Center for Family and Demographic Research

http://www.bgsu.edu/organizations/cfdr
Phone: (419) 372-7279 cfdr@bgsu.edu

Bowling Green State University

Working Paper Series 07-11

TOWARD A FULLER UNDERSTANDING OF NONRESIDENT FATHER INVOLVEMENT:

A JOINT EXAMINATION OF CHILD SUPPORT AND IN-KIND SUPPORT RECEIPT

Steven Garasky
Department of Human Development and Family Studies

Susan D. Stewart
Department of Sociology

Craig Gundersen
Department of Human Development and Family Studies

Brenda J. Lohman
Department of Human Development and Family Studies

Iowa State University

Toward a Fuller Understanding of Nonresident Father Involvement:

A Joint Examination of Child Support and In-Kind Support Receipt*

Steven Garasky
Department of Human Development and Family Studies

Susan D. Stewart
Department of Sociology

Craig Gundersen
Department of Human Development and Family Studies

Brenda J. Lohman
Department of Human Development and Family Studies

Iowa State University

April 23, 2007

Corresponding Author: Steven Garasky
Associate Professor
Department of Human Development and Family Studies
4380 Palmer Building, Room 2330
Iowa State University
Ames, IA 50011
Email: sgarasky@iastate.edu
Phone: 515-294-9826
Fax: 515-294-5507

*An earlier version of this paper presented at the 2007 Population Association of America annual meeting, March 29-31, New York, NY. We wish to thank Yemisi Kuku and Shuxin Cui for tremendous research assistance.

ABSTRACT

Whereas less than half of all custodial parents receive child support payments, nearly 60% receive in-kind (i.e., noncash) support of some form. Based on a sample of children with nonresident fathers from the Panel Study of Income Dynamics Child Development Supplement, this study investigates the determinants of in-kind support receipt from nonresident fathers. Bivariate relationships indicate children from families that receive child support are more likely to receive in-kind support than children who do not. Additionally, children with more involved fathers as measured in terms of visitation quantity and quality are more likely to receive both child support and in-kind support. Multivariate analyses, however, show that the receipt of child support and in-kind support are not significantly related after controlling for other factors, and that visitation is associated with greater receipt of in-kind support, but not child support. The effects of visitation on in-kind support receipt vary by the aspect of visitation considered, by the type of in-kind support examined, and by the income level of the child's household. Encouraging involvement by nonresident fathers in the lives of their children may have economic benefits but these benefits may be in the form of in-kind support rather than child support.

Toward a Fuller Understanding of Nonresident Father Involvement:

A Joint Examination of Child Support and In-Kind Support Receipt

Over 21 million children live with only one of their biological parents, usually their mother, while their other biological parent lives elsewhere (Grall 2006). In response, social policy seeks to ensure that these children have the financial support of both parents (Office of Child Support Enforcement 2004). Generally, this financial support is measured through the payment of child support (Garasky et al. 2006). Evidence suggests, however, that some parents, especially low-income parents, use informal support arrangements including in-kind (i.e., noncash) contributions (Waller and Plotnick 1999) such as purchasing toys, school supplies or clothing for the child, or paying for a vacation for the child. Less than half of all custodial parents actually receive child support payments based on Current Population Survey data, but nearly 60% receive in-kind support of some form (Grall 2006). While these in-kind contributions add to the economic well-being of the child and the resident parent family, they are not recognized as meeting support obligations set through child support awards (Waller and Plotnick 1999). In addition, little research has simultaneously assessed the receipt of both child support and in-kind contributions.

In this paper, we use nationally representative data from the Panel Study of Income Dynamics (PSID) to investigate the determinants of in-kind support from nonresident fathers. Whereas the determinants of cash child support receipt have been studied in detail (e.g., Beller and Graham 1993; Garfinkel, McLanahan and Robins 2004; Garfinkel et al. 1998), much less is known about the provision of in-kind support in part because few national data sets ask about this form of support (Garasky et al. 2006). What is known about in-kind support receipt comes from studies of specific populations including fathers of children born to disadvantaged teenage mothers (Rangarajan and Gleason 1998), low-income families in specific cities and states (Edin and Lein 1997; Waller and Plotnick 1999), and African American fathers (Green and Moore

2000; Roy 1999). Although in-kind support is often provided in the context of visitation (e.g., Edin and Lein 1997; Rangarajan and Gleason 1998), studies examining nonresident fathers' social involvement with children generally do not include this aspect of involvement (e.g., King, Harris and Heard 2004; Stewart 2003).

This study advances our understanding of nonresident father involvement in several important ways. First, we jointly examine factors associated with the receipt of child support and in-kind support through the estimation of an empirical model that allows for the correlation of these two outcomes of interest. That is, we examine whether families that receive cash child support are more or less likely to receive in-kind support from the nonresident father. Second, we examine how visitation with nonresident fathers affects these outcomes. We consider the effects of both the quantity and *quality* of visitation on nonresident fathers' economic support. We assess the quality of the visits by looking at the extent of communication, the duration of visits, and the diversity of activities in which the father and his child participate (e.g., leisure, religious, school). Third, we analyze the relationships between visitation**,** child support, and in-kind support, for not just low-income families, but for all families and test whether the relationship varies by income. For instance, are fathers in low-income families more likely than higher-income fathers to substitute in-kind support for cash child support payments as some studies would suggest (e.g., Edin and Lein 1997)? Is the relationship between visits and in-kind support stronger for low-income versus higher-income families?

Our study found that the relationship between in-kind support and cash support is not statistically significant, suggesting that in-kind support and child support are the result of different social processes. For example, visitation is associated with greater receipt of in-kind support, but not child support. The effects of visitation on in-kind support receipt vary by the aspect of visitation considered and by the type of in-kind support examined. The strongest visitation effect on in-kind support receipt is the number of days the child stays with the father. The more days the child stays with the father, the more likely she or he was to receive all of the

in-kind supports examined here (toys and presents, vacation, school supplies, and clothes and shoes). Effects of visitation vary by whether the child lives in a lower-income (family income < 200% of poverty) or a higher-income (family income ≥ 200% of poverty) household. For example, the effect of the child staying with his or her father is predominately found for higher-income families. For children from lower-income families, the stronger effect comes from talking on the phone or receiving letters. Lower-income children with fathers who spend time with them in leisure, religious and school activities also are more likely to receive in-kind support. The effects of involvement in activities are stronger for these children compared to the children from higher-income households.

Our study continues with a review of the literature related to the receipt of child support and in-kind support, and how support receipt has been linked with nonresident parent visitation. This review is followed by a summary of the bivariate probit model we estimated with data from the Panel Study of Income Dynamics (PSID) and the second round of its Child Development Supplement (CDS-II). A discussion of our findings and conclusions completes the text.

BACKGROUND

Relationship between Child Support and In-Kind Support

Economic contributions by nonresident fathers to their children's lives are typically assessed in terms of cash child support payments (Garasky et al. 2006). Whether nonresident fathers pay child support is important insofar as this additional income has been found to lead to fewer children living in poverty and positive physical, social, and academic outcomes for children (Argys et al. 1998). Child support is also thought to have symbolic meaning, representing to the child the nonresident parent's care and concern. This may improve children's well-being beyond the effects of raising the child's standard of living (Argys et al. 1998; Graham, Beller and Hernandez 1994; Knox 1996; Knox and Bane 1994; McLanahan and Sandefur 1994; Seltzer 1994). In light of the benefits associated with child support receipt, federal social policy has

emphasized the payment of child support by nonresident parents for over 30 years since the establishment of the federal Office of Child Support Enforcement (OCSE) in 1975 (Ways and Means Committee 2004). Nevertheless, still today over 60% of all custodial parents do not receive child support income (Grall 2006).

