

**DO FATHERS REALLY MATTER?:
FATHER INVOLVEMENT AND
SOCIAL-PSYCHOLOGICAL
OUTCOMES FOR ADOLESCENTS**

**Center for Research on Child Wellbeing
Working Paper #99-04**

Marcia J. Carlson

DRAFT—PLEASE DO NOT QUOTE OR CITE

DO FATHERS REALLY MATTER?: FATHER INVOLVEMENT
AND SOCIAL-PSYCHOLOGICAL OUTCOMES FOR ADOLESCENTS*

Marcia J. Carlson

Princeton University

November 1999

*Prepared for the Annual Meeting of the Association for Public Policy Analysis and Management, November 4-6, 1999, Washington, D.C. Marcia Carlson (marcyc@princeton.edu) is a Postdoctoral Fellow at the Center for Research on Child Wellbeing at Princeton University. I am grateful for the helpful comments of Sheldon Danziger, Arland Thornton, Mary Corcoran, David Harris and Yu Xie on my dissertation research, from which this paper was developed. Any errors or omissions are entirely my own. This research was supported in part by an NIH traineeship to the author while a doctoral student at the University of Michigan.

Fatherhood is popular these days. New organizations have emerged with the goal of promoting responsible fatherhood in society, and policymakers are increasingly interested in programs for fathers. Recently, Congresswoman Nancy Johnson (R-CT) announced the Fathers Count Act of 1999 (H.R. 3073), which would provide money for demonstration programs to assist low-income fathers in meeting their obligations as parents and providers. While everyone seems to believe that fathers are good for children, there is limited evidence in the academic literature that fathers matter for children's development and well-being. In fact, research is largely equivocal about the role of fathers in children's lives.

This paper uses new data from the National Longitudinal Survey of Youth to examine how father involvement affects several behavioral outcomes for adolescents ages 10 to 14. Descriptive statistics on the sample characteristics and father involvement are presented; then, regression models are estimated to assess the overall effect of involvement by biological fathers, as well as the effect of involvement in particular family situations.

PREVIOUS RESEARCH

The research literature on the role of fathers in children's lives is rather limited. Most earlier studies focused on the effect of fathers' absence, whether due to military service, death or divorce (Snarey 1993). With this "deficit model," children in father-absent homes are compared to children in father-present homes without directly measuring what fathers—whether residential or non-residential—may actually contribute to their children's lives. In recent years, an emerging body of sociological literature has more directly examined how paternal conduct affects children (Marsiglio 1995). Instead of focusing on the detriment from father's absence, this research has primarily focused on the effects of fathers' presence in the household (for children whose father lives with them) or the effects of father-

child contact (for children whose father does not live with them). Findings in this literature have been mixed (Amato 1993 and 1994; King 1994b; Simons et al. 1994; Harris and Marmer 1996). Some studies find that fathers have a positive effect on children's well-being (Furstenberg 1996; Lamb 1987), while others find that fathers are peripheral to certain measures of child and adolescent well-being (Crockett et al. 1993; Hawkins and Eggebeen 1991; Kandel 1990; Furstenberg, Morgan and Allison 1987; Simons et al. 1994; King 1994a and 1994b). Several studies which have found no effects of father presence or contact suggest that the *quality* of the father-child relationship is an important factor that merits further research (King 1994b; Crockett et al. 1993; Simons et al. 1994; Luster and McAdoo 1994).

Scant attention in the existing literature, however, has been paid to the nature or quality of children's relationship with their fathers. For example, does the father take an interest in the child's life and well-being? Is he aware of the child's regular activities? Does the child feel close to the father? It is likely that the quality of the father-child interaction has a greater impact on child adjustment than simply the quantity of father-child interaction (Simons et al. 1994; Lamb 1987). Several recent studies that have examined the quality of the father-child relationship find that father involvement does have positive effects, reducing some externalizing and internalizing behavioral problems among adolescents including delinquency, substance use, anxiety and depression (Harris, Furstenberg and Marmer 1998; Harris and Marmer 1996; Zimmerman et al. 1995; Salem et al. 1997). However, these effects vary in size and significance, with no consistent pattern observed for externalizing versus internalizing outcomes. Therefore, additional research is warranted about how the quality of the father-child relationship affects both externalizing and internalizing behavior for adolescents.

DATA AND SAMPLE

This paper uses data from the National Longitudinal Survey of Youth (NLSY), matched mother and child files. The NLSY includes detailed measures of child development and well-being, other child characteristics, maternal characteristics, information on family structure and household composition, family income, characteristics of the home environment, and other socio-demographic factors, as well as children's assessment of their relationship with their mother, biological father and/or step father. The original NLSY sample included approximately 6,300 young women ages 14 to 21 in 1979, and reinterviews have been conducted each year through 1996.¹ In 1996, 4,361 women were interviewed, of which about 80 percent were mothers. In 1986, a supplement was added to assess the children of NLSY female respondents with respect to behavior problems, temperament, cognitive ability, motor and social development, and the quality of the child's home environment. This supplement has been administered to children every two years since 1986, or the first survey year after the child's birth.

The full child sample in 1996 consists of about 7,100 children born to NLSY female respondents. They are born to a sample of relatively young and disadvantaged mothers who are disproportionately Hispanic and African-American (Chase-Lansdale, Mott, Brooks-Gunn and Phillips 1991). When weighted, the sample represents a cross-section of children born to a nationally representative sample of women who were between the ages of 31 and 38 on January 1, 1996; it is estimated that as of the 1996 wave, the NLSY children represent approximately 80 percent of all

¹Except 1995, because as of 1994, the survey is administered biennially.

children that will be born to a contemporary cohort of American women (Center for Human Resource Research 1998).²

A self-administered supplement for young adolescents (ages 10 to 14) was first included in the NLSY in 1988. Since that year, the content has been gradually expanded such that in 1996, the supplement gathered information on a wide range of topics including parent-child relationships, family decision-making, peer relationships, prevalence of certain moods, religious attendance, and participation in various delinquent activities, including use of cigarettes, alcohol, and other illegal substances. The questions are administered through a booklet in which adolescents provide written, self-reported answers to the (mostly) closed-ended questions.

The sample for this research includes the 1,685 adolescents between the ages of 10 and 14 who responded to the self-administered supplement and who live with their mothers in 1996. These are the children of 1,338 mothers.³ This age group was selected because the self-administered supplement used in 1996 provides better data on parent-child relationships for children ages 10 to 14 than are

² This is because women ages 31 to 38 are not at the end of their childbearing years. In future survey years, the NLSY children will become fully representative of all American children with one caveat—the sample excludes women and their children who may have immigrated to the United States after 1979 (Center for Human Resource Research 1998).

³ All age-eligible children in each family that is surveyed are included. In order to account for possible bias due to using multiple children from the same family, robust standard errors in regression equations are estimated to adjust for clustering. This adjustment does not generally affect the substantive conclusions of the research; the magnitude of the coefficients remains similar, although in some cases the coefficients become less significant (because the standard errors are increased).

available for other age groups in the NLSY. In addition, because patterns of development necessarily vary by age, it is important to focus on a relatively narrow age range.⁴

Dependent Variables

The outcomes of interest in this paper relate to the two major categories of behavioral problems—internalizing behavior (negative feelings or emotional overcontrol) and externalizing behavior (aggression or “acting out”) (Parcel and Menaghan 1988). Internalizing behavior will be assessed with an index of adolescents’ self-reported moods from day to day. Measures of externalizing behavior are as follows: (1) an index of adolescents’ self-reported delinquency; (2) a measure of whether adolescents have ever used various substances (alcohol, cigarettes, and marijuana); and (3) whether adolescents have ever been suspended or expelled from school.

Internalizing Behavior Outcome

Adolescent’s self-reported feelings. The self-administered supplement of the NLSY asks youth ages 10-14 how often they feel (a) sad and blue, (b) nervous, tense or on edge, (c) happy, (d) bored, (e) lonely, (f) tired or worn out, (g) excited about something they are looking forward to, (h) too busy to get everything done, and (i) pressured by their mother or father. The three response choices are “often,” “sometimes,” and “hardly ever.” Items were coded such that higher scores indicate greater levels of negative feelings (i.e. the coding for being happy and for being excited was reversed).

Confirmatory factor analysis showed that one factor could account for all of the items, with the

⁴ Because young adolescents have had sufficient time in which to develop close relationships with their fathers, this is a useful age group to study. Less variation in both the relationship quality and family structure experiences would be expected at younger child ages. Also, young adolescents have not yet achieved the level of autonomy from family that occurs during later adolescence. It will be important to replicate these analyses with data for children in other age groups.

exception of the variable indicating whether the child felt excited about something they were looking forward to. Thus, the latter variable was omitted, and the other eight items were combined into a single scale representing adolescents' negative feelings from day to day ($\alpha = 0.64$). While the alpha indicating reliability is not as high as would be desired, it is similar to alpha values used in much prior research; further, in general, alpha is a conservative estimate of a measure's reliability and thus provides a lower bound of the reliability for a given scale (Carmines and Zeller 1979).

