

DOCUMENT RESUME

ED 414 046

PS 026 022

AUTHOR Greene, Angela Dungee; Moore, Kristin Anderson
TITLE Nonresident Father Involvement and Child Outcomes among
Young Children in Families on Welfare.
INSTITUTION Child Trends, Inc., Washington, DC.
SPONS AGENCY National Inst. of Child Health and Human Development (NIH),
Bethesda, MD. Early Child Care Network.
PUB DATE 1996-10-00
NOTE 36p.; A preliminary version of this paper was presented at
the Conference on Father Involvement (Bethesda, MD, October
10-11, 1996).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Child Behavior; *Child Support; Emotional Adjustment; Family
Environment; *Fathers; *Parent Child Relationship; Predictor
Variables; Social Adjustment; Welfare Recipients; *Young
Children
IDENTIFIERS Child Support Enforcement Program; Job Opportunities and
Basic Skills Program; *Noncustodial Parents

ABSTRACT

This study used descriptive data from the Job Opportunities and Basic Skills (JOBS) Child Outcome Study to identify predictors of involvement among nonresident fathers of young children who receive welfare, and the relationship of father involvement to child outcomes. Participating were 693 mothers and children ages 3 to 5 in Fulton County, Georgia whose fathers lived elsewhere. The measures of father involvement were father-child visitation, formal child support payments received through the child support enforcement system, and informal child support, such as money or material given to the mother. Findings showed that while only 16.6 percent of fathers provided child support through the formal system during the past year, 42.3 percent provided informal support, and 67 percent visited at least once. Father's residence in the same state as the focal child and the provision of support for the child from the father's family were associated with a higher likelihood of his involvement. Monetary and material contributions from the father, especially informal contributions, were associated with more positive child outcomes. Formal and informal child support were associated with higher child scores on the Personal Maturity Scale. Informal child support was positively correlated with the quality of the child's home environment as measured on the HOME-SF, especially the cognitive stimulation subscale. The data consistently failed to provide support for the assumption that father-child visitation has positive effects on child well-being. (Contains 35 references.) (SD)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED 414 046

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Nonresident Father Involvement and Child Outcomes Among Young Children in Families on Welfare

Angela Dungee Greene and Kristin Anderson Moore

Child Trends, Inc.
Washington, DC

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL
HAS BEEN GRANTED BY

Felisha
Hawkins

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

A preliminary version of this paper was presented at the Conference on Father Involvement, October 10-11, 1996, National Institutes of Health, Bethesda, Maryland. Support for this research was provided by the National Institute of Child Health and Human Development through its Family and Child Well-being Research Network.

BEST COPY AVAILABLE

ABSTRACT

This study uses early descriptive data from the Jobs Opportunities and Basic Skills (JOBS) Child Outcome Study, a substudy of the larger random assignment evaluation of the Federal JOBS program, to answer two timely and important questions. First, what factors predict father involvement among nonresident fathers of young children who receive welfare? And, second, is nonresident father involvement associated with better outcomes for these children? The three measures of nonresident father involvement examined are father-child visitation, formal child support payments received through the child support enforcement system, and informal child support, such as money given directly to the mother, groceries, clothes, or other items. Findings reveal that while only 16.6 percent of fathers provided child support through the formal system during the past year, a considerably larger proportion, 42.3 percent, provided informal child support, and 67 percent visited at least once in the past year. Informal support and father child visitation are the most highly correlated forms of involvement, and they share many of the same predictors. Only two predictors are significant and in the same direction for all three measures of nonresident father involvement. Father's residence in the same state as the focal child and the provision of support for the child from the father's family are associated with a higher likelihood of his involvement. In general, findings for the child well-being measures show that monetary and material contributions from the father, especially contributions provided informally, are associated with more positive child outcomes. Both the payment of formal child support and the provision of informal child support by the biological father are associated with higher scores on the Personal Maturity Scale, a measure of emotional and behavioral development. In addition, informal child support, but not formal child support, is associated with higher scores on a measure of the quality of the child's home environment, the HOME-SF, particularly its cognitive stimulation subscale. However, these data consistently failed to provide support for the assumption that father-child visitation has positive effects on child well-being.

Nonresident Father Involvement and Child Outcomes Among Young Children in Families on Welfare

As the number of children born to unmarried parents has increased, public interest in fathers of these children has also grown. Many children born outside of marriage are particularly disadvantaged and very likely to receive welfare. AFDC expenditures to children of never-married women have increased and concomitantly so have efforts to reduce public outlays by more strictly enforcing child support obligations of nonresident fathers. However, most research on nonresident father involvement focuses on middle-class fathers who are either divorced or separated from the mothers of their children. Little is known about involvement among fathers of children born outside of marriage, especially children in families that receive welfare. In general, research shows that never-married fathers have less contact with their children and are less likely to pay child support than divorced or separated fathers. However, levels and forms of involvement vary among never-married fathers. For instance, those who live close to their children are more likely to visit several times a week than are other never-married fathers and those with stable incomes are more likely to pay child support regularly. In addition, since AFDC guidelines stipulated that only fifty dollars of child support could be disregarded and passed through to the family, fathers of children on welfare may have been more likely to contribute informally by giving money directly to the mother and or providing items, such as groceries, clothes, toys, etcetera. These flexible monetary and nonmonetary contributions may be more important than formal child support payments to the home environment and general well-being of children on welfare. Yet, few studies have examined the effects of nonresident involvement, particularly informal child support, on child outcomes.

This study seeks to answer two timely and important questions. First, what factors predict various forms of father involvement among nonresident fathers of young children who receive welfare? And, second, is nonresident father involvement associated with more positive outcomes for these children?

BACKGROUND

Welfare legislation emphasizes the role of the Child Support Enforcement program, which locates nonresident fathers, arranges for paternity establishment, facilitates the granting of child support awards, and collects payments. Recipients of Aid to Families with Dependent Children (AFDC) were required to sign over their child support benefits to the state issuing their AFDC and to cooperate with efforts to locate absent fathers. However, despite concerted attempts to recoup public outlays to AFDC recipients, the child support collection rates for this group remain relatively low. For instance, in 1993 CSE collection rates were 26.1 percent among non AFDC cases but 11.7 percent among AFDC cases (Bureau of the Census, 1995).

Under AFDC legislation, only the first 50 dollars of monthly child support could be disregarded and passed on to the family. This stipulation is considered one reason fathers of children on AFDC opt for alternative means of contributing to the support of their children. Even fathers in marginal or economically unstable conditions are found to contribute food, diapers, clothing, and some financial assistance informally (Hardy, Duggan, Masnyk, & Pearson, 1989). Edin (1994) interviewed 214 mothers on AFDC in four cities to examine the efficacy of the child support enforcement system for AFDC recipients. Most strikingly, she discovered that fathers assume more financial responsibility for their children informally than through the formal child support system. One-third of the women in the sample reported regular financial support from the fathers, while only 14 percent received this support through the formal child support enforcement system. An additional 30 percent of mothers reported that in lieu of monetary support, fathers provided items, such as disposable diapers, school clothing and shoes, and/or Christmas and birthday gifts. Mothers regarded these monetary and nonmonetary contributions as significant sources of assistance to their strained budgets.

Some fathers contend that they prefer to purchase items and services for their children rather than to pay money directly to the mother or the child support office. A study of 155 young unmarried fathers enrolled in a pilot project found in the baseline interview that 49 percent of the fathers reported monetary support to the mothers of their children, while 93 percent reported purchases of clothing, other items and even child care services. Fathers pointed out that buying needed items allowed them to directly provide support and maintain control over how their money was spent. In addition, they viewed these tangible contributions as symbols of responsible fatherhood that gained them respect in their community (Achatz & MacAllum, 1994).

Existing qualitative and small-scale research on mostly young, low-income, unmarried fathers provides insight into the norms and common practices associated with paternity establishment and plans for child support in circumstances of nonmarital births. For instance, an ethnographic study of young, African American fathers in a low-income New York neighborhood revealed the commonality of informal agreements between young mothers and fathers regarding child support and child care (Sullivan, 1993). In most cases, couples established paternity through informal acknowledgment by the male before the birth of the child and then made plans for the child's care and support. After the birth of the child, young fathers were likely to find sporadic "off the books" employment so that their financial contributions to the mother could not be traced and deducted from her AFDC benefits. Most fathers were found to be actively involved in the lives of their children, especially early on. In fact, both young fathers and their families provided regular child care and contributed money and items like diapers, food, and clothes.

Similarly, Furstenberg (1995) has observed that fathers tended to be more involved with their children when their own families were supportive. On the other hand, some fathers were very committed, especially soon after the birth of their child, regardless of their family's level of support. Interviews with the young adult offspring of a sample of teen mothers in

Baltimore studied since the mid-1960s showed a substantial level of involvement among the fathers of their children. In 1987, 93 percent of those who had become young mothers reported that the fathers of their children acknowledged paternity and more than half reported that they had a formal or informal child support agreement. In addition, about half of the nonresident fathers had their children stay for an overnight visit at least once in the past year and a sizable proportion saw their children at least weekly.