While a majority of custodial parents do not receive child support payments (Grall 2006), nonresident fathers may still make economic contributions to their child's well-being. Nonresident fathers may contribute to meeting their children's needs through the provision of in-kind support such as purchasing toys, school supplies or clothing for the child, or paying for a vacation for the child. How in-kind support is related to cash support is currently unclear. One hypothesis is that these other contributions are associated with lower payments of cash support. For example, ethnographic studies of low-income single mothers reveal that nonresident fathers provide a considerable amount of in-kind support in the form of clothes, dinners, toys, diapers and formula *in lieu of* cash support (Edin and Lein 1997; Greene and Moore 2000). Another hypothesis would suggest that payers of in-kind support are more likely to pay cash child support. That is, nonresident fathers who are involved with their children tend to be involved in multiple realms including provided in-kind and cash support and visiting. There is a well-known positive correlation between visitation and child support (e.g., Seltzer, McLanahan and Hanson 1998; Stewart 1999a, 1999b) and a positive relationship between child support and in-kind support has been found in previous research using small-scale data sets (e.g., Rangarajan and Gleason 1998). These relationships may also vary by the type of in-kind support (e.g., school supplies versus toys) provided. However, in-kind support provision has not been examined in detail in this way nor with nationally representative samples.

Relationship between Visitation, Child Support, and In-Kind Support

Several current policy initiatives focus on increasing father involvement and encouraging positive parenting practices along with the payment of child support (Roberts 2006). The social involvement of a nonresident father is conventionally measured through the frequency of visits

with his children (Argys et al. 2006; Coley 2003; Coley and Chase-Lansdale 1999). However, just as child support payments are not seen as a complete reflection of fathers' economic commitments to their children, it is now generally accepted that visitation frequency is by itself an inadequate measure of the nonresident parent-child relationship (Argys et al. 2006). As a result, scholars are focusing on the quality of the activities in which fathers and children engage (Amato and Gilbreth 1999; Stewart 2003). Whereas the positive effect of the frequency of visits on child outcomes has been inconsistently found in previous research, close and high quality interaction with nonresident fathers has been shown to consistently improve a wide range of child outcomes including academic achievement and behavioral and emotional problems (Amato and Gilbreth 1999; Buchanan, Maccoby and Dornbusch 1996; Coley 2003; Coley and Chase-Lansdale 1999; Stewart 2003).

Studies examining the relationship between visitation by nonresident fathers and receipt of child support payments indicate they are positively associated (Nepomnyaschy 2007; Rangarajan and Gleason 1998; Seltzer, McLanahan and Hanson 1998; Stewart 1999a, 1999b). In particular, Rangarajan and Gleason (1998) suggest that fathers may decide that parenthood is an all-or-nothing proposition and choose to be involved in all aspects of the lives of their children. In-kind support may be linked with frequency of father-child contact as well (e.g., Rangarajan and Gleason 1998). In newer research, Nepomnyaschy (2007) finds that child support paid through the child support enforcement system (formal child support) and visitation are marginally related, but a strong, positive relationship exists between visitation and support paid outside of the enforcement system (informal support). These relationships have not been examined using nationally representative data. Similarly, the relationships between the quality of visitation between fathers and their children and in-kind support have not been examined previously.

Moderating Effect of Income

The relationship between visitation, cash child support, and in-kind support may also depend on family income. Among low-income families, nonresident fathers often do not have the financial resources to keep up with their child support obligations (Garfinkel, McLanahan and Hanson 1998; Meyer 1998) and may provide in-kind support in lieu of child support payments (Edin and Lein 1997; Greene and Moore 2000). This suggests a negative relationship between child support and in-kind support. On the other hand, two studies have found a positive relationship among some low-income families (Garasky et al. 2006; Rangarajan and Gleason 1998). In addition, Garasky and colleagues (2006) find that many children from low-income families receive multiple forms of support.

A positive association between child support payments and in-kind support may be more likely among higher-income than low-income families. Previous research indicates that nonresident fathers who pay child support have much higher incomes than non-paying fathers (Garfinkel et al. 1998) and that the nonresident fathers of lower-income children are especially prone to lower probabilities of economic support (Mincy and Sorensen 1998). This suggests that, in comparison to lower-income children, higher-income children may be more likely to receive both types (child support and in-kind support) of economic support. However, the receipt of multiple forms of support has not been examined in this way.

METHODS

Empirical Model

To analyze the relationship between child support (CS) and in-kind support (IKS) and the effect of visitation on each of these outcomes, we estimated the following bivariate probit models:

$$CS_j = 1 \text{ if } CS_j^* > 0;\ CS_j = 0 \text{ otherwise} \quad (1)$$

$$CS^*_j = \alpha^{CS} + \boldsymbol{\beta}^{CS}\mathbf{X}_j + \boldsymbol{\Psi}^{CS}\mathbf{Z}_j + \varepsilon^{CS}_j$$

$$IKS_j = 1 \text{ if } IKS_j^* > 0;\ IKS_j = 0 \text{ otherwise} \quad (2)$$

$$IKS^*_j = \alpha^{IKS} + \boldsymbol{\beta}^{IKS}\mathbf{X}_j + \boldsymbol{\Psi}^{IKS}\mathbf{Z}_j + \varepsilon^{IKS}_j$$

where j denotes a child; **X** is a vector reflecting the characteristics of the visits with the non-custodial parent; **Z** is a vector of other economic and demographic covariates and ε is an error term. We estimated bivariate probit models for the four variants of in-kind support utilized in our analyses, as well as for the receipt of any in-kind support. All analyses were weighted using individual weights for the child. In addition, estimated standard errors were adjusted for clustering (children from the same household).

Regarding our three research questions, the sign, significance, and magnitude of ρ, the measure of the correlation between ε^{CS} and ε^{IKS} estimated via the bivariate probit model (i.e., the joint estimation of equations (1) and (2)) inform our first research question. If ρ is positive, this means that, after controlling for other factors, households receiving child support are also more likely to receive in-kind support. If ρ is negative, child support is provided in place of in-kind support and vice versa. We addressed the effects of visitation, our second research question, by examining the coefficients estimated for **X** ($\boldsymbol{\beta}^{CS}$ and $\boldsymbol{\beta}^{IKS}$). For our third question (i.e., to test whether the relationship between child support and in-kind support differs by income level), we estimated our models with a sample of households with incomes below 200% of the poverty line and with a sample of households with incomes at and above 200% of the poverty line and tested whether the values of ρ were statistically significantly different from each other.

Data

Our analyses are conducted with data from the Panel Study of Income Dynamics (PSID). The PSID, begun in 1968, is a longitudinal study of a representative sample of individuals and the family units which reside in the United States. While emphasizing the dynamic aspects of economic and demographic behavior, the content of the PSID is broad and includes a range of measures relevant to this research. In 1997, a refresher sample of post-1968 immigrant families

and their adult children was introduced to keep the study representative of the U.S. population. In addition, interviewing changed from annual to biennial data collection.

A major content expansion was introduced in 1997 as well. The Child Development Supplement (CDS) focuses on the human capital development of children age 0-12 in PSID families (PSID 2005). The major advantage of the CDS to this research is that it contains a rich set of questions regarding child and nonresident parent interactions and the receipt of in-kind support. In this paper, we use information from the second set of interviews from the CDS, CDS-II. These CDS-II data are supplemented with contemporaneous data from the 2001 PSID interview wave. Our analytic sample consists of 851 children and adolescents interviewed for the CDS-II who live with their mother and have a father who lives elsewhere. These 851 youths reside in 489 households.

Variables

Dependent variables. Cash child support receipt was measured via two questions from the 2001 PSID interview wave. Respondents were asked, first, whether they received any income in 2000 from child support and, if yes, how much was received. This income reporting approach aggregates child support receipt across all nonresident parents paying support for the children in the household. For these analyses, we assumed that at least some of the child support received was for the focal child.[1] Unfortunately, the PSID does not contain child support award information to allow us to be more specific.

