Family and Religious Changes

Early family and religious characteristics set youths on particular trajectories, but these paths are not immutable; life events and personal choices continually shape the pathways that individuals follow throughout their lives (Elder 1998). These changes may come in the form of a life event that occurs once (e.g., marriage) or as a change that has a dynamic effect over time (e.g., fluctuations in religious participation), both of which may result in increased or decreased delinquency later in life (Elder 1998; Sampson and Laub 2005). In using a life-course framework, it is thus essential to examine how family and religious changes shape delinquency trajectories from adolescence into adulthood.

Because parents provide social attachments and control to youths, any change in family structure, such as parental divorce or transition into a stepfamily, may be disruptive, increasing parental stress and weakening family bonds. Family disruptions may thus reduce social control and perhaps increase youths' involvement in delinquent behavior (McLanahan and Sandefur 1994; Rebellon 2002).

While parents are an important influence early in adolescence, sources of social control may change as youths transition into young adulthood. To examine how family characteristics influence patterns of delinquent behavior throughout the life course, it is important to consider how both early family characteristics (e.g., parenting behaviors and changes in youths' family structure) and adult family transitions (e.g., marriage, cohabitation, and having a child) may affect patterns of delinquency (Sampson and Laub 1993).

Several studies examining the effect of marriage on delinquency show that marriage reduces delinquent activity through the formation of strong social bonds between spouses (King, Massoglia, and Macmillan 2007; Laub and Sampson 2003; Sampson, Laub, and Wimer 2006). Similarly, another family change in adulthood—having a child—may also result in stronger social bonds. The social control resulting from attachments to one's children may ultimately result in a lower propensity to engage in delinquent activity, although there is little empirical support for this argument in the literature (Blokland and Nieuwbeerta 2005).

In contrast to marriage and parenthood, other family changes may have different effects on delinquency. For example, youths who leave their parents' homes and live on their own may not receive the same social support and control they experienced while living with their parents. Instead, these individuals may become more involved with delinquent peers. Similarly, the temporary and often informal nature of cohabiting relationships is less likely than marriage to result in lower delinquency (Duncan, Wilkerson, and England 2006).

Although Sampson and colleagues (2006) find that adult relationships affect patterns of delinquency net of selection factors, it is always important to consider the possibility that the causal relationship may be reversed. That is, delinquent individuals may be less likely to marry than to cohabit or to live alone, whereas nondelinquent individuals may be more likely to marry (Gottfredson and Hirschi 1990). Simply finding an association between adult relationships and delinquency may not distinguish between cause and effect. The group-based approach used in this study should provide additional evidence to support Sampson and colleagues' findings by examining whether the effects of adult relationships on delinquency differ among youths following unique delinquency trajectories.

Religious changes may also alter delinquency trajectories. As individuals transition from adolescence into adulthood, they may attend religious services more frequently or switch religious affiliations as they search for a personal identity or greater meaning in life events (Petts 2007; Regnerus and Uecker 2006). Increased religious participation may result in greater social support and control, possibly leading to a decline in delinquent behavior. Moreover, youths who switch religious affiliations are more likely to be active in their new religious communities, which may lead to stronger attachments to others and lower levels of delinquency (Johnson 2004; Loveland 2003). By contrast, decreases in religious activity may coincide with increases in delinquency as youths become detached from religious communities.

Although religious participation may reduce delinquent behavior, the reverse may also be true. For example, youths may be more likely to increase their religious involvement when leading lifestyles compatible with religious teachings (Regnerus and Smith 2005), whereas delinquent youths may be more likely to reduce their religious involvement when engaged in activities that contrast with religious teachings (Benda and Corwyn 1997; Regnerus and Smith 2005). Religious activity might reduce delinquency for all youths, but this relationship may be more probable for less delinquent youths.

HYPOTHESES

Consistent with previous research that takes a group-based approach to studying delinquency, I expect to find at least three distinct delinquency trajectories from adolescence into young adulthood, including adolescence-limited delinquents, life-course persistent delinquents, and nondelinquent youths (Piquero 2008).

I expect that early family and religious characteristics will predict delinquency trajectories: youths raised in two-parent families will be less likely to become delinquent than youths raised in other family structures. I also expect that parental engagement, affection, and supervision will increase the likelihood that youths avoid delinquent behavior early in adolescence. However, I expect these family processes to have a weaker influence on youths who become delinquent later in adolescence. I also expect that greater parental resources (age and socioeconomic status) and higher levels of religious participation will deter youths from becoming delinquent.

I anticipate that family and religious characteristics will work together to predict delinquency trajectories. Following the moral community hypothesis, I expect that residing in a religious family environment will deter youths

from becoming delinquent, whereas religious differences between parents and children will increase the likelihood that youths become delinquent. Moreover, I expect that residing in a religious family will amplify the impact of supportive parenting practices on delinquency trajectories and that religious involvement will compensate for lower social support and control among youths raised in nontraditional families.

Finally, I expect that family and religious changes will alter delinquency trajectories. First, youths who experience a family transition should report greater delinquency than would youths who reside in an intact family throughout adolescence. Second, I expect that getting married and having a child will be associated with declines in delinquent behavior, whereas cohabitation and living alone in young adulthood will not reduce delinquent behavior. Third, religious conversion and religious participation throughout adolescence should be associated with lower levels of delinquent behavior for all youths.

DATA AND METHODS

Sample

The data for this study are taken from the Child and Young Adult Sample of the 1979 National Longitudinal Survey of Youth (NLSY79). Original respondents of the NLSY79 were between the ages of 14 and 21 years old in 1979, and Black and Hispanic respondents were oversampled. For the child and young adult sample, information was collected from each child of the female survey respondents age 10 years and older biennially since 1988. In addition, a young adult survey was administered to children age 15 years and older biennially since 1994.

To construct the sample for this study, I first pool data from 1988 through 2004 according to the youths' age. I then restrict the sample to youths interviewed at least once in early adolescence (ages 10 to 14), resulting in a sample size of 6,693. To focus on youths who have made the transition into young adulthood, I further restrict the sample to youths who were also interviewed in two other developmental stages: middle/late adolescence (ages 15 to 19) and young adulthood (ages 20 to 25). Using these criteria, I focus on 2,472 respondents who were interviewed in each of these life stages.[1] While youths must have at least three waves of data to be included in this study, they might have as many as nine waves of valid data (M = 6.25).[2]

These age restrictions result in a somewhat disadvantaged sample because of a bias toward youths with younger mothers. Because youths had to be born by 1984 (to be at least 20 years old by 2004) to be included in this sample, all youths have mothers who were no older than age 26 at the time of their birth. Compared with youths who are too young to be included in the study, youths in this sample are more likely to be Black, more likely to be raised by a single parent or stepparent, less likely to live in a religious family, and more likely to have a higher average rate of delinquency in early adolescence.[3] Despite these differences, including youths who were interviewed in three separate developmental stages is useful in examining the transition from adolescence into adulthood, as well as for estimating group-based trajectories accurately (Nagin 2005).