Externalizing Behavior Outcomes

Adolescents' self-reported delinquency. The self-administered supplement asks adolescents about how many times in the last year they have (a) stayed out later than their parent(s) said they should, (b) hurt someone badly enough to need bandages or a doctor, (c) lied to their parent(s) about something important, (d) taken something from a store without paying for it, (e) damaged school property on purpose, (f) gotten drunk, (g) had to bring their parent(s) to school because of something they did wrong, (h) skipped a day of school without permission, (i) stayed out at least one night without permission. Responses to these questions are never (0), once (1), twice (2) and more than twice (3). Factor analysis confirmed that the items could be represented by one overall factor of delinquency ($\alpha = 0.74$), so responses for the nine items were averaged. Self-reported measures of delinquent behavior are shown to provide a better estimate than official records (Wells and Rankin 1991), so this scale is expected to provide a valid assessment of adolescent delinquency.

Substance use. The self-administered supplement includes questions for whether the adolescent has ever smoked a cigarette, drunk alcohol, used marijuana, or used other drugs. Questions were also asked about how often in the last 30 days adolescents had used the various substances, but because only a relatively small proportion had ever used most substances, the frequency-of-use variables had a

large number of missing cases. Therefore, only the variables for whether substances were ever used are included in the analysis.

Factor analysis was conducted to determine if the various substance use items could be combined into one composite scale. Because only 1 percent of all adolescents had ever used drugs in their lifetime (including LSD, cocaine, “uppers” and “downers”), this variable did not contribute very much to the scale and was excluded.⁵ The remaining three items (ever drunk alcohol, smoked cigarettes or used marijuana) were shown to represent one factor (Cronbach’s alpha = 0.66). Again, the reliability of this scale is not as high as would be desirable, but it is adequate to confirm that these individual items can be represented by one overall scale. In order to simplify the measure, and because the correlations among the three variables were significant, a dichotomous variable was created for whether adolescents had ever used any of the three substances.

Suspension from school. A dichotomous variable for whether the adolescent was ever suspended or expelled from school (as reported by the child’s mother) is utilized as an additional indicator of externalizing behavior.

Independent Variables

A range of independent variables is included in the analysis as described below.

Biological father involvement is determined from adolescents’ self-report to seven questions in the self-administered supplement. The seven questions are: (1) how often the father talks over important decisions with the child; (2) how often the father listens to the child’s side of an argument; (3) how often the father knows who the child is with when not at home; (4) whether the child thinks the

father spends enough time with him or her; (5) how often the father misses events or activities that are important to the child; (6) how close the child feels to the father; and (7) how well the father and child share ideas or talk about things that really matter. Each of these questions has four or five Likert-type response categories, and for all questions, the lowest level of involvement is indicated by the response “do not have this parent.” Children can answer the self-administered questions for both a biological father and a step father (if they have one).⁶

Factor analysis was used to determine that one common factor links the seven biological father involvement items (factor loadings for all items are greater than 0.8). Therefore, the responses to the seven questions were averaged to create a continuous scale with possible values ranging from 0 to 3 (Chronbach’s alpha =0.95).⁷ All cases are included which have valid responses on at least two of the seven biological father involvement variables (n=1,625).

The same seven questions are asked of children about their mothers as are asked about fathers.⁸ It is important to include a measure of *mother involvement* because the mother-child relationship may have important links to the father-child relationship (Simons et al. 1994; Harris and

⁵ In fact, all 21 adolescents who had used illicit drugs had also used one of the other three substances, so they were already coded as “1” in the dummy variable for substance use.

⁶ The current paper analyzes only the effect of biological father involvement; the author intends to conduct additional research on the effect of involvement by step fathers.

⁷ Response codes for the two questions with five response choices were adjusted to range from 0 to 3 (instead of 0 to 4) in order to correspond to the other questions with only four response choices.

⁸ However, “do not have this parent” is not a response choice for the questions about mothers, and thus, there are three or four Likert-type response categories (instead of four or five) for each of these questions. This issue is discussed below.

Marmer 1996). Factor analysis demonstrated that, although the reliability is somewhat lower than that for the father involvement scale, the seven items can be combined into a single scale ($\alpha=0.63$).

Family structure. A vast literature has documented a deleterious effect of living in a “non-intact” family type on behavioral outcomes for children and adolescents (McLanahan and Sandefur 1994; Dornbusch et al. 1985; Wells and Rankin 1991; Steinberg 1987; Teachman et al. 1998; Stern et al. 1984; Hetherington and Clingempeel 1992). Because in this paper, emphasis is on the role of fathers, family structure is represented by three categories of fathers’ living arrangements—whether the adolescent lives with his or her biological father (who is married to the adolescent’s mother), with no residential father, or with a step father (who is married to the adolescent’s mother).⁹

Economic status has been linked to child outcomes: children who experience persistent poverty face substantial developmental deficits, including higher levels of behavioral problems (Duncan et al. 1994; Duncan and Brooks-Gunn 1997; Hanson, McLanahan and Thomson 1997; Korenman et al. 1995; McLeod and Shanahan 1993; McLeod and Shanahan 1996; McLoyd 1998). Economic status is operationalized as the average family income-to-needs ratio for 1991, 1992, 1994 and 1996.¹⁰ Income-to-needs ratio is a better measure of a family’s economic status because it adjusts for differences in family size and thus takes economies of scale into account (Hanson, McLanahan and Thomson 1997; Conger, Conger and Elder 1997). Dummy variables are created from the average

⁹ In other analysis, the author has used a more detailed, longitudinal measure of family structure (Carlson 1999). The overall findings are similar to those presented in this paper—after all other variables are included, only a few family structure effects persist.

¹⁰ These are the four most recent survey years for which a poverty line measure is included in the NLSY. Because of missing data, it was necessary to average these four time points in order to have several data points for most cases.

income-to-needs ratios as follows: less than 1.0 is classified as poor, from 1.0 to 1.85 is classified as near-poor, and higher than 1.85 is categorized as not poor; this approach is consistent with that used by Korenman, Miller and Sjaastad (1995) in their analysis of long-term poverty and child development with the NLSY. Ideally, one would want to examine income at different points in a child's life, such as before and after parents' divorce; this is an important area for further research.

Influence by peers has been associated with a range of externalizing behavioral problems for adolescents (Wills 1990; Mason et al. 1994; Barnes and Farrell 1992). In this paper, peer influence is measured by responses to a series of questions asked of adolescents about whether they ever feel pressure from their friends to (1) try cigarettes; (2) try marijuana; (3) drink beer, wine or liquor; (4) skip school; and (5) commit a crime or do something violent. Factor analysis shows that these five items can be represented with one scale (Chronbach's $\alpha=0.83$). One additional item for peer influence is included in the survey—whether adolescents feel pressure from their friends to work hard in school; however, because this item is not correlated with the other items which all indicate negative peer pressure (and because this single item is not a sufficient indicator of positive peer influence), this item is excluded.¹¹

Maternal psychological well-being. Both mother's mastery and mother's depression have been significantly associated with behavior problems. Children of depressed mothers demonstrate

¹¹ Few studies have directly investigated the role of peer influence in affecting behavior. One study evaluated susceptibility to peer pressure by presenting adolescents with a series of hypothetical dilemmas and asked them to choose between a course of action suggested by "best friends" vs. what the individual "really" thinks he or she should do (Steinberg 1987). Other studies have measured the prevalence of peer problem behavior by asking youth to report on the activities of their peer group (Mason et al. 1994; Bahr et al. 1998; Harris, Furstenberg and Marmar 1998). None of these studies

higher levels—and children of mothers with lower mastery demonstrate lower levels—of both internalizing and externalizing behavior problems (Downey and Coyne 1990; Campbell 1994; Covey and Tam 1990; Rogers, Parcel and Menaghan 1991; Parcel and Menaghan 1993). Mastery is understood as a psychological resource that can protect individuals against the negative effects of social strains and is measured using the Pearlin mastery scale (Pearlin and Schooler 1978). Specifically, the mastery scale measures “...the extent to which people see themselves as being in control of the forces that significantly affect their lives” (Pearlin, Lieberman, Menaghan, and Mullan 1981). Mastery has been shown to mediate the relationship between negative life events and actual stress (*ibid*; Orthner and Neenan 1996). While not a measure of stress itself, mastery provides an indication of how a mother experiences stress, and thus, mastery indicates how stress may affect a mother’s parenting skills and resources. Respondents are asked to evaluate the extent to which seven statements describe themselves (such as “there is no way I can solve some of the problems I have” and “I feel that I am being pushed around in life”). For each of the questions, one of three responses can be chosen: “not at all like me,” “somewhat like me,” or “a lot like me.” Responses for all questions are averaged, and higher scores indicate a higher level of mastery.

Another important aspect of mother’s mental health is her risk of depression, and maternal depression is significantly associated with adolescent well-being (Demo and Acock 1996). Mother’s risk of depression is measured using the Center for Epidemiologic Studies Depression (CES-D) scale. The CES-D was designed to measure the frequency of depressive symptoms that have been identified in the clinical literature on depression as well as in other existing depression inventories (Radloff 1977).

addressed the *experience* of peer pressure (as opposed to whether the youth would act on that pressure, or what types of behaviors peers are engaged in).

For a set of 20 items that correspond to six emotional components (depressed mood, guilt and worthlessness, helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance), respondents indicate the frequency that each symptom occurred in the previous week, from 0 (rarely or none of the time, less than 1 day) to 3 (most or all of the time, 5-7 days). Responses are summed across items, with a score of 16 or higher indicating risk of depression, and 24 or more indicating high risk (Radloff 1977).