Information about the receipt of in-kind support was drawn from responses to nine questions in the CDS-II about support provided for the child by his or her father that were

[1] Among the 489 households (851 children) in our analyses, we identified 63 households (154 children) that received child support, had more than one child in the family, and may have had more than one father who was eligible to pay child support. In these instances, we did not know with certainty whether the support that was received by the household was paid by the father of the CDS-II child. Diagnostic tests of our assumption that at least some of the child support that was received was paid by the father of the CDS-II child indicated that this assumption did not affect our results regarding the relationship between child support receipt, in-kind support receipt and visitation. Results from these diagnostic tests are available from the authors by request.

answered by the focal child's primary caregiver (typically the child's mother). Primary caregivers were asked whether or not the child's father spent money during the past 12 months on the following items for the child: (1) toys or presents; (2) taking child on vacation; (3) school supplies; (4) clothes or shoes; (5) camp or lessons; (6) allowance; (7) entertainment; (8) extra-curricular activities; and (9) anything else. Based on responses to these items, we measured in-kind support receipt in two ways. First, we examined whether any in-kind support was received by the child versus none. Second, we examined receipt for four specific types of in-kind support separately: toys or presents, vacation, school supplies and clothes or shoes. While the PSID provides information regarding the provision of medical support (i.e., dental and medical insurance and out of pocket expenditures), we do not include these among our measures of in-kind support as child support agencies are required to petition for medical support as part of most child support orders (Ways and Means Committee 2004).

Independent variables. X and **Z** in equations (1) and (2) reflect visitation and other economic and demographic covariates, respectively. In vector **X** we considered the frequency with which the father and child visit in three ways. First, we assessed the number of days the child stayed with his or her father from: How many days did the child stay with (his/her) father during the past 12 months -- either overnight or just for the day? Second, general contact between the father and the child is assessed via responses to the question: During the past 12 months, about how often did the child talk on the telephone with or receive a letter from (his/her) father? Third, how frequently the child saw his or her father is derived from the question: During the past 12 months, about how often did the child see (his/her) father? Valid responses to these two questions are: (1) not at all; (2) about once a year; (3) several times a year; (4) one to three times a month; (5) about once a week; and (6) several times a week.

We explored the quality of the visits through four categories of activities the child and his or her father might participate in when they are together. This information was derived from responses to questions that begin: How often does the child's father spend time with (him/her)

in each of the following activities: Leisure activities (e.g., picnics, movies, sports, visiting family and friends); religious activities; play activities (e.g., talking, working on a project, playing together); and school and other organized activities. Responses to each of these questions were defined in the same way as the visitation questions above.

The covariates in **Z** included variables that may affect the receipt of child support and in-kind support (see Table 1). Economic factors included in **Z** were the mother's employment status, whether or not the child was covered by health insurance, the family's homeownership status, indicators of whether or not the child's household received benefits from the Temporary Assistance for Needy Families (TANF) or the Food Stamp Program, and income. Mothers worked about 10 weeks on average in the prior year. Nearly all children (91%) were covered by health insurance. Less than half (41%) of the children lived with families that were homeowners. Few families received TANF benefits (9%) or food stamps (25%) in the last 12 months. Average family income was $36,557 in 2001.

Demographic factors reflected characteristics of the child and the child's mother, father and household. Child characteristics included age, gender, physical health status and the last time he or she lived with his or her father. Characteristics of the child's mother included her age, current marital and cohabitation status, as well as if she has had any emotional or physical problems. Characteristics of the child's father were reported by the child's mother. These included an estimate of how far in miles the child lives from his or her father, his current marital status, and whether or not he has had children since those he had with the child's mother. Characteristics of the child's household were obtained from the 2001 PSID interview wave and included the number of children and the number of adults residing in the household, and the race of the PSID-defined household head.

The CDS-II was a follow-up of a survey begun in 1997. Thus, few children in our sample were under age 6 (13%). The sample was evenly split between boys and girls. Few children had fair or poor health (3%). Mother's reported that only about one-third of the children lived with

their father within the last 6 years. About one-fifth (18%) never lived with their father. For about one-fourth (24%) of the children, their mother did not know the last time their child lived with his or her father. The average age of mothers was 35 years. Most mothers were neither married nor cohabitating (69%). Few mothers had emotional (2%) or physical (2%) problems. Most fathers (55%) lived within 50 miles of their child. Although, a large number (28%) of children had fathers for whom their mother did not know how far away he lived. Most (53%) fathers were not married currently. However, about one-fourth (26%) of the fathers had had more children since the children he fathered with the mother of the child in this study. Again, about one-fourth of the mothers did not know whether the father was married (24%) or whether he had had more children (24%). On average, there were about four people residing in the child's household. About one-third (31%) of the household heads were white.

--- Table 1 about here ---

RESULTS

Descriptive Results

Table 2 displays our results for the receipt of in-kind support. Column (1) is for our full sample; Columns (2) and (3) show the percentage receiving in-kind support by receipt of child support. A little over half of the sample (54%) received some form of in-kind support (Column 1). The most common type of in-kind support provided by fathers was "toys or presents" (50%) followed by receipt of clothes and shoes (29%). Fathers also contributed to or provided vacations (17%) and school supplies (14%). Smaller proportions of children with nonresident fathers had fathers that provided camp or lessons (6%), allowance (8%), entertainment (3%), extracurricular activities (1%) and anything else the child needed (1%).

--- Table 2 about here ---

About one-half (55%) of the families with nonresident fathers in this study received cash child support in 2000, a receipt rate slightly higher than the 41% for custodial mothers in 2001

reported by Grall (2006).[2] Levels of in-kind support significantly varied by households who received and did not receive child support – 61% of the former received some form of in-kind support versus 46% of the latter. When in-kind support was broken down by type, there were significant differences between households that received and did not receive child support for "toys or presents," "vacations," and "school supplies." The results in Table 2 indicate that in-kind support and child support are, in general, positively related.

Table 3 provides a breakdown of visitation characteristics for the full sample (Column 1), by the receipt of child support (Columns (2) and (3)), and by the receipt of in-kind support (Columns (4) and (5)). Across all the measures of visitation, children in families receiving child support were significantly more likely than children in families not receiving child support to have contact with their fathers. Children in families receiving child support stayed with their fathers more days in the previous year than children in families not receiving child support (29 versus 20 days). Children in families that received child support were significantly more likely to talk on the phone or receive a letter from their father at least once a week than those who did not, 36% versus 26%. Similarly, the proportion of children not receiving child support who did not talk on the phone with or receive a letter from their father (42%) was double that of children in families that did receive child support (22%). Regarding seeing their father, the proportion that did not see him at all was nearly double for children that did not receive child support compared to children that did receive child support (40% versus 24%).

Participation in activities with fathers varied by the type of activity. Mothers reported that about half of the children (52%) at least once in the last year spent time with their father in a leisure activity such as going on a picnic, going to the movies, or visiting family and friends. In comparison, most children did not spend time with their father in religious activities (86%), play activities (58%) or school or organized activities (72%). Children in families that received child

[2] We found that among all PSID families, 5.9 million received child support in 2000. Grall (2006) examined data from the Current Population Survey and found that among all custodial parents, 5.0 million families received child support in 1999 and 5.1 million received child support in 2001.

support were significantly more likely to participate in all of these activities with their father than children who do not receive child support.

The relationships between receipt of any in-kind support and visitation were similar to those of child support receipt and visitation, although the differences between the groups were much greater. Children who received in-kind support stayed with their father an average of 43 days in the prior year. Children who did not receive in-kind support average staying with their father only 3 days a year. Similarly, nearly all children who received in-kind support communicated regularly with their father. Over 90% (94%) of these children talked on the phone or received a letter at least several times a year; 90% saw their father at least several times in the previous year. In contrast, nearly two-thirds of the children who did not receive in-kind support also did not talk on the phone with, did not receive a letter from him, and did not see their father. This pattern of greater involvement with children by fathers who provided in-kind support continued when examining specific activities. Overall, in-kind support receipt was much more closely linked to visitation than child support receipt in that the differences in visitation quantity and quality between children that received in-kind support versus those that did not were much larger.

--- Table 3 about here ---

Multivariate Results

The results in Table 3 demonstrate a strong correlation between visitation and economic support, especially between visitation and in-kind support. Through our estimation of equations (1) and (2) we assessed whether these general results still hold after controlling for other factors. For tractability, we reduced the detailed visitation response categories reported in Table 3 to a dichotomy of ‘”rarely” (responses of “not at all” and “about once a year”) and “more frequently” (“several times a year”, “one to three times a month”, “about once a week”, and “several times a week”). The results of this estimation are reported below. We began by estimating our model for the receipt of child support and any in-kind support. We also estimated

our model for the following specific measures of in-kind support – “toys or presents”, “vacation”, “school supplies” and “clothes or shoes.” Regarding the other categories of in-kind support (“camp or lessons”, “allowance”, “entertainment”, “extra-curricular activities”, and “anything child needs”), the low frequency with which children received these specific supports prevented us from examining them individually in our multivariate analyses.