Longitudinal follow-up of the original Baltimore study of 400 mostly African American teen mothers initiated in the mid 1960s, (Furstenberg & Harris, 1993) confirmed that nonresident father involvement is often quite substantial initially but declines over time. Teen mothers were followed from pregnancy until their children reached school age in 1972 and then reinterviewed several times over the years as their offspring entered young adulthood. During the preschool years, frequency of father-child contact was relatively high, but by mid-adolescence, 46 percent of the children had no contact with their father. Similarly, at age one, 80 percent of the children received some child support, but four years later only one in three, and by mid-adolescence only one in six children, received child support. Furstenberg and Harris (1993) also observed that in the early years, never married fathers were as likely to support their children as were divorced or separated fathers, but over time, previously married fathers were markedly more likely to continue support.

Studies based on nationally representative samples also find lower rates of child support payment and visitation for never married fathers compared to previously married fathers (King, 1994a; Seltzer, 1991; Seltzer & Bianchi, 1988) and declines in nonresident father involvement over time (Furstenberg, Nord, Peterson, & Zill, 1983; Lerman, 1993; Mott, 1990; Seltzer, 1991). Lerman (1993) focused on a sample of never married, young nonresident fathers from the National Longitudinal Survey of Youth (NLSY) and observed varying levels of involvement. In general, two broad patterns of visitation and child support provision emerged based on these fathers' reports. More than half of the fathers lived near their children, visited them often, and paid child support, while the majority of the remaining portion of fathers rarely visited and usually paid no support (Lerman, 1993).

Some national survey findings reveal that nonresident African American fathers are more likely to visit (King, 1994a; Lerman, 1993; Mott, 1990; Seltzer, 1991) and participate in childrearing decisions (Seltzer, 1991) than are their white or Hispanic counterparts. For instance, Mott (1990) examined data from the National Longitudinal Survey of Youth (NLSY) and observed that nonresident African American fathers are more likely than white fathers to live near their children and to visit frequently. Other research also indicates that fathers' residential proximity to their children increases the likelihood of father-child visitation (Furstenberg et al., 1983; Lerman, 1993; Seltzer, 1991).

Other factors associated with increases in the likelihood of father involvement are a positive relationship between the mother and father, father's financial resources, father's work experience, and mother's education which is a proxy for father's education (Danziger &

Radin, 1990; Seltzer, 1991). Factors associated with decreasing father involvement include geographic mobility, a new spouse or partner, conflicts between the mother and father, and insufficient financial resources (Furstenberg & Harris, 1993; Seltzer & Bianchi, 1988).

In general, there appears to be a strong association between father-child contact and the provision of child support. Fathers that maintain contact with their children are more likely to pay child support or vice versa (Arditti & Keith, 1993; Furstenberg, Nord, Peterson, & Zill, 1983; King, 1994a; Seltzer, Schaeffer, & Charng, 1989; Sonenstein & Calhoun, 1990). For example, findings from the National Survey of Families and Households show that in the absence of financial support, contact is especially low, and the important factor is the provision of support rather than the actual amount of support (Seltzer, et al., 1989). However, Veum (1993) used longitudinal data from the NLSY to examine the association between child support and visitation over time and found no causal association between the two forms of involvement. He concluded that the relationship observed in cross-sectional studies is due to unmeasured characteristics of the parents that may change over time, such as their relationship with each other or commitment to the child.

Findings based on national data provide limited support for an association between father involvement and child outcomes; however, involvement indicators are usually limited to the amount of child support paid and the frequency of father-child contact. The effect of informal child support on child outcomes has not been examined. Large-scale surveys generally find no association between father-child contact and child well-being indicators, such as cognitive test scores, academic achievement measures, behavior ratings, and measures related to perceptions of scholastic competence and self worth (Baydar & Brooks-Gunn, 1994; Furstenberg, Morgan, & Allison, 1987; King, 1994b; McLanahan, Seltzer, Hanson, & Thomson, 1994). However, one study of adolescents revealed that father contact was actually related to increases in the level of delinquency reported by mothers (Furstenberg, Morgan, & Allison, 1987). Similarly, another investigation indicated that father visitation was associated with higher levels of mother-reported behavior problems and lower math scores among African American school-age children (King 1994a 1994b). Findings from some small-scale studies suggest that the quality of the interaction or level of attachment between the father and child positively affects child outcomes and is more important than the frequency of father-child contact (Furstenberg & Harris, 1993; Hess & Camara, 1979).

The strongest evidence of an association between father involvement and child well-being involves child support provision. Several studies document the positive effects of child support on child outcomes, particularly in the domain of cognitive development and academic achievement (Graham, Beller, & Hernandez, 1994; King 1994b; Knox & Bane, 1994). For example, using NLSY data to examine outcomes among school-aged children, King (1994b) found that the payment of child support was associated with higher levels of perceived scholastic competence and higher reading and math scores on standardized tests. In addition, some studies reveal that child support payments are related to fewer school-related problems and general behavior problems (Furstenberg, Morgan, & Allison, 1987; McLanahan et al.,

1994). An analysis of data from the National Survey of Children, for example, indicated that the level of child support received is associated with declines in the level of behavior problems reported by both mothers and teachers of youth ages 11 to 16 (Furstenberg, Morgan, & Allison, 1987).

DATA

Early descriptive data from the Jobs Opportunities and Basic Skills (JOBS) Child Outcome Study are used to explore correlates of formal child support, informal child support and father visitation, and these forms of nonresident father involvement as predictors of child outcomes for a sample of preschool-age children in families that receive welfare.

The JOBS Child Outcomes Study is a substudy of the larger random assignment evaluation of the Federal JOBS program, conducted by the Manpower Demonstration Research Corporation in seven sites around the country and involving 55,000 individuals. The JOBS Child Outcomes study is a longitudinal investigation designed to assess the effects of the mandatory welfare-to-work program on children ages three to five at the time their mothers enter the program. The study involves about 3,000 mothers and children in three sites: Fulton County, Georgia; Riverside County, California; and Kent County, Michigan. At each site, those eligible for the JOBS program were randomly assigned to either a control group or one of two program groups, called the human capital development and the labor force attachment groups (Moore, Zaslow, Coiro, Miller, & Magenheim, 1995).

The Descriptive Survey, a component of the Child Outcomes Study, was conducted in Fulton County, Georgia, about three months after random assignment. The survey was administered in person and focused on a randomly selected child between the ages of three and five years. The focal child was almost always the mother's youngest child at the time she entered the JOBS program, since women with children under age three are exempt from JOBS participation. One child was randomly selected to be the focal child in cases where the mother had two children ages three to five. The Descriptive sample is comprised of 790 mother-child pairs from all three research groups (Moore et. al., 1995).

The present study focuses on children from the Descriptive sample who were living with their biological mothers and had a father living elsewhere, excluding those in prison for whom child support and visitation are impossible. About 96 percent of the Descriptive sample are African American women and their children, and the sample for this study has been limited to only African American respondents who met the aforementioned criteria. The resultant sample consists of 693 mostly never-married mothers and their children. The Descriptive data are comprised of interviewer observations of the home environment and mother-child interactions, achievement and school readiness assessments given to the children by the interviewers, and information collected from mothers on various topics including father involvement.

While data reported by the father on his involvement would be a very desirable addition, such information is not available; reporting by biological mothers is common and considered a relatively conservative appraisal of father involvement (see Seltzer & Brandreth, 1994; Sonenstein & Calhoun, 1990).

As stated earlier, mothers were randomly assigned to either a control group or one of two program groups, called the human capital development and the labor force attachment groups. The Child Outcomes Study data were weighted to adjust for differential sampling across these experimental groups.

MEASURES

The father involvement and child outcome measures are described in this section. Appendix A provides detailed definitions and descriptive statistics for these variables, as well as the independent and control variables referred to in the subsequent methods section. This section also includes proposed hypotheses related to the child outcome measures.

Father Involvement Variables

Three measures of father involvement are available: formal child support, informal child support, and father visitation. These measures are considered to represent separate dimensions of involvement. For instance, although both formal child support and informal child support are measures of economic involvement, they capture different forms and sources of assistance from fathers. In this study, formal child support refers to the cash payments that mothers who have voluntary or court-ordered award agreements receive from fathers through the formal child support enforcement system. Informal child support, however, is not contingent on the existence of an award agreement and indicates cash and or in-kind contributions fathers offer directly to mothers in addition to or in lieu of formal child support payments.

More specifically, *formal child support* is a dichotomous measure that indicates whether the mother received at least one child support payment in the past year through the formal child support enforcement system. Unfortunately, data were not available to include a measure of the amount of child support received.

Informal child support is a summary measure comprised of three variables: a created measure indicating how often the father gave money directly to the mother in the past year (regularly = 2, at least once = 1, never = 0) and two additional items - how frequently he bought groceries, and how frequently he bought clothes and or toys (often = 2, sometimes = 1, never = 0). From the summary measure (range = 0 to 6), a dichotomous variable was created to indicate whether the father contributed any one type or combination of types of informal support at least once in the past year.