Dependent Variable

Delinquent behavior is indicated by three self-reported measures on whether the youths, in the past year, (1) hurt someone badly enough to need bandages or a doctor, (2) took something without paying for it, and (3) damaged school property on purpose. I summed responses to create an index ranging from 0 to 3 (alpha > .60).[4]

[1] Approximately half of the 6,693 youths interviewed in early adolescence were not age-eligible for this study. The remaining difference is due to sample attrition. Although retention rates in the NLSY79 young adult sample are high (83.1 percent), certain groups of youths were not interviewed in the 1998 and 2000 surveys because of budgetary problems, reducing this sample even further (Center for Human Resource Research 2006).

[2] Less than 1 percent of youths were interviewed only once in each developmental stage. The majority of youths were interviewed at least twice in early adolescence (94 percent), middle/late adolescence (82 percent), and young adulthood (62 percent).

[3] I obtained these results from t-tests analyzing mean differences in early adolescence.

[4] Some of these questions are slightly different in the young adult survey. In the 1994, 1996, and 1998 surveys, young adults were asked a more general

I used all valid responses from early adolescence through young adulthood to estimate delinquency trajectories over time.

This measure of delinquent behavior focuses on only three activities, which likely results in a limited estimate of delinquency. In addition, youths are more likely to engage in assault than in vandalism or theft in early adolescence, which is likely unique to this sample (for details, see Appendix, Table A1). I considered other indicators of delinquency, such as alcohol and drug use, but do not use them for two reasons. First, alcohol use becomes legal in young adulthood, which raises questions as to whether this remains a delinquent act throughout the entire period of the life course examined in this study. Second, there is evidence that religion has a different influence on nonvictim crimes than on person and property crimes (Baier and Wright 2001). I thus use an index of person and property crimes here to provide a limited and relatively consistent measure of delinquency.[5]

Time-Invariant Variables[6]

Family structure. I use three dummy variables to indicate youths' family structure: (1) two-parent biological family (reference category, M = .39, SD = .49), (2) stepfamily (M = .11, SD = .31), and (3) single-parent family (M = .50, SD = .50).[7]

Family processes.[8] I use five time-invariant indicators to measure family processes. Parental engagement is taken from youths' reports on how often they participated in seven activities with their parents in the previous month, including going to the movies, dinner, shopping, and outings, as well as working on schoolwork, playing games, and doing other things (α = .80). I use the sum of the responses as the indicator (M = 3.44, SD = 1.91). Second, I take parental affection from mothers' reports on how often they praised and showed affection to their children in the past week (α = .71), and I use the mean of these two measures as the indicator (M = 8.24, SD = 8.78). Third, I take parental supervision from youths' reports on whether their parents set rules about watching TV, dating, knowing where they are, and doing homework (α = .88). I use the sum of the responses as the indicator (M = 2.70, SD = 1.14). Fourth, I take parent–child decision making from two questions on how frequently (1 = hardly ever, to 3 = often) parents talk over important decisions with youths and listen to the youths' side of arguments (α = .48). I use the mean value of these two questions as the indicator (M = 2.20, SD = .60). Finally, I take parent–child conflict from youths' reports on how frequently (1 = hardly ever, to 3 = often) they argue with their parents over rules, watching television, homework, and dating (α = .60). I use the mean value as the indicator (M = 1.60, SD = .58).

Parental resources. I use two variables to measure parental resources: parents' education is indicated by the highest level of education that either of a youth's parents completed (M = 11.53, SD = 2.18), and mother's age at birth of

vandalism question (whether they damaged any property as opposed to just school property). Starting in 2000, young adults over the age of 18 were also asked different questions; the theft question asks whether youths have taken something worth more than $50 from a store, the assault question asks whether youths hit or seriously threatened someone, and no vandalism question was asked. The alpha coefficients in the later years are lower than .60 because very few youths committed more than one delinquent act at these ages.

[5] I analyzed separate trajectory models for person (assault) and property (vandalism and theft) offenses to test for consistency in the delinquency scale. Although there are some slight differences (e.g., the early adolescent-limited trajectory peaked slightly earlier in the assault model), the results are strikingly similar for all three indicators; a three-group model is the best-fitting model for each measure, and family and religion have similar influences on person and property crimes. I thus use a scale to provide a more complete picture of delinquent behavior. A detailed breakdown of the number of delinquent acts committed can be found in Table A1 in the Appendix.

[6] Each of these variables is taken from the first valid interview in early adolescence.

[7] All youths in the NLSY79 reside with their mother at least part-time. Supplementary analyses suggest that youths who also reside with their mother's cohabiting partner or other relative are similar to youths in single-parent families.

[8] Results from a factor analysis suggest that each family variable loads separately for this analysis.

the child is coded in years (M = 19.98, SD = 2.63).

RELIGIOUS CHARACTERISTICS. Three variables indicate religious characteristics early in adolescence. Religious family environment is a dummy variable indicating that (1) youths attend religious services with their parents and (2) the mother feels it is very important to provide religious training for her child (M = .41, SD = .49). Parent–child religious heterogamy indicates that a mother and a youth report different religious affiliations (M = .52, SD = .50).[9] Finally, self-reported religious participation is a scale with the following values: 1 = not at all; 2 = several times a year or less; 3 = about once a month; 4 = two to three times a month; 5 = about once a week; 6 = more than once a week (M = 3.55, SD = 1.81).

CONTROL VARIABLES. I include three variables that might confound the relationships between family, religion, and delinquency. First, because youths are more likely to become delinquent if they have friends who engage in delinquent acts, I include a measure of delinquent peers (Sampson and Laub 1993). This is a dummy variable (taken from mothers' reports) indicating that youths at least sometimes hang around kids who get into trouble (M = .20, SD = .40). I also include sex in the models (female = 1, male = .51, SD = .50) because males are more likely than females to be delinquent, at least partly due to lower social control (Hirschi 1969). Finally, Blacks and Hispanics are more likely than Whites to commit serious delinquent acts (McNulty and Bellair 2003). I thus include race in all models, coded as White (reference group, M = .36, SD = .48), Black (M = .41, SD = .49), and Latino (M = .23, SD = .42).[10]

[9] I classified religious denominations into seven categories: Evangelical Protestant, Mainline Protestant, Catholic, Mormon, Other Christian, Other Religious Affiliation, and No Religious Affiliation. Religious heterogamy is determined by differences between these categories. Including different types of heterogamous relationships and religious affiliations in supplementary models did not change the results presented here.

[10] I include males and females, as well as various racial groups, in the same analysis to gain a general understanding of how family and religion may influence delinquency trajectories. Tests for interactions suggest that family and religion have similar effects across gender and race. Separate trajectory models for race and gender suggest that the shapes of each trajectory are similar for males and females. Although trajectory models by race show slightly different results (not shown), the main findings from this study are consistent across races.

