Institute for Research on Poverty
Discussion Paper no. 1300-05

Multiple-Partner Fertility: Incidence and Implications for Child Support Policy

Daniel R. Meyer
School of Social Work
University of Wisconsin–Madison
E-mail: drmeyer1@wisc.edu

Maria Cancian
La Follette School of Public Affairs and School of Social Work
University of Wisconsin–Madison
E-mail: cancial@lafollette.wisc.edu

Steven Cook
Institute for Research on Poverty
University of Wisconsin–Madison
E-mail: cook@ssc.wisc.edu

May 2005

This paper draws from a report prepared under Contract C-680 between the Wisconsin Department of Workforce Development and the Institute for Research on Poverty. Any views expressed in this paper are those of the authors and not necessarily those of the sponsoring institutions. The authors thank Patricia Brown, CSDE Data Manager, and programming staff of the Institute for Research on Poverty for their outstanding programming and construction of the data files used for this analysis. We thank Youseok Choi for excellent research assistance, and Dawn Duren and Elizabeth Evanson for assistance in preparing this manuscript.

Abstract

Multiple-partner fertility might not be a significant policy issue if the number of children affected was fairly small. However, we show here that family complexity resulting from multiple-partner fertility is quite common, and has important implications for understanding child support outcomes and for designing and evaluating welfare and family policy. Using a unique set of merged administrative data, this paper provides the first comprehensive documentation of levels of family complexity among a broad sample of welfare recipients. We examine the extent to which complexity is associated with systematically different child support outcomes and outline the implications of family complexity for policy.

Multiple-Partner Fertility:
Incidence and Implications for Child Support Policy

Complex families that result from multiple-partner fertility raise important issues for social policy. Recent initiatives to promote marriage between biological parents may be substantially complicated if many of the potential marriage partners have had children with multiple partners.[1] Complex families that result from multiple-partner fertility are also an issue in child support policy. The general principle that a parent who does not live with his or her minor children should pay child support is well established, and each state has a numerical guideline to determine an amount that should be ordered and paid. The basic guidelines in each state were developed for "simple" cases, with one noncustodial parent (typically the father), one custodial parent (typically the mother), and their children in common. Determining the amount of child support that should be paid becomes more difficult when the families are more complex. For example, should a child support order be lower than the basic guideline amount if the noncustodial father is also supporting children that he had with another woman? If a custodial mother with a child support order for her first child has a second child, should the amount of child support ordered for the second child be different if both children have the same father than if the two children have different fathers? Adjustments (or the lack of adjustments) in these more complex cases can be quite controversial.

Family complexity would not necessarily be a significant policy issue if the number of children affected were fairly small. However, as we document here, family complexity is quite common, and it has important implications for understanding child support outcomes and for designing and evaluating future welfare and family policy. This paper provides the first comprehensive documentation of the levels of

---

[1]Recent initiatives are highlighted on the Web site of the U.S. Department of Health and Human Services, Administration for Children and Families (see http://www.acf.hhs.gov/healthymarriage/). Reviews of early evaluation efforts were included in the National Poverty Center conference, "Marriage and Family Formation among Low-Income Couples," Washington, DC, September 4–5, 2003. See for example Stagner et al. (2003). For a review of the effects of welfare reform policies on marriage, see Gennetian and Knox (2003); for a review of recent marriage promotion initiatives, see Ooms, Bouchet, and Parke (2004).

family complexity among a broad sample of welfare recipients. We also examine the extent to which complexity is associated with systematically different child support payment patterns among fathers.

POLICY CONTEXT AND PREVIOUS RESEARCH

Historically, child support order amounts were set on a case-by-case basis, resulting in substantial variation in order amounts for similar cases.[2] The federal policy response to the variation was legislation in 1984 and 1988 that required each state to establish a numerical formula (or guideline) to be used to set orders. Nearly all states responded by selecting "continuity of expenditure" as the guiding principle (see, e.g., Minow, 1998; or Rothe and Meyer, 2000). The principle asserts that child support should be set so that children have access to approximately the same level of financial resources that they would have had if their biological parents lived together. This principle—that support amounts should be based on the counterfactual of parents living together—spawned a body of research on how much parents spend on their children in "intact" families (e.g., Barnow, 1994; Betson, 1990). Although this research has resulted in different estimates, there are some constants: parents spend more when they have more children, though the amount for each additional child decreases, and those with higher incomes spend more in total, though generally a lower percentage of income. As a consequence, all child support guidelines result in higher orders when there are more children and when income is higher.

