THE REPRODUCTION OF FATHERHOOD: A CAUTIONARY TALE

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Abstract

With the rise in out-of-wedlock childbearing and divorce in the last quarter of the 20th century, an increasing proportion of children have been exposed to a variety of new family forms. Considerable research has focused on females, but little has focused on what factors in the childhood home lead males to become young fathers, and particularly nonresidential fathers. The transition to fatherhood is likely influenced by family structures and transitions experienced in childhood. In order to understand and alleviate the effects of childhood family structure, it is also important to examine the effects of economic deprivation, parenting processes, and adolescent behavior on this transition. This paper focuses on how family structure and processes shape the transition to problematic fatherhood—early and particularly nonresidential—among a relatively disadvantaged group of young men. The data come from the linked Child-Mother and Young Adult Samples of the NLSY79, which provide information on the children of the women of the NLSY79 from birth until they enter young adulthood. The results suggest that males growing up with a single parent or in an unstable family transition to fatherhood early, particularly nonresidential fatherhood, but these effects are mediated by economic deprivation, parenting processes, and adolescent behaviors.

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With the loosening of childbearing ties to marriage in the last quarter of the 20th century due to the rise in out-of-wedlock childbearing and divorce, an increasing proportion of children have been exposed to a variety of new family forms and experiences, often within a few years. Young people growing up outside traditional families may reproduce the same patterns as they form their own families. The transition to early motherhood has been shown to be influenced by experiences in the family of origin, including childhood income and family structure, but little is known about the influences of these experiences on men's transitions to early fatherhood. It is important to understand how fertility patterns are reproduced through men's behavior, and how early experiences with nontraditional family structures may affect young men's own transitions into fatherhood, particularly nonresidential fatherhood. It is likely that the pathways that connect the structural dimensions of childhood family context for two generations are shaped by family economic context and mediated through parent-child relationships and the ability of parents to work cooperatively, as well as by young men's adolescent behaviors.

This paper focuses on how family structure, family income, family processes, and early adolescent experiences shape the transition to early fatherhood—residential and nonresidential—among a relatively disadvantaged group of young men. The data come from the linked Child-Mother and Young Adult samples of the NLSY79, which together provide information on the children of the women of the NLSY79 from birth through young adulthood.

Background

Little was known about men's transition to fatherhood, in part because their reports were incomplete and often inaccurate (Shryock, Siegel and Stockwell 1976; Rendall, et al. 1999). However, in the past few years there has been a dramatic expansion in research on this issue, showing increased recognition that social aspects of fertility and parenthood cannot be understood without understanding men's motivations and behavior (Goldscheider and Kaufman 1996). Most research, however, has focused on becoming a father (Pears, et al. 2005; Parke 1996; Xie, Cairns and Cairns 2001); much less research has focused on distinguishing between residential and nonresidential fatherhood (Forste and Jarvis 2007; Mott 1990).

Increases in relationship instability and in the proportion of children living with a single mother are consistent with a decline in the likelihood that men live with their children (Hogan and Goldscheider 2001). The decline may be overestimated, however, as many single mothers are cohabiting, often with their children's father (Mincieli, et al. 2007). Hence, although there are similarities, in that the separation of marriage and parenthood is proceeding for men as it has for women, differences between men and women due to gendered custody patterns mean that male patterns of fatherhood are necessarily different. It is important to learn more about the determinants of this dimension of family change from the perspective of men.

Like early motherhood, early fatherhood, even if residential, is likely to lead to problems for young parents, as such unions are likely to both be unstable (Manning, Smock and Majumdar 2004) and require long-term financial commitment, reducing young men's financial security and ability to invest in their own human capital (Manning and Smock

2000). For some young men, however, residential fatherhood might increase their future adult success, as having a child and a partner may motivate settling down (Sampson and Laub 1993). This paper develops hypotheses from research on the consequences of family structure, together with social and economic theories, to explain men's early transitions to first fatherhood, either as a residential or nonresidential father.

CHILDHOOD FAMILY STRUCTURE

The literature on the consequences of childhood family structure has identified four pathways of impact, focusing on 1) deficits in family capital, 2) disruption to normal routines, 3) role modeling, and 4) selectivity (Amato 2000; McLanahan and Sandefur 1994; Albrecht and Teachman 2003; Teachman 2004).

1. Parental deficits: Nontraditional families ordinarily provide less parental input than stable two-parent families, because most children experience living with a single parent at least for a while during a transition and new stepparents normally provide less positive parenting during the early years, as they take a while to be socialized (or to socialize others) into consistent, supportive parental patterns. Stepfathers have been shown to engage in less monitoring, at a minimum (Hofferth, et al. 2006), and to have less warm relationships with their stepchildren than residential biological fathers (Hetherington, Bridges and Insabella 1998).

2. Disruption: Most changes in family structure involve more disruptions than just changes in parents (both additions and subtractions), as it is often necessary to move. Children not only change family members, losing/adding parents, stepparents, step- and half-siblings, they often also change neighborhoods and school systems, losing relationships with

neighbors, peers, and school communities. Many youth may wish to simply escape from unstable families and be willing to establish whatever relationships they can to regain a sense of stability. That may involve fathering a child in or out of a relationship. In addition, the types of partners such youth may be able to attract may not be conducive to stable relationships. Many families experience short term separations and some experience a divorce followed by a stable remarriage. A large number of transitions is likely to be more destabilizing than only a few transitions (Wu 1996).

3. Role modeling (socialization): Social learning theory suggests that the family type while growing up may be related to family roles in young adulthood (Caspi and Elder 1988; Sroufe and Fleeson 1988). It is likely that youth growing up with a single mother may learn relationship habits, skills, and expectations that make forming such families themselves likely. Analysts tend to see such exposure as negative, since the outcomes of nontraditional family forms they study (nonmarital childbearing, cohabitation, school dropout) are problem outcomes, but some work suggests that such exposure can be helpful, to the extent that *traditional* family patterns are problematic. Those who grew up outside a stable, two-parent family hold more egalitarian attitudes and create more egalitarian families (Goldscheider and Waite 1991), are more willing to become stepparents (Goldscheider and Kaufman 1996) and actually are more likely to do so (Goldscheider and Sassler 2003). In the case of potential fatherhood, the arrival of a new baby half-sibling in adolescence might lead to a greater interest in fatherhood.