Table 4 reports the full results for estimating equations (1) and (2) for the receipt of child support and any in-kind support. We briefly discuss the results for the other covariates before examining the results that relate to our three research questions. Regarding economic factors that affected the receipt of child support, we found that families that own their home in the previous year were less likely to receive child support. We also found that families that received TANF benefits in the previous year were less likely to report receiving child support. This relationship between child support and TANF receipt may reflect the fact that public assistance recipients are less likely to receive child support, or that these respondents are having their child support retained by the state TANF program as a contingency for receipt of program benefits. The likelihood of child support receipt increased with family income. The receipt of in-kind support, however, was not impacted by these factors, but was positively correlated with mother’s employment and with the child being covered by health insurance.

--- Table 4 about here ---

Demographic factors also affect the receipt of child support and in-kind support. Regarding child characteristics, the number of years since the child last lived with his or her father affects the receipt of child support in what may first appear as a surprising way. Children who last lived with their father in the last three years were least likely to receive child support. This outcome may reflect delays by the mother in pursuing child support. On the other hand, these same children were the most likely to receive in-kind support, although the difference in the likelihood of receiving in-kind support was statistically significant only for children who never lived with their father or for whom their mother did not report this information. Children in fair or

poor health were slightly less likely to receive child support and younger school-aged children (ages 6 - 11) were slightly more likely to receive in-kind support than very young children (ages 0 - 5). Among the characteristics of the mother considered here, we found that cohabitation by the mother had an important effect on the receipt of support. Children with mothers who were not married, but were cohabitating with a male partner, were significantly less likely to receive child support and any in-kind support. In addition, older mothers were more likely to receive child support. After controlling for visitation and other economic and demographic factors, the only characteristic of the father that was found to affect the receipt of child support was that children with fathers who were currently married were more likely to receive it. After controlling for other factors, none of the father characteristics considered here were related to the likelihood of the child receiving in-kind support. Finally, the likelihood of receiving child support was lower for children with more adults in their household and higher if the PSID-defined head of their household was white.

In Table 4, we displayed our estimates for equations (1) and (2) when the in-kind support variable was specified as "any in-kind support." In Table 5, we estimated equations (1) and (2) by type of in-kind support. For parsimony, in Table 5 we focused specifically on the results pertinent to our first and second research question. In addition, we did not report the coefficient estimates for equation (1) as these results were similar to those reported in Table 4. Complete results for these analyses are available from the authors. In Table 5, Columns (1) and (2) repeat results presented in Table 4 for any in-kind support. To further display our results, in Table 6 we provided marginal effects for each of our visitation characteristics.

--- Tables 5 and 6 about here ---

Focusing on our first research question, the correlation coefficient rho for each of these estimations is not statistically significant. These coefficients are positive for any in-kind support, toys and presents and vacation; but negative for school supplies as well as clothes and shoes.

However, the insignificant results for both these positive and negative coefficients indicated that there is no relationship between the receipt of child support and the receipt of in-kind support.

Our second research question examined the links between the receipt of child support, in-kind support and visitation. Recall that we found in the bivariate analyses reported in Table 3 that children who received child support and children who received in-kind support had more contact and communicated more with their fathers than children who did not receive child support or in-kind support. In the multivariate results reported in Table 4, we found after controlling for other factors that our measures of visitation quantity and quality were not significantly related to the receipt of child support.

Regarding the receipt of in-kind support, we found in Tables 5 and 6 that several visitation measures were positively related to receiving in-kind support. The more days the child spent with his or her father, the more often the child talked on the phone or received letters from his or her father, and the more time spent in leisure, religious and school activities were all significantly related to receiving any in-kind support. In terms of the magnitudes of the effects, stronger effects were found for days stayed with father and having talked on the phone or received letter from the father. Nevertheless, spending time in leisure, religious or school activities increased the probability of receiving any in-kind support from 20 to 25 percentage points.

Increased frequency and quality of visits was consistently positively related to the receipt of in-kind support across the different types of support, although magnitudes of effects varied. More specifically, spending more days with his or her father was consistently positively related to the child receiving more in-kind support regardless of the type of support under consideration. The effect was strongest for receiving toys and presents followed by receiving clothes and shoes. Talking on the phone or receiving letters from father was also positively related to receiving in-kind support. This relationship was statistically significant for the receipt of toys and presents, vacation, and clothes and shoes. As with days stayed with father, effect of talking on

the phone and receiving letters was strongest on the receipt of toys and presents, and clothes and shoes.

The activities in which the child and father participated affected the receipt of specific in-kind supports in differing ways. The strongest relationship was found for school and organized activities. Spending more time together in these activities was positively related to receiving all four types of in-kind support. The strongest effect was on receiving toys and presents (28.5 percentage point increase) followed by receiving clothes and shoes (17.2 percentage point increase). Spending time together in religious activities had a similar strong, positive effect on receiving in-kind support. Here, the largest marginal effect was on receipt of clothes and shoes (14.6 percentage points). Spending more time together in leisure activities was positively and significantly related to receiving toys and presents (28.9 percentage point increase). It also was positively related to receiving clothes and shoes (16.2 percentage point increase). Spending time together in play activities also impacted the receipt of specific in-kind support. The relationship was strongest in terms of statistical significance for receiving school supplies, but strongest in magnitude for receiving toys and presents (11.5 percentage point increase). Lastly, after controlling for these visitation characteristics and other factors, we found that the frequency with which a child saw his or her father was not related to the receipt of any of these four in-kind supports.

Our third research question investigated whether or not relationships between the receipt of support and visitation varied by the income level of children's families. More specifically, Tables 7 and 8 continued our focus on visitation and in-kind support receipt. Results were reported in the same format as Tables 5 and 6 for subsamples of households with income below 200% of poverty and incomes at and above 200% of poverty. Statistical tests indicated that the sets of regression coefficients from these two samples were different at a $p < 0.001$ level (Greene 2000). However, for each type of in-kind support, our tests of whether the relationship between the receipt of child support and the receipt of in-kind support differed by

income level indicated that none of the differences in the values of ρ between the two samples were statistically significant at the $p < .10$ level.

--- Tables 7 and 8 about here ---

Staying with the father continued to have a strong effect on in-kind support receipt for both groups, although the effects were stronger for children from higher-income families. For example, the marginal effect on receiving toys and presents was 21 percentage points greater for the higher-income sample (34.5 versus 13.5). Similarly, the effect was strong and statistically significant on receiving clothes and shoes for the higher-income sample, but statistically insignificant for the lower-income group.

Talking on the phone or receiving letters from the father had a stronger relationship with the child receiving in-kind support for lower-income children than did staying with their father. Also, this aspect of visitation had a stronger relationship with in-kind support receipt for the lower-income group than it did for the higher income group. Among the lower-income children, talking on the phone or receiving letters increased the probability of receiving any in-kind support by 37.8 percentage points, receiving toys and presents by 35.3 percentage points, and receiving clothes and shoes by 15.9 percentage points. Among higher-income children, this type of interaction with the father was important to receiving any in-kind support, and specifically toys and presents and vacation.

The child and father spending time together in specific activities also was more important to the receipt of in-kind support for lower-income children compared to higher-income children. Regarding receiving any in-kind support, if a lower-income child spent time together with his or her father in either leisure, religious or school activities, the probability she or her would receive any in-kind support increased by 33 percentage points. The effects were similarly stronger for higher-income children for leisure and play activities, about a 27 percentage point increase.

The type of activity also affected the type of in-kind support that was received. For both groups of children, time together with their father in leisure was strongly associated with

receiving toys and presents. The effects were statistically significant with marginal effects for 28.5 (higher-income) and 33.6 (lower-income) percentage points. The effect was about the same for both groups (about 14 percentage points) for the receipt of clothes and shoes, too.