To determine differential effects of high and low levels of support, additional analyses use a pair of dummy variables indicating no support versus low informal support (father gave money at least once in the past year, or sometimes bought groceries or clothes, toys, or presents) and no support versus high informal support (father gave money regularly; often bought groceries or clothes, toys, or presents; or sometimes or regularly contributed any combination of the types of informal support).

Father visitation is operationalized by an item that asks how often the child has seen his or her father in the past year. Response categories are coded from lowest to highest frequency and include: never, once in the past 12 months, two to 11 times, one to three times per month, about once a month, two to five times per week, or almost every day. The item (range = 0 to 6), was collapsed into a dichotomous variable indicating whether the father has seen the child at least once in the past year.

As with informal support, additional analyses use a pair of dummy variables indicating no father visitation versus low father visitation (one to 11 times in the past year) and no visitation versus high father visitation (one to three times a month to almost every day).

Child Outcome Variables and Hypotheses

The following section includes a brief description of each outcome variable, a few findings from related research, and hypotheses based on both prior research and the general contention that father involvement in the form of formal child support, informal child support, and visitation benefits children.

The **Caldwell Preschool Inventory (PSI)** is a measure of the school readiness of preschool children (Caldwell, 1970). This interviewer-administered inventory consists of 32 items designed to assess skills and concepts, such as the ability to follow directions, knowledge of the meaning of common words, and knowledge of colors, shapes, and numbers. High PSI scores indicate high levels of school readiness, according to this definition of school readiness. Age corrected norms are not available, therefore PSI scores are expected to vary according to the child's age, and age is controlled in all analyses. Several studies find that the payment of child support is associated with improvements in children's cognitive development and educational achievement but generally find no association between father-child contact and outcomes in this domain (e.g. Baydar & Brooks-Gunn, 1994; Graham, Beller, & Hernandez, 1994; King 1994b; Knox & Bane, 1994). Therefore both formal and informal child support are expected to have positive effects and visitation is expected to have no effect on the PSI.

Hypothesis 1: Both the formal and informal child support provided by fathers exert positive effects on the PSI scores of children in families that receive AFDC.

Hypothesis 2: There is no association between father visitation and PSI scores.

The **Personal Maturity Scale (PMS)** indicates each child's emotional and behavioral development based on the mother's report on 14 items, including whether the child fights, is creative, is loving and affectionate, or has a strong temper. The higher the score the greater the level of maturity. At least two studies based on large survey data reveal that child support payments are related to fewer school-related problems and general behavior problems (Furstenberg, Morgan & Allison, 1987; McLanahan et al., 1994). On the other hand, most studies using survey data find either no association between father visitation and behavior indicators (e.g. Furstenberg, Morgan, & Allison, 1987; King, 1994b; McLanahan, Seltzer, Hanson, & Thomson, 1994) or limited evidence of a negative association between father visitation and mother-reported delinquency (Furstenberg, Morgan, & Allison, 1987) and behavior problems (King, 1994a). Some small-scale studies suggest that the quality of the interaction or level of attachment between the father and child positively affects child outcomes and is more important than the frequency of father-child contact (Furstenberg & Harris, 1993; Hess & Camara, 1979). A stronger association is anticipated for formal and informal child support than for visitation.

Hypothesis 3: Both formal and informal child support are associated with increases in Personal Maturity Scale scores.

Hypothesis 4: There is a weak positive association between father-child visitation and the child's Personal Maturity Scale score.

The short form of the **Home Observation for Measurement of the Environment (the HOME-SF; Baker & Mott, 1989)** serves as our measure of the quality of the child's home environment. The scale consists of 25 items that are based on maternal report and interviewer rating and tap the level of emotional and cognitive support available to the child in the home. An item that related to the child's father was excluded from the HOME-SF scale for these analyses; the adapted version includes 24 items. The HOME-SF scale consists of socioemotional and cognitive stimulation subscales, comprised of 10 items and 14 items respectively. Researchers note that the HOME-SF is sensitive to small increments in family income, particularly for the home environments of poor children (Garret, Ng'andu, & Ferron, 1994; Moore, Morrison, Zaslow, & Gleib, 1994). Therefore, formal and informal child support are expected to have positive effects on the home environment. Visitation is also considered to be a positive component of the home environment in that contact with fathers is presumed to be enriching for children.

Hypothesis 5: Both formal and informal child support contributions are associated with improvements in the child's home environment.

Hypothesis 6: Father-child visitation is associated with improvements in the child's home environment.

METHODS

The analyses are divided into two sections. The initial section addresses the first question posed regarding predictors of father involvement among nonresident fathers of young children who receive welfare. Logistic regression equations are estimated to identify predictors of each dichotomous form of father involvement. OLS regression equations were also estimated to identify predictors of the "continuous" forms of informal child support and visitation. Predictors include the age and gender of the focal child and information about the mother, such as her educational attainment, literacy level, duration of welfare receipt, and whether she was a teen at the birth of the focal child. Characteristics related to the father include whether paternity has been established, whether he lives in the same state as the focal child, and whether, to the mother's knowledge, he has other children. Other incorporated predictors are support from the father's family in the form of clothing, toys, presents, or child care; support for the mother from her own parents; and whether the child has a father figure other than his or her biological father. All models also control for whether the mother belongs to the labor force attachment group, the human capital development group, or the study's control group.

The second section consists of a series of OLS regression equations in which formal child support, informal child support, and visitation are independent variables and most of the aforementioned variables are included as controls. The primary aim of these analyses is to observe the relative importance of formal child support, informal child support, and visitation as predictors of selected child well-being measures. These regressions address the second research question and related hypotheses by examining whether the economic and or personal investments made by fathers who live apart from their children affect the cognitive and behavioral outcomes or the home environments of their children, net of other factors.

FINDINGS

Descriptive Results

Formal Child Support, Informal Child Support, and Visitation

Table 1 shows the percent distribution of the three forms of father involvement in the past year based on the mother's report. Only 16.6 percent of the fathers made at least one child support payment through the formal system in the past year. The proportion of fathers who provided informal support, such as money directly to the mother, groceries, or clothes for the child (42.3 percent), is more than twice as high as the proportion who paid formal child support. However, as Table 1 reveals, visitation is the most common form of involvement for this sample. Sixty-seven percent of the children saw their father at least once in the past year.

Appendix Table 1 displays a detailed percent distribution of the father involvement variables with all six levels of both informal child support and visitation. For example, the modal category for informal child support indicates that 19.5 percent of fathers sometimes provided one of three types of informal support. These fathers sometimes or on occasion gave money directly to the mother, bought groceries, or bought clothes, toys or presents. According to mothers' reports only two percent of the fathers often, for instance regularly, provided all three types of informal support. The modal category for visitation indicates that 21.3 percent of the children saw their fathers about two to eleven times in the past year. In contrast, only six percent saw their fathers almost every day.

As previously described, this study focuses on formal child support, informal child support, and visitation as separate dimensions of father involvement and the relative importance of the three forms as predictors of selected child outcomes. However, for descriptive purposes, correlations between the forms of involvement were also analyzed. The correlation between formal child support and visitation ($r = .19$) and between formal child support and informal child support ($r = .17$) are modest in comparison to the correlation between informal child support and visitation ($r = .53$). Appendix Table 2 provides further insight by showing the percent distribution of father involvement across all three forms. First, about 70 percent of fathers were involved with their preschool children at least minimally in the past year. About 10 percent of fathers provided some formal child support and informal child support and also visited at least once. The table reveals that only about 2.0 percent of fathers provided formal child support alone. Instead, fathers that paid formal child support were likely to have provided some informal child support and to have visited as well. However, the largest category of involvement, 30.6 percent, indicates that the combination of two forms, informal child support and visitation, was most common among these fathers. Yet, while only about one percent of fathers contributed informal child support alone, a full 21.7 percent visited without providing formal or informal support. These two findings suggest that fathers visit with their children when they bring items like money, groceries, clothes, or toys; however, fathers do not necessarily make such contributions when they visit their children.

Multivariate Results

Predictors of Formal Child Support, Informal Child Support, and Visitation

Table 2 presents the odds ratios for separate logistic regression models predicting formal child support, informal child support, and visitation. Two predictors are significant and in the same direction for all three forms of involvement. Fathers' residence in the same state as the focal child dramatically increases the likelihood of his involvement. The residence factor is associated with nearly a fivefold increase in the odds of formal child support, a threefold increase in informal child support provision, and nearly a sixfold increase in the odds of visitation. Similarly, compared to fathers with uninvolved family members, fathers whose family members provide support for the child like clothes, toys and child care are more likely to be involved with their children. These fathers are 56 percent more likely to pay formal

child support, and much more strikingly, they are over six times more likely to visit and to provide informal child support.

The three forms of father involvement are correlated, as noted earlier, but informal support and visitation are most closely associated, as reflected by the pattern of significant predictors. For instance, mothers were asked whether the father has other children. This measure is considered a proxy for ongoing contact between the mother and father. Mothers who are uncertain of whether the father has other children are believed to have little if any contact with the father or present knowledge of his status. Thus, among mothers who report that they do not know whether the father has other children, as compared to mothers who were certain the father does not have other children, the likelihood of informal support declines by 47 percent and father-child visitation declines by 72 percent. On the other hand, the likelihood of formal child support receipt increases by 79 percent among mothers who know the father has other children.