4. Selectivity: There is also substantial concern in the research literature that, even controlling for many of the correlates of family disruption, the 'consequences' observed may reflect differences between parents who take the traditional path and other parents. We can

control a rich set of measures of resources in childhood; however, it is likely that there are also unmeasured differences.

There is some evidence that young men who grew up without their biological fathers are more likely to become young fathers and less likely to become residential fathers than nonresidential fathers (Barber 2001). They have seen and learned less about two-parent family life, they may have been exposed to less functional alternative family forms, and they may have experienced conflict and other stresses from which they wish to escape (Amato 2000). Individuals who experienced living with a stepparent as children might transition to partnerhood and parenthood early either because of exposure to sexual activity at home or because of conflicts within the family (Amato 2000). It is important to understand more fully the pathways that lead some young men who experienced unconventional family forms to become young fathers, and whether they do so as residential or nonresidential fathers.

RESOURCES IN CHILDHOOD

The theoretical framework drawn from socioeconomic perspectives argues that family resources are critical in shaping how young men become parents and how involved they are in rearing children. The production of high-quality children requires investments of both money and time, i.e., "involved" and ordinarily residential parenthood (Haveman and Wolfe 1994). Young men who were reared in economically disadvantaged households, as proxied by a lower level of education of mother and father and by lower household income over the childhood years, will be more disadvantaged in young adulthood and, as a consequence, more likely to have children at a young age and more likely to be nonresidential fathers. There is substantial evidence that children growing up with a single mother have fewer resources during their childhood (Duncan and Brooks-Gunn 1997). Besides affecting human capital

formation, low family resources limit the extent to which youth benefit from remaining close to their family of origin.

FAMILY PROCESSES: PARENTING PRACTICES AND COPARENTING

The child development literature emphasizes the importance of three key dimensions of parenting for adolescent development: warmth or closeness, monitoring and control, and autonomy granting (Maccoby and Martin 1983; Steinberg, Elmen and Mounts 1989; Steinberg and Darling 1994). Warmth or closeness, defined as feelings of warmth, acceptance, connectedness, affection, responsiveness, supportiveness, and attachment, measures emotional involvement in a child's life. Monitoring or control is defined as parents' attention to and tracking of their children's whereabouts and activities (Dishion and McMahon 1998). Autonomy-granting encourages the development of children's decision-making skills, opinions, and beliefs (Galambos and Ehrenberg 1997; Steinberg 2001). These dimensions comprise "parenting style."

Here we examine the warmth dimension separately but combine the monitoring and autonomy dimensions, given the ages of these young men. The combination of high parental monitoring and high autonomy granting constitutes "authoritative parenting." This should result in the most favorable adolescent development, and, we expect, a slower transition to fatherhood, particularly nonresidential fatherhood. The authoritarian combination, characterized by high monitoring but low autonomy granting, in contrast, should lead to a faster transition to fatherhood, increasing nonresidential fatherhood either as a form of acting out or just to get out of the home. The permissive style is characterized by low monitoring; it is likely to be associated with a faster transition to nonresidential parenthood, but less so than the authoritarian style, as such youth do not need to leave the home.

Although early research focused primarily upon the mother's parenting, recent research has examined the effect on children's behavior of authoritative parenting of mothers and fathers. Some of this research suggests that both parents contribute independently (Carlson 2006), but others suggest that having one parent who is authoritative is sufficient (Fletcher, Steinberg and Sellers 1999; King 2006; Simons and Conger 2007). Because closeness to parents declines as children enter adolescence (Hofferth and Anderson 2003), the monitoring and autonomy dimensions of authoritative parenting are expected to be more important influences on children's transitions into adulthood. However, research shows that closeness to parents continues to reduce adolescent behavior problems, and that boys may benefit more than girls from close relationships (King 2006a; King 2006b).

The extent to which partners or former partners cooperate in parenting their children affects father-child relationship quality and responsive fathering (Hofferth, et al. 2006; Sobolewski and King 2005). Recent research has also shown that cooperative parenting reduces behavior problems of adolescents even if they are not living with their father (King 2006a; King 2006b). Therefore, it should also reduce early transitions to fatherhood and, particularly, nonresidential fatherhood.

ADOLESCENT BEHAVIOR

Certain behaviors of adolescents are excellent indicators of their risk of fathering a child. The most important indicator is whether or not the adolescent reports being sexually active at a young age. Youth who begin sexual activity at an early age have an elevated chance of fathering a child, both because of increased partner exposure to the risk of pregnancy and because of inadequate contraception (Barber 2001; Albrecht and Teachman 2003). Because adequate contraceptive use requires planning and control, children who feel

that they have control over their environments should be more likely to use contraception and hence be less likely to father a child (Pears, et al. 2005). Children whose activities are limited because of health problems may be less likely to father a child because they may be less socially experienced.

Early childbearing is part of a set of activities that indicate an early transition to adulthood. Children who engage in other adult-like and less normative behaviors for teens and who are oriented more outside of school than towards school pursuits are likely to be precocious in sexual activity (Pears, et al. 2005). Jaffee and colleagues. (Jaffee, et al. 2001) found that having a "conduct disorder" increased young men's likelihood of becoming a father in the United Kingdom. Hence, such behaviors as drinking, staying out past curfew, skipping school, lying, and fighting should increase the chance of having a child, particularly a nonresidential child (Dearden, Hale and Blankson 1994; Thornberry, Smith and Howard 1997; Pears, et al. 2005).

We also include several protective factors. Research has shown that involvement in clubs and organizations is associated with better grades and reduced behavior problems in high school (Eccles and Barber 1999); positive attitudes towards school should also be associated with delaying early sexual activity and serve a protective function. Attendance at religious services has also been found to be associated with delayed and reduced sexual activity, and, therefore, childbearing (Udry and Billy 1987).

OTHER FAMILY BACKGROUND AND CONTROL VARIABLES

Regional factors such as residence in the South or in an urban area may affect the timing of the transition into fatherhood. Urban residence may be linked to an early transition to problematic adulthood because of access to city "distractions," the greater difficulty of

monitoring/supervision, and because of modeling the sexual norms and values of urban underclass youth (Thornberry, Smith and Howard 1997). In contrast, southern norms and values may be more protective of delaying childbearing, given that young adults living in the south follow more traditional family pathways (Goldscheider and Waite 1991).