TIME-VARYING VARIABLES[11]

FAMILY CHARACTERISTICS. I include five time-varying factors to measure whether family changes alter delinquency trajectories. Change in resident parents indicates whether youths experience the addition or subtraction of a resident parent.[12] Three additional variables indicate adult family transitions: (1) living on one's own, (2) married, and (3) cohabiting. Each variable is coded 1 for each age at which the individual resides in this situation, and the comparison group is youths who reside in their initial family structures. Finally, I include a variable to indicate whether an individual has transitioned into parenthood. This variable is coded 1 for each age at which an individual reports having a child.

RELIGIOUS CHARACTERISTICS. I include two variables to measure religious changes over this stage in the life course. Religious participation is a time-varying factor, coded in the same way as in the time-invariant analyses, and religious conversion is a dummy variable indicating that the youths switched religious affiliations at that age.[13]

[11] Each of these variables was measured at each interview. I include all responses at each age in the full model.

[12] This variable is taken from the time-invariant family structure variables. I code any change in family structure as 1 in the year in which the transition occurred. In supplementary analyses, I explored whether the addition or subtraction of a parent had unique effects on youths, but the effects of gaining or losing a parent are similar. This supports the hypothesis that any type of family transition may disrupt the social support and control that youths receive (at least temporarily), resulting in increased delinquency.

[13] Including variables for different types of religious conversions does not change the results.

Methodology

The primary method of analysis for this study is group-based trajectory modeling (Jones, Nagin, and Roeder 2001; Nagin 1999, 2005). This method is an application of finite mixture modeling that uses maximum likelihood procedures to estimate each group's trajectory, the proportion of the sample assigned to each trajectory group, and the probability of membership in each group for all individuals in the dataset (Nagin 2005). This methodology assumes that there are distinct groups of individuals who share similar trajectories and that patterns in the data can be uncovered without forcing the researcher to make arbitrary group cutoffs (e.g., high and low delinquency). This should result in a more objective estimate of delinquent behavior. Although the trajectory groups are only approximations, they are useful in understanding the developmental paths that individuals follow throughout their lives.

Because the measure of delinquent behavior in this study is a count variable, I use the Poisson distribution to estimate the trajectories. The basic model estimating each trajectory specifies the link between age and delinquency as a polynomial function:

$$\ln(\lambda_t^j) = \beta_0^j + \beta_1^j AGE_{it} +$$

$$\beta_2^j AGE_{it}^2 + \beta_3^j AGE_{it}^3$$

In this model, λ is the predicted number of delinquent acts for youths belonging to group j at time t, and β_0, β_1, β_2, and β_3 are parameters that determine the shape of each trajectory. Because I use a unique set of parameters to estimate each trajectory, the shapes of the trajectories can vary by group (Nagin 2005).

Analytic Strategy

The first part of the analysis uses an SAS procedure (PROC TRAJ) to estimate delinquency trajectories (Jones et al. 2001). Because the data include each child of the NLSY79 mothers, there is a problem of clustering (34 percent of youths have the same mother as someone else in the sample). Unfortunately, PROC TRAJ cannot account for clustering. I therefore compared models using the full sample with models using a restricted independent sample that included one randomly chosen child from each family (N = 1,630). The trajectory estimates from both samples are similar. In addition, I ran supplementary analyses to examine the effect of clustering on the full sample; the standard errors are similar in models that control for clustering and those that do not.[14] On the basis of these diagnostics, clustering does not appear to substantially change the findings in this study. I therefore use the full sample of 2,472 in all analyses.[15]

I use multinomial logistic regression models in the second stage of the analysis to examine whether family and religious characteristics predict entry into each trajectory group because these models can account for clustering within the data. Entering family and religious factors separately into the models does not change the results, so I present only a full model and a model including interaction effects here.[16]

Finally, PROC TRAJ allows for time-varying factors to be included in the trajectory estimates (Jones et al. 2001), and I use this procedure to examine whether family and religious characteristics alter trajectories over time. Results are unchanged when family and religious factors are entered separately into the models, so I present only a full model here.

RESULTS

A number of steps must be taken to choose the correct group-based trajectory model (Nagin 2005). The first step in the methodology is to specify the number of groups to be included in the model. I use BIC (Bayesian Information

[14] There is a difference of less than 5 percent in the standard errors between multinomial logistic models that control for clustering and those that do not. In fact, most of the standard errors are identical in each model.

[15] Trajectory models can account for missing data through maximum likelihood techniques. For the multinomial logistic models, only a few of the predictors have missing values, all of which are less than 1 percent of total cases. I used regression-based imputation techniques to allow for use of the full sample, and supplementary analyses dropping missing cases produce results similar to those presented here.

[16] I introduced all interaction terms into each model separately, and in the full models presented here I include only interactions that are statistically significant when introduced individually ($p < .05$).

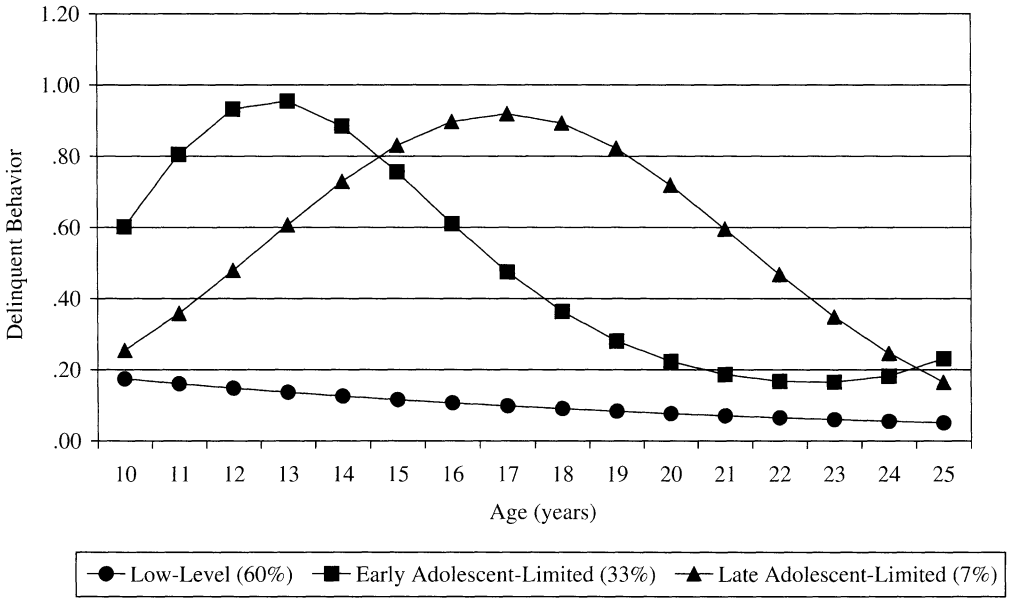

Figure 1. Trajectories of Delinquent Behavior

Criterion) statistics as the primary formal test to determine the optimal number of groups (and the best-fit model, more generally), along with researcher judgment and other diagnostic tests. Once the number of groups is established, the next step is to use BIC statistics and model parameters to specify the correct form of each trajectory (e.g., linear or quadratic).