The effect of spending time together in school or organized activities varied considerably across the two groups. For lower-income children, time spent together in this way was associated with a 35.5 percentage point increase in likelihood of receiving toys and presents. The marginal effect for higher-income children was 25 percentage points. For higher-income children, this type of activity together translated into a 20.4 percentage point increase in the probability of receiving school supplies. In contrast, the relationship between time spent in school activities and the receipt of school supplies was statistically insignificant. The magnitudes of the effects on the receipt of vacation and clothes and shoes were about the same for both groups, with the effect being slightly greater for the higher-income group.

Lastly, the effects of spending time in religious and play activities on the receipt of the specific in-kind supports we considered were inconsistent across both groups. For lower-income children, time spent together in religious activities had the strongest impact on receiving clothes and shoes (15.4 percentage points). For higher-income children, this same activity had the largest effect on receiving school supplies. Spending time together in play activities had the strongest effect on receiving school supplies for lower-income children. For higher-income children, time together in play activities was statistically significantly related to only the receipt of vacation from the father.

CONCLUSIONS

Our study is the first detailed analysis of in-kind economic support received by custodial mothers from nonresident fathers that specifically examines interrelationships between in-kind support, child support, and visitation using a nationally representative sample. Relative to what is known about the receipt of child support, there has been very little research on variables

associated with the receipt of in-kind support and the relationship between in-kind support and child support. We assessed three research questions: 1) Are families that receive cash child support more or less likely to receive in-kind support from the nonresident father?; 2) How does visitation with nonresident fathers affect these outcomes?; and 3) Do the relationships between visitation, child support, and in-kind support vary by a families' income level?

Focusing on our first research question, we did not find a statistically significant relationship between the receipt of child support and in-kind support from nonresident fathers in our multivariate analysis. This was the case for children in lower income and higher income families. For children from all economic levels, in-kind support stands on its own as an aspect of nonresident father involvement. This is important as efforts to increase child support collections do not appear to be coming at the expense of reductions in the provision of in-kind support.

Regarding our second research question, we add to the scholarship assessing the determinants of in-kind support receipt from nonresident fathers. While bivariate results indicate associations with visitation for both child support and in-kind support, the multivariate results show that in-kind support receipt was much more closely linked to visitation than child support receipt. Differences in visitation quantity and quality between children that received in-kind support versus those that did not were much larger compared to the differences for children that did and did not receive child support. Finding that visitation between a father and his child was associated with receiving in-kind support, but not with receiving child support, is noteworthy. Much of the discretion in paying child support has been removed from nonresident parents with the expansion of automated payment mechanisms (Office of Child Support Enforcement 2004). Automatic payments appear to have severed the link between child support and visitation whereas in-kind support is still a function of the social involvement of the father. As a result, it is possible that in-kind support may be taking on some of the "symbolic meaning" traditionally associated with child support. Our findings are consistent with evidence suggesting that a

stronger positive relationship exists between visitation and support provided by a nonresident father when that support is made informally to the child's mother (Nepomnyaschy 2007).

Consistent with the idea that providing in-kind support is a more voluntary action, we find considerable variation in the associations between aspects of visitation considered and the different types of in-kind support examined. Nevertheless, increased frequency and quality of visits was consistently positively related to the receipt of in-kind support across the different types of support. Only the magnitudes of the effects varied. The strongest visitation effect on in-kind support receipt was staying with the father. The more days the child stayed with the father, the more likely she or he was to receive all of the in-kind supports examined here (toys and presents, vacation, school supplies, and clothes and shoes).

Addressing our final research question, we found that the income level of the resident family significantly changed the relationships between visitation and in-kind support. The fathers that are involved with lower- and higher-income children are involved across a range of dimensions. While child support payments that come from a public agency may lose their qualitative significance as markers of fathers' contributions to their children (Seltzer 1994), in-kind support may continue to carry the significance that was once associated with receiving child support.

In summary, in-kind support is important to children's lives. As such, it needs to have a larger presence in policy discussions on the paternal involvement of nonresident fathers. "Crediting" fathers for the in-kind support they provide in ways a kin to how child support is officially acknowledged is a policy and programmatic challenge. To date, paternal involvement that includes providing in-kind support has been encouraged. More needs to be done to devise ways that officially recognize this type of involvement by fathers. Perhaps demonstration evaluations can be supported that allow for recognizing in-kind support provided by fathers. Our results indicate that this support may not translate into less child support being received by children, but may actually results in more overall support being received. In other words, it is

likely that overall child well-being will be enhanced by devising ways to encourage fathers to provide in-kind support and to recognize this support when it is provided.

As fathers become more involved as *resident* parents in their children's day-to-day lives, more nonresident fathers may transfer these patterns of care to the nonresident context. For example, they may choose to purchase items and incur expenses more directly associated with their child's social and academic success as opposed to simply providing toys and presents. Parental education programs for couples that are new parents may also be valuable for divorcing couples. Educational programs such as mandatory classes for divorcing couples with children could be developed in which nonresident parents are provided with information as to how best to support their children's long terms success.

Future research needs to address the circumstances of nonresident fathers and how these circumstances affect their visitation and support provision choices. The results presented here support efforts that encourage the involvement of fathers in the lives of their children. Nevertheless, additional research is needed in order to develop policies that facilitate this involvement and address the multiple issues that affect the relationships between nonresident parents and their children. Our cross-sectional data limit our ability to discern whether in-kind support from fathers *results* from visitation, visitation *results* from fathers providing in-kind support, or visitation and in-kind support provision are codetermined. Recent evidence suggests that the relationship is reciprocal (Nepomnyaschy 2007). Our findings indicate that the reciprocal nature of the relationship between visitation and in-kind support likely will depend on the type of in-kind support provided. Future work should continue to focus on identifying causal pathways between visitation and in-kind support and continue to examine the heterogeneity in the quantity and quality of visitation and in the provision of in-kind support.

REFERENCES

Amato, P.R., & Gilbreth, J.G. (1999). Nonresident fathers and children's well-being: A meta-analysis. *Journal of Marriage and the Family, 61,* 557-573.

Argys, L. M., Peters, H.E., Brooks-Gunn, J., & Smith, J.R. (1998). The impact of child support on cognitive outcomes of young children. *Demography, 35*, 159-173.

Argys, L. M., Peters, H. E., Cook, S., Garasky, S., Nepomnyaschy, L., & Sorensen, E. (2006). Measuring contact between children and nonresident fathers. In S. L. Hofferth & L. M. Casper (eds.) *Handbook of Measurement Issues in Family Research*. Mahwah, NJ: Lawrence Erlbaum Associates.

Beller, A., & Graham, J. (1993). *Small change: The economic of child support.* New Haven, CT: Yale University Press.

Buchanan, C. M., Maccoby, E. E., & Dornbusch, S. M. (1996). *Adolescents after divorce.* Cambridge, MA: Harvard University Press.

Coley, R. L. (2003). Daughter-father relationships and adolescent psychosocial functioning in low-income African-American families. *Journal of Marriage and Family*, *65*, 867-875.

Coley, R. L. & Chase-Lansdale, P. L. (1999). Stability and change in paternal involvement among urban African American fathers. *Journal of Family Psychology, 13*, 1-20.

Edin, K., & Lein, L. (1997). *Making ends meet: How low-income single mothers survive welfare and low-wage work.* New York: Russell Sage Foundation.

Garasky, S., Peters, H. E., Argys, L., Cook, S., Nepomnyaschy, L., & Sorensen, E. (2006). Measuring support to children by nonresident fathers. In S. L. Hofferth & L. M. Casper (eds.) *Handbook of Measurement Issues in Family Research*. Mahwah, NJ: Lawrence Erlbaum Associates.

Garfinkel, I., McLanahan, S.S., & Hanson, T.L. (1998). A patchwork portrait of nonresident fathers. In I. Garfinkel, S.S. McLanahan, D.R. Meyer, & J.A. Seltzer (Eds.), *Fathers*

under fire: The revolution in child support enforcement. New York: Russell Sage Foundation.

Garfinkel, I., McLanahan, S., Meyer, D., & Seltzer, J. (1998). *Fathers under fire: The revolution in child support enforcement.* New York: Russell Sage Foundation.

Garfinkel, I., McLanahan, S., & Robins, P. (2004). *Child support and child well-being.* Washington, DC: The Urban Institute.