As Table 2 further indicates, paternity establishment through marriage or legal judgement is associated with a threefold increase in the likelihood of formal child support, but has no effect on the other two forms of involvement. Similarly, the focal child's age is predictive of formal child support only. The probability of receiving formal child support declines with increases in the age of the child. Another association limited to only one form of involvement shows that children who were born to mothers age 19 or younger were 50 percent less likely than their peers to have seen their fathers at least once in the past year.

Father involvement is also associated with the length of time mothers have received welfare. Among mothers who have received welfare for less than two years, as compared to the middle range of two to four years, the odds of formal child support decreased by 59 percent, but the odds of informal child support and father-child visitation increased 79 percent and 75 percent respectively. Interestingly, among mothers on welfare five or more years, the odds of receiving informal child support declined by 47 percent.

Finally, Table 2 reveals that the presence of a father figure in the focal child's life other than the biological father is associated with the probability of support and visitation from his or her biological father. Among children whose father figure is the mother's partner or friend, as compared to those with no father figure, the likelihood of receiving formal child support increases by 63 percent, while, in contrast, the likelihood of informal child support receipt and father-child visitation decreases by about 35 percent and 37 percent, respectively. The odds of father-child visitation also declines among children whose father figure is a relative, family friend, or someone else. These children are 52 percent less likely to have seen their father in the past year than are their counterparts who have no father figure.

In sum, receipt of formal child support from the biological father is greater when he resides in the same state, when his own family provides assistance to the child, and when paternity has been established. Mothers who report knowing that their child's father has other

children are also more likely to receive formal child support, as are mothers with a partner whom she describes as a father figure for the child. However, the likelihood of receiving formal child support declines as the child's age increases, and mothers on welfare for less than two years are less likely to receive formal child support.

Fathers are less likely to contribute informal child support when the mother has a partner who is described as the child's father figure, the mother has received welfare five or more years, and the mother does not know whether the biological father has other children. Fathers are more likely to provide informal child support when they reside in the same state as their child, when their own family assists, and when the mother has been on welfare for less than two years. Similarly, visitation is more likely when the father resides in the same state, when his own family assists, and the mother has been on welfare less than two years. Visitation is less likely when the mother does not know whether the father has other children, the mother was a teenager when the child was born, and when the mother reports that the child has a father figure other than their biological father.

The causal direction underlying the associations found cannot be examined with the available data. However, these results¹ are generally unsurprising and suggest that the data are reliable and valid.

Father Involvement and Child Outcomes

Table 3 presents unstandardized regression coefficients for models predicting the five child outcome measures. The following discussion focuses primarily on the three measures of father involvement. The first column shows the model for the Caldwell Preschool Inventory (PSI), a school readiness indicator. Based on prior research that shows an association between child support payments and cognitive outcomes, the first hypothesis of this study proposes that both formal and informal child support are associated with the PSI. However, as Table 3 shows, none of the measures of father involvement are associated with this child outcome in this sample. The main predictors of the PSI are the child's gender and age. Females score significantly higher than males, and not surprisingly given the age sensitive nature of the assessment, scores improve with increases in age. There is a strong negative association between PSI scores and the number of the mother's own children. Additionally, scores are lower among children whose mothers have less than 12 years of education as compared to their peers whose mothers have 12 or more years, and children's PSI scores increase with mother's literacy level.

¹OLS regression equations were estimated for the "continuous" forms of child support and visitation (Appendix Table 1 displays the six levels of both variables). The results remained the same for informal child support, and two additional predictors emerged for visitation. The frequency of father-child visitation increases with mother's literacy level and declines among children whose fathers were known to have other offspring.

The second column highlights findings for the Personal Maturity Scale (PMS), revealing full support for the second hypothesis. As proposed, both formal and informal child support are associated with this measure of emotional and behavioral development, suggesting that children benefit from the monetary and material support fathers provide. Even controlling for many factors, children who received formal or informal support from their fathers at least once in the past year received significantly higher (better) ratings from their mothers on this measure than their peers whose fathers did not contribute formally or informally. On the other hand, Table 3 does not offer support for the hypothesis that father-child visitation exerts a weak positive effect on the child's level of personal maturity. In fact, the coefficient for father-child visitation is negative, though small and nonsignificant. In addition to the findings for the father involvement indicators, Table 3 shows that significant increases in PMS scores are associated with the mothers' literacy level and welfare duration of less than two years. In contrast, lower scores are observed for boys, and lower scores are observed when the child's father figure is the mother's partner. Quite surprisingly, scores are lower when the family of the child's father provides help in the form of clothes, toys, presents, or child care.

Column three shows a marginally significant association between one father involvement measure, informal child support, and the HOME-SF. In partial support of the fifth hypothesis, informal child support, but not formal child support, is associated with improvements in the quality of the child's home environment. As previously described, HOME-SF scores are based on mother reports and interviewer ratings and tap the cognitive and socioemotional resources available to the child in the home. Researchers have found the measure to be sensitive to even small increases in family income especially in the homes of poor children, and this finding suggests that informal monetary and nonmonetary contributions improve the quality of the child's home environment. Improvements in HOME-SF scores are also associated with former marriage or legal paternity, welfare duration of less than two years, literacy level, and the provision of assistance from the family of the child's father as well as the mother's own parents.

Findings for the two subscales of the HOME-SF reveal that informal child support exerts its positive effect on the cognitive aspect of the home environment. The cognitive stimulation subscale includes items related to the overall safety and organization of the home environment, the availability of books and magazines in the home, whether someone helps the child learn basic academic skills, and whether someone takes the child on outings to church, the library, museums, etcetera. Informal child support is the only father involvement indicator associated with this outcome. Children who receive informal support from their fathers have more cognitively stimulating environments than their peers who do not receive such support. Higher cognitive stimulation scores are also associated with the provision of assistance to the child from the father's family, as well as increases in the mother's literacy level. Cognitive stimulation scores are lower for the homes of boys as compared to girls and for homes where the mother has less than 12 years of education.

Socioemotional subscale items refer to the emotional tone of the mother's interactions with her child, physical punishment of the child observed by the interviewer or reported by the mother, and the structuring of the child's day to provide choices, supervision, and support. There is no association between the father involvement measures and this subscale. Children who receive formal support, informal support, or visits from their fathers are at no greater or lesser advantage relative to their peers in terms of the socioemotional circumstances of their homes. Factors associated with improved socioemotional subscale scores are mother's literacy level and welfare receipt of less than two years. Scores are lower for the homes of boys and for the homes of children whose father figure is their mother's partner.

In additional analyses that used dummy variables indicating high and low levels of informal support and visitation, the equations described above were replicated. As Table 4 shows, in general, the patterns of significant results remain. Again, both formal and informal child support are found to be associated with the Personal Maturity Scale. The coefficients for low and high levels of informal support are both marginally significant, suggesting that for this child well-being measure, the important factor is whether the father provided any informal support rather than how often he provided it. On the other hand, Table 4 reveals that high informal support but not low informal support is associated with the cognitive subscale of the HOME-SF. Apparently, the occasional or one time contribution of money, groceries, or other items is not substantial enough to significantly affect the cognitive aspects of the child's home environment².

Policy makers and program administrators often predicate their efforts to increase nonresident father involvement on the assumption or general hypothesis that both child support and father-child visitation are beneficial to children. The merits of formal child support and especially informal child support are reflected in the findings described above. To further analyze the relationship between visitation and selected child outcomes, two additional measures of father-child visitation, babysitting and overnight care, were included in several

² To determine whether father involvement is of greater or lesser importance for boys than girls, interaction terms of child's gender by each form of involvement were included with control variables in equations for the five outcomes. The three forms of involvement were then combined in a variable indicating no father involvement versus some father involvement and interacted with child's gender in regressions for each outcome. According to the significant findings that emerged, the receipt of informal child support is associated with improvements in the overall home environment and the socioemotional facets of the home environment for boys more than for girls. Similarly, the complete absence of father involvement appears to be more detrimental for boys in terms of their overall home environment, particularly the cognitive stimulation features of their home.

additional equations³. However, these data consistently failed to provide support for the presupposition that father-child visitation per se has positive effects on child outcomes.

In sum, a suggestive pattern is found in these data. First, both the payment of formal child support and the provision of informal child support by the biological father are associated with higher scores on the Personal Maturity Scale. In addition, informal child support, but not formal child support, is associated with higher scores on the HOME-SF and particularly the cognitive subscale of the HOME-SF. Finally, in general, visitation as assessed here is unrelated to any of the child outcomes.