Young men who were children of women who began childbearing as teenagers are also likely to be disadvantaged and are expected to be more likely to be young fathers and to be nonresidential fathers, again because of lack of role models or because of pressure on family resources (Barber 2001; Albrecht and Teachman 2003). Both sons and daughters of mothers who bore a child at an early age also had an early first birth, although Barber suggests that this effect only characterizes births that were premaritally conceived. Even after controlling for socioeconomic and regional differences, African American males are expected to be more likely to bear a child out-of-wedlock than non-Hispanic whites. A critical dimension found in most of the literature on factors reducing investment in children is maternal depression (McLoyd 1990; Yeung, Linver and Brooks-Gunn 2002). Young men who grew up with a mother with a higher depression score are expected to be more likely to become young fathers and less likely to live with their children than those who did not grow up with such a mother.

HYPOTHESES

The following summarizes our theoretical expectations.

1. Parenting deficit. Children growing up in families with no father are likely to experience the transition to fatherhood earlier, particularly nonresidential fatherhood.

2. Disruption. More parental family structure transitions should be associated with a greater chance of fatherhood, overall.
3. Role modeling. More exposure to a single mother family should be associated with transitions to nonresidential fatherhood. In contrast, exposure to two biological parents should be associated with delayed transition to fatherhood. Having a sibling born into the family during adolescence should be associated with more residential fatherhood transitions, as children may be socialized into wanting a large family with many children.
4. Family process and adolescent behavior. There are two potential explanations for the effects of family structure: first, family processes may be altered by the presence or absence of family members such as stepfathers, stepchildren. Second, family structure may not directly influence early fatherhood, but work indirectly through the behavior of the adolescent himself. The extent to which the effects of family structure are reduced upon inclusion of family process and adolescent measures will provide evidence of mediation.
5. Selectivity. Controlling for factors associated with both family structure transitions and early transitions to fatherhood should reduce some of the impact of family structure on transitions to fatherhood. We are able to include many such factors, including low education and income, minority race/ethnicity, southern and urban residence, maternal work hours when the child was growing up, age of the mother at first birth, and maternal depression. Except for maternal depression, these factors are measured over the entire lifetime of the child; thus, they considerably predate his transition to young fatherhood and adjust for selectivity into different family structures.

Data, Measures and Methods

DATA

The data come from the 1979 National Longitudinal Survey of Youth (NLSY79), which has collected data annually through 1994 and then biannually to the present. We examine them through 2004. Beginning in 1986, the NLSY79 obtained detailed information from the mothers and standardized assessments of the children of female NLSY respondents (the Child-Mother study) every two years, and in 1988 began interviewing children themselves as they entered their teen years (ages 10-14).

Starting in 1994, children 15 and older were interviewed using questionnaires similar to those given their mothers, and beginning in 2000, Frank Mott and colleagues at Ohio State University began to interview these young adults as a separate research project, the Young Adult Study (Mott 2002). From this survey we drew information on two generations in order to examine factors in childhood and adolescence that affect young men's transition to fatherhood: the women who were 14 to 21 in 1979 and the subjects of the original study, whom we call the "mothers," and those women's sons, whom we observe in their late teens and early twenties, now called "young adults." Because we wanted to include information on the full childhood of each young man, we could not include those older than age 26; they would have been born prior to 1978, the earliest year for which complete data on their mothers were collected in the first, 1979, survey.

The oldest young adults were the children of early childbearers; therefore, this cohort of young men is disproportionately drawn from more disadvantaged families. Even so, most

had not yet become fathers. We have a sample of 2,584 young adult men who were ever 14 to 26 in one of the years from 1988 to 2004; they averaged 19.6 years of age in 2004. Of these, 2,190 (85%) reported no children. The average age at first birth of the mothers of the young adults in this sample was 20.5 years of age, well below the average of 23.5 in 1984 (Mathews and Hamilton 2002). Reflecting the high proportion born to young mothers and the original oversample of minorities, the proportion of black and Hispanic young adults is substantial. One-third of the sample was black and 24 percent was Hispanic (unweighted n's). As the data collection continues, the sample will include more young men who were born to non-teenage mothers, making it more representative of all young adult males (Mott 2002). All data are weighted to represent the national population of young men of the appropriate ages.

MEASURES

The Outcome Variables

Our outcome measures focus on the timing of first childbearing and on residence at first birth. The 2004 Young Adult fertility and relationship data were used to obtain young men's age at birth of the first biological child. Individual annual files were checked to obtain information on whether the young man resided with his child at the time of birth. Because births occur between survey waves, the residence was determined as of the first wave following childbirth. We include as residential fathers all young men living with their children around the time of birth, whether or not the mother of those children was there.

The Independent Variables

Family structure. Our indicators or family structure include the number of children, the presence/absence of the biological father, and the number of transitions, all obtained from the household record information each wave. As a consequence of the design of the mother-

child sample, sons who did not live with their mothers in childhood were not interviewed. Because of the importance of experiences during the 10-14 age period on whether young men become fathers, we included two variables: whether the number of children in the household increased (nearly all of whom are babies) and whether the number of children in the household declined. The omitted category is no observed change in number of children.

Family structure information was obtained for all years available for the young adult between 0 and 14. We examined biological father and stepfather transitions. For those with no transitions, we distinguished cases where the biological father was in the household for all years when the young adult was 0-14 (39 percent) and those in which the biological father was never in the household over the 0-14 period and no stepfather was ever in the household (9 percent).[1] Those who had some transitions were divided into having experienced 1 to 3 transitions (40 percent) and having experienced 4 or more transitions, with a maximum of 11 (12 percent). A divorce and a remarriage create 2 transitions, and many families experienced 1 additional transition such as a temporary separation. Because some individuals were missing several years of data and because a transition was only counted using stated data, we created family structure indicators only if we had a minimum of three years of stated data. Twenty young men had missing data due to this criterion.

Childhood Background. Complete information on family background was important to provide the context within which family structural changes and parenting occur and children grow from infancy to adulthood. Because the survey contains information on family history going back to birth, it was possible to compute average values across the entire period

[1] These percentages are based on unweighted person data; the proportions differ slightly from the person-year means.

for such items as family income, the education of the residential father, and the mother's work hours, providing a more stable summary of early experiences. These variables, along with the proportions of years in the south and the proportion of years in urban areas, were calculated from birth to age 14. We also included indicators for Hispanic and nonHispanic black race/ethnicity (versus nonHispanic white and other).