Starting with a one-group model, I examined trajectory models with varying numbers of groups to find the model with the largest BIC statistic. BIC peaked in a three-group model and declined in models with larger numbers of groups. I thus use a three-group trajectory model for this study, with one group following a cubic trajectory, one group following a quadratic trajectory, and one group following a linear trajectory.[17] Other diagnostic tests provide further support that this is a good-fitting model. For example, Nagin (2005) suggests that the average posterior probability (the average probability, based on an individual's pattern of delinquency, that each individual assigned to a group actually belongs to the group) for each group should be at least .70. The average posterior probabilities of the groups in this study are .82, .71, and .71.

Delinquency Trajectories

Figure 1 displays the trajectories for the three-group model. The majority of youths (60 percent) in this sample are classified as low-level delinquents. Delinquent behavior for this group peaks at age 10, and most of the youths never commit a delinquent act. Two trajectories of adolescent-limited delinquency also emerge: early adolescent-limited delinquent behavior (33 percent of youths) and late adolescent-limited delinquent behavior (7 percent of youths). The late group is similar to Moffitt's (1993) description of adolescence-limited antisocial behavior: delinquent behavior increases in adolescence, peaks in late adolescence, and declines into adulthood. Youths following a trajectory of early-adolescent limited delinquency have the highest average rate of delinquent behavior at age 10, with participation in delinquency peaking at age 13. The pattern of this trajectory is similar to the late adolescent-limited trajectory, but delinquency for youths in the early group peaks four years earlier than for those in the late

[17] The BIC statistics for models with all quadratic trajectories are as follows: one-group = –10827; two-group = –10556; three-group = –10523 (–10518 for the final model used here with one cubic trajectory, one linear trajectory, and one quadratic trajectory); and a four-group model = –10523.

group, and overall rates of delinquency are lower than for youths in the late group.[18] In contrast to my hypothesis, no life-course persistent delinquent group emerges in this sample. Instead, each trajectory group desists from delinquent behavior by age 25, which supports Sampson and Laub's (2005) findings.

Predictors of Delinquency Trajectories

Table 1 shows results from multinomial logistic regression models that predict entry into trajectory groups. Results are presented in the form of odds ratios, which indicate the relative risk of a one-unit change in the independent variable on the likelihood of following a particular trajectory compared with the reference group (i.e., low-level delinquent). For example, Model 1 suggests that family structure is related to delinquency trajectories in the expected direction; youths who reside with stepparents are twice as likely to follow a trajectory of late adolescent-limited delinquent behavior rather than low-level delinquency, compared with youths who reside with two biological parents (exp. $\beta = 2.04$, $p < .01$). Furthermore, youths who reside with single parents are 34 percent more likely to follow a trajectory of early adolescent-limited delinquent behavior (exp. $\beta = 1.34$, $p < .01$) and 46 percent more likely to follow a trajectory of late adolescent-limited delinquency (exp. $\beta = 1.46$, $p < .10$), rather than low-level delinquency, compared with youths who reside with two parents. These results support the hypothesis that residing with two parents may deter youths from becoming involved in delinquent behavior.

Model 1 also shows that family processes and parental resources are associated with delinquency trajectories. As expected, youths who report greater conflict with their parents are more likely to follow a trajectory of early adolescent-limited delinquent behavior than are youths who report lower levels of conflict (exp. $\beta = 1.40$, $p < .01$). There is also some limited support for the idea that involvement in decision-making processes with parents (exp. $\beta = .91$, $p < .10$) and having more educated parents (exp. $\beta = .95$, $p < .05$) reduce the likelihood of following a trajectory of early adolescent-limited delinquency, compared with low-level delinquency. These factors, however, do not differentiate between trajectories of low-level delinquency and late adolescent-limited behavior, providing support for my hypothesis that family processes may be important deterrents of early entry into delinquency but may not protect against involvement in delinquent activity later in adolescence.

Somewhat surprisingly, results in Model 1 also suggest that religious characteristics do not directly influence patterns of delinquency among youths. Supplementary analyses suggest that this is due to the link between family structure and religion; two-parent families are more likely than other family structures to be religious, and controlling for family structure explains away the effect of residing in a religious family environment on delinquency trajectories. To further examine how family and religion may work together to influence delinquency trajectories, I introduce interaction terms in Model 2.

Results in Model 2 provide support for the hypothesis that family and religion may work together to influence delinquency trajectories. The first interaction term provides evidence for the hypothesis that religion may amplify the effect of supportive family practices on delinquency trajectories; the influence of parental affection on delinquency trajectories is dependent on whether the youth is raised in a religious family environment. Although parental affection is not an independent predictor of delinquency trajectories (Model 1), this parenting practice reduces the likelihood of following a trajectory of late adolescent-limited delinquency among youths who are raised in religious families (exp. $\beta = .95$, $p < .05$). Religious parents may attach greater meaning and significance to familial relationships than would nonreligious families (Mahoney et al. 2003), providing a context of social control and integration that may have a long-term influence on youths by deterring them from becoming involved in delinquent behavior.

Supplementary analyses also suggest that parental affection in a religious family reduces

[18] Figure 1 suggests that delinquency increases for the early adolescent-limited group at age 24, but this increase is very minor. Youths in this group committed 32 delinquent acts at age 23, 30 acts at age 24, and 36 acts at age 25.

Table 1. Odds Ratios from Multinomial Logistic Regression Models Predicting Entry into Delinquency Trajectory Groups

	Model 1		Model 2	
	Early Adolescent-Limited	Late Adolescent-Limited	Early Adolescent-Limited	Late Adolescent-Limited
Family Characteristics				
Family Structure[a]				
Stepfamily	1.14	2.04**	1.70	3.31
	(.18)	(.55)	(.58)	(2.13)
Single-parent family	1.34**	1.46	1.84**	3.14*
	(.14)	(.32)	(.41)	(1.46)
Family Processes				
Parental engagement	1.03	1.00	1.03	.99
	(.03)	(.05)	(.03)	(.05)
Parental affection	1.00	.99	1.00	1.01
	(.01)	(.01)	(.01)	(.01)
Parental supervision	.93	.98	.93	.99
	(.04)	(.08)	(.04)	(.08)
Parent–child decision making	.91	.96	.91	.97
	(.05)	(.10)	(.05)	(.10)
Parent–child conflict	1.40***	1.29	1.40***	1.29
	(.11)	(.20)	(.11)	(.20)
Parental Resources				
Parents' education	.95*	1.05	.95*	1.05
	(.02)	(.05)	(.02)	(.04)
Mother's age at birth	1.00	.95	1.00	.95
	(.02)	(.03)	(.02)	(.03)
Religion Characteristics				
Religious family environment	.88	.76	.86	1.06
	(.09)	(.15)	(.11)	(.27)
Parent–child religious heterogamy	1.14	1.38	1.14	1.37
	(.11)	(.23)	(.11)	(.23)
Religious participation	.96	1.05	1.02	1.20*
	(.03)	(.05)	(.04)	(.10)
Control Variables				
Female	.47***	.40***	.47***	.39***
	(.04)	(.07)	(.04)	(.07)
Black	1.39**	.94	1.40**	.96
	(.16)	(.20)	(.16)	(.21)
Latino	1.24	.55*	1.23	.54*
	(.17)	(.15)	(.17)	(.15)
Delinquent peers	1.83***	1.78***	1.83***	1.78**
	(.21)	(.37)	(.21)	(.37)
Interactions				
Religious family environment × parental affection			1.00	.95*
			(.01)	(.02)
Religious participation × stepfamily			.89	.88
			(.08)	(.13)
Religious participation × single-parent family			.91	.80*
			(.05)	(.09)