Additional variables. A range of other variables are included in the analyses. Adolescents' demographic characteristics that have been consistently utilized as control variables in previous studies of family effects and child/adolescent outcomes include race (Hispanic, black, or non-black, non-Hispanic which is considered as 'white,' age (in years), and gender (Jekielek 1998; Aquilino 1996; Hoffmann and Johnson 1998; Flewelling and Bauman 1990; Kalil et al. 1999; Smith, Brooks-Gunn and Klebanov 1997; Hanson, McLanahan and Thomson 1997). Birth order is included because first-born children may be more or less likely to exhibit certain types of behavior. Number of siblings living in the household is also included because the presence of additional children dilutes the adult attention that children may receive (Coleman 1988, cited in Cooksey 1997). In addition, whether a child is of low birth weight (less than 5.5 pounds) has been associated with child development (Korenman, Miller and Sjaastad 1995). Two variables about the child's residential location are included: region of residence (northeast, north central, west or south) and whether the family lives in an urban or rural setting (Astone and McLanahan 1991; Harper and McLanahan 1998). While ambiguous, the literature suggests that family ties and restraints are stronger in the South, and family attachments are lower in urban areas leading to more positive and more negative outcomes, respectively (Demo and Acock 1988, cited in Haurin 1992).

Several other characteristics of the mother are also included. Mother's age at first birth has been associated with impaired child development (Cooksey 1997); this is because young mothers (especially teenagers) have fewer social and psychological resources to contribute to parenting (Haurin 1992). Therefore, it is important to differentiate the effects of young mother age from family structure. Mothers' intellectual aptitude and education may affect child outcomes because better-informed mothers are more likely to provide a wider variety of stimulation and opportunities for their children (Haurin 1992). In the NLSY, mother's aptitude is measured by her percentile score on the Armed Forces Qualifications Test (AFQT). This instrument determines general aptitude for enlistment in the Armed Forces; it is based on the Armed Forces Vocational Aptitude Battery and includes information on verbal comprehension, math knowledge and arithmetic reasoning (Center for Human Resource Research 1997). Following Korenman, Miller and Sjaastad (1995), mother's education is specified as three dummy variables for less than 12 years, 12 years and more than 12 years of education (the latter is the omitted category in regression models).

Two additional variables which may be important are the quality of the child's home environment and the frequency of religious attendance. The child's home provides a context where learning and socialization take place, and apart from other variables, the quality and characteristics of a child's home have important consequences for child outcomes. A more stimulating home environment with greater opportunities for learning and exploration will foster healthy growth and development of children. In the NLSY, the quality of a child's home environment was assessed with the Home Observation and Measurement of the Environment—Short Form (HOME—SF), a shortened version of the HOME scale developed by Caldwell and Bradley (1984). The HOME—SF includes interviewer observations and maternal reports related to cognitive stimulation and emotional support in the home.

The HOME score has been shown to be highly associated with a variety of child outcomes (Smith, Brooks-Gunn and Klebanov 1997). The HOME total percentile score for 1996 is used.

Finally, religiosity (frequency of attendance at religious services) may be important because effective parenting and greater parent-child attachment are positively associated with religiosity (Bahr et al. 1998), and religiosity is negatively associated with delinquent behavior (*ibid*).

DESCRIPTIVE STATISTICS

Table 1 presents descriptive characteristics for the sample of adolescents ages 10 to 14 in 1996, weighted by the child's sampling weight. Fifty-four percent of adolescents live with their biological father (in a married, original-parent family), 30 percent live with no father, and 15 percent live with a step father (in a married, step-parent family).¹² Three-fourths of the sample is white (non-black, non-Hispanic), 16 percent is African-American, and 8 percent is Hispanic. About half of the sample is female, 48 percent of the adolescents are first-born children, and 7 percent had low birth weight (under 5.5 pounds). Ten percent have no siblings living in the household, 73 percent have one or two siblings, and 17 percent have three or more siblings. On a scale ranging from 1 ("not at all") to 6 ("more than once a week"), the mean frequency of religious attendance in the past year was 3.7. Out of five possible areas of negative peer influence (pressure to smoke cigarettes, use marijuana, drink alcohol,

¹² Six percent of the sample (104 cases) lives with cohabiting (unmarried) mothers in 1996. Mothers indicate that for 17 percent of these respondents (18 cases), the father of the child lives in the household. However, it is not clear how the mother is interpreting the meaning of "father." Therefore, children living with cohabiting mothers are classified as having no resident father both because (1) it is indeterminable whether the child actually lives with the biological father (especially given no marital history to provide additional information), and (2) most cohabiting relationships are short-term and, thus, these families may be qualitatively different from either married, original-parent or married, step-parent families.

skip school or commit a crime), 84 percent of adolescents report that they do not experience any negative peer pressure.

For mothers, mean age at first birth is 21.2 years, 81 percent have at least 12 years of schooling, mean AFQT score is 676, average CES-D score is 10.5, and mean mastery score is 3.1. Average family income-to-needs ratio is 2.49; 16 percent of families are poor, and 24 percent are near poor. The mean HOME assessment percentile score is 53.0. Fourteen percent of the sample lives in the Northeast region, 32 percent in the North Central area, 36 percent in the South, and 19 percent in the West. Nearly three-fourths of adolescents live in an urban area.

The last panel of table 1 shows frequencies and means for adolescents' perceptions of father and mother involvement. For the index of biological father involvement, possible scores range from 0 to 3, with 3 indicating the highest level of involvement and 0 representing the response choice of "do not have this parent." For mother involvement, the index ranges from 1 to 3 because "do not have this parent" is not offered as a response option. (Index computation is described with discussion of table 2.) The mean level of involvement with a biological father reported by adolescents is 1.85 with a standard deviation of 0.91. A higher level of involvement is reported for mothers, with a sample mean of 2.56 and a standard deviation of 0.36, indicating less variation than for father involvement.

In table 2, the mean responses to each of the seven questions about biological father and mother involvement are shown. For questions about mothers, three questions have four Likert-type response choices (1, 2 and 3), while two questions (about closeness and how well child shares ideas) had four response choices (1, 2, 3 and 4). Responses for these latter questions were re-distributed to match the 1-to-3 scale of the other questions (i.e. given values of 1, 1.67, 2.33 and 3, respectively). For the questions about biological fathers, an additional answer choice was offered for each question (0 = "do

not have this parent”).¹³ Therefore, for five of the questions, four Likert-type responses were given (0, 1, 2 and 3), and for the other two, five choices were offered (0, 1, 2, 3 and 4). As with mother involvement, the questions with an additional response choice were redistributed to correspond to the other five questions, resulting in a 0-to-3 scale of involvement for biological fathers. Adolescents have higher mean scores for the questions about mothers, ranging from 2.29 for how often the mother listens to the child’s side of an argument to 2.83 for how often the mother knows who the child is with when he or she is not at home. Responses about biological fathers range from 1.68 for how often the child talks about important decisions to 2.11 for how close the child feels.

Table 3 presents mean scores on the four behavioral outcome measures by whether the adolescent lives (in 1996) with a biological father (who is married to the mother), with no father, or with a step father (who is married to the mother) as well as by the level of involvement by the biological father. Involvement is divided into two categories—“low” and “high”—based on whether the involvement by the biological father is below or above the median level for all biological fathers (median=2.0, and the scale ranges from 0.0 to 3.0).¹⁴ Although a higher proportion of residential fathers fall into the “high” category (74 percent) than do non-residential fathers (26 percent), the average level of involvement for the two groups is very similar; the weighted mean for residential fathers in the “high” involvement category is 2.52 (standard deviation of .27) compared to 2.46 (standard deviation of .28) for non-residential fathers.

¹³ This answer choice is rather ambiguous. Some adolescents chose this response for some father involvement questions but not others, and analysis of other variables indicated that some adolescents who answered “do not have this parent” actually lived with their father. In this research, this category is treated as the lowest possible level of father involvement.

The table shows that regardless of whether an adolescent lives with a biological father, no father or a step father, a high level of involvement by the biological father is significantly associated with improved behavior for all outcomes (as compared to a low level of involvement); two exceptions for which the differences in outcomes between high and low involvement are not significant (at $p < 0.1$) are the negative feelings index for adolescents living with step fathers, and the delinquency index for those living without a father. For all other outcomes, and in all three categories of living arrangements, behavioral problem scores are significantly lower for adolescents who have a highly-involved father compared to those with a less-involved father. The most significant—and in some cases the largest—differences in outcome scores between the two levels of father involvement are observed for adolescents living with their biological father, indicating that a high level of father involvement may yield greater benefit for adolescents in “intact” families. These findings suggest a potential interaction between father presence and father involvement. *Regardless* of living arrangements, a high level of involvement by an adolescent’s biological father is associated with significantly decreased behavioral problems; this implies that even for children who do not live with their biological father, his involvement in their lives improves their behavioral outcomes. At the same time, a high level of involvement is shown to have in some instances a *greater* impact on behavioral outcomes for adolescents who live with their biological father than for those who do not.¹⁵

¹⁴ Only two categories were utilized in order to have sufficient cell sizes for each of the categories.