DISCUSSION

According to mothers' reports, many nonresident fathers of children who receive welfare are involved with their children at least minimally. These findings revealed that while only 16.6 percent of fathers provided child support through the formal system during the past year, a considerably larger proportion, 42.3 percent, provided informal child support, and 67 percent visited at least once in the past year. Perhaps the most striking finding is the relatively large proportion of fathers who made informal monetary and in-kind contributions directly to

³ In addition to the frequency of contact item that comprises the visitation variable, mothers were asked whether the father babysat for the child (never, sometimes, often; mean for babysat- sometimes or often = .234, s.d. = .423) or cared for the child overnight (never, sometimes, often; mean for overnight care- sometimes or often = .217, s.d. = .413). These additional contact items were included in analyses. First, to assess whether when combined with the informal child support variable these indicators of father-child contact enhance the relationship between informal child support and child outcomes, two new informal support measures were created. The first combined babysitting and overnight care with the original informal support variable in a summary measure. The second combined visitation with the original informal support variable in a summary measure. Only three significant results emerged from numerous analyses. In separate models, the continuous form of informal support with babysitting and overnight care, the continuous form of informal support with visitation, and the dummy variable for high informal support with visitation were associated with increases in scores on the cognitive stimulation subscale of the HOME-SF. However, these versions of informal support are not considered improvements over the original variable in that neither informal support with babysitting and overnight care nor informal support with visitation was associated with the Personal Maturity Scale or any other child outcome.

Additional analyses predicting the selected child outcome measures controlled for formal child support the original informal child support variable and the other predictors and in separate equations included: dummy variables for babysitting and/or overnight care versus none and visitation only versus none; the continuous form of the visitation measure; a summary measure including visitation, babysitting, and overnight care, where the continuous and high/low forms were analyzed; visitation, babysitting, and overnight care entered in separate models. Marginally significant findings appeared only when the dummy variables for overnight care (sometimes versus never and often versus never) were included in equations for the HOME-SF and the two subscales. There appears to be a negative association between overnight child care by the father and the quality of the child's home environment. However, it should be noted that only about 22 percent of fathers were reported to have cared for their children overnight, which translates into about one third of fathers who visited their children during the past year. Clearly, this measure indicates a specific type of father-child visitation limited to a smaller segment of the sample; therefore, the marginal effects on the home environment cannot be attributed to father-child visitation in general.

the mother in addition to, or more often, in lieu of payments through the formal child support enforcement system. Similarly, Edin (1994) found that only 14 percent of a sample of 214 mothers on AFDC reported the receipt of formal child support, while the proportion of mothers who acknowledged the receipt of informal monetary or material support from the fathers of their children was comparable to the proportion of mothers who received informal child support in this sample. Clearly, the inclusion of formal child support alone as a measure of economic involvement may grossly underestimate the support provided by fathers of children on welfare.

When the three forms of involvement are combined, findings reveal that about 70 percent of fathers provided formal or informal child support or visited at least once in the past year. Seltzer (1991) examined data from the National Survey of Families and Households (NSFH) and found that paying child support, visiting, and participating in childrearing activities are strongly correlated involvement measures among nonresident fathers and concluded that the activities "go together". These data indicate that while the three forms of involvement examined here are related dimensions, informal support and visitation are most closely associated.

Findings regarding predictors of the forms of involvement appear to be reasonable and reliable. A few findings are particularly noteworthy. For instance, fathers' residence in the same state as the focal child greatly increases the likelihood of his involvement. The residence factor is associated with formal child support, informal child support, and visitation. Other research using measures of actual miles or travel time to indicate the residential distance between fathers and their children also shows that residential proximity is associated with increases in father involvement (Seltzer, 1991; Furstenberg, Nord, Peterson, & Zill, 1985). However, the direction of the association is unclear. For instance, fathers who contribute informally and visit may choose to live near their children to facilitate contact and support, or fathers who happen to live nearby may remain involved because it is convenient to do so. In terms of formal child support, one possible reason for the association is that mothers may be able to report accurate information about fathers to the child support enforcement office because they are more likely to know the address and employment status of fathers who live nearby. However, because this association is observed for all three forms of involvement, this is unlikely to be the only factor.

These findings also indicate that fathers whose family members provide support for the child, such as clothes, toys, and child care, are more likely to be involved with their children than are fathers with uninvolved family members. Again the direction of the association is unknown; however, prior research suggests that a father's family members, especially his own mother, may be very influential in child-related matters. Anderson (1993) has observed that the paternal grandmother may encourage or discourage the father's involvement depending on whether or not she likes the mother of the child and believes her son to be the child's father. Her social acknowledgment of paternity fosters his own informal acknowledgment and obligates the young father to provide some form of assistance for his child. In many cases, the

father's family assists in the care and support of the child and encourages the father to remain involved (Anderson, 1993; Sullivan, 1993).

Interestingly, prior marriage or legal paternity is associated with a large increase in the likelihood of receiving child support through the formal system but has no effect on informal child support or visitation. This finding for child support is both consistent with prior research and logical, since paternity must be established by marriage, formal acknowledgment, or legal judgement before a child support award can be granted. Yet, most research indicates that the likelihood of visitation is also higher among the previously married than the never married. The lack of association between prior marriage or legal paternity and the other two forms of involvement for this sample may suggest the existence of norms regarding nonmarital childbearing that differ from mainstream patterns. For example, some qualitative and small-scale research finds that unmarried fathers and mothers agree on informal arrangements for the care and support of their children (Sullivan, 1993; Furstenberg, 1995; Edin, 1995). In an ethnographic study of three low-income neighborhoods, Sullivan (1993) observed that neither marriage nor cohabitation were associated with father involvement; fathers were likely to actively participate in the lives of their children regardless of these statuses. On the other hand, Furstenberg and Harris (1993) noted that while early on there were no differences in the involvement patterns of never married compared to previously married fathers, declines in involvement over time were greater for never married fathers. Analyses of follow-up data collected from this sample may show a similar pattern for never-married fathers. Further analyses of later waves of these data will facilitate the tracking of formal child support payments, informal child support, and visitation as they relate to child outcomes longitudinally.

In general, findings for the child well-being measures show that monetary and material contributions from the father, especially contributions provided informally, are associated with better outcomes among children in these families on welfare. As hypothesized, both formal and informal child support have positive effects on the Personal Maturity Scale, a measure of the child's emotional and behavioral development. Mothers who receive formal or informal support from fathers report fewer behavior problems and higher levels of social and emotional adjustment for their children. This finding is consistent with prior research showing that the payment of child support is associated with declines in school-related and general behavior problems (Furstenberg, Morgan, & Allison, 1987; McLanahan et al., 1994). In addition to the economic benefits of child support, some researchers propose that child support may be a proxy for unmeasured characteristics of the father, such as a sense of responsibility for and commitment to the child, that enhance child well-being and are unique to fathers who are able and willing to provide for their children (King, 1994b; McLanahan et al., 1994). Given that this is a mother-report measure, better child behavior may also reflect a more positive perspective on the part of the mother as well as improved behavior on the part of the child. In the domain of behavioral adjustment, even small or inconsistent contributions from fathers through the formal system or directly to the mother in the form of money, groceries, clothes,

or other items may have both tangible and symbolic significance for mothers and children in this sample.

The strongest evidence of an association between father involvement and child well-being involves the informal child support measure. Overall, informal child support appears to be more beneficial to these children than formal child support in that informal child support is positively associated with the the Personal Maturity Scale, as well as the HOME-SF and its cognitive stimulation subscale. Although both forms of child support were hypothesized to exert positive effects on the quality of the home environment, these findings reveal that only informal child support is associated with improvements in the child's home environment, particularly the level of cognitive stimulation available. The lack of association between formal child support and outcomes in this domain may suggest that the payments received through the formal system, when at most only 50 dollars of the father's formal child support payment is passed on to the mother and child, amounted to less than the money given directly to mothers or the value of the in-kind contributions fathers provided. Edin (1994) noted that among families on welfare, flexible arrangements were made around informal support so that mothers could have nonresident fathers increase their monetary contribution or purchase specific items for the child when needed and then lower the amount of their contribution at less crucial times and when fathers were unable to assist. Perhaps the mothers in this sample made similar arrangements with the fathers of their children, which resulted in this positive effect on the quality of the home environment.

This association between informal child support and the home environment is especially important because a strong cognitive home environment has positive effects on children's intellectual development (Mott, 1993). The HOME-SF used in this study was adapted from the full HOME Scale (Caldwell & Bradley, 1984), which has been found to be related to measures of cognitive development and school performance (Bradley et. al., 1989; Elardo Bradley & Caldwell, 1975 Gottfried, 1984). Over time, informal support from the father may be associated with improvements in cognitive assessment scores and academic achievement for these children, either directly or through the cognitive aspects of the home environment. The relationship between father involvement measures and child outcomes can be analyzed longitudinally as later waves of these data become available.

It is necessary to acknowledge, of course, that, in the JOBS evaluation, all waves of data collection depend upon mother-report data for information on child support and visitation. For a variety of reasons, the mother may choose to under-report both the receipt of assistance from the father and contact with the father. Such under-reporting would inevitably undermine the strength of any associations that one might find in the data. In addition, it is possible, particularly as the child grows older, that the father sees the child and provides gifts or money directly to the child, contributions of which the mother is not aware. Again, under-reporting might undermine the potential to detect whether and how the father-child relationship affects the child's development. Studies that examine child support and visitation might seek to obtain information directly from the child or from the father as well as the mother. For instance,

measures of the quality and nature of the father-child interaction from the perspective of the mother, the father, and even the child could greatly enhance analyses focusing on the relationship between father-child visitation and child outcomes and provide insight into the general lack of association found in this study.