Fathers generally provide most of a family's income. We include a measure of father's income, together with his educational level (the highest grade completed). Paternal characteristics are defined as characteristics of the residential father, either the biological father or the stepfather (married or unmarried) when the young man was growing up. The education of spouse/partner of the mother was averaged over all the years in which the young adult was 0-14. The variable provides an indicator of the level of male social and human capital to which the young man was exposed. If there was no spouse or partner present in any year, the average years of paternal education over all young men was substituted. We control for whether a father was ever present in the set of family structure variables. Similarly, the average income of the spouse or partner was obtained across all years in which the child was 0-14. If no spouse or partner was ever present, an average across all young men was substituted.

We used the average weekly work hours of the mother to indicate her contribution to the family's economic well-being. This measure was based on average annual hours across all years in which the young adult was 0-14 years of age. Employment hours, together with education, provide a good indication of her earnings. Given the correlation between mothers' and fathers' educational levels, it was redundant to include the mother's education. Average

annual maternal work hours for all years in which the young adult was 0-14 years of age were divided by 50 (assuming two weeks of vacation) in order to obtain average weekly hours.

In addition, we included measures of mothers' depression and age at first birth. Maternal depression was asked of all mothers in 1992; this is a 20-item scale obtained from the CESD, where the responses to each question range from 0-3. Four items were reverse coded so that a higher value on the scale indicates more depression. The age of the young adult's mother when she had her first child was directly reported by that mother and recorded in the NLSY data.

Family Process and Adolescent Variables. Family process and adolescent behavior data were based on information collected from sons in a self-administered questionnaire when they were aged 10-14. If information was available for more than one year from these biannual surveys, we took the most recent one. For information on family processes, we examined closeness to parents and parenting style; for adolescent behaviors, we examined a range of school and out-of-school dimensions.

Closeness to parents between ages 10 and 14 was measured by three items for each parent: How close do you feel to your parent (separately for mother/biological father/stepfather)? (1 = not very, 2 = fairly, 3 = quite, 4 = extremely); how well you share ideas and talk about important things with that parent (1 = not very well to 4 = extremely well); and how often does the parent miss important events and activities (1 = a lot to 3 = almost never). The residential father was used if the respondent reported on multiple fathers. Because mother and father involvement are so highly correlated but father's is lower, the score for father involvement was the youth's score for mother minus that for father. Those with missing data for father closeness were assigned the lowest score (across all respondents)

indicating that there was not enough of a relationship for the youth to have answered the questions; a flag was included indicating that father closeness was imputed.

Parenting style was defined using the dimensions of monitoring and autonomy. The NLSY asked children whether parents had rules about doing homework, telling parents where they are, watching television, and attending parties with members of the opposite sex. If parents had rules, the child was asked how much say he or she had in making the rule (1=no say to 4=a lot of say). Because not all children were old enough to answer about rules for attending parties (many did not answer the question), and because only a small fraction of children had rules about television watching, we included only whether the family had rules about homework or about telling parents where they went (2=both, 1=either one, 0=none).

Those children who had rules about both of these behaviors and who had more than the median amount of say in the rules (5 or more) were said to be in authoritative families (the reference category). If children had rules but little or no say in them (<5), they were in authoritarian families. If children had no rules or only one, they were in permissive families.

Adolescent behavior data come both from the self-administered questionnaires completed when they were 10-14 and from their interviews as young adults. Children 10-14 reported frequency of attendance at religious services in the past year, and this variable was dichotomized: 1 for once a week or more and 0 for less than once a week. They answered 8 items asking about their attitudes towards school, such as “it’s easy to make friends,” “teachers help with personal problems,” and “my school work requires me to think.” Answers were coded 1-4, with 4 indicating a positive attitude, for a possible total of 32. Children reported whether they belonged to any clubs/teams/activity in or out of school (1=yes, 0-no). These were all taken from the *latest* year the child was 10-14. The young adult

answered 7 efficacy items such as “I can do just about anything I set my mind to” and “What happens to me in the future mostly depends on me.” These are coded 1-4, with 1 indicating the most negative and 4 indicating the most positive response, for a possible total of 28. These were taken from young adult data in the *earliest* year possible, thus closest to the ages of the self-administered questionnaire (10-14).

Young adults were also asked the age when they first had sex. This was divided into three categories: under age 15, 15 to 18, and older than 18. Finally, the mother reported whether the child has a condition that limits usual childhood activities.

ANALYSIS FILES

Individual File. The life table analysis is based upon the fertility experience of individual young men and used the actuarial approach. This life table was calculated for the entire sample, then stratified by childhood family structure.

Person-Year File. Our event history analysis file consists of a separate observation for each year a young man is present in the NLSY young adult study and had not yet fathered a first child at the beginning of the year, beginning at age 14. (The 3 cases that had a child before age 14 were deleted.) Once the young man reported having fathered a child, the dependent variable (had a child) becomes one and later years of data are censored and removed from the data set. Thus young men have as many observations in the study as the number of years present and not having had a child at the beginning of the year. In event-history methodology, the creation of multiple observations does not lead to biased standard errors (Allison 1995:223).

ANALYSIS PLAN

After examining the life-table pattern of transition to fatherhood, we move to a multivariate analysis of the determinants of this transition. We first analyze the entry into either type of fatherhood and then, using multinomial logistic regression, examine whether the young man lived with that child or lived apart from the child at the time of birth. In each of the analyses we present four models. Model I includes only the family structure variables. In Model II we add family background controls and socioeconomic status. In Model III we add the family process measures, and in Model IV we add adolescent behavior. Because we predicted direction for family structure (H1-3), we use one-tailed tests for these hypotheses.

Results

DESCRIPTIVE STATISTICS

Weighted means and standard deviations of the independent variables based on the person-year file, are presented in Table 1. The average age over the person-year file was 17.2, indicating that of the total of 9,513 actual person-year observations, a large number of person years occurred in adolescence. Over the total number of person years, in 97.5 percent of years there were no births (not shown). Thirty-six percent of person years were of individuals who experienced 1-3 transitions, 13 percent were of persons who experienced 4+ transitions, and in 5 percent the father was never there. In the remaining 46 percent of person years, the young men had lived continuously with two biological parents.