Notes: N = 2,472. All results account for the clustered nature of the sample; low-level delinquent is used as the reference group. Results are reported in relative risk ratios (odds ratios). These can be interpreted as the relative risk of a one-unit change in a variable on following a trajectory of early-adolescent or late-adolescent delinquent behavior compared with low-level delinquency (standard errors are in parentheses).

[a] Two biological parents is the reference group.

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

the likelihood that youths will follow a trajectory of late adolescent-limited delinquency, compared with a trajectory of early adolescent-limited delinquency (results not shown). This result provides further evidence that supportive parenting practices may be more likely to have a long-term influence on delinquency when they occur within a religious context.

The final interaction provides some support for the hypothesis that religion may act as a buffer against the stresses associated with residing in a single-parent family. This interaction term suggests that religious participation is a stronger deterrent of late adolescent-limited delinquent behavior for youths raised in single-parent families than it is for youths raised by two parents (exp. $\beta = .80$, $p < .05$). Youths raised by single parents may turn to religious institutions to compensate for the support and social control that may be lacking in their homes. Indeed, further analyses suggest that these youths may develop social bonds within religious institutions. Among youths raised in single-parent families, religious participation is more likely to deter them from following a trajectory of late adolescent-limited delinquency when they also have friends who attend the same religious institution (results not shown). These youths may receive support from friends within religious communities that compensates for weaker social bonds within single-parent families and deters youths from becoming delinquent.

Factors that Explain Variation within Trajectory Groups

The remaining results add time-varying factors into the trajectory models to examine the possibility that family and religious changes may alter the shape of delinquency trajectories. Results in Table 2 suggest that youths in each trajectory group have different life experiences throughout adolescence and young adulthood. Not surprisingly, youths following a trajectory of low-level delinquency are less likely to cohabit and more likely to attend religious services than are youths following a trajectory of early or late adolescent-limited delinquent behavior. Whether these factors alter the trajectories that youths follow is examined in Table 3.

Table 3 contains results from models that assess whether family and religious changes alter delinquency trajectories. Overall, results suggest that many of these time-varying factors are not significantly related to delinquent behavior, likely due to sample limitations. Because individuals in this study were followed only into young adulthood, many of them have not yet transitioned into adult roles. Perhaps more importantly, many of the events that are taken to signal adulthood (e.g., marriage) do not occur until the end of this stage in the life course, when rates of delinquency are fairly low across all three trajectory groups. A large percentage of youths in this sample (43 percent), however, have transitioned into parenthood. While this percentage is fairly consistent with the U.S. average age at first birth, which was 25.2 years

Table 2. Mean Values of Time-Varying Factors by Delinquency Trajectory Group

	Low-Level	Early Adolescence-Limited	Late Adolescence-Limited
Family Characteristics			
Family transition (percent ever experienced)	.47	.51	.53
Married (percent ever married)	.20 [b]	.16 [a]	.18
Cohabiting (percent ever cohabiting)	.26 [bc]	.32 [a]	.35 [a]
Living on own (percent ever living on own)	.23 [b]	.27 [a]	.22
Children (percent had at least one child)	.38 [bc]	.48 [a]	.52 [a]
Religion Characteristics			
Religious participation (average across waves)	3.27 [bc]	2.99 [a]	2.99 [a]
Experienced a religious conversion (percent ever)	.60 [b]	.69 [a]	.66

Note: N = 2,472. I used two-tailed t-tests to determine differences between group means.

[a] Significantly different from low-level delinquent ($p < .05$).

[b] Significantly different from early-adolescent limited ($p < .05$).

[c] Significantly different from late-adolescent limited ($p < .05$).

Table 3. Results from Group-Based Trajectory Models of Delinquent Behavior that Include Time-Varying Factors

	Low-Level	Early Adolescent-Limited	Late Adolescent-Limited
Model Parameters			
Intercept	–.84***	–12.92***	–6.99***
	(.25)	(1.58)	(1.31)
Slope	–.73***	25.13***	8.34***
	(.15)	(3.06)	(1.50)
Quadratic		–15.42***	–2.33***
		(1.90)	(.42)
Cubic		2.89***	
		(.38)	
Family Characteristics			
Change in resident parent(s)	.17	.20***	–.32
	(.13)	(.06)	(.20)
Living on own	.11	–.08	–.32
	(.22)	(.16)	(.25)
Married	–1.16**	–.72**	.08
	(.41)	(.27)	(.27)
Cohabiting	–.35	.11	–.55
	(.27)	(.15)	(.35)
Had a child	.19	–.13	–.21
	(.18)	(.11)	(.20)
Religion Characteristics			
Religious participation	–.04	.00	–.15**
	(.03)	(.01)	(.06)
Religious conversion	.25*	.04	–.07
	(.11)	(.05)	(.14)

Note: N = 2,472. All models control for all time-invariant factors included in Table 2 (except for religious participation, which is included as a time-varying factor). The coefficients in this table measure within-trajectory group variation (standard errors are in parentheses).
* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

for women in 2005 (Martin et al. 2005), these numbers likely reflect the relatively disadvantaged sample used for this study. Minority youths and youths with low socioeconomic status are more likely than others to have a child in late adolescence or young adulthood. Overall, though, there is less variation in delinquent behavior both within and between groups in young adulthood, which limits the conclusions that can be drawn.

Nevertheless, there are some interesting findings to note. Among youths in the early adolescent-limited delinquent group, experiencing a change in resident parents is positively related to delinquency (b = .20, $p < .001$). This provides some evidence that family transitions may create stresses that temporarily reduce social control and increase youths' involvement in delinquent behavior. Figure 2 further illustrates this relationship, showing predicted values for a hypothetical comparison of youths who reside in an intact family throughout adolescence with youths who gain or lose a resident parent at age 14.

In addition, results suggest that marriage is associated with lower delinquency among youths following a trajectory of low-level (b = –1.16, $p < .01$) and early adolescent-limited (b = –.72, $p < .01$) delinquency. As expected, marriage may increase social attachments, resulting in lower delinquent behavior. Marriage does not, however, reduce delinquency for youths in the late adolescent-limited group. Because late adolescent-limited youths are the most delinquent in young adulthood, they may not receive the same benefits from marriage as do youths who are less delinquent. Alternatively, the deterrent effect of marriage on delinquency may be more gradual for these youths and not appear until later in adulthood (Laub, Nagin, and Sampson 1998).