If the findings regarding formal and informal child support were replicated in other, more representative populations, they might suggest varied policy approaches ranging from helping families to leave welfare so they could receive child support payments in full directly from the father to passing through a larger amount of the formal child support payment to the mother and child. These data were collected before Aid to Families with Dependent Children (AFDC) had been replaced with Temporary Assistance to Needy Families (TANF). The new law not only strengthens provisions for paternity and establishment of a child support order, it requires that states cut cash grants by at least 25 percent and as much as 100 percent for non-cooperation with these efforts. In addition, effective July 1, 1997, or six months after a state plan is received, states will no longer be required to pass through the first 50 dollars of each child support payment to the family, and automated tracking procedures of delinquent child support accounts are to be upgraded. How these new provisions will interact to affect fathers' payment of formal child support, their provision of informal child support, and their visitation with their children is unknown but worthy of future investigation.

Table 1
Percent Distribution of Father Involvement: Formal Child Support, Informal Child Support, and Visitation

Father Involvement Variables ^a	None (%)	Some (%)
Formal Child Support (N = 686)	83.4	16.6
Informal Child Support (N = 682)	57.7	42.3
Visitation (N = 684)	33.0	67.0

Source: Data from the Descriptive Survey of the JOBS Child Outcomes Study, 1992.

Note. Table values (except N's) are based on weighted data.

^aSome Formal Child Support = father paid child support through the formal system at least once in the past year. Some Informal child support = father provided any one or a combination of the following types of informal support at least once in the past year: 1) gave money directly to the mother, 2) bought groceries, 3) bought clothes, toys, or presents. Some visitation = father has seen child at least once in the past year.

Table 2
Odds Ratios for Models Predicting Three Forms of Father Involvement in the Past Year: Formal Child Support, Informal Child Support, and Visitation

	Formal Child Support	Informal Child Support	Visitation
Child's Characteristics			
Child's gender (1 = male)	0.86	1.25	0.90
Child's age in months	0.97*	0.99	1.00
Father's Characteristics			
Father lives in same state as child	4.86***	3.43***	5.87***
Father has other children	1.79*	0.95	0.70
Not known whether father has other children	1.12	0.53*	0.28***
Mother's Characteristics			
Mother was married to father or legal paternity established	2.88***	1.03	1.44
Mother was age 19 or younger at child's birth	1.61	0.67	0.50*
Number of mother's own children	1.17	1.07	1.14
Mother is in Education/Training Group	1.01	1.09	1.00
Mother is in Labor Force Group	0.80	1.04	0.85
Mother on welfare less than 2 years	0.41*	1.79*	1.75+
Mother on welfare 5 or more years	0.87	0.53**	0.69
Mother has less than 12 years of education	1.19	1.36	1.07
Mother's literacy level	1.07	1.13	1.23
Sources of Support			
Child's father figure is mother's partner or friend	1.63*	0.65*	0.63*
Child's father figure is a relative or someone else	1.15	1.08	0.48*
Family of child's father provides some help	1.56+	6.10***	6.35***
Mother receives some help from own parents	1.40	0.92	1.13
-2 Log Likelihood	536.44	721.89	620.19
N	686	682	684

Source: Data from the Descriptive Survey of the JOBS Skills Child Outcomes Study, 1992.

Note: Table values (except N's) are based on weighted data; means substituted for missing values on independent variables.
 +p ≤ .10, *p ≤ .05, ** p ≤ .01, *** P ≤ .001.

Table 3
 Unstandardized OLS Regression Coefficients for Models Predicting Scores on the Caldwell Preschool Inventory (PSI), the Personal Maturity Scale (PMS), the total HOME-SF, and the HOME-SF Cognitive Stimulation and Socioemotional Subcales

Independent Variables	PSI	PMS	HOME-SF Total	HOME-SF Cognitive	HOME-SF Socioemotional
Intercept	-7.07	84.11	15.72	9.22	6.48
Father Involvement in Past Year					
Formal Child Support (1 = some)	0.30	4.90*	0.07	0.10	-0.17
Informal Child Support (1 = some)	0.54	4.02*	0.43+	0.39*	0.04
Visitation (1 = some)	-0.10	-1.35	-0.14	-0.08	-0.02
Child's Characteristics					
Child's gender (1 = male)	-1.45***	-3.60*	-0.52**	-0.31*	-0.28*
Child's age in months	0.46***	0.11	0.01	0.01	0.00
Mother's Characteristics					
Mother was married to father or legal paternity established	0.15	-1.17	0.54*	0.46**	0.16
Mother was age 19 or younger at child's birth	0.25	1.84	-0.25	-0.07	-0.14
Number of mother's own children	-0.53**	0.85	-0.34**	-0.21**	-0.16*
Mother is in Education/Training Group	0.20	0.03	-0.32	-0.20	-0.08
Mother is in Labor Force Group	0.94+	2.60	0.20	0.20	-0.09
Mother on welfare less than 2 years	0.80	6.28**	0.63*	0.31	0.28+
Mother on welfare 5 or more years	-0.44	-2.56	-0.09	0.08	-0.18
Mother has less than 12 years of education	-0.85+	-2.72	-0.47*	-0.46**	-0.04
Mother's literacy level	0.50*	6.76***	0.56***	0.35***	0.20**
Sources of Support					
Child's father figure is mother's partner or friend	-0.61	-4.46**	-0.06	0.11	-0.23+
Child's father figure is a relative or someone else	0.52	-2.70	0.26	0.18	0.03
Family of child's father provides some help	-0.03	-4.41*	0.41+	0.38*	-0.04
Mother's parents provide some help	-0.34	-1.81	0.40+	0.19	0.20
R ²	.42	.16	.16	.15	.08
N	652	668	675	660	654

Source: Data from the Descriptive Survey of the JOBS Child Outcomes Study, 1992.

Note. Table values (except N's) are based on weighted data; means substituted for missing values on independent variables. $t_p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Table 4
OLS Regression Coefficients for the Effects of Formal Child Support and Low and High Levels of Informal Child Support and Visitation on the Caldwell Preschool Inventory (PSI), the Personal Maturity Scale (PMS), the total HOME-SF, and the HOME-SF Cognitive Stimulation and Socioemotional Subscales

Child Outcomes	Father Involvement Predictors ¹				
	Formal Child Support	Informal Child Support		Visitation	
		Low	High	Low	High
PSI	.30	.60	.45	-.10	-.08
PMS	5.11*	4.39+	4.54+	-.94	-2.31
HOME Scale	.02	.29	.38	-.25	.08
Cognitive Subscale	.07	.22	.48*	-.13	.04
Socioemotional Subscale	-.20	.00	-.06	-.09	.12

Source: Data from the Descriptive Survey of the JOBS Child Outcomes Study, 1992.

¹Formal Child support is a dichotomous measure (at least one formal child support payment vs. no formal child support). Both informal child support and visitation are comprised of a pair of dummy variables: informal support = no support versus low informal child support (father gave money at least once in the past year sometimes brought groceries or sometimes bought clothes, toys or presents) and no informal support versus high informal support (father gave money regularly, often brought groceries, or often bought clothes, toys, or presents; or any combination of resources), visitation = no visitation versus low visitation (one to 11 times in past year) and no visitation versus high visitation (one to three times a month to almost every day).

Note: In addition to formal child support, informal support, and visitation, the regression models included the following variables: child's gender and age, father lives in the same state, father has other children, not known whether father has other children, mother was married to father or legal paternity established, mother was 19 or younger at child's birth, number of mother's own children, mother working or in school, mother in education/training group or labor force group, mother on welfare < 2 years or 5 or more years, mother's literacy level, child's father figure is mother's partner, child's father figure is relative or friend, family of child's father provides some help, mother receives some help from own parents. Table values are based on weighted data; means substituted for missing values on independent variables. †p ≤ .10, *p ≤ .05, ** p ≤ .01, *** p ≤ .001

BEST COPY AVAILABLE

Appendix Table 1.
Detailed Distribution of Formal Child Support, Informal Child Support, and Visitation Variables (In the Past Year)

Formal Child Support		Informal Child Support ¹		Visitation	
	%		%		%
0 No Formal Child	83.4	0 None	57.7	0 Never	33.0
1 Some Formal Child Support	16.6	1 Sometimes one type of informal support	19.5	1 Once in past 12 months	9.8
		2 Sometimes two types; or often one type	9.7	2 About 2 to 11 times in past 12 months	21.3
		3 Sometimes three types; or sometimes one type and often one type	6.1	3 About 1-3 times a month	14.6
		4 Sometimes two type and often one type; or often two types	3.9	4 About once a month	6.5
		5 Sometimes one type and often two types	1.0	5 About 2-5 times a week	9.0
		6 Often all three types	2.0	6 Almost daily	6.0
Total	100	Total	100	Total	100
N	686	N	682	N	684

Source: Data from the Descriptive Survey of the JOBS Child Outcomes Study, 1992.

Note: Table values (except N's) are based on weighted data.

BEST COPY AVAILABLE

¹The three types of informal support are: 1) gives money directly to the mother; 2) buys groceries, 3) buy clothes, toys or presents, possible combinations for each level of the informal support summary variable are shown above with corresponding percentages.