(Insert Table 1 about here)

The education of these young men's mothers' spouses averaged 12.4 years of school and their annual incomes averaged $32,700. Three quarters of person years were of youth in urban areas and a little over a third were in the South. Across person years, mothers worked

just over 20 hours per week, and were 20.5 years old at first birth. Almost half of person years were of youth who grew up with authoritarian parents and 16 percent were of youth who grew up with permissive parents, leaving 37 percent of person years for those who grew up with authoritative parents.

Looking at youth behavior, delinquent acts were relatively rare (an average of 4 out of a possible 28), whereas club participation was high (two-thirds) and 39 percent of person years were of those attending religious services at least once a week. Half of reported person years were of those having had sex before age 18, and 20 percent before age 15. Given such high rates of sexual activity, it is surprising that fatherhood was not higher.

Life Tables

A substantial proportion of young men made the transition to fatherhood during the period we could observe them (Table 2, column 1). By age 20, 10 percent had fathered a child and by age 23, 25 percent had fathered a child. By age 25, about 33 percent had fathered a child (Table 2).

(Insert Table 2 about here)

The other columns of Table 2 reflect the large differences in fatherhood by family structure, which can be seen more clearly in Figure 1. Few young men who reached the age of 16 had become fathers, but by age 17, a clear divergence by family structure becomes evident, which widens through age 21 and then continues parallel. Young men who grew up with a continuous, residential father were much less likely to have become fathers at any age than those who did not, with nearly 75 percent still not parents at age 25 (Table 2, column 2). In contrast, at the opposite extreme, both young men who grew up in a stable, mother-only

family and those who experienced four or more transitions were far more likely to have become fathers at an early age, with very little difference between these two groups. About 25 percent of those who never lived with a father were fathers themselves by age 21 and 52 percent had become fathers by age 25. About 26 percent of those who experienced 4 or more transitions were fathers by age 21 and nearly 40 percent had become a father by age 25. Those who had experienced 3 or fewer transitions in family structure were intermediate between those with a continuously residential father and those in the other two groups.

(Insert Figure 1 about here)

BECOMING A FATHER

We present the results of our first analysis of the transition to fatherhood without distinguishing between residential and nonresidential status in a series of models in Table 3. The first model shows just the family structure differences, essentially testing the differences previously shown in Figure 1, but adds the two measures of change in the numbers of siblings. Each of the nontraditional family structures is significantly associated with an early transition to fatherhood, relative to having a continuously resident, biological father (the reference group). Again, those who experienced 3 or fewer transitions were more likely than the reference group to have an early transition to fatherhood, but less likely than the two groups of those who experienced 4 or more transitions and those who grew up in a stable, single mother family. Whereas those who experienced 4 or more transitions were about 2.8 times as likely to become fathers than the reference group, those who never lived with a father were 3.6 times as likely to become a father.

(Insert Table 3 about here)

Those who experienced the gain of a new sibling between age 10 and 14 were also considerably more likely to become fathers than those who did not, but having a sibling move out had no effect. The effect of gaining a sibling is not nearly as large as the effect of family structure; an increased likelihood of about 50 percent compared with a doubling or even tripling of the likelihood of becoming a father, but substantial and significant. As nearly all of these new siblings were new babies, it is possible that the experience of sharing in the care of a new baby makes men more interested and/or willing to have their own.

Model II adds the family background variables, and suggests that much of the effect of family structure on the transition to fatherhood for young men of this relatively deprived cohort is due to other aspects of family background. All of the coefficients for family structure drop substantially, although they remain weakly significant based on a 1-tailed test; only for those with 4 or more transitions does the significance level remain above conventional levels. We were concerned that by controlling for mothers' spouse/partners' characteristics, we were confounding the effects of family structure, despite our care in imputing missing values for cases with no father information. However, we found exactly the same result if we included mother's education instead of the two father measures (results not shown).

Interestingly, however, the effect of having a new sibling in early adolescence is virtually unchanged when background measures are added. The level of significance drops but the coefficient is only slightly smaller, with an increased likelihood of fatherhood of about 35 percent. This reinforces our suggestion that this is a role-modeling effect rather than one based on selectivity.

The effects of the background variables are essentially as expected. Those with more socioeconomic resources are less likely to become young fathers, with each additional year of the mother's spouse's education reducing the likelihood of the young man becoming a father by about 11 percent and each additional $10,000 in annual income reducing the likelihood by about 17 percent. Young men who spent their entire childhoods in the south were more than 40 percent less likely to become a young father; each year older their mothers were when they first gave birth meant young men were about 18 percent less likely to become a young father. Young black men were 52 percent more likely to become fathers young than young white men, and of course, older men were more likely to become fathers than younger men.

Our measures of family processes (Model III) also mediate the relationship between family structure and early fatherhood, so that only the experience of 4 or more transitions continues to have a significant effect (although the coefficients on the other parental structure variables remain positive and close to their previous levels). The effects of the measures themselves are fairly weak, but two are interesting and potentially important. Families that exhibit authoritarian parenting, by imposing many rules that their sons have little say in, end up with sons who are 43 percent more likely to become fathers early, relative to families that give their sons more autonomy, perhaps to get out of the house. In contrast, boys with a warm relationship with their mothers are less likely to become young fathers, with each increment in relationship quality reducing by more than 10 percent their likelihood of making this transition.

Our final model (IV) adds measures of the young men's behavior in adolescence. Their behaviors provide additional evidence of mediation, since adding these measures reduces all the family structure measures to nonsignificance, and reduces their size

substantially as well. The major effects reflect the importance of having sexual relationships for becoming fathers, with those who began their sexual careers early (before age 18 or even before age 15) far more likely to become young fathers than those who waited until after age 18. We repeated this analysis dropping those who had never had sex prior to the year in question, and found the same result. Finally, those who engaged in deviant behaviors in adolescence were also more likely to become young fathers. Few had done many deviant acts (a mean of 4.3 out of a possible 27 based on nine different acts and their frequency) but each additional unit score increased the likelihood of early fatherhood by 5.5 percent. Adding adolescent behavior reduces the effect of black race/ethnicity to insignificance, so these behaviors not only mediate the effects of family structure but also race on the transition to fatherhood. Socioeconomic status measures (income and education) remain significantly associated with the transition to fatherhood.

BECOMING A RESIDENTIAL OR NONRESIDENTIAL FATHER

When we distinguish between factors leading young men to become residential vs. nonresidential fathers, some patterns are general, affecting both types, and others have a much clearer impact on one type of young fatherhood than the other. Table 4 shows the results, following the same sequence of models as in the previous table.