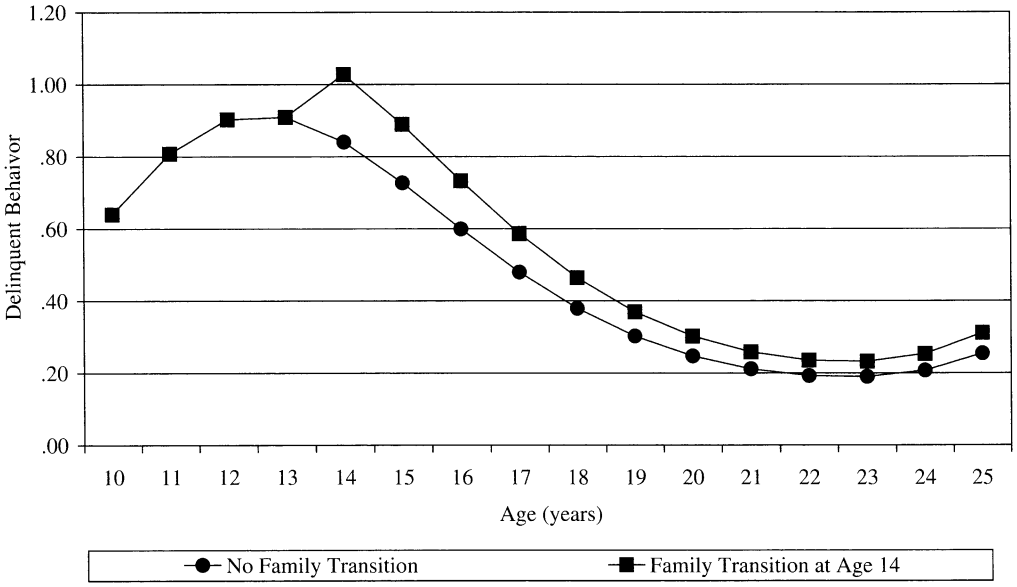

Figure 2. Impact of a Family Transition on Youths Following a Trajectory of Early Adolescent-Limited Delinquency

Results in Table 3 also suggest that religious changes have some influence on delinquency trajectories over time. Religious participation throughout adolescence and young adulthood may provide youths with greater social support and control, resulting in lower delinquent behavior for youths following trajectories of low-level ($b = -.04$, $p < .10$) and late adolescent-limited ($b = -.15$, $p < .01$) delinquency. This support and control may be especially beneficial for youths following a trajectory of late adolescent-limited delinquency; delinquent youths may turn to religion in an attempt to desist from delinquency. Also, in contrast to my hypothesis, there is evidence that switching religious affiliations is associated with increased delinquency among youths in the low-level delinquent group ($b = .25$, $p < .05$). This result suggests that there may be stresses involved with religious conversion. It may take time for youths to learn a new set of beliefs and become fully accepted into a religious community, which may result in higher delinquency during this transition.

DISCUSSION

This study increases our understanding of delinquency trajectories by examining how family and religious characteristics predict and shape patterns of delinquency. Overall, the findings provide some support for my hypotheses, showing that family and religion may be important sources of social control that predict and continually shape delinquency trajectories over the life course.

As expected, a sizeable percentage of youths in this sample (40 percent) follow adolescent-limited trajectories of delinquent behavior. These pathways coincide with those found in most studies of delinquency, suggesting that delinquency increases in adolescence and declines as individuals transition into adulthood. In addition, although I expected to find a group of nondelinquent youths, I did not anticipate that low-level delinquent behavior would comprise the largest group in this sample (60 percent). This is especially surprising given the relatively disadvantaged sample used for this study. Other studies, however, have found similarly large groups of low-level offenders (Piquero 2008), suggesting that infrequent participation in delinquent activity may be the norm. The lack of a life-course persistent group is also surprising. Although this finding corresponds to research suggesting that all individuals eventually desist from delinquent behavior (Sampson and Laub 2005), it is possible that individuals may be engaging in different types of delinquency in young adulthood that are not captured

with the measures of delinquent behavior used in this study. Future research should examine whether the lack of a life-course persistent group and a large group of low-level delinquents exist for other types of delinquent activity.

In addition to examining patterns of delinquency among youths, the main contribution of this study is the evidence that family and religious characteristics influence the delinquency trajectories that youths follow. As expected, family structure and family processes are important predictors of delinquency trajectories. During adolescence, individuals begin to search for a personal identity and try to assert their independence. Parents play a key role in influencing their children's development, especially in providing social support and social control. Two parents may be better able than other family structures to provide the support and control necessary to deter youths from becoming delinquent. Moreover, parents who argue less frequently with their children may be better able to exert social control over them, preventing their children from becoming involved in delinquent behavior early in adolescence.

Results from this study also show that family and religion work together to influence delinquency trajectories in two key ways. First, religion may enhance family processes that reduce delinquency. The combination of religion and supportive parenting practices may help increase youths' feelings of social support during an often difficult life-course stage. Moreover, placing these interactions within a religious context may act as a strong mechanism of social control, deterring youths from becoming delinquent later in adolescence. Second, the social integration and control that religious institutions provide may compensate for a lack of support that some youths may experience in their home environments. It is therefore important to consider the context of family and religious processes for youths. The framework that parents use to interact with their children (e.g., religious versus nonreligious), and the family context within which youths attend religious services (e.g., single-parent versus two-parent family) may have unique effects on delinquent behavior.

In support of life-course theory, results from this study also suggest that the trajectories that people follow are not immutable; family and religious changes alter delinquency trajectories, and the effect that these changes have on delinquency are dependent on the trajectory that one follows. During adolescence, a parental divorce or remarriage may be a disruptive force in a youth's life that weakens social bonds, reducing social control and increasing delinquent behavior. Also, the increased social support and control that youths receive from a spouse may lead them to desist from delinquency after marriage, but only if they are following a trajectory of less frequent delinquency. Finally, youths may turn to religious institutions for social control and integration throughout adolescence and young adulthood, which may lead to lower delinquency.

Despite the various strengths of this study, some limitations must be acknowledged. One limitation is the measure of delinquent behavior used; focusing on only three types of delinquency and not accounting for changes in the types of acts that youths commit over time may underestimate delinquent behavior. However, this measure can assess differences in rates of delinquency, and similar measures have been used in other studies focusing on the influence of family and religion on delinquent behavior (Pearce and Haynie 2004; Regnerus 2003). Moreover, this indicator of delinquency is well suited for group-based trajectory models because the questions remain fairly consistent throughout the survey. Nevertheless, future research should explore how the relationships among family, religion, and delinquency may be different for more normative delinquent activities such as substance use.