¹⁵ Since, as reported earlier, the average levels of “high” involvement are similar for both residential and non-residential fathers, this finding does *not* lead to the conclusion that “highly-involved” residential fathers are simply more involved than “highly-involved” non-residential fathers.

REGRESSION RESULTS

In order to further investigate whether father involvement is a significant predictor of behavioral scores and how father involvement may operate differently depending on family structure, I estimated several ordinary least squares (OLS) and logistic regression models.¹⁶ First, regression models were estimated to determine the average effect of father involvement for all adolescents in the sample. Table 4 presents models predicting the four outcomes—negative feelings, delinquency, likelihood of substance use and likelihood of suspension/expulsion. The reader should note that models for the first two outcomes (negative feelings and delinquency) are estimated using OLS regression, so coefficients and standard errors are shown; models for the last two outcomes (substance use and suspension/expulsion) are estimated using logistic regression, so odds ratios and *z*-scores are presented.

The results indicate that, overall, father involvement appears to have a discernible effect on behavioral outcomes. A one-unit increase in the level of father involvement reduces the negative feelings index 0.05 points and reduces the delinquency index by 0.06 points. While these reductions are not large in magnitude (about 14 percent of a standard deviation each), they

¹⁶ As recommended in the NLSY reference materials, sampling weights are *not* used for any of the regression models (Center for Human Resource Research 1998); while detailed description for this rationale is not given in the reference manual, it is indicated that the standard errors from weighted regressions will not be accurate.

are highly significant. The likelihood of substance use is reduced by about 17 percent for each one-unit increase in father involvement, although this effect is only marginally significant. The likelihood of suspension/expulsion does not appear to be affected by the level of father involvement.

As a point of comparison, the effect of mother involvement can be seen on the second page of Table 4. Mother involvement has a large and significant effect on all of the outcomes shown, except the likelihood of suspension. A one-unit increase in mother involvement reduces the negative feelings index by 0.23 points (two-thirds of a standard deviation), reduces the delinquency index by 0.16 points (more than one-third of a standard deviation), and reduces the likelihood of substance use by more than 50 percent. Each of these effects is significantly larger than the respective effects of father involvement.

The next set of regression models interacts the level of father involvement with the three categories of living arrangements in order to determine whether, compared to living with a highly-involved biological father, certain combinations of involvement and family type are particularly detrimental for adolescents' behavioral outcomes. While the theoretical explanation for why fathers may matter for child outcomes has not been well determined, father's physical availability by living in the household may represent social capital which reinforces parenting in a two-parent family (Harris, Furstenberg and Marmer 1998). Thus, father's accessibility may in itself benefit children because it reinforces the cohesion of an "intact" family unit. If this is the case, then involvement by co-resident fathers may have particularly positive effects on adolescents' behavior.

Again, three categories of fathers' residential location are utilized—adolescent lives with the biological father, lives with a step father, or lives with no father.¹⁷ Biological father involvement is again dichotomized into two categories for “high” and “low” involvement, determined by whether the level of involvement falls above or below the median. Therefore, six categories were created representing high versus low father involvement for adolescents living with a biological father, no father or a step father; five dummy variables are included in the models to account for this cross-classification, with the omitted category as living with a highly-involved biological father.

The results in Table 5 show that for the negative feelings index, compared to living with a highly-involved biological father, adolescents in all categories but one experience significantly higher levels of negative feelings. The exception is for those who live with neither their biological father nor a step father, but who have a highly-involved biological father—these adolescents do not have higher levels of negative feelings than their counterparts with residential, biological fathers. With respect to delinquency, only for one category is a significantly higher level of delinquency noted—adolescents who do not live with a father but have a less-involved biological father have delinquency scores that are, on average, 0.11 points higher than adolescents who live with a highly-involved biological father. While coefficients for three of the other categories are positive, indicating increased delinquency relative to the omitted category, they do not reach statistical significance (at $p < 0.1$).

¹⁷ Six percent of the sample (104 cases) lives with cohabiting mothers in 1996. Mothers indicate that for 17 percent of these respondents (18 cases), the father of the child lives in the household. However, it is not clear how the mother is interpreting the meaning of “father.” Therefore, these children are classified as having no resident father both because (1) it is indeterminable whether the child actually lives with the biological father (especially given no marital history to provide additional information), and (2) most cohabiting relationships are short-term and, thus, these families may be qualitatively different from either original-parent or step-parent married families.

The third panel shows estimates for the likelihood of substance use. For this outcome, compared to having a highly-involved, residential biological father, adolescents in all other categories demonstrate a notably higher likelihood of substance use (although the effects are only marginally significant for those with a less-involved, residential father and those with a highly-involved, nonresidential father). Among adolescents with less-involved fathers, those living with no father are nearly 2.5 times as likely—and those living with a step father are nearly twice as likely—to have used one or more substances. Also, those living with a step father—but who have a highly-involved biological father—are also nearly 2.5 times as likely to have used substances as those living with their highly-involved, biological father.

For the final outcome shown, compared to the excluded group, adolescents in each of the five other categories are more likely to have been suspended or expelled. However, only for those living with no father and whose biological father is not very involved in their lives is the effect statistically significant.

It is important to note that the magnitude and significance of the differences in outcome scores between a low and high level of father involvement are diminished in Table 5 compared to those shown in Table 3. For example, for adolescents living with their biological father, the average difference in the negative feelings score between those who have a highly-involved and less-involved father as shown in the bivariate analysis in Table 3 is 0.18 points (1.81 – 1.63). However, in the multivariate analysis (Table 5), the size of the difference is only 0.096 points. This reduction in magnitude highlights the impact of adding the range of other variables that are included in the multivariate models. Some of these factors could be potentially endogenous to father involvement and, therefore, the models in Table 5 represent a rather strict test of the effect of father involvement. For example, adolescents who do not

have a highly-involved father may be more likely to experience negative peer influence, since adolescents in single-parent families (where the father is less likely to be involved) are shown to experience greater negative peer influence (Steinberg 1987; Dornbusch et al. 1985). If father involvement operates in part through peer influence, then the multivariate model may be over-controlled and the true effect of father involvement may be underestimated. Because of this potential endogeneity, the regression results represent conservative estimates of the effect of father involvement on behavioral outcomes.

Overall, the results in Table 5 indicate that living with a biological father who is highly involved in one's life appears to be the optimal situation with respect to adolescent behavioral outcomes. For none of the other categories, for any of the outcomes, is a significantly *lower* level of behavioral problems noted than in the excluded category—having a highly-involved, residential father. This holds true for the measure of internalizing behavior used in this analysis—the index of negative feelings—as well as each of the three measures of externalizing behavior.

At the same time, behavioral scores for adolescents who have a biological father who is highly involved but is not co-resident are *not* consistently worse, indicating that father involvement is beneficial even if the father does not live in the adolescents' household. For those who live with no father and have a highly-involved father, for three out of four outcomes the coefficient is positive (indicating a higher level of behavioral problems), but only for the likelihood of substance use is the effect marginally significant. Further, the sizes of the coefficients (and odds ratios) for low versus high father involvement for those living with no father can be compared to assess the effect of father involvement. For all four of the outcomes, the magnitude of the effect is larger at a low level of involvement than at a high level of involvement, indicating that father involvement is beneficial even for adolescents who do not live with

their biological father. For example, delinquency scores for adolescents who live with no father are 0.072 points higher (0.110 – 0.038), on average, for those who have a less-involved biological father compared to those who have a highly-involved biological father.

For adolescents living with a step father and who have a highly-involved biological father, for three out of four outcomes the effect of this category is positive (indicating a higher level of behavioral problems relative to those with a highly-involved, residential father); for the index of negative feelings and the likelihood of substance use, the coefficients are statistically significant. Comparing the magnitudes of the effects for high and low biological father involvement for adolescents in step father families shows that for two out of the four outcomes (delinquency and suspension), a low level of father involvement is associated with greater behavioral problems than a high level of father involvement (e.g. a delinquency score of 0.058 compared to –0.024); however, for the other two outcomes (negative feelings and substance use), a slightly *higher* level of problems is noted for adolescents with highly-involved fathers compared to those with less-involved fathers. Thus, it does not appear that biological father for adolescents living with a step father has the same benefit as it does for adolescents whose biological father is co-resident.

DISCUSSION

As discussed earlier in the paper, the sociological literature about how fathers affect children's outcomes is characterized by the notable lack of consistent evidence that fathers matter (Booth and Crouter 1998; Crockett et al. 1993; Hawkins and Eggebeen 1991; Kandel 1990; King 1994b). Scholars who find no effect of father presence or the frequency of father-child interaction have suggested that the quality of father involvement may be more important than the quantity (Simons et al. 1994; King 1994b). The results in this paper provide important evidence that father involvement can

have an important influence in the lives of adolescents, supporting a nascent strain of research that reaches the same conclusion (Harris, Furstenberg and Marmer 1998; Wenk et al. 1994; Marmer 1998).