(insert Table 4 about here)

Model I shows that the effects of family structure are generally stronger for nonresidential fatherhood than for residential fatherhood. Most dramatically, young men who grew up with no residential father are more than six times as likely to become nonresidential fathers, themselves, but only about 50 percent more likely (and not significantly) to become

residential fathers. Experiencing 1 to 3 transitions in parental structure also has more impact on nonresidential fatherhood (2.7 times the likelihood) than residential fatherhood (1.7). Having 4 or transitions, however, has a substantial impact on both routes to fatherhood, tripling the likelihood of becoming a residential parent and more than doubling the likelihood of becoming a nonresidential parent (odds ratio of 2.36).

In contrast, the effect of a "new baby sister/brother" is stronger on residential parenthood than on nonresidential parenthood. Young men who had this experience are 80 percent more likely to become residential fathers; the effect on nonresidential fatherhood, although also positive, is small and insignificant. Interestingly, having a sibling *leave* the household has a significant impact on nonresidential fatherhood, of about the same size as the effect gaining a sibling has on residential fatherhood. It is possible that this effect reflects an intensification of the other disruption effects, if losing a (step) parent also means losing a close sibling, or perhaps the now-absent sibling was doing some parental-like monitoring while still in the household.

More likely, however, the "lose sibling" effect is simply the result of selectivity, because adding the family background measures erases nearly all the family structure effects on nonresidential fatherhood. For this outcome, although the effects all remain positive, only those who never lived with a father were still significantly more likely (about twice) to become absent fathers, which is a major reduction in the effect. The rest of the reductions left the effects insignificant, including the "lose sibling" effect. For residential fatherhood, in contrast, adding family background measures had a somewhat different effect. Unlike its effect for nonresidential fatherhood, those who experienced 4 or more transitions were still more than twice as likely to become resident fathers as those who grew up with a

continuously resident biological father. This effect, although smaller than the thrice evident without family background controls, is nevertheless substantial. The effect of never living with a father, which had not been significant before adding the family background measures, remains insignificant.

As with family structure, the effects of the family background measures are nearly always stronger for the transition to nonresidential than for residential fatherhood, although there are important effects on the latter, as well. The measures most closely related to economic well-being (male parent figures' education and income) have much stronger effects on nonresidential fatherhood, particularly education. Whereas an additional year of one's "father's" education reduces the likelihood of becoming a nonresidential father by 16 percent, the effect is 6 percent for residential fatherhood, and not significant. The effects of paternal income are similar between the two outcomes, but are slightly stronger and more stable for nonresidential fatherhood. Each additional $10,000 in father-figure income reduces young men's transition to residential and to nonresidential fatherhood by about 18 percent.

Mother's age at first birth also has a stronger effect on nonresidential fatherhood than on residential fatherhood. This suggests that this measure captures some unmeasured effects of economic and social disadvantage. In contrast, the young male's age has a stronger effect on residential fatherhood than on nonresidential fatherhood, suggesting that as young men grow older, their transition to fatherhood is increasingly the more normative, residential, version. Growing up in the south also has effects that are in the same direction, reducing the transition to both types of fatherhood, but, as with youths' age, the effect is larger and significant only for residential fatherhood. This suggests that the region with more traditional values, at least regarding family behaviors, might place stronger normative pressure on young

men to marry their partner when a pregnancy occurs, relative to areas where out-of-wedlock parenthood is more common (Trent and South 1992).

Three key family background variables have effects that operate in opposite directions, increasing one form of fatherhood but decreasing the other. Young men who are black, live in urban areas, or have a depressed mother are significantly more likely to become nonresidential fathers than to remain childless, but are less likely (although not significantly) to become residential fathers than their counterparts who are white, do not live in urban areas, or have non-depressed mothers. The strongest impacts are for black race/ethnicity and urban residence, which both double the likelihood of beginning fatherhood without living with the child. Urban residence, however, is not statistically significantly related. Maternal depression (measured about a decade before most of these young men became fathers) has a small but significant effect. Interestingly, the effect of maternal depression was much stronger on these young men's *being* a nonresidential father in 2004 (Goldscheider, et al. 2006). This suggests that the effect of maternal depression not only increases becoming such a father but reduces the likelihood of moving out of the category by subsequently forming a residential relationship.

Adding in the parenting measures reduces the remaining effect of family structure (father never there) on becoming a nonresidential father to insignificance, suggesting some mediating effect, but none of these measures had any significant direct or indirect effects on this outcome. Their inclusion has even less mediating effect on becoming a residential parent in that none of the other effects were reduced substantially, but one of the family process measures did have a direct effect. Young men whose parents coparent effectively are more, not less likely to become fathers and live with their children's mother. Perhaps this measure

indicates father involvement in the parenting process, encouraging their sons to become fathers, and perhaps more involved fathers, themselves.

Finally, the measures of adolescent behavior have very similar effects on both these outcomes. Becoming sexually active early has slightly more impact on nonresidential fatherhood than on residential fatherhood, but the differences are small. And delinquent activities have a slightly smaller effect on nonresidential fatherhood than on residential fatherhood, but again, there are only small differences. The only other result that emerges in this analysis is that young men with a positive attitude towards school are significantly more likely to become a residential father (with no impact on nonresidential fatherhood). Each additional unit increase in reporting more positive feelings about school increases the likelihood of becoming a residential father by 8 percent. Most of the items in this scale refer to academic matters; the only social item indicates satisfaction with the ease of making friends. Nevertheless, it is possible that this measure is simply getting at positive social relationships, which would be linked to more positive relationships with the opposite sex.

Adding adolescent behavior further reduces the effect of 1-3 family transitions on the transition to residential fatherhood (although the effect of 4 or more transitions remains strong). Children's behavior in adolescence is the last line of defense against too early transitions to parenthood. If that behavior is also problematic, the chances of an early transition are very high.

SUMMARY AND CONCLUSIONS

The majority of the young men in this study had not yet made the transition to fatherhood when they were interviewed in 2004 for the NLSY Young Adult Study. However,

given that very young, and particularly nonresidential fatherhood is likely to produce the most negative results for young men, their partners, and their children, our results suggest attention should be paid to important pathways linking family structure and fatherhood that run through socioeconomic deprivation, family processes, and problematic adolescent behaviors.