Appendix Table 2.
Percent Distribution of Father Involvement Across Formal Child Support, Informal Child Support, and Visitation

Father Involvement Variables	%
No Father Involvement	29.7
Formal Child Support Only	1.9
Informal Child Support Only	1.4
Visitation Only	21.7
Formal Child Support and Informal Child Support	0.1
Formal Child Support and Visitation	4.5
Informal Child Support and Visitation	30.6
Formal Child Support, Informal Child Support and Visitation	10.0
Total	100
N	681

Source: Data from the Descriptive Survey of the JOBS Child Outcome Study, 1992.

Note. Table values (except N's) are based on weighted data.

BEST COPY AVAILABLE

Appendix A

Construction of Variables for Use in Regression Models

Father Involvement Variables

Formal child support is a dichotomous measure indicating the receipt of at least one child support payment through the child support enforcement system in the past year. (mean = .166; s.d. = .37)

Informal child support is a summary measure comprised of three indicators: a created measure indicating how often the father gave money directly in the past year (regularly = 2, at least once = 1, never = 0) and two additional items - how frequently he bought groceries, and how frequently he bought clothes, toys, or presents (often = 2, sometimes = 1, never = 0). A dichotomous measure was created to indicate whether the father contributed any one type or combination of types of informal support at least once in the past year. (mean = .423; s.d. = .49)

Secondary analyses use a pair of dummy variables indicating no support versus low informal support (father gave money at least once in the past year, or sometimes bought groceries or clothes, toys, or presents; mean = .20; s.d. = .40) and no support versus high informal support (father gave money regularly, often bought groceries or clothes, toys, or presents or sometimes or regularly contributed any combination of the types of informal support; mean = .22; s.d. = .42).

Father visitation is operationalized by an item that asks how often the child has seen his or her father in the past year. Response categories are coded from lowest to highest frequency and include: never, once in the past 12 months, two to 11 times, one to three times per month, about once a month, two to five times per week, almost every day. A dichotomous measure was created to indicate whether the father has seen the child at least once in the past year. (mean = .670; s.d. = .47)

Secondary analyses use a pair of dummy variables indicating no father visitation versus low father visitation (one to 11 times in the past year; mean = .31; s.d. = .46) and no visitation versus high father visitation (one to three times a month to almost every day; mean = .36; s.d. = .48).

Child Well-being Variables

The short form of the Home Observation for Measurement of the Environment (HOME-SF; Baker and Mott, 1989) consists of 25 items that are based on maternal report and interviewer rating and assess the level of emotional and cognitive support available to the child in the home. An item that related to the child's father was excluded from the HOME-SF for these analyses. Therefore this adapted version consists of 24 items. The HOME-SF is a combination of socioemotional and cognitive stimulation subscales, which are comprised of 10 items and 14 items respectively. For the total HOME-SF and both subscales, each item with a favorable response was given a score of one, and then scores were summed across items. Socioemotional subscale items refer to the emotional tone of the mother's interactions with her child, physical punishment of the child observed by the interviewer or reported by the mother, and the structuring of the child's day to provide choices, supervision, and support. The cognitive stimulation subscale includes items related to the overall safety and organization of the home environment, the availability of books and magazines in the home, whether someone helps

the child learn basic academic skills, and whether someone takes the child on outings to church, the library, museums, etcetera.

(Total HOME-SF: mean = 16.99; s.d. = 2.77; range = 7.3 to 23 . Cognitive subscale: mean = 10.53; s.d. = 2.01; range = 3 to 14 . Socioemotional subscale: mean = 6.56; s.d. = 1.49; range = 0 to 10).

The Caldwell Preschool Inventory (PSI) indicates the school readiness of preschool children. This interviewer-administered inventory consists of 32 items designed to assess skills and concepts, such as the ability to follow directions, knowledge of the meaning of common words, and knowledge of colors, shapes, and numbers. PSI scores indicate the total number of items the child answered correctly. High PSI scores indicate high levels of school readiness. Age corrected norms are not available, therefore PSI scores are expected to vary greatly according to the child's age.
(mean = 17.95; s.d. = 6.23; range = 1 to 32)

The Personal Maturity Scale (PMS) scale indicates each child's emotional and behavioral development based on the mother's report on 14 items, including whether the child fights, is creative, is loving and affectionate, or has a strong temper. The scale was adapted from the 1976 National Survey of Children. The mother rates each item on a scale from 0 (my child is not at all like that) to 10 (my child is exactly like that). Summary scores were computed to indicate the mother's mean response on the 0 to 10 scale across all 14 items . The higher the score the greater the level of maturity. (mean = 103.70; s.d. = 21.29 ; range = 30 to 140)

Control Variables

Child's Gender is Male. The gender measure was coded 1 for males and 0 for females. (mean = .50; s.d. = .50)

Child's Age in Months - This is a continuous measure. (mean = 55.84 ; s.d. = 8.4; range = 38 to 76)

Father lives in the same state as child - This dichotomous variable was coded 1 for cases where the mother reported that the father lives in the same state as the focal child.
(mean = .75; s.d. = .43).

Father has other children- This is one of two dummy variables derived from the mother's response to : "As far as you know has (CHILD)'s father had any other children in addition to the child(ren) that he had with you?". The "yes" responses were coded as 1, and the "no" and "don't know " responses were coded as 0. The reference group is comprised of the "no" responses. (mean = .44; s.d. = .50)

Not known whether father has other children. This is the second of two dummy variables derived from the mother's response to : "As far as you know has (CHILD)'s father had any other children in addition to the child(ren) that he had with you?". The "don't know" responses were coded as 1, and the "yes" and "no " responses were coded as 0. The reference group is comprised of the "no" responses. (mean = .26; s.d = .44)

Mother was married to father or legal paternity established. Based on several items, all cases where the child's biological parents were ever married and those where the legal paternity process was pursued and the male was judged to be the child's legal father were combined and coded 1, and all others were coded 0. (mean = .26; s.d. = .44)

Mother was a teen at child's birth. Mother's age at birth of the focal child was calculated. A dichotomous variable was created where mothers ages 19 or younger at focal child's birth were coded 1 and all others were coded 0. (mean = .16; s.d. = .37)

Number of mother's own children. This is a continuous measure. (mean = 2.3 ; s.d. = 1.1; range = 1 to 5)

Mother is in Education/Training Group. Dummy variables were created for the experimental groups. In this case, mothers in the education and training group were coded 1 and mothers in the control group or the Labor Force Group were coded 0. (mean = .38; s.d. = .49)

Mother is In Labor Force Group. Mothers in the labor force group were coded 1, and mothers in the education/training group or the control group were coded 0. (mean = .39; s.d. = .49)

Mother on welfare less than 2 years. This one of two dummy variables. The reference group is the middle range of welfare receipt for two to four years. Welfare receipt of less than two years was coded as 1, and the reference group was combined with welfare receipt of five or more years and coded as 0. (mean = .20; s.d. = .40)

Mother on welfare 5 or more years. This is the second of two dummy variables. The reference group is the middle range of welfare receipt for two to four years. Welfare receipt of five or more years was coded as 1, and the reference group was combined with welfare receipt of less than two years and coded as 0. (mean = .43; s.d. = .50)

Mother has less than 12 years of education. All cases in this category were coded 1 for this dichotomous variable. (mean = .33; s.d. = .47)

Mother's literacy level. This measure is based on the Test of Applied Literacy Skills (TALS) developed by the Educational Testing Service. It measures a broad range of math and reading skills used in everyday life. There are five levels, and scores in levels one or two indicate low levels of basic literacy. (mean = 2.46; s.d. = .87, range = 1 to 5)

Child's father figure is mother's partner. In two separate questions mother's were asked if the focal child has a father figure other than their biological father, and if so, whether the father figure is the mother's current partner or friend, former husband/boyfriend, father, brother, a relative of the child's birth father, or someone else. Two dummy variables were created. For this first dummy variable, cases where the mother indicated that the child's father figure is her current partner or friend (62.8% of children with a father figure) or former husband / boyfriend (5.5% of children with a father figure) were combined and coded 1. No father figure (the reference group) and all other categories were coded 0. (mean = .36 ; s.d. = .48)

Child's father figure is mother's relative or friend. For this dummy variable, all father figure categories other than mother's current partner or friend and mother's former husband/boyfriend were combined and coded 1. (mean = .17; s.d. = .37)

Family of child's father provides some help. Mother's were asked to indicate whether in the past 12 months anyone in the family of the focal child's father, such as his mother or sister, ever: 1) bought clothes, toys or presents for the child, 2) babysat for the child, or 3) cared for the child overnight. The "yes" responses were coded 1 and summed. A dichotomous measure was created where a score of one or more (a "yes" response to one or more items) was coded 1. (mean = .38; s.d. = .49)

Mother receives some help from her own parents. This dichotomous variable is a combination of two items. Each mother was asked whether her own mother helps to take care of her child(ren) a lot, quite a bit, just a little or not at all. The same question was asked regarding the mother's own father. Responses for the two items were combined and then collapsed into some help(= 1) versus no help (=0) from own parents. (mean = .68; s.d. = .47)