Another limitation is the lack of information from youths before the age of 10 and after age 25. Moffitt (1993) suggests that predictors of delinquency may appear early in childhood, which might help explain why each of the trajectories have different starting points.[19] Moreover, there is little variation in delinquent behavior among this sample in early adulthood, making it difficult to assess the influence of adult transitions on these trajectories. Following this sample further into adulthood may help to better understand these life transitions.

[19] I included childhood problem behavior in supplementary models, but this did not change the results.

This study is also limited by the sample used in these analyses. Because youths had to have made the transition into young adulthood by 2004, there is a bias toward youths with young mothers. It is thus likely that this sample is relatively disadvantaged in regard to mothers' maturity, as well as financial and social resources available to youths. Indeed, there is some evidence that these youths are more likely to be disadvantaged in early adolescence compared with other youths in the NLSY79 Child and Young Adult cohort. As a result, youths in this study are more likely to hurt someone badly than to steal or vandalize property in early adolescence, and they have a fairly high rate of childbirth in late adolescence and young adulthood.

Despite these limitations, a number of strengths in this study contribute to the literature on delinquency, as well as the research on family and religion. The use of national longitudinal data improves on past studies of delinquency that focus only on small samples or outcomes at one point in time. Similarly, these data allow for a rich analysis of how various factors might predict and shape delinquency trajectories from early adolescence to young adulthood. Specifically, this study supports life-course theory in showing that life events and individual choices play an important role in shaping people's lives. The results increase our understanding of how family and religion work together to shape individual trajectories over the life course.

Overall, this study suggests that the family and religious environments that youths reside in early in life can have long-term consequences for their participation in delinquent activity and that family and religious changes can alter pathways of delinquency over time. Furthermore, the results suggest that it is essential to consider the family context within which religious attitudes and behaviors exist; religion may amplify the effect of parenting practices on delinquency by adding greater meaning to these relationships, and religious participation may also compensate for some families' lack of resources by providing youths with social support and control.

Richard J. Petts *is an Assistant Professor of Sociology at Ball State University. His main research interests focus on the intersection of family and religion, and recent studies in these areas have been published in the* Journal for the Scientific Study of Religion *and the* Journal of Family Issues.

APPENDIX

Table A1. Number of Delinquent Acts Committed by Youth during Each Observed Age

	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Assault	219	229	253	240	180	115	140	110	149	111	159	132	127	76	77	49
Percent of total delinquent acts	53.94	55.31	50.30	41.74	38.30	26.38	32.41	32.93	46.56	56.06	72.60	89.19	89.44	90.48	96.25	92.45
Vandalism	74	63	111	140	132	157	136	99	66	40	21	3	0	0	0	0
Percent of total delinquent acts	18.23	15.22	22.07	24.35	28.09	36.01	31.48	29.64	20.63	20.20	9.59	2.03	0	0	0	0
Theft	113	122	139	195	158	164	156	125	105	47	39	13	15	8	3	4
Percent of total delinquent acts	27.83	29.47	27.63	33.91	33.62	37.61	36.11	37.43	32.81	23.74	17.81	8.78	10.56	9.52	3.75	7.55
Total number of delinquent acts	406	414	503	575	470	436	432	334	320	198	219	148	142	84	80	53
Sample size	1,148	1,092	1,266	1,157	960	970	1,114	994	1,203	957	1,253	964	837	603	591	346

Note: N = 2,472. Youths were interviewed biennially, so each youth was interviewed either at odd ages (e.g., 11, 13, 15) or even ages (e.g., 10, 12, 14). The maximum sample size at any given age is approximately 1,246 (slightly more than half of the youths were interviewed at even ages, which explains the higher sample size at age 12).

REFERENCES

Bader, Christopher D. and Scott A. Desmond. 2003. "Family as Moral Community: Does the Effect of Youth Religiosity on Delinquency Depend on the Religiosity of Parents?" Paper presented at the annual meeting of the American Society of Criminology, Denver, CO, November 19 to 22.

Baier, Colin J. and Bradley R. E. Wright. 2001. "'If You Love Me, Keep My Commandments': A Meta-Analysis of the Effect of Religion on Crime." *Journal of Research on Crime and Delinquency* 38:3–21.

Benda, Brent B. and Robert Flynn Corwyn. 1997. "A Test of a Model with Reciprocal Effects between Religiosity and Various Forms of Delinquency Using 2-Stage Least Squares Regression." *Journal of Social Service Research* 22:27–52.

Blokland, Arjan A. J. and Paul Nieuwbeerta. 2005. "The Effects of Life Circumstances on Longitudinal Trajectories of Offending." *Criminology* 43:1203–40.

Center for Human Resource Research. 2006. *NLSY79 Child and Young Adult Data Users Guide.* Columbus, OH: The Ohio State University

Chung, Ick-Joong, Karl G. Hill, J. David Hawkins, Lewayne D. Gilchrist, and Daniel S. Nagin. 2002. "Childhood Predictors of Offense Trajectories." *Journal of Research in Crime and Delinquency* 39:60–90.

Demuth, Stephen and Susan L. Brown. 2004. "Family Structure, Family Processes, and Adolescent Delinquency: The Significance of Parental Absence versus Parental Gender." *Journal of Research in Crime and Delinquency* 41:58–81.

Duncan, Greg J., Bessie Wilkerson, and Paula England. 2006. "Cleaning Up Their Act: The Effects of Marriage and Cohabitation on Licit and Illicit Drug Use." *Demography* 43:691–710.

Durkheim, Emile. [1897] 1951. *Suicide.* New York: Free Press.

Elder, Glen H. 1998. "The Life Course as Developmental Theory." *Child Development* 69:1–12.

Farrington, David P., ed. 2005. *Integrated Developmental & Life Course Theories on Offending: Advances in Criminological Theory.* Vol. 14. New Brunswick, NJ: Transaction Publishers.

Gottfredson, Michael R. and Travis Hirschi. 1990. *A General Theory of Crime.* Stanford, CA: Stanford University Press.

Hirschi, Travis. 1969. *Causes of Delinquency.* Berkeley, CA: University of California Press.

Hirschi, Travis and Michael Gottfredson. 1983. "Age and the Explanation of Crime." *American Journal of Sociology* 89:552–84.

Johnson, Byron R. 2004. "Religious Programs and Recidivism among Former Inmates in Prison Fellowship Programs: A Long-Term Follow-Up Study." *Justice Quarterly* 21:229–354.

Johnson, Byron R., Sung Joon Jang, David B. Larson, and Spencer De Li. 2001. "Does Adolescent Religious Commitment Matter? A Reexamination of the Effects of Religiosity on Delinquency." *Journal of Research on Crime and Delinquency* 38:22–43.

Jones, Bobby L., Daniel S. Nagin, and Kathryn Roeder. 2001. "A SAS Procedure Based on Mixture Models for Estimating Developmental Trajectories." *Sociological Methods and Research* 29:374–93.

King, Ryan D., Michael Massoglia, and Ross Macmillan. 2007. "The Context of Marriage and Crime: Gender, the Propensity to Marry, and Offending in Early Adulthood." *Criminology* 45:33–65.