The analyses presented in this paper indicate that biological father involvement appears to improve behavioral outcomes for adolescents regardless of whether the father lives with the adolescent or not. In all three living arrangement situations examined—living with the biological father, living with no father and living with a step father—behavioral problem scores are typically lower if the father is highly-involved in the adolescent’s life. The most striking differences are noted in the bivariate analysis, where large and significant differences in scores are observed between adolescents with high and low father involvement in nearly all categories. The magnitude of the father involvement effects is reduced in the multivariate analysis when a range of background and mediating factors are included; because some of the variables included in the regression models may be endogenous to father involvement, these results represent conservative estimates of the effects of father involvement on adolescent behavior. Nonetheless, while not all significant, the effects point to an important role for fathers in the lives of adolescents that has not been well-documented in previous research. The results also indicate that father involvement may have differential effects depending on the father’s residential location. In particular, adolescents living with step fathers do not appear to benefit as much from a high level of biological father involvement. This is an important area for further research.

While these results highlight the potential positive benefit of increased father involvement for all children, there are several important limitations of this analysis that should be noted. One limitation is that the father-closeness variables are available only at the final time point, 1996. Predicting outcomes measured in 1996 by father involvement in 1996 violates the temporal priority of independent variables

occurring before dependent variables. Ideally, one would like to have information on father closeness and involvement over time in order to better determine the role that fathers have played throughout their children's lives. However, use of contemporaneous measures of involvement is motivated by the assumption that any current assessment of relationship quality inherently reflects the history and development of that relationship. Children who perceive their fathers as being close and actively involved in their lives likely do so based on the pattern of interaction they have observed over time, and, thus, one would expect to see a high level of association among children's evaluations of their relationship to their father at different points in time. Also, since behavioral problems are found to persist over time, using behavioral outcomes at any one point in time likely provides a reliable estimate of adolescents' behavior.

Second, selectivity may be operative such that "good" fathers are already highly involved with their children and "bad" fathers are less involved (Furstenberg 1988). In other words, the fathers who are not currently involved with their children may have certain negative characteristics (such as use of substances or are prone to violence) that are different from those fathers who are already highly involved. If this were true, then it would *not* follow that increased involvement by less-involved fathers would be beneficial to adolescents. On the contrary, it could be that increased involvement by such fathers would actually be detrimental to children's outcomes. Unfortunately, in these NLSY data, essentially no information is available about the characteristics of the fathers of the adolescents in the sample. Therefore, it is not possible to ascertain whether those fathers who demonstrate a high level of involvement with their children differ in important characteristics from those who are less involved with their children. Unobserved heterogeneity, thus, should be recognized as a limitation of this analysis because it is not possible to determine the extent to which, and in what ways, highly-involved fathers

may differ from less-involved fathers. In future research, it will be important to examine the characteristics of fathers (using other data) in order to assess which types of fathers are more likely to be involved with their children.

A third limitation concerns the possibility of reciprocal causality. Reciprocal causality is an inherent problem in any social science investigation where a causal direction is posited but where the requisite data are not available to directly decipher particular causal pathways. It is difficult to determine with certainty that a given independent variable affects a given dependent variable without any reciprocal effects in the opposite direction. Family relationships are highly interdependent and reciprocal in nature, so we would expect adolescent behavior and well-being to influence mothers' and fathers' behavior and well-being (Demo and Acock 1996). A child who exhibits hostile and antisocial behavior toward his or her parents may reduce the level of parental involvement because the parent(s) may withdraw out of frustration or exasperation. Indeed, several studies have found an association between externalizing behavior of children and reduced quality of parenting by mothers (and by fathers, but only for boys' bad behavior) (Simons et al. 1994; McLeod, Kruttschnitt and Dornfeld 1994). At the same time, it has been argued that because parent-child relationships are generally asymmetrical in terms of power, the deliberate behavior of parents likely has a greater effect on children than the more simple behavior of children has on parents (Barnes, Farrell and Windle 1990). The findings in this paper should be evaluated with the recognition that they may be affected by this limitation.

IMPLICATIONS FOR RESEARCH AND POLICY

By providing evidence that fathers are important for adolescent's behavioral outcomes, this paper highlights the need for additional research on the role of fathers in children's lives, including the need for additional data to continue to be collected on the nature of relationships between parents and

children. In particular, it would be useful for adolescents to indicate directly whether they consider themselves to have a father (and if not, why not) and/or whether they have a step father or other father figure. In the NLSY self-administered supplement, “do not have this parent” is given as the lowest level of involvement, but it is ambiguous whether this may be due to a father’s death or whether an adolescent chooses this category because they have no contact with their father. These are important distinctions which represent very different family situations. It would also be beneficial for data on father and mother involvement to be obtained from multiple informants, i.e. from both adolescents and parents.

Numerous questions remain unanswered about the role of fathers in children’s lives. Additional work is necessary to better assess the connections between a father’s presence in the household, his behavior toward his children, and how his involvement is perceived by adolescents. Some research has indicated that lack of contact does *not* indicate lack of closeness (Furstenberg and Harris 1992), yet in the data used in this paper, adolescents living with their fathers were more likely to report a high level of involvement with him. It is indeterminate whether “involvement” is perceived differently in father-present homes simply because the father is more accessible, regardless of actual father-child interaction, and further research is necessary on the quantity and quality of involvement by residential fathers compared to that by non-residential fathers. Also, further investigation about the role of step fathers in children’s lives is warranted. In particular, it would be useful to understand how step father involvement affects outcomes as compared to biological father involvement, and whether these two types of father involvement operate as complements or substitutes.

In addition to suggesting areas for further research, this paper has implications for public policy as related to fathers. Much of the recent attention to fathers within the policy arena has focused on increasing fathers’ *financial* contributions to their children through the payment of child support. The

recent welfare reform legislation (the Personal Responsibility and Work Reconciliation Act of 1996) included provisions to strengthen the child support enforcement system by increasing paternity establishment, increasing the number of child support orders in place, and improving collections on existing orders. While financial responsibility of parents for their children is essential, economic support is only one dimension of the important role that fathers can play in their children's lives.

This paper highlights another aspect of how fathers can improve the well-being of their children—by being involved in their lives and developing a close and supportive relationship with them. Even for fathers who do not live with their children, a higher level of involvement is associated to some extent with improved adolescent behavior. Therefore, greater involvement by fathers could obviate some of the negative consequences of living in a single-parent family. In order to encourage father involvement by noncustodial fathers, programs to assist low-income fathers (such as those proposed in the Fathers Count Act of 1999) should be implemented, and existing community-based programs which encourage father involvement should be strengthened. In addition, the child support enforcement system could place greater emphasis on visitation and father-child contact as an important component of child support agreements.

REFERENCES

- Amato, Paul R. 1993. "Children's Adjustment to Divorce: Theories, Hypotheses, and Empirical Support." *Journal of Marriage and the Family* 55:23-38.
- Amato, Paul R. 1994. "Father-Child Relations, Mother-Child Relations, and Offspring Psychological Well-Being in Early Adulthood." *Journal of Marriage and the Family* 56:1031-1042.
- Aquilino, William S. 1996. "The Life Course of Children Born to Unmarried Mothers: Childhood Living Arrangements and Young Adult Outcomes." *Journal of Marriage and the Family* 58:293-310.
- Astone, Nan Marie and Sara McLanahan. 1991. "Family Structure, Parental Practices and High School Completion." *American Sociological Review* 6:309-320.
- Bahr, Stephen J., Suzanne L. Maughan, Anastasios C. Marcos and Bingdao Li. 1998. "Family, Religiosity, and the Risk of Adolescent Drug Use." *Journal of Marriage and the Family* 60:979-992.
- Barnes, Grace M. and Michael P. Farrell. 1992. "Parental Support and Control as Predictors of Adolescent Drinking, Delinquency, and Related Problem Behaviors." *Journal of Marriage and the Family* 54:763-776.
- Barnes, Grace M., Michael P. Farrell and Michael Windle. 1990. "Parent-Adolescent Interactions in the Development of Alcohol Abuse and Other Deviant Behaviors," in *Parent-Adolescent Relationships*, edited by Brian K. Barber and Boyd C. Rollins. Lanham, MD: University Press of America.
- Booth, Alan and Ann C. Crouter. 1998. "Preface," in *Men in Families: When Do They Get Involved? What Difference Does It Make?*, edited by Alan Booth and Ann C. Crouter. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Caldwell, Bettye M. And Robert H. Bradley. 1984. *Home Observation for Measurement of the Environment*. Little Rock, Arkansas.
- Campbell, Susan B. 1994. "Hard-to-Manage Preschool Boys: Externalizing Behavior, Social Competence, and Family Context at Two-Year Followup." *Journal of Abnormal Child Psychology* 22(2):147-166.
- Carlson, Marcia J. 1999. *Family Structure, Father Involvement and Adolescent Behavioral Outcomes*. Dissertation. Ann Arbor, MI: The University of Michigan.