References

- Achatz, M. & MacAllum, C. A. (1994). Young Unwed Fathers, Report from the Field. Philadelphia, PA: Public/Private Ventures.
- Amato, P. R. & Keith, B. (1991). Parental divorce and the well-being of children: A meta-analysis. Psychological Bulletin, 110, 26-46.
- Anderson E. (1993). Sex Codes and Family Life among poor inner-city youths. In R. I. Lerman & J. T. Ooms (Eds.). Young Unwed Fathers (pp. 27-51) Philadelphia: Temple University Press.
- Arditti, J. A. & Keith, T. Z. (1993). Visitation frequency, child support payment, and the father-child relationship post-divorce. Journal of Marriage and the Family, 55, 699-712.
- Baker, P.C., & Mott, F.L. (1989). NLSY Child Handbook. Columbus, OH: Center for Human Resource Research.
- Baydar, N. & Brooks, G. J. (1994). The dynamics of child support and its consequences for children. In I. Garfinkel, S. S. McLanahan, P. K. Robins, (Eds.). Child Support and Child Well-Being (pp. 257-279). Washington, DC: The Urban Institute Press.
- Bradley, R.H., Caldwell, B.M., Rock, S.L., Barnard, K.E., Gray, C. Hammond, M.A., Mitchell, S., Siegel, L., Ramey, C., Gottfried, A. W., & Johnson, D.L. (1989). Home environment and cognitive development in the first three years of life: A collaborative study involving six sites and three ethnic groups in North America. Developmental Psychology, 25, 217-235.
- Bureau of the Census. Statistical Abstract of the United States: 1995. 115th edition. Washington, DC: U.S. Department of Commerce.
- Caldwell, B. M. (1970). Cooperative Preschool Inventory. Monterey, CA: CTB/MCGraw-Hill.
- Caldwell, B.M. & R.H. Bradley. (1984). Home observation for the measurement of the environment. Revised edition. Little Rock, AR: University of Arkansas.
- Danziger, S. K. & Radin, N. (1990). Absent does not equal uninvolved: Predictors of fathering in teen mother families. Journal of Marriage and the Family 52, 636-642.
- Edin, K. (1994). Single mothers and absent fathers: The possibilities and limits of child support policy. Center for Urban Policy Research Report. New Brunswick, NJ: Rutgers University.

Furstenberg, F. F., (1995). Fathering in the inner city: Paternal participation and public policy. In W. Marsiglio (Ed.), Fatherhood: Contemporary theory, research, and social policy. (pp. 119-147).

Furstenberg, F. F., & Harris, K. M. (1993). When and why fathers matter: Impacts of father involvement on the children of adolescent mothers. In R. I. Lerman & T. J. Ooms (Eds.), Young Unwed Father: Changing roles and emerging policies. (pp. 117-140). Philadelphia: Temple University Press.

Furstenberg, F. F., Morgan, S. P. & Allison, P. A. (1987). Paternal participation and children's well-being after marital dissolution. American Sociological Review, 52, 695-701.

Furstenberg, F. F., Nord, C. W., Peterson, J. L., Zill, N. (1983). The lifecourse of children of divorce: Marital disruption and parental contact. American Sociological Review, 48, 656-668.

Garrett, P., Ng'andu, N., & Ferron, J. (1994). Poverty experiences of young children and the quality of their home environments. Child Development, 65, 331-345.

Graham, J. W., Beller, A. H. & Hernandez, P. M. (1994). The determinants of child support income. In I. Garfinkel, S. S. McLanahan, & P. K. Robins (Eds.), Child support and child well-being (pp. 317-333). Washington, DC: The Urban Institute Press.

Hardy, J. B., Duggan, A. K., Masnyk, K., Pearson, C. (1989). Fathers of children born to young urban mothers. Family Planning Perspectives, 21, 159-163.

King V. (1994a). Variation in the consequences of nonresident father involvement for children's well-being. Journal of Marriage and the Family, 56, 963-972.

King, V. (1994b). Nonresident father involvement and child well-being. Journal of Family Issues, 15, 78-96.

Knox, V. W. & Bane, M. J. (1994). Child support and schooling. In I. Garfinkel, S. S. McLanahan, & P. K. Robins (Eds.), Child Support and Child Well-Being (pp. 285-310). Washington, DC: The Urban Institute Press.

Lerman, R. I. (1993). A National Profile of Young Unwed Fathers. In R. I. Lerman & J. T. Ooms (Eds.), Young Unwed Fathers (pp. 27-51) Philadelphia: Temple University Press.

McLanahan, S. S., Seltzer, J. A., Hanson, T. L., & Thomas, E. (1994). Child support enforcement and child well-being: Greater security or greater conflicts. In I. Garfinkel, S. S. McLanahan, P. K. Robins (Eds.), Child Support and Child Well-Being (pp. 239-254). Washington, DC: The Urban Institute Press.

Mott, F. L. (1990). When is a father really gone? Paternal - child contact in father - absent homes. Demography, 27, 499-517.

Moore, K.A., Morrison, D.R., Zaslow, M.J., & Gleib, D.A. (1994). "Ebbing and flowing, learning and growing: Family economic resources and children's development." Paper presented at the Workshop on Welfare and child Development sponsored by the Board on Children and Families and the National Institute of Child Health and Human Development's Family and Child Well-being Network.

Moore, K.A., Zaslow, M.J., Coiro, M., Miller, S.M., & Magenheim, E.B. (1995). The JOBS Evaluation: How well are they faring? AFDC families with preschool-aged children in Atlanta at the outset of the JOBS evaluation. Washington, DC: U.S. Department of Health and Human Services, U.S. Department of Education.

Mott, F.L. (1993). Absent fathers and child development: Emotional and cognitive effects at ages five to nine (Report for the National Institute of Child Health and Development). Columbus: Ohio State University, Center for Human Resource Research.

Seltzer, J.A. (1991). Relationships between fathers and children who live apart: The father's role after separation. Journal of Marriage and the Family, 53, 79-101.

Seltzer, J. A. & Bianchi, S. M. (1988). Children's contact with absent parents. Journal of Marriage and the Family, 50, 663-677.

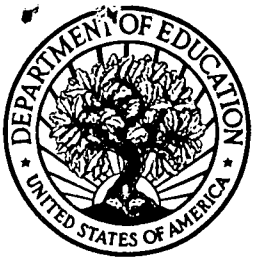
Seltzer J. A. & Brandreth Y. (1994). What fathers say about involvement with children after separation. Journal of Family Issues, 15, 49-77.

Seltzer, J.A., Schaeffer, N.C., & Charing, Hong-Wen. (1989). Family Ties after divorce: The relationship between visiting and paying child support. Journal of Marriage and the Family, 51, 1013-1032.

Sonenstein, F.L. & Calhoun, C.A. (1990), Determinants of child support: A pilot study of absent parents. Contemporary Policy Issues, 8, 75-94.

Sullivan, M. L. (1993). Young Fathers and Parenting in Two Inner City Neighborhood. In R. T. Lerman & T. J. Ooms (Eds.), Young Unwed Fathers (pp. 52-73). Philadelphia: Temple University Press.

Veum, J.R. (1993). The relationship between child support and visitation: Evidence from longitudinal data. Social Science Research 22, 229-244.



U.S. Department of Education
 Office of Educational Research and Improvement (OERI)
 Educational Resources Information Center (ERIC)



REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: <i>Nonresident Father Involvement and Child Outcomes...</i>	
Author(s): <i>Angela Greene and Kristin Moore</i>	
Corporate Source:	Publication Date: <i>1996</i>

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic/optical media, and sold through the ERIC Document Reproduction Service (EDRS) or other ERIC vendors. Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following two options and sign at the bottom of the page.



Check here
For Level 1 Release:
 Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical) and paper copy.

The sample sticker shown below will be affixed to all **Level 1** documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1

The sample sticker shown below will be affixed to all **Level 2** documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2



Check here
For Level 2 Release:
 Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical), but *not* in paper copy.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is checked, documents will be processed at **Level 1**.

"I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic/optical media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries."

Sign here → please

Signature: <i>Felisha Hawkins</i>	Printed Name/Position/Title: <i>Felisha Hawkins / Publications Specialist</i>	
Organization/Address: CHILD TRENDS, INC. 4301 CONNECTICUT AVENUE, N.W. SUITE 100 WASHINGTON, DC 20008	Telephone: <i>202/362-5580</i>	FAX: <i>202/362-5533</i>
	E-Mail Address: <i>www.childtrends.org</i>	Date: <i>11/12/97</i>

(over)

22
22
26
22
ERIC
Full Text Provided by ERIC

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:	KAREN E. SMITH ACQUISITIONS COORDINATOR ERIC/EECE CHILDREN'S RESEARCH CENTER 51 GERTY DRIVE CHAMPAIGN, ILLINOIS 61820-7469
---	---

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
1100 West Street, 2d Floor
Laurel, Maryland 20707-3598

Telephone: 301-497-4080
Toll Free: 800-799-3742
FAX: 301-953-0263
e-mail: ericfac@inet.ed.gov

WWW: <http://ericfac.piccard.csc.com>