Graham, J.W., Beller, A.H., & Hernandez, P.M. (1994). The effects of child support on educational attainment. In I. Garfinkel, S.S. McLanahan, & P.K. Robins (Eds.), *Child support and child well-being*. Washington, DC: The Urban Institute Press.

Grall, T. S. (2006). *Custodial mothers and fathers and their child support: 2003*. (Current Population Reports, P60-230). Washington, DC: U.S. Census Bureau.

Greene, A. D., & Moore, K. A. (2000). Nonresident father involvement and child well-being among young children in families on welfare. *Marriage and Family Review, 29*, 159-180.

Greene, W. H. (2000). *Econometric Analysis: 4th edition*. Upper Saddle River, NJ: Prentice Hall, Inc.

King, V., Harris, K. M., & Heard, H. E. (2004). Racial and ethnic diversity in nonresident father involvement. *Journal of Marriage and Family, 66,* 1-21.

Knox, V.W. (1996). The effects of child support payments on developmental outcomes for elementary school-age children. *Journal of Human Resources, 31*, 816-840.

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*. Washington, DC: The Urban Institute Press.

McLanahan, S. S., & Sandefur, G. (1994). *Growing up with a single parent.* Cambridge, MA: Boston University Press.

Meyer, D.R. (1998). The effect of child support on the economic status of nonresident fathers. In I. Garfinkel, S.S. McLanahan, D.R. Meyer, & J.A. Seltzer (Eds.), *Fathers under fire: The revolution in Child support enforcement.* New York: Russell Sage Foundation.

Mincy, R., & Sorensen, E. (1998). Deadbeats and turnips in child support reform. *Journal of Policy Analysis and Management, 17*, 44-51.

Nepomnyaschy, L. (2007). Child support and father-child contact: Testing reciprocal pathways. *Demography, 44,* 93-112.

Office of Child Support Enforcement (2004). *Office of Child Support Enforcement FY 2002 and FY 2003 Annual Report to Congress*. Washington, DC: US Department of Health and Human Services, Administration for Children & Families.

PSID. (2005). An overview of the Panel Study of Income Dynamics. Retrieved August 22, 2006, from http://psidonline.isr.umich.edu/Guide/Overview.html .

Rangarajan, A., & Gleason, P. (1998). Young unwed fathers of AFDC children: Do they provide support? *Demography, 35,* 175-186.

Roberts, P. (2006). *The marriage and fatherhood provisions of the Deficit Reduction Act of 2005.* Washington, DC: Center for Law and Social Policy.

Roy, K. (1999). Low-income single fathers in an African American community and the requirements of welfare reform. *Journal of Family Issues, 20,* 432-457.

Seltzer, J. A. (1994). Consequences of marital dissolution on children. *Annual Review of Sociology, 20,* 235-266.

Seltzer, J. A., McLanahan, S. S., & Hanson, T. L. (1998). Will child support enforcement increase father-child contact and parental contact after separation? In I. Garfinkel, S. McLanahan, D. Meyer, & J. Seltzer (Eds.), *Fathers under fire* (pp. 157-190). New York: Russell Sage Foundation.

Stewart, S. D. (1999a). Disneyland dads, Disneyland moms? How nonresident parents spend time with absent children. *Journal of Family Issues, 20,* 539-556.

Stewart, S. D. (1999b). Nonresident mothers' and fathers' social contact with children. *Journal of Marriage and the Family, 61,* 894-907.

Stewart, S. D. (2003). Nonresident parenting and adolescent adjustment: The quality of nonresident father-child interaction. *Journal of Family Issues*, *24,* 217-244.

Waller, M., & Plotnick, R. (1999). *Child support and low-income families: Perceptions, practice and policy.* San Francisco: Public Policy Institute of California.

Ways and Means Committee, U.S. House. (2004). Green Book: Background Material and Data on Programs Within the Jurisdiction of the House Committee on Ways and Means. Washington, DC: Government Printing Office.

Table 1. Descriptive Statistics.

Variable	Mean	Std Dev.
Economic factors		
Mother's employment (weeks worked in last year)	9.658	18.630
Child is covered by health insurance	0.914	
Family owns home	0.407	
Family received TANF benefits in the last 12 months	0.090	
Family received Food Stamps in the last 12 months	0.246	
Income (1000s of dollars in 2001)	36.557	37.274
Demographic factors		
Child characteristics		
Age: 0-5	0.127	
Age: 6-11	0.482	
Age: 12-18	0.391	
Male	0.490	
Has fair or poor health	0.034	
Last time child lived with father: Never lived with father	0.182	
Last time child lived with father: 3 or fewer years ago	0.169	
Last time child lived with father: 4 to 6 years ago	0.143	
Last time child lived with father: More than 6 years ago	0.269	
Last time child lived with father: Do not know	0.236	
Characteristics of the child's mother		
Age (years)	35.199	7.239
Currently married	0.203	
Currently not married, but cohabitating with a male partner	0.112	
Currently not married and not cohabitating with a male partner	0.685	
Has emotional problems	0.016	
Has physical problems	0.019	
Characteristics of the child's father		
Distance child lives from father: ≤10 miles	0.296	
Distance child lives from father: > 10 miles, ≤ 50 miles	0.256	
Distance child lives from father: > 50 miles	0.165	
Distance child lives from father: Do not know	0.283	
Currently married	0.229	
Currently not married	0.532	
Current marital status not known	0.239	
Has had children since those with child's mother	0.260	
Has not had children since those with child's mother	0.499	
Has had children since those with child's mother: Not known	0.241	
Characteristics of the child's household		
Number of children under age 18	2.270	1.096
Number of adults (age 18 or older)	1.593	0.754
Race of the PSID-defined household head was white	0.310	
Number of children (unweighted)	851	

Notes: Weighted means using individual weights for the child. Variable equals 1 if true and 0 if false, unless otherwise noted. Standard deviations reported for continuous variables.

Table 2. Children's In-kind Support from Nonresident Father by Child Support Receipt (%)

	Full Sample	Child's Family Received Child Support	Child's Family Did Not Receive Child Support
Child received any in-kind support	53.5	61.2	45.8 ***
Child received specific form of in-kind support:			
Toys or presents	49.5	57.8	41.1 ***
Vacation	16.8	20.7	12.8 **
School supplies	13.6	10.1	17.2 **
Clothes or shoes	29.0	29.5	28.5
Paid for camp or lessons	5.7	6.8	4.5
Paid child an allowance	8.2	9.7	6.6
Entertainment	2.7	2.4	3.0
Extra-curricular activities	1.1	1.4	0.8
Anything child needs	0.9	0.5	1.3
Number of children (unweighted)	851	336	515

Notes: Percentages are weighted using individual weights for the child. Superscripts of *, **, and *** are used if the p-value of the difference between the results in columns (2) and (3) are less than .10, .05, or .01 respectively.

Table 3. Children's Visitation with Nonresident Father in Past 12 Months by Child Support (CS) and In-Kind Support (IKS) Receipt (%)