- Carmines, Edward G. and Richard A. Zeller. 1979. *Reliability and Validity Assessment*, Series: Quantitative Applications in the Social Sciences. Newbury Park, CA: Sage Publications.
- Center for Human Resource Research. 1997. *NLSY79: Users' Guide 1997*. Columbus, Ohio: The Ohio State University.
- Center for Human Resource Research. 1998. *NLSY79: 1996 Child & Young Adult Data, Users Guide*. Columbus, Ohio: The Ohio State University.
- Chase-Lansdale, P.Lindsay., Frank L. Mott, Jeanne Brooks-Gunn and Deborah.A. Phillips. 1991. "Children of the National Longitudinal Study of Youth: A Unique Research Opportunity." *Developmental Psychology* 27:918-981.
- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94(Supplement):S95-S120.
- Conger, Rand D., Katherine Jewsbury Conger and Glen H. Elder, Jr. 1997. "Family Economic Hardship and Adolescent Adjustment: Mediating and Moderating Processes," in *Consequences of Growing Up Poor*, edited by Greg Duncan and Jeanne Brooks-Gunn. New York: Russell Sage Foundation.
- Cooksey, Elizabeth C. 1997. "Consequences of Young Mothers' Marital Histories for Children's Cognitive Development." *Journal of Marriage and the Family* 59:245-261.
- Covey, Lirio S. and Debbie Tam. 1990. "Depressive Mood, the Single-Parent Home, and Adolescent Cigarette Smoking." *American Journal of Public Health* 80(11):1330-1333.
- Crockett, Lisa J., David J. Eggebeen and Alan J. Hawkins. 1993. "Father's Presence and Young Children's Behavioral and Cognitive Adjustment." *Journal of Family Issues* 14(3):355-377.
- Demo, David H. and Alan C. Acock. 1988. "The Impact of Divorce on Children." *Journal of Marriage and the Family* 50:619-648.
- Demo, David H. and Alan C. Acock. 1996. "Family Structure, Family Process, and Adolescent Well-Being." *Journal of Research on Adolescence* 6(4):457-488.
- Dornbusch, S.M., J.M. Carlsmith, S.J. Bushwall, P.L. Ritter, H. Leiderman, A.H. Hastorf and R.T. Gross. 1985. "Single Parents, Extended Households, and the Control of Adolescents." *Child Development* 45:326-341.
- Downey, Geraldine and James C. Coyne. 1990. "Children of Depressed Parents: An Integrative Review." *Psychological Bulletin* 108:50-76.

- Duncan, Greg J. and Jeanne Brooks-Gunn, editors. 1997. *Consequences of Growing Up Poor*. New York: Russell Sage Foundation.
- Duncan, Greg J., Jeanne Brooks-Gunn and Pamela Kato Klebanov. 1994. "Economic Deprivation and Early Childhood Development." *Child Development* 65:296-318.
- Flewelling, Robert L. and Karl E. Bauman. 1990. "Family structure as a Predictor of Initial Substance Use and Sexual Intercourse in Early Adolescence." *Journal of Marriage and the Family* 52:171-181.
- Furstenberg, Frank F., Jr. 1988. "Good Dads-Bad Dads: Two Faces of Fatherhood," in *The Changing American Family and Public Policy*, edited by Andrew J. Cherlin. Washington, D.C.: The Urban Institute.
- Furstenberg, Frank F., Jr. 1996. "Intergenerational Transmission of Fathering Roles in At-Risk Families." (Mimeo.) Paper presented at the NICHD Family and Child Well-Being Network's Conference on Father Involvement, October 10-11, 1996.
- Furstenberg, Frank F., Jr. and Kathleen Mullan Harris. 1992. "The Disappearing American Father?: Divorce and the Waning Significance of Biological Fatherhood," in *The Changing American Family*, edited by S.J. South and S.E. Tolnay. Boulder: Westview Press.
- Furstenberg, Frank F., Jr., S. Philip Morgan, and Paul D. Allison. 1987. "Paternal Participation and Children's Well-Being." *American Sociological Review* 52:695-701.
- Hanson, Thomas, Sara McLanahan and Elizabeth Thomson. 1997. "Economic Resources, Parental Practices and Children's Well-Being," in *Consequences of Growing Up Poor*, edited by Greg Duncan and Jeanne Brooks-Gunn. New York: Russell Sage Foundation.
- Harper, Cynthia C. and Sara S. McLanahan. 1998. "Father Absence and Youth Incarceration." (Mimeo.) Paper presented at the 1998 annual meetings of the American Sociological Association, San Francisco, CA.
- Harris, Kathleen Mullan, Frank F. Furstenberg, Jr. and Jeremy K. Marmer. 1998. "Paternal Involvement with Adolescents in Intact Families: The Influence of Fathers over the Life Course." *Demography* 35(2):201-216.
- Harris, Kathleen Mullan and Jeremy K. Marmer. 1996. "Poverty, Paternal Involvement, and Adolescent Well-Being." *Journal of Family Issues* 17(5):614-640.
- Hawkins, Alan J. and David J. Eggebeen. 1991. "Are Fathers Fungible?: Patterns of Coresident Adult Men in Maritally Disrupted Families and Young Children's Well-Being." *Journal of Marriage and the Family* 53:958-972.

- Haurin, R. Jean. 1992. "Patterns of Childhood Residence and the Relationship to Young Adult Outcomes." *Journal of Marriage and the Family* 54:846-860.
- Hetherington, E. Mavis and W. Glenn Clingempeel. 1992. "Coping with Marital Transitions: A Family Systems Perspective." *Monographs of the Society for Research in Child Development* 57(2-3), Serial No. 227.
- Hoffmann, John P. and Robert A. Johnson. 1998. "A National Portrait of Family Structure and Drug Use." *Journal of Marriage and the Family* 60:633-645.
- Jekielek, Susan M. 1998. "Parental Conflict, Marital Disruption and Children's Emotional Well-Being." *Social Forces* 76(3):905-935.
- Kalil, A., K. Rosenblum, J. Eccles and J. Sameroff. 1999. "Family Structure or Family Resources?: Linking Marital Status to Children's Adjustment in Economically Diverse Black and White Families." (Manuscript submitted for publication.)
- Kandel, Denise B. 1990. "Parenting Styles, Drug Use, and Children's Adjustment in Families of Young Adults." *Journal of Marriage and the Family* 52:183-196.
- King, Valerie. 1994a. "Nonresident Father Involvement and Child Well-Being: Can Dads Make a Difference?" *Journal of Family Issues* 15(1):78-96.
- King, Valerie. 1994b. "Variation in the Consequences of Nonresident Father Involvement for Children's Well-Being." *Journal of Marriage and the Family* 56:963-972.
- Korenman, Sanders, Jane E. Miller and John E. Sjaastad. 1995. "Long-term Poverty and Child Development in the United States: Results from the NLSY." *Children and Youth Services Review* 17:127-155.
- Lamb, Michael E. 1987. "Introduction: The Emergent American Father" in *The Father's Role: Cross-Cultural Perspectives*, edited by Michael E. Lamb. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Luster, Tom and Harriette Pipes McAdoo. 1994. "Factors Related to the Achievement and Adjustment of Young African American Children." *Child Development* 65:1080-1095.
- Marmar, Jeremy K. 1998. "Benefits of Father Involvement for Adolescents in Intact Families by Race." Paper presented at the 1988 annual meetings of the Population Association of America, Chicago, IL.

- Marsiglio, William. 1995. "Fatherhood Scholarship: An Overview and Agenda for the Future," in *Fatherhood: Contemporary Theory, Research, and Social Policy*, edited by William Marsiglio. Thousand Oaks, CA: Sage Publications.
- Mason, Craig A., Ana Mari Cauce, Nancy Gonzales and Yumi Hiraga. 1994. "Adolescent Problem Behavior: The Effect of Peers and the Moderating Role of Father Absence and the Mother-Child Relationship." *American Journal of Community Psychology* 22(6):723-743.
- McLanahan, Sara and Julia Adams. 1987. "Parenthood and Psychological Well-Being." *Annual Review of Immunology* 5:237-57.
- McLanahan, Sara and Gary Sandefur. 1994. *Growing Up with a Single Parent: What Hurts, What Helps*. Cambridge, MA: Harvard University Press.
- McLeod, Jane D., Candace Kruttschnitt and Maude Dornfeld. 1994. "Does Parenting Explain the Structural Conditions on Children's Antisocial Behavior? A Comparison of Blacks and Whites." *Social Forces* 73(2):575-604.
- McLeod, Jane D. and Michael J. Shanahan. 1993. "Poverty, Parenting, and Children's Mental Health." *American Sociological Review* 58:351-366.
- McLeod, Jane D. and Michael J. Shanahan. 1996. "Trajectories of Poverty and Children's Mental Health." *Journal of Health and Social Behavior* 37:207-220.
- McLoyd, Vonnie C. 1998. "Socioeconomic Disadvantage and Child Development." *American Psychologist* 53(2):185-204.
- Orthner, Dennis K. and Peter A. Neenan. 1996. "Children's Impact on Stress and Employability of Mothers in Poverty." *Journal of Family Issues* 17(5):667-687.
- Parcel, Toby L. and Elizabeth G. Menaghan. 1988. "Measuring Behavioral Problems in a Large Cross Sectional Survey: Reliability and Validity for Children of the NLS Youth." (Mimeo.) Center for Human Resource Research. The Ohio State University.
- Parcel, Toby L. and Elizabeth G. Menaghan. 1993. "Family Social Capital and Children's Behavior Problems." *Social Psychology Quarterly* 56(2):120-135.
- Pearlin, L., M. Lieberman, E. Menaghan and J. Mullan. 1981. "The Stress Process." *Journal of Health and Social Behavior* 22:337-356.
- Pearlin, L. and C. Schooler. 1978. "The Structure of Coping." *Journal of Health and Social Behavior* 19:2-21.