Support for all our hypotheses was strong. Children who grow up with a single parent, even if in a stable family, but particularly those who experience instability due to multiple transitions, are likely to reproduce this pattern when they begin fathering children. They have a substantially higher likelihood of entering fatherhood early. Those who never lived with a father are the most likely to reproduce nonresidential fatherhood, whereas those who lived with several father figures are more likely to enter early residential fatherhood. This implies that having lived with a father figure, even if not the biological father, is preventive of a pattern of nonresidential fathering that characterizes those who have not lived with a father figure.

Which explanations of family structure effects were supported? Both deficit parenting and role modeling predicted greater transitions for young men who grew up with a single parent. Better parenting practices, including authoritative parenting, are associated with reducing the likelihood of the young adult becoming an early father. Including parenting in the model reduced the effects of family structure on transitions to fatherhood, suggesting support for the deficit parenting explanation of family structure effects. Support for the socialization or role modeling explanation was provided as well by the fact that the entry of a sibling was associated with a greater transition to fatherhood. In addition, parents who cooperated in parenting may actually promote their child's early transition to residential

fatherhood. Although a surprising finding, this may provide further support for the socialization explanation of family structure effects.

Support for the mediational effect of parenting and adolescent behavior was strong. Several of the family process measures were associated with reducing transitions to fatherhood. Finally, as other studies have found, children's sexual and delinquent behavior were excellent markers of potential early transition to fatherhood.

Although this study has numerous strengths, including information collected prospectively from multiple informants across the entire lifetimes of young men, there are several weaknesses. First, these young men are still relatively young; as they age, we will have a greater chance at seeing whether these results hold up as more enter fatherhood. We will also be able to examine their parenting practices. Second, the measures of parenting are limited to mothering because this was a study of the children of mothers. Finally, to maximize the sample size we could not use information on which data were missing in multiple years. This limited our choice of mediators.

Based on these results, our "cautionary tale" has the following morals. First, disrupted fathering has intergenerational consequences. Young men with these experiences produce sons who will be more likely to themselves experience disrupted fathering, and go on to become absent fathers. Attention is needed to address how to break this cycle. Second, nearly all of the intergenerational effect operates through the correlates—perhaps causes and perhaps consequences—of disrupted family structures: socioeconomic deprivation, weakened parenting, and problematic adolescent behaviors. Breaking the cycle, then, could occur at any of these points, but most powerfully by breaking the connection between family structure and poverty. Lower income and education of the mother's partner, the father figure to the child,

remain significantly associated with their sons fathering a child that they do not subsequently live with. This suggests that continued failure to address economic deprivation among families will result in reproducing a pattern that has been shown to be disadvantageous for both the youth, the child's mother, and their child. Third, parenting patterns make a difference. Efforts to help young parents improve their parenting behavior may help alleviate some of the avoidable negative consequences of family transitions and instability.

This paper is the first to both provide a breakdown of factors associated with nonresidential as well as residential fatherhood. It also contributes by showing how parenting and adolescent behaviors explain some of the effects of family structure on the transition to fatherhood. Finally, it points to the continued influence of socioeconomic disadvantage on the early transition of young men to fatherhood, particularly to nonresidential fatherhood.

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Table 1. Means and Standard Deviations of the Independent Variables
(weighted person years)

Measure	Mean	Std
Family structure measures		
Gain siblings, 10-14	0.15	0.36
Lose siblings, 10-14	0.13	0.33
Dad never there	0.05	0.22
One to three transitions	0.36	0.48
Four or more transitions	0.13	0.34
Family background measures		
Mother's spouse education	12.37	2.07
Mother's spouse income ($10,000s)	3.27	2.30
South	0.36	0.46
Urban	0.74	0.38
Mother's age at first birth	20.53	3.08
Mother's work hours (annual hours/50)	20.39	13.11
Mother's depression (CESD)	10.04	9.09
Hispanic	0.09	0.28
Black	0.16	0.37
Age of the young adult	17.17	2.65
Family process measures		
Permissive parenting	0.17	0.37
Authoritarian parenting	0.46	0.50
Coparenting	5.95	1.98
Maternal relationship quality	8.92	1.68
Difference between parents in relationship quality	1.84	2.80
Adolescent behavior		
First sex < age 15	0.20	0.40
First sex, 15-18	0.30	0.46
Delinquent activities	4.28	4.29
Club participation	0.67	0.47
Religious service attendance	0.39	0.49
School attitude	24.00	3.57
Limited activities	0.04	0.19
Feelings of efficacy	21.84	2.81

N=9,513 person years

Table 2. Probability of Not Being a Father by Age of Young Adult and the Family Structure in Their Childhood

		Family Structure			
Age	Total	Dad always there	Dad never there	1-3 transitions	4+ transitions
14	1.000	1.000	1.000	1.000	1.000
15	0.998	0.999	1.000	0.999	0.991
16	0.994	0.998	0.987	0.995	0.986
17	0.986	0.995	0.971	0.984	0.972
18	0.963	0.987	0.920	0.957	0.924
19	0.936	0.972	0.853	0.929	0.876
20	0.897	0.958	0.766	0.883	0.805
21	0.849	0.911	0.747	0.841	0.735
22	0.798	0.870	0.698	0.779	0.689
23	0.743	0.853	0.650	0.714	0.632
24	0.698	0.766	0.583	0.675	0.615
25	0.658	0.745	0.484	0.641	0.608
26	0.637	0.745	0.468	0.641	0.391[a]