	Full Sample	Received CS	Did Not Receive CS	Received IKS	Did Not Receive IKS
Days stayed with father (mean)	24.4	28.8	19.9*	43.3	2.6***
Talked on the phone or received a letter from father					
Not at all	32.3	22.4	42.3***	5.2	63.6***
About once a year	4.0	3.0	4.9	1.2	6.7
Several times a year	16.4	20.0	12.7	16.6	16.2
One to three times a month	16.2	18.6	13.8	25.3	5.7
About once a week	11.0	14.6	7.4	18.8	2.0
Several times a week	20.1	21.4	18.9	32.6	5.7
Saw father					
Not at all	32.1	24.3	40.0***	3.9	64.6***
About once a year	6.3	6.9	5.7	6.1	6.5
Several times a year	16.9	18.5	15.2	18.2	15.4
One to three times a month	21.4	24.8	17.9	32.6	8.5
About once a week	10.9	11.7	10.2	17.8	3.0
Several times a week	12.5	13.9	11.0	21.5	2.0
Spent time in leisure activities with father					
Not at all	48.2	43.0	53.5***	16.0	85.3***
About once a year	8.1	6.7	9.4	9.8	6.1
Several times a year	18.9	20.9	16.9	31.2	4.7
One to three times a month	15.6	19.0	12.1	26.9	2.5
About once a week	6.2	6.7	5.6	10.4	1.3
Several times a week	3.2	3.7	2.6	5.8	0.1
Spent time in religious activities with father					
Not at all	85.6	81.9	89.3**	74.1	98.8***
About once a year	5.7	7.9	3.6	10.0	0.8
Several times a year	4.2	5.2	3.2	7.5	0.5
One to three times a month	2.8	2.7	2.8	5.1	0.0
About once a week	1.8	2.4	1.1	3.3	0.0
Several times a week	0.0	0.0	0.0	0.0	0.0
Spent time in play activities with father					
Not at all	57.5	53.2	61.8**	29.5	89.8***
About once a year	6.0	5.4	6.7	8.5	3.2
Several times a year	12.9	13.3	12.5	21.1	3.5
One to three times a month	12.3	15.3	9.2	21.4	1.8
About once a week	7.4	8.2	6.5	12.8	1.1
Several times a week	3.9	4.5	3.2	6.7	0.6
Spent time in school or organized activities with father					
Not at all	71.8	64.2	79.5***	53.4	94.2***
About once a year	6.4	10.4	2.4	9.9	2.4
Several times a year	13.7	17.5	9.9	23.7	2.2
One to three times a month	4.8	4.8	4.8	8.5	0.5
About once a week	2.4	1.9	2.9	3.9	0.7
Several times a week	0.9	1.2	0.6	1.6	0.1
Number of children (unweighted)	851	336	515	456	395

Notes: (1) Means and percentages are weighted using individual weights for the child. (2) Superscripts of *, ** and ** are used if the p-value of the difference in the distributions of the full set of responses for a visitation measure reported in columns (2) and (3) and columns (4) and (5) is less than .10, .05 or .01, respectively.

Table 4. Determinants of Receipt of Any Child Support and Any In-Kind Support.

Variable	CS		IKS	
	Coeff.	Std. Err	Coeff.	Std. Err
Visitation				
Days stayed with father	0.001	0.001	0.010**	0.004
Talked on the phone or received a letter from father	0.304	0.196	0.725***	0.199
Saw father	0.241	0.205	0.283	0.197
Spent time in leisure activities with father	0.047	0.173	0.663***	0.167
Spent time in religious activities with father	-0.084	0.167	0.577**	0.260
Spent time in play activities with father	-0.086	0.167	0.212	0.169
Spent time in school or organized activities with father	0.061	0.152	0.531***	0.203
Economic factors				
Mother's employment (wks worked in last year)	-0.003	0.005	0.010*	0.005
Child is covered by health insurance	-0.016	0.223	0.405*	0.210
Family owns home	-0.352**	0.142	0.030	0.156
Family received TANF benefits in the last 12 months	-0.502**	0.243	-0.122	0.228
Family received Food Stamps in the last 12 months	0.191	0.158	0.105	0.185
Income (1000s of dollars in 2001)	0.005*	0.003	0.002	0.003
Demographic factors				
Child characteristics				
Age: 0-5 (omitted category)				
Age: 6-11	-0.050	0.161	0.375*	0.207
Age: 12-18	0.017	0.186	0.039	0.242
Male	-0.014	0.092	-0.035	0.109
Has fair or poor health	-0.534*	0.275	0.155	0.273
Last lived with father: Never lived with father	0.467**	0.196	-0.481**	0.218
Last lived with father: 3 or fewer years ago (omitted category)				
Last lived with father: 4 to 6 years ago	0.543**	0.217	-0.293	0.236
Last lived with father: More than 6 years ago	0.491***	0.180	-0.180	0.207
Last lived with father: Do not know	0.810*	0.431	-1.075**	0.476
Characteristics of the child's mother				
Age (years)	0.024**	0.010	-0.005	0.011
Currently married	0.085	0.208	-0.270	0.208
Currently not married, but cohabitating	-0.637**	0.299	-0.519*	0.300
Currently not married and not cohabitating (omitted category)				
Has emotional problems	-0.196	0.531	-0.425	0.416
Has physical problems	0.216	0.489	0.234	0.430

Variable	CS		IKS	
	Coeff.	Std. Err	Coeff.	Std. Err
Characteristics of the child's father				
Distance lives from child: 10 miles or less (omitted category)				
Distance lives from child: 10 - 50 miles	0.246	0.152	-0.018	0.171
Distance lives from child: More than 50 miles	0.138	0.193	0.049	0.200
Distance lives from child: Not known	0.131	0.267	0.201	0.290
Currently married	0.379***	0.141	0.206	0.158
Currently not married (omitted category)				
Current marital status not known	-0.025	0.379	0.082	0.498
Has had more children	-0.096	0.140	-0.033	0.165
Has not had more children (omitted category)				
Has had more children: Not known	-0.216	0.406	-0.015	0.449
Characteristics of the child's household				
Number of children under age 18	0.032	0.057	-0.077	0.060
Number of adults (age 18 or older)	-0.408***	0.094	-0.009	0.101
PSID-defined household head is white	1.120***	0.145	0.209	0.157
Constant	-1.840***	0.514	-1.300**	0.558
Rho (p value)	0.061 (0.521)			

Notes: (1) Weighted regressions using individual weights for the child. (2) Standard errors adjusted for clustering (children from same household). Superscripts of *, **, and *** are used if the p-value of the coefficient is less than .10, .05, or .01 respectively.

Table 5. Visitation and Receipt of Specific In-Kind Supports.

Variable	Any In-Kind		Toys & Presents		Vacation		School Supplies		Clothes & Shoes	
	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err
Days stayed with father	0.010**	0.004	0.005***	0.002	0.005***	0.002	0.005***	0.001	0.005***	0.002
Talked on the phone or received a letter from father	0.725***	0.199	0.893***	0.234	1.126***	0.389	0.313	0.237	0.742***	0.216
Saw father	0.283	0.197	0.068	0.204	-0.276	0.304	0.116	0.273	0.272	0.234
Spent time in leisure activities with father	0.663***	0.167	0.744***	0.169	0.368	0.256	0.333	0.205	0.514***	0.162
Spent time in religious activities with father	0.577**	0.260	0.162	0.206	0.422**	0.176	0.474***	0.178	0.433**	0.183
Spent time in play activities with father	0.212	0.169	0.291*	0.155	0.433*	0.224	0.494**	0.196	0.094	0.162
Spent time in school or organized activities with father	0.531***	0.203	0.732***	0.188	0.481***	0.169	0.535***	0.171	0.515***	0.152
Rho	0.061		0.004		0.113		-0.111		-0.077	
(p value)	0.521		0.963		0.273		0.246		0.378	

Notes: (1) Weighted regressions using individual weights for the child. Standard errors adjusted for clustering (children from same household). (2) Superscripts of *, **, and *** are used if the p-value of the coefficient is less than .10, .05, or .01 respectively. (3) All of the covariates in **Z** were included in these estimations. More specifically, economic factors included the mother's employment status, whether or not the child is covered by health insurance, the family's homeownership status, indicators of whether or not the child's household received TANF or Food Stamp Program benefits, and income. Child characteristics included age, gender, physical health status and the last time he or she lived with his or her father. Characteristics of the child's mother included her age, current marital and cohabitation status, and whether or not she had any emotional or physical problems. Characteristics of the child's father included an estimate of how far in miles the child lives from his or her father, his current marital status, and whether or not he has had children since those he had with the child's mother. Characteristics of the child's household included the number of children and the number of adults residing in the household, and the race of the PSID-defined household head. Complete regression results are available from the authors.