Kirby, James B. 2006. "From Single-Parent Families to Stepfamilies: Is the Transition Associated with Adolescent Alcohol Initiation?" *Journal of Family Issues* 27:685–711.

Laub, John H., Daniel S. Nagin, and Robert L. Sampson. 1998. "Trajectories of Change in Criminal Offending: Good Marriages and the Desistance Process." *American Sociological Review* 63:225–38.

Laub, John H. and Robert L. Sampson. 2003. *Shared Beginnings, Divergent Lives: Delinquent Boys to Age 70.* Cambridge, MA: Harvard University Press.

Loveland, Matthew T. 2003. "Religious Switching: Preference Development, Maintenance, and Change." *Journal for the Scientific Study of Religion* 42:147–57.

Mahoney, Annette, Kenneth I. Pargament, Aaron Murray-Swank, and Nichole Murray-Swank. 2003. "Religion and the Sanctification of Family Relationships." *Review of Religious Research* 44:220–36.

Martin, Joyce A., Brady E. Hamilton, Paul D. Sutton, Stephanie J. Ventura, Fay Menacker, and Martha L. Munson. 2005. "Final Data for 2003." *National Vital Statistics Reports* 54:2. Hyattsville, MD: National Center for Health Statistics.

McLanahan, Sara and Gary Sandefur. 1994. *Growing up with a Single Parent: What Hurts, What Helps.* Cambridge, MA: Harvard University Press.

McNulty, Thomas L. and Paul E. Bellair. 2003. "Explaining Racial and Ethnic Differences in Serious Adolescent Violent Behavior." *Criminology* 41:709–47.

Moffitt, Terrie E. 1993. "Adolescence-Limited and Life-Course-Persistent Antisocial Behavior: A Developmental Taxonomy." *Psychological Review* 100:674–701.

Myers, Scott M. 1996. "An Interactive Model of Religiosity Inheritance: The Importance of Family

Context." *American Sociological Review* 61:858–66.

Nagin, Daniel S. 1999. "Analyzing Developmental Trajectories: A Semi-Parametric, Group-Based Approach." *Psychological Methods* 4:139–77.

———. 2005. *Group-Based Modeling of Development.* Cambridge, MA: Harvard University Press.

Nagin, Daniel S. and Kenneth C. Land. 1993. "Age, Criminal Careers, and Population Heterogeneity: Specification and Estimation of a Nonparametric, Mixed Poisson Model." *Criminology* 31:327–61.

Osgood, D. Wayne. 2005. "Making Sense of Crime and the Life Course." *Annals of the American Academy of Political and Social Science* 602:196–211.

Pearce, Lisa D. and Dana L. Haynie. 2004. "Intergenerational Religious Dynamics and Adolescent Delinquency." *Social Forces* 82:1553–72.

Petts, Richard J. 2007. "Religious Participation, Religious Affiliation, and Engagement with Children among Fathers Experiencing the Birth of a New Child." *Journal of Family Issues* 28:1139–61.

Piquero, Alex R. 2008. "Taking Stock of Developmental Trajectories of Criminal Activity over the Life Course." Pp. 23–78 in *The Long View of Crime: A Synthesis of Longitudinal Research,* edited by A. M. Liberman. New York: Springer.

Pogarsky, Greg, Terence P. Thornberry, and Alan J. Lizotte. 2006. "Developmental Outcomes for Children of Young Mothers." *Journal of Marriage and Family* 68:332–44.

Raudenbush, Stephen W. 2001. "Toward a Coherent Framework for Comparing Trajectories of Individual Change." Pp. 35–64 in *New Methods for the Analysis of Change,* edited by L. M. Collins and A. G. Sayer. Washington, DC: American Psychological Association.

Rebellon, Cesar J. 2002. "Reconsidering the Broken Homes/Delinquency Relationship and Exploring its Mediating Mechanisms." *Criminology* 40:103–136.

Regnerus, Mark D. 2003. "Religion and Positive Adolescent Outcomes: A Review of Research and Theory." *Review of Religious Research* 44:394–413.

Regnerus, Mark D. and Christian Smith. 2005. "Selection Effects in Studies of Religious Influence." *Review of Religious Research* 47:23–50.

Regnerus, Mark D. and Jeremy E. Uecker. 2006. "Finding Faith, Losing Faith: The Prevalence and Context of Religious Transformations during Adolescence." *Review of Religious Research* 47:217–37.

Sampson, Robert J. and John H. Laub. 1993. *Crime in the Making: Pathways and Turning Points through Life.* Cambridge, MA: Harvard University Press.

———. 2005. "A Life-Course View of the Development of Crime." *The Annals of the American Academy of Political and Social Science* 602:12–45.

Sampson, Robert J., John H. Laub, and Christopher Wimer. 2006. "Does Marriage Reduce Crime? A Counterfactual Approach to Within-Individual Causal Effects." *Criminology* 44:465–508.

Simons, Ronald L., Leslie Gordon Simons, Callie Harbin Burt, Gene H. Brody, and Carolyn Cutrona. 2005. "Collective Efficacy, Authoritative Parenting and Delinquency: A Longitudinal Test of a Model Integrating Community- and Family-Level Processes." *Criminology* 43:989–1029.

Simons, Ronald L., Leslie Gordon Simons, Yi-Fu Chen, Gene H. Brody, and Kuei-Hsiu Lin. 2007. "Identifying the Psychological Factors that Mediate the Association between Parenting Practices and Delinquency." *Criminology* 45:481–517.

Simons, Ronald L., Chyi-In Wu, Rand D. Conger, and Frederick O. Lorenz. 1994. "Two Routes to Delinquency: Differences between Early and Late Starters in the Impact of Parenting and Deviant Peers." *Criminology* 32:247–76.

Smith, Christian. 2003. "Theorizing Religious Effects among American Adolescents." *Journal for the Scientific Study of Religion* 42:17–30.

Stark, Rodney. 1996. "Religion as Context: Hellfire and Delinquency One More Time." *Sociology of Religion* 57:163–73.

Steinberg, Laurence. 2001. "We Know Some Things: Parent-Adolescent Relationships in Retrospect and Prospect." *Journal of Research on Adolescence* 11:1–19.

Thomson, Elizabeth, Thomas L. Hanson, and Sara S. McLanahan. 1994. "Family Structure and Child Well-Being: Economic Resources vs. Parental Behaviors." *Social Forces* 73:221–42.

Thornton, Arland. 1985. "Reciprocal Influences of Family and Religion in a Changing World." *Journal of Marriage and the Family* 47:381–94.

Unnever, James D., Francis T. Cullen, and Robert Agnew. 2006. "Why is 'Bad' Parenting Criminogenic? Implications from Rival Theories." *Youth Violence and Juvenile Justice* 4:1–31.

Warr, Mark. 1993. "Parents, Peers, and Delinquency." *Social Forces* 72:247–64.

Wilcox, W. Bradford. 1998. "Conservative Protestant Childrearing: Authoritarian or Authoritative?" *American Sociological Review* 63:796–809.