- Radloff, L.S. (1977), "The CES-D Scale: A Self Report Depression Scale for Research in the General Population," *Applied Psychological Measurement* 1, pp. 385-401.
- Rogers, Stacy J., Toby L. Parcel and Elizabeth G. Menaghan. 1991. "The Effects of Maternal Working Conditions and Mastery on Child Behavior Problems: Studying the Intergenerational Transmission of Social Control." *Journal of Health and Social Behavior* 32:145-164.
- Salem, Deborah A., Marc A. Zimmerman, Paul C. Notaro. 1997. "Effects of Family Structure, Family Process, and Father Involvement on Psychosocial Outcomes of African-American Adolescents." (Mimeo.) Paper presented at the biennial meeting of the Society for Research in Child Development, Washington, D.C.
- Simons, Ronald L., Les B. Whitbeck, Jay Beaman and Rand D. Conger. 1994. "The Impact of Mothers' Parenting, Involvement by Nonresidential Fathers, and Parental Conflict on the Adjustment of Adolescent Children." *Journal of Marriage and the Family* 56:356-374.
- Smith, Judith R., Jeanne Brooks-Gunn and Pamela K. Klebanov. 1997. "Consequences of Living in Poverty for Young Children's Cognitive and Verbal Ability and Early School Achievement," in *Consequences of Growing Up Poor*, edited by Greg Duncan and Jeanne Brooks-Gunn. New York: Russell Sage Foundation.
- Snarey, John. 1993. *How Fathers Care for the Next Generation*. Cambridge, MA: Harvard University Press.
- Steinberg, L. 1987. "Single Parents, Stepparents, and the Susceptibility of Adolescents to Antisocial Peer Pressure." *Child Development* 58:269-275.
- Stern, M., J.E. Northman and M.R. Van Slyck. 1984. "Father Absence and Adolescent Problem Behaviors: Alcohol Consumption, Drug Use, and Sexual Activity." *Adolescence* 19:301-312.
- Teachman, Jay, Randal Day, Kathleen Pasch, Karen Carver and Vaughn Call. 1998. "Sibling Resemblance in Behavioral and Cognitive Outcomes: The Role of Father Presence." *Journal of Marriage and the Family* 60:835-848.
- Wells, L. Edward and Joseph H. Rankin. 1991. "Families and Delinquency: A Meta-Analysis of the Impact of Broken Homes." *Social Problems* 38(1):71-93.
- Wills, T. A. 1990. "Social Support and the Family," in *Emotions and the Family*, edited by E. Blechman. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Wenk, DeeAnn, Constance L. Hardesty, Carolyn S. Morgan and Sampson Lee Blair. 1994. "The Influence of Parental Involvement on the Well-Being of Sons and Daughters." *Journal of Marriage and the Family* 56:229-234.

Zimmerman, Marc A., Deborah A. Salem, and Kenneth I. Maton. 1995. "Family Structure and Psychosocial Correlates among Urban African-American Adolescent Males." *Child Development* 66:1598-1613.

Table 1.--Descriptive Characteristics of Adolescents Ages 10-14 in 1996 ¹
(n=1,685)

	Percent/ Mean	Std. Dev.
<u>Adolescent characteristics:</u>		
Family structure		
Lives with biological father (married, original parents)	54.2	
Lives with no father ²	30.4	
Lives with step father (married, mother and step father)	15.4	
Race/ethnic origin		
Hispanic	8.0	
Black, non-Hispanic	16.3	
White (non-black, non-Hispanic)	75.8	
Female	50.2	
First born	48.1	
Age in 1996 (mean)	11.7	(1.3)
Low birth weight	6.8	
Number of siblings		
None	10.0	
One to two	73.2	
Three or more	16.8	
Frequency of religious attendance (range=1 to 6) (mean)	3.7	(1.8)
Negative peer influences (range=0 to 5) (mean)		
None	84.0	(1.0)
One to five	16.0	
<u>Mother characteristics:</u>		
Age at first birth (mean)	21.2	(3.0)
Years of education (mean)	12.6	(2.1)
Has 12 years or more	81.1	
AFQT score (mean)	675.7	(210.6)
CES-D score (mean)	10.5	(9.7)
At risk of depression (CESD 16+)	24.6	
Pearlin mastery score (mean)	3.11	(.45)

Table 1 (continued).--Descriptive Characteristics of Adolescents Ages 10-14 in 1996 ¹
(n=1,685)

	Percent/ Mean	Std. Dev.
<u>Family characteristics:</u>		
Income-to-needs ratio ³ (mean)	2.49	(1.61)
Poor (1.0 or less)	15.9	
Near poor (1.0 to 1.85)	23.9	
HOME total score, 1996 (mean)	53.0	(28.4)
Region of residence		
Northeast	13.8	
North central	31.5	
South	35.9	
West	18.8	
Urban residence	72.6	
<u>Indices of parental involvement (means) ⁴</u>		
Father involvement (n=1,625)	1.85	(.91)
Mother involvement (n=1,652)	2.56	(.36)

¹Weighted by the child's sampling weight in 1996.

²Six percent of the sample (104 cases) lives with cohabiting mothers in 1996. Mothers indicate that for 17 percent of these respondents (18 cases), the father of the child lives in the household. However, it is not clear how the mother is interpreting the meaning of "father." Therefore, these children are classified as having no resident father both because (1) it is indeterminable whether the child actually lives with the biological father (especially given no marital history to provide additional information), and (2) most cohabiting relationships are short-term and, thus, these families may be qualitatively different from either original-parent or step-parent married families.

³Computed for years 1991, 1992, 1994 and 1996 (last four surveys with requisite data).

⁴Father and mother involvement indices are computed as the average of seven variables for each case that has non-missing values for at least two of the seven variables. Index values for mother involvement range from 1 to 3, and for father and step father involvement from 0 to 3 (because a category "do not have this parent" is offered which is not the case for mothers).

Table 2.--Relationship with Biological Father and Mother, as
 Reported by Adolescents Ages 10-14 in 1996
 (n=1,685)

	Bio. Father	Mother
<u>Mean Responses to Questions</u> ¹		
How often the parent talks over important decisions with the child	1.68 (1.03)	2.44 (.70)
How often the parent listens to the child's side of an argument	1.73 (1.06)	2.29 (.76)
How often the parent knows who the child is with when the child is not home	1.94 (1.12)	2.83 (.45)
Whether the parent spends enough time with the child	1.88 (1.21)	2.68 (.73)
How often the parent misses events or activities that are important to the child	1.76 (1.06)	2.49 (.67)
How close the child feels to the parent	2.11 (1.04)	2.72 (.47)
How well the parent and the child share ideas or talk about things that really matter	1.82 (1.00)	2.46 (.58)
Overall involvement mean	1.85 (.91)	2.56 (.36)

¹Standard deviations in parentheses.

Note: All means are weighted by the child's sampling weight. Unweighted number of cases vary for questions about the mother (1,495-1,581) and father (1,464-1,517), depending on missing data. Range of scores for mother questions is 1 to 3, and for father and step father questions is 0 to 3 (because "do not have this parent" is given as an answer choice, coded as 0).

Table 3.--Outcomes by Father's Presence and Level of Biological Father Involvement (n=1,598) ¹

	Overall Mean/Pct.	(SD)	Live w/ Bio. Father		Live w/ No Father		Live w/ Step Father	
			Bio. Involvement		Bio. Involvement		Bio. Involvement	
			Low (n=192)	High (n=560)	Low (n=453)	High (n=152)	Low (n=171)	High (n=70)
Negative feelings index (range=1 to 3)	1.73	(.35)	1.81	1.63 ***	1.81	1.70 ***	1.81	1.74
Delinquency index (range=1 to 4)	1.38	(.44)	1.42	1.29 ***	1.47	1.39	1.48	1.27 ***
Ever used one or more substances (0,1)	23.2		28.6	12.6 ***	32.0	21.7 **	37.5	24.8 *
Ever suspended/ expelled (0,1)	11.7		8.2	4.8 *	23.0	14.6 **	18.4	8.7 *

*p<.1 **p<.05 ***p<.01

Note: All means and frequencies are weighted by the child's sampling weight in 1996.

¹All adolescents live with their mother in 1996; 752 live with a biological father, 605 with no father, and 241 with a step father; 87 of the total number of adolescents who live with their mother (1,685) are not included because of missing data.

²Father involvement is computed as the average of the seven father-involvement variables for each case that has non-missing values for at least two of the seven variables. Index scores range from 0 to 3. To obtain categories of low and high levels of father involvement, the total distribution was divided into involvement below and above the median level.