[a] Small sample size

N=2,531

Table 3. Factors Predicting Young Men's Transition to Fatherhood

	Model I		Model II		Model III		Model IV	
	coeff	OR	coeff	OR	coeff	OR	coeff	OR
Constant	-4.553 **		-3.490 **		-2.982 **		-4.881 **	
Family structure measures								
Gain siblings, 10-14	0.417 *	1.517	0.303	1.354	0.283	1.327	0.246	1.279
Lose siblings, 10-14	0.227	1.255	-0.083	0.920	-0.014	0.986	-0.177	0.838
Dad never there	1.281 **	3.601	0.471 #	1.602	0.406	1.501	0.240	1.271
One to three transitions	0.759 **	2.136	0.341 #	1.406	0.272	1.312	0.114	1.121
Four or more transitions	1.025 **	2.787	0.472 ^	1.603	0.432 #	1.540	0.315	1.371
Family background measures								
Mother's spouse education			-0.117 *	0.890	-0.121 *	0.886	-0.107 *	0.898
Mother's spouse income			-0.182 *	0.833	-0.181 **	0.835	-0.191 **	0.826
South			-0.536 *	0.585	-0.542 *	0.582	-0.444 *	0.642
Urban			0.118	1.126	0.114	1.120	-0.048	0.953
Mother's age at first birth			-0.204 **	0.815	-0.201 **	0.818	-0.152 **	0.859
Mother's work hours			0.004	1.004	0.002	1.002	0.002	1.002
Mother's depression			0.013	1.013	0.011	1.011	0.004	1.004
Hispanic			0.022	1.023	0.072	1.075	0.083	1.086
Black			0.422 ^	1.525	0.459 ^	1.583	0.316	1.371
Age of the young adult			0.269 **	1.309	0.266 **	1.305	0.273 **	1.314
Family process measures								
Permissive parenting					0.055	1.057	-0.112	0.894
Authoritarian parenting					0.361 *	1.435	0.379 *	1.461
Coparenting					0.047	1.048	0.071	1.073
Maternal relationship quality					-0.113 ^	0.893	-0.083	0.920
Difference between parents in relationship quality					0.060	1.062	0.038	1.039
Adolescent behavior								
First sex < age 15							1.317 **	3.733
First sex, 15-18							0.806 **	2.239
Delinquent activities							0.054 **	1.055
Club participation							0.113	1.119
Religious service attendance							-0.203	0.817
School attitude							0.021	1.022
Limited activities							-0.395	0.673
Feelings of efficacy							-0.040	0.960

N=9,513 person years

^ .05 > p < .10, 2-tailed test

* .01 < p < .05, 2 tailed test

** p < .01, 2 tailed test

.05 > p > .10, 1-tailed test

Table 4. Factors Predicting Young Men's Transition to Residential and Nonresidential Fatherhood

	Residential Fatherhood								Nonresidential Fatherhood							
	Model I		Model II		Model III		Model IV		Model I		Model II		Model III		Model IV	
	coeff	OR	coeff	OR	coeff	OR	coeff	OR	coeff	OR	coeff	OR	coeff	OR	coeff	OR
Constant	-5.058 **		-6.376 **		-6.411 **		-9.286 **		-5.479 **		-2.345 *		-1.466		-2.45	
Family structure measures																
Gain siblings, 10-14	0.589 *	1.803	0.366	1.442	0.338	1.403	0.330	1.391	0.246	1.279	0.252	1.287	0.236	1.266	0.177	1.193
Lose siblings, 10-14	-0.262	0.769	-0.470	0.625	-0.349	0.705	-0.604	0.547	0.632 *	1.882	0.186	1.204	0.241	1.272	0.157	1.170
Dad never there	0.394	1.482	0.072	1.075	0.173	1.189	-0.108	0.897	1.890 **	6.619	0.698 #	2.011	0.482	1.620	0.376	1.456
One to three transitions	0.550 ^	1.733	0.415	1.514	0.440 #	1.553	0.338	1.402	0.993 **	2.700	0.334	1.396	0.161	1.175	-0.045	0.956
Four or more transitions	1.133 **	3.104	0.817 *	2.263	0.866 *	2.377	0.850 *	2.339	0.858 *	2.358	0.122	1.130	-0.023	0.977	-0.230	0.794
Family background measures																
Mother's spouse education			-0.061	0.941	-0.066	0.936	-0.064	0.938			-0.178 **	0.837	-0.186 **	0.830	-0.162 *	0.850
Mother's spouse income			-0.192 ^	0.825	-0.193 ^	0.824	-0.181 ^	0.834			-0.196 *	0.822	-0.195 *	0.823	-0.232 *	0.793
South			-0.832 *	0.435	-0.836 *	0.433	-0.719 *	0.487			-0.223	0.800	-0.230	0.794	-0.163	0.849
Urban			-0.302	0.739	-0.281	0.755	-0.448	0.639			0.666	1.947	0.624	1.865	0.486	1.626
Mother's age at first birth			-0.177 **	0.838	-0.169 **	0.844	-0.120 *	0.887			-0.222 **	0.801	-0.216 **	0.805	-0.177 **	0.838
Mother's work hours			0.003	1.003	0.002	1.002	-0.001	0.999			0.006	1.006	0.005	1.005	0.008	1.008
Mother's depression			0.001	1.001	-0.001	0.999	-0.011	0.989			0.023 *	1.023	0.022 ^	1.022	0.018	1.018
Hispanic			0.061	1.063	0.175	1.191	0.079	1.082			0.028	1.029	0.012	1.012	0.128	1.136
Black			-0.097	0.908	-0.011	0.989	-0.238	0.788			0.805 *	2.237	0.807 *	2.242	0.727 *	2.069
Age of the young adult			0.355 **	1.426	0.353 **	1.423	0.364 **	1.439			0.181 **	1.198	0.179 **	1.195	0.182 **	1.199
Family process measures																
Permissive parenting					-0.156	0.855	-0.263	0.769					0.155	1.167	-0.065	0.937
Authoritarian parenting					0.398	1.489	0.398	1.489					0.261	1.298	0.320	1.377
Coparenting					0.112 ^	1.119	0.143 *	1.153					-0.009	0.991	0.018	1.018
Maternal relationship quality					-0.111	0.895	-0.144	0.866					-0.108	0.897	-0.024	0.976
Difference between parents in relationship quality					0.009	1.009	0.007	1.007					0.103	1.109	0.069	1.071
Adolescent behavior																
First sex < age 15							1.345 **	3.839							1.432 **	4.187
First sex, 15-18							0.844 *	2.326							0.885 *	2.422
Delinquent activities							0.060 *	1.062							0.051 *	1.053
Club participation							0.185	1.204							0.072	1.075
Religious service attendance							-0.344	0.709							-0.042	0.959
School attitude							0.079 *	1.082							-0.034	0.967
Limited activities							-0.363	0.695							-0.293	0.746
Feelings of efficacy							-0.037	0.964							-0.047	0.954

N=9,513 person years

^ .05 > p < .10, 2-tailed test

* .01 < p < .05, 2 tailed test

** p < .01, 2 tailed test

.05 > p > .10, 1-tailed test

Figure 1. Proportion of Young Adult Males who are Childless by Age and Childhood Family Structure