Table 6. Visitation and Receipt of Specific In-Kind Supports, Marginal Effects (percentage points)

Variable	Any In-Kind	Toys & Presents	Vacation	School Supplies	Clothes & Shoes
Probability of receipt at sample means	58.0	45.2	5.7	7.4	23.8
Days stayed with father	32.5**	18.7***	5.4***	5.7***	13.3***
Talked on the phone or received a letter from father	28.2***	33.4***	10.6***	4.1	20.8***
Saw father	11.1	2.7	-3.4	1.6	8.1
Spent time in leisure activities with father	25.3***	28.9***	4.4	4.8	16.2***
Spent time in religious activities with father	20.9**	6.4	6.1**	8.4***	14.6**
Spent time in play activities with father	8.2	11.5*	5.4*	7.5**	2.9
Spent time in school or organized activities with father	19.8***	28.5***	6.7***	9.1***	17.2***

Notes: (1) Weighted regressions using individual weights for the child. Standard errors adjusted for clustering (children from same household). (2) Superscripts of *, **, and *** are used if the p-value of the coefficient reported in Table 5 is less than .10, .05, or .01 respectively. (3) The marginal effect for dummy variables is the difference in the estimated probabilities of receiving in-kind support calculated at 0 and 1 for the variable of interest, while holding the values of all other covariates at their sample means. Similarly, the marginal effect for 'days stayed with father', a continuous variable, is the difference in the estimated probabilities of receiving in-kind support calculated at the sample mean minus one standard deviation and the sample mean plus one standard deviation, while holding the values of all other covariates at their sample means. (4) All of the covariates in **Z** were included in these estimations. More specifically, economic factors included the mother's employment status, whether or not the child is covered by health insurance, the family's homeownership status, indicators of whether or not the child's household received TANF or Food Stamp Program benefits, and income. Child characteristics included age, gender, physical health status and the last time he or she lived with his or her father. Characteristics of the child's mother included her age, current marital and cohabitation status, and whether or not she had any emotional or physical problems. Characteristics of the child's father included an estimate of how far in miles the child lives from his or her father, his current marital status, and whether or not he has had children since those he had with the child's mother. Characteristics of the child's household included the number of children and the number of adults residing in the household, and the race of the PSID-defined household head. Complete regression results are available from the authors.

Table 7. Visitation and Receipt of In-Kind Support, by Poverty Status.

Variable	Any In-Kind		Toys & Presents		Vacation		School Supplies		Clothes & Shoes	
	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err	Coeff.	Std. Err
	Income Below 200% of Poverty									
Days stayed with father	0.009*	0.005	0.004*	0.002	0.007***	0.002	0.008***	0.002	0.004	0.003
Talked on the phone or received a letter from father	1.031***	0.290	0.979***	0.331	0.828	0.524	0.335	0.306	0.806***	0.293
Saw father	0.241	0.288	0.280	0.285	-0.283	0.435	-0.397	0.398	0.151	0.325
Spent time in leisure activities with father	0.880***	0.250	0.848***	0.236	0.647**	0.320	0.341	0.271	0.605**	0.235
Spent time in religious activities with father	0.873**	0.369	0.235	0.274	0.534**	0.253	0.410	0.256	0.584**	0.270
Spent time in play activities with father	-0.084	0.244	0.201	0.221	0.165	0.302	0.916**	0.268	0.010	0.238
Spent time in school or organized activities with father	0.848***	0.295	0.923***	0.259	0.634**	0.261	0.225	0.242	0.532**	0.240
Rho	0.008		-0.005		0.290		0.015		-0.128	
(p value, Rho ≠ 0)	0.953		0.972		0.039**		0.908		0.311	
	Income At or Above 200% of Poverty									
Days stayed with father	0.011***	0.004	0.010***	0.003	0.006**	0.002	0.005**	0.002	0.008***	0.003
Talked on the phone or received a letter from father	0.602*	0.341	0.795**	0.342	1.858***	0.467	0.465	0.425	0.616	0.390
Saw father	0.365	0.314	-0.002	0.322	0.029	0.456	0.731	0.566	0.378	0.347
Spent time in leisure activities with father	0.688**	0.290	0.747**	0.303	0.195	0.432	0.189	0.322	0.480*	0.248
Spent time in religious activities with father	0.095	0.354	-0.078	0.320	0.314	0.285	0.654**	0.289	0.261	0.266
Spent time in play activities with father	0.718***	0.275	0.425	0.259	0.819**	0.378	0.293	0.295	0.275	0.242
Spent time in school or organized activities with father	0.259	0.283	0.641**	0.273	0.730***	0.251	1.008***	0.250	0.572**	0.226
Rho	0.056		-0.025		-0.083		-0.165		0.037	
(p value, Rho ≠ 0)	0.687		0.858		0.624		0.293		0.767	

Notes: (1) Weighted regressions using individual weights for the child. Standard errors adjusted for clustering (children from same household). (2) Superscripts of *, **, and *** are used if the p-value of the coefficient is less than .10, .05, or .01 respectively. (3) All of the covariates in **Z** were included in these estimations. More specifically, economic factors included the mother's employment status, whether or not the child is covered by

health insurance, the family's homeownership status, indicators of whether or not the child's household received TANF or Food Stamp Program benefits, and income. Child characteristics included age, gender, physical health status and the last time he or she lived with his or her father. Characteristics of the child's mother included her age, current marital and cohabitation status, and whether or not she had any emotional or physical problems. Characteristics of the child's father included an estimate of how far in miles the child lives from his or her father, his current marital status, and whether or not he has had children since those he had with the child's mother. Characteristics of the child's household included the number of children and the number of adults residing in the household, and the race of the PSID-defined household head. Complete regression results are available from the authors. (4) Statistical tests of whether the values of ρ were statistically significantly different from each other for the two samples for each type of in-kind support indicated that none of the differences were statistically significant at the $p < .10$ level.

Table 8. Visitation and Receipt of In-Kind Support, Marginal Effects, by Poverty Status.

Variable	Any In-Kind	Toys & Presents	Vacation	School Supplies	Clothes & Shoes
	Income Below 200% of Poverty				
Probability of receipt at sample means	43.5	41.3	1.0	3.1	13.7
Days stayed with father	27.1*	13.5*	1.8***	4.7***	7.3
Talked on the phone or received a letter from father	37.8***	35.3***	2.0	2.2	15.9***
Saw father	9.5	10.8	-0.9	-3.3	3.2
Spent time in leisure activities with father	33.9***	33.6***	2.2**	2.6	14.1**
Spent time in religious activities with father	33.3**	5.4	2.4**	4.0	15.4**
Spent time in play activities with father	-3.3	7.9	0.5	8.5**	0.3
Spent time in school or organized activities with father	32.8***	35.5***	2.8**	1.8	13.5**
	Income At or Above 200% of Poverty				
Probability of receipt at sample means	52.9	41.4	1.9	7.9	23.1
Days stayed with father	39.7***	34.5***	2.5**	6.5**	23.2***
Talked on the phone or received a letter from father	23.6*	28.8**	7.1***	6.0	16.7
Saw father	14.5	-0.1	0.1	9.2	10.6
Spent time in leisure activities with father	26.8**	28.5**	0.9	2.8	14.3*
Spent time in religious activities with father	3.8	-3.0	1.8	12.8**	8.6
Spent time in play activities with father	27.9***	16.5	4.6**	4.4	8.4
Spent time in school or organized activities with father	10.3	25.0**	4.9***	20.4***	18.6**

Notes: (1) Weighted regressions using individual weights for the child. Standard errors adjusted for clustering (children from same household). (2) Superscripts of *, **, and *** are used if the p-value of the coefficient reported in Table 7 is less than .10, .05, or .01 respectively. (3) The marginal effect for dummy variables is the difference in the estimated probabilities of receiving in-kind support calculated at 0 and 1 for the variable of interest, while holding the values of all other covariates at their sample means. Similarly, the marginal effect for 'days stayed with father', a continuous variable, is the difference in the estimated probabilities of receiving in-kind support calculated at the sample mean minus one standard deviation and the sample mean plus one standard deviation, while holding the values of all other covariates at their sample means. (4) All of the covariates in **Z** were included in these estimations. Economic factors included the mother's employment status, if the child was covered by health insurance, the family's homeownership status, indicators of whether or not the child's household received TANF or Food Stamp Program benefits, and income. Child characteristics included age, gender, physical health status and the last time he or she lived with his or her father. Characteristics of the child's mother included her age, current marital and cohabitation status, and whether or not she had any emotional or physical problems. Characteristics of the child's father included an estimate of how far in miles the child lives from his or her father, his current marital status, and whether or not he has had children since those he had with the child's mother. Characteristics of the child's household included the number of children and the number of adults residing in the household, and the race of the PSID-defined household head. Complete regression results are available from the authors.