Table 4.--Estimated Coefficients of OLS and Logistic Regression Models:
Behavioral Outcomes for Adolescents Ages 10 to 14 in 1996

	OLS Regression Models				Logistic Regression Models			
	Negative Feelings		Delinquency		Substance Use		Suspension	
	<i>b</i>	SE	<i>b</i>	SE	Exp(<i>b</i>)	<i>z</i>	Exp(<i>b</i>)	<i>z</i>
Biological father involvement	-.047 ^c	.014	-.056 ^c	.018	.827 ^a	-1.848	.833	-1.575
Family structure								
Lives with biological father	(excluded)		(excluded)		(excluded)		(excluded)	
Lives with no father	-.006	.030	.042	.033	1.628 ^b	2.060	1.446	1.361
Lives with step father	.038	.035	-.019	.036	1.425	1.412	1.173	.504
<u>Background Characteristics</u>								
Race								
White ¹	(excluded)		(excluded)		(excluded)		(excluded)	
Black	-.008	.032	.015	.037	.499 ^c	-2.611	2.292 ^c	2.809
Hispanic	-.079 ^b	.031	.009	.038	.782	-.960	.845	-.518
Female	.037 ^a	.019	-.104 ^c	.022	1.145	.834	.348 ^c	-5.185
First born	.040 ^a	.024	-.062 ^b	.026	.437 ^c	-4.254	1.191	.750
Age in 1996	-.010	.008	.038 ^c	.010	1.690 ^c	7.697	1.407 ^c	4.552
Low birth weight	-.023	.041	.029	.045	.979	-.070	1.262	.728
Region								
North central	(excluded)		(excluded)		(excluded)		(excluded)	
Northeast	-.021	.033	.048	.044	1.206	.679	1.061	.169
South	.025	.026	-.036	.031	.814	-.914	1.119	.390
West	.015	.032	-.017	.038	.757	-1.051	1.402	1.070
Lives in urban area	.000	.025	.075 ^c	.027	1.050	.236	1.501	1.642
<u>Mother's Characteristics, Siblings and Economic Status</u>								
Age at first birth	-.005	.005	-.006	.005	.953	-1.165	.874 ^c	-2.769
Education								
Less than 12 years	-.061 ^a	.035	-.013	.048	1.046	.161	.807	-.630
12 years	-.035	.024	-.016	.026	1.255	1.154	.820	-.774
More than 12 years	(excluded)		(excluded)		(excluded)		(excluded)	
AFQT score (10 pts.)	-.001	.001	-.001 ^a	.001	.994	-.906	.994	-.838
Siblings of child in HH	.014	.010	.007	.012	.835 ^a	-1.876	.959	-.414
Family Economic Status ²								
Poor (<1.0)	-.024	.034	.006	.044	.927	-.264	1.831 ^a	1.840
Near-poor (1.0-1.85)	.034	.027	-.028	.031	.835	-.808	1.669 ^a	1.907
Not poor (>1.85)	(excluded)		(excluded)		(excluded)		(excluded)	

Table 4 (continued).--Estimated Coefficients of OLS and Logistic Regression Models:
Behavioral Outcomes for Adolescents Ages 10 to 14 in 1996

	OLS Regression Models				Logistic Regression Models			
	Negative Feelings		Delinquency		Substance Use		Suspension	
	<i>b</i>	SE	<i>b</i>	SE	Exp(<i>b</i>)	<i>z</i>	Exp(<i>b</i>)	<i>z</i>
<u>Other Factors</u>								
Mother Involvement	-.227 ^c	.029	-.163 ^c	.037	.467 ^c	-3.456	.825	-.754
Peer Influence								
# of neg. peer influences	.038 ^c	.010	.125 ^c	.017	1.705 ^c	7.129	1.285 ^c	3.436
Mother's Psychological Well-Being								
CES-D score (16+)	.056 ^b	.027	.016	.030	1.193	.861	1.053	.211
Pearlin mastery score	-.011	.024	-.005	.028	1.175	.816	.894	-.492
Freq. of religious attendance	.005	.006	-.000	.007	.985	-.323	.906 ^a	-1.778
HOME score (10 pts.)	-.006	.004	.004	.005	1.014	.419	1.040	.928
Constant/Log Likelihood	2.65 ^c	.20	1.65 ^c	.24	-499.96		-378.49	
Model F-test/Wald Chi-Sq.	7.17		9.84		195.11 ^c		145.73 ^c	
R-squared/Pseudo R ²	.146		.227		.204		.191	

^a p<.1 ^b p<.05 ^c p<.01

Note: Robust standard errors have been estimated to adjust for clustering of multiple children of the same mother. Numbers of cases for each model range from 1,166 to 1,188, based on missing data.

¹Non-black, non-Hispanic

²Based on average income-to-needs ratio for 1991, 1992, 1994 and 1996 (last four survey years in which data are available).

Table 5.--Estimated Coefficients of OLS and Logistic Regression Models:
Behavioral Outcomes for Adolescents Ages 10 to 14 in 1996

	OLS Regression Models				Logistic Regression Models			
	Negative Feelings		Delinquency		Substance Use		Suspension	
	<i>b</i>	SE	<i>b</i>	SE	Exp(<i>b</i>)	<i>z</i>	Exp(<i>b</i>)	<i>z</i>
<u>Father in Residence and Level of Bio. Involvement¹</u>								
Bio in HH, high bio involvement	(excluded)		(excluded)		(excluded)		(excluded)	
Bio in HH, low bio involvement	.096 ^c	.035	.008	.038	1.652 ^a	1.836	1.335	.811
Neither in HH, high bio involvement	-.009	.039	.038	.042	1.758 ^a	1.671	1.695	1.549
Neither in HH, low bio involvement	.088 ^c	.032	.110 ^c	.042	2.440 ^c	3.443	1.897 ^b	2.191
Step in HH, high bio involvement	.111 ^b	.056	-.024	.043	2.417 ^b	2.496	1.462	.780
Step in HH, low bio involvement	.106 ^c	.035	.058	.041	1.849 ^b	2.221	1.583	1.330
<u>Background Characteristics</u>								
Race								
White ²	(excluded)		(excluded)		(excluded)		(excluded)	
Black	-.005	.032	.020	.037	.508 ^b	-2.537	2.360 ^c	2.914
Hispanic	-.073 ^b	.031	.014	.039	.799	-.877	.868	-.431
Female	.033 ^a	.019	-.100 ^c	.023	1.116	.676	.347 ^c	-5.242
First born	.042 ^a	.024	-.062 ^b	.026	.441 ^c	-4.218	1.185	.729
Age in 1996	-.009	.008	.038 ^c	.010	1.702 ^c	7.795	1.412 ^c	4.613
Low birth weight	-.023	.041	.031	.046	.970	-.103	1.264	.747
Region								
North central	(excluded)		(excluded)		(excluded)		(excluded)	
Northeast	-.018	.033	.050	.045	1.250	.809	1.064	.176
South	.025	.026	-.033	.031	.818	-.890	1.135	.443
West	.011	.032	-.012	.038	.726	-1.196	1.392	1.042
Lives in urban area	-.004	.025	.073 ^c	.027	1.025	.122	1.473	1.569
<u>Mother's Characteristics, Siblings and Economic Status</u>								
Age at first birth	-.005	.005	-.006	.006	.951	-1.213	.875 ^c	-2.750
Education								
Less than 12 years	-.063 ^a	.035	-.015	.048	1.036	.128	.805	-.634
12 years	-.037	.024	-.016	.027	1.241	1.098	.809	-.830
More than 12 years	(excluded)		(excluded)		(excluded)		(excluded)	
AFQT score (10 pts.)	-.001	.001	-.001	.001	.994	-.931	.994	-.791

Table 5 (continued).--Estimated Coefficients of OLS and Logistic Regression Models:
Behavioral Outcomes for Adolescents Ages 10 to 14 in 1996

	OLS Regression Models				Logistic Regression Models			
	Negative Feelings		Delinquency		Substance Use		Suspension	
	<i>b</i>	SE	<i>b</i>	SE	Exp(<i>b</i>)	<i>z</i>	Exp(<i>b</i>)	<i>z</i>
Siblings of child in HH	.013	.010	.006	.012	.831 ^a	-1.913	.952	-.493
Family Economic Status ³								
Poor (<1.0)	-.018	.034	.018	.044	.957	-.156	1.895 ^a	1.945
Near-poor (1.0-1.85)	.037	.027	-.024	.032	.846	-.747	1.688 ^b	1.968
Not poor (>1.85)	(excluded)		(excluded)		(excluded)		(excluded)	
<u>Other Factors</u>								
Mother Involvement	-.228 ^c	.030	-.178 ^c	.037	.475 ^c	-3.382	.800	-.890
Peer Influence								
# of neg. peer influences	.038 ^c	.010	.127 ^c	.017	1.704 ^c	7.081	1.286 ^c	3.481
Mother's Psychological Well-Being								
CES-D score (16+)	.058 ^b	.027	.019	.030	1.204	.907	1.083	.328
Pearlin mastery score	-.008	.024	-.004	.028	1.188	.861	.916	-.382
Freq. of religious attendance	.006	.006	-.000	.007	.986	-.297	.907 ^a	-1.757
HOME score (10 pts.)	-.006	.004	-.000	.005	1.014	.415	1.036	.844
Constant/Log Likelihood	2.50 ^c	.19	1.54 ^c	.24	-499.25		-379.39	
Model F-test/Wald Chi-Sq.	6.82 ^c		8.77 ^c		192.64 ^c		144.69 ^c	
R-squared/Pseudo R ²	.147		.221		.205		.190	

^a p<.1 ^b p<.05 ^c p<.01

Note: Robust standard errors have been estimated to adjust for clustering of multiple children of the same mother. Number of cases ranges from 1,166 to 1,188, based on missing data.

¹Six dummy variables are created which represent whether the adolescent lives with a biological father (married to the mother), a step father (married to the mother) or neither father.

²Non-black, non-Hispanic

³Based on average income-to-needs ratio for 1991, 1992, 1994 and 1996 (last four survey years in which data are available).