It is difficult to see how best to adapt this principle in cases that include multiple-partner fertility, since the counterfactual—all the parents simultaneously living together—is not realistic. Some states have responded by developing a set of rules for handling cases that include multiple-partner fertility, but these are usually not based on a set of guiding principles (Minow, 1998; Takas, 1994). Consider a father who has a child with one woman and subsequently separates from the mother and owes support for that child. Then he has a child with another woman. If he is living with the new partner and child, a typical response

[2]For a history of child support policy and some of the reasons for reforms, see Garfinkel, McLanahan, and Meyer (1998).

from the guidelines would be that his first order should not change, even though he has new responsibilities. One rationale for the lack of adjustment is that the original child should not be disadvantaged by subsequent actions of a parent. In some states, however, he is given a credit for the new family, and his order for the first family could be lowered. There are also different responses if he is not living with the second partner and child. One response to setting an order for his second child is to assume that he is paying the amount ordered for the first child, and then to calculate the order for the second child based on his income net of his child support payment. Because orders are lower when income is lower, this results in the second child receiving a lower order than the first. Another possibility would be to calculate the total amount this nonresident father should pay for both children, and divide it equally between his two children. This would provide for equal treatment of children, but it would also result in the first child receiving less than had originally been ordered, due to the father's actions subsequent to the first child's birth. Note also that because the marginal increase in orders for each child within a family is lower, being ordered to pay for two children in different families results in a higher total amount ordered than if the two children were in the same family.

Complexities also arise if a custodial parent has a new child. In general, states do not make adjustments in this circumstance, assuming that a noncustodial fathers' obligation to his biological children is not affected by new activities of that child's mother. Nonetheless, a custodial parent with a new child will have greater financial needs and may or may not also have additional resources, depending on whether the father of the new child provides support.

In some states, the treatment of second families is codified in the guidelines, while in others it is primarily left to the court's discretion. Even when the treatment is codified, however, courts have the freedom to modify the formula if it is in the best interests of the child. To our knowledge, there is no national information on child support orders in these types of cases.

There are also no systematic national data on whether child support payments differ for complex families.[3] Many studies of child support outcomes posit that payments are a result of several factors, including the noncustodial parent's ability to pay, the noncustodial parent's willingness to pay, and the strength of the child support enforcement system (e.g., Bartfeld and Meyer, 2003; Beller and Graham, 1993). Recent findings from this research suggest that ability to pay is quite important, whether measured by income alone or by the relationship between income and the amount ordered (the "burden" of the order). The strength of the enforcement system has also been found to be quite important (Freeman and Waldfogel, 2001; Sorensen and Hill, 2004). There is less support for variables connected to willingness to pay. This may be in part because the system has become substantially less discretionary.[4]

Finally, ethnographic research on low-income individuals and families has provided information on the difficulties faced by parents with multiple partners in trying to negotiate the complicated relationships that result. Pate (2002) discusses the high total amount of orders that result when a father has had children with multiple women, and the difficulties these fathers face in their current relationships if they try to pay support to their children from prior relationships.

Both policy and previous research suggest that, for a given number of children, a father will generally face a higher total child support obligation if he has children with multiple partners than if all of his children are in the same family. The effect of these higher order levels on payments is ambiguous. On the one hand, if the total amount ordered is higher, the amount he pays may be higher—either because there is little discretion in the amount paid, or because obligations to multiple partners may increase the likelihood that at least one of them will pursue payment aggressively. On the other hand, if orders are

---

[3]For early research examining this question using state data, see Powers and Beller (2003).

[4]For example, child support amounts are supposed to be automatically deducted from the income of noncustodial parents when the order is set. If a noncustodial parent changes jobs, the employer is required to report the social security number of all new employees, and this list is then matched against a database of child support orders, and the withholding order should be updated and should continue. Moreover, noncustodial parents who fall substantially behind in their payments can have their tax refunds intercepted to pay off the overdue amount. The penalties for noncompliance have also become quite serious. All of these factors may lead to a smaller role for willingness to pay.

perceived as too burdensome, noncustodial parents may get discouraged, drop out of the formal employment system, and pay less.

As we noted above, if a father has a relationship with a mother who has children from other unions, these other unions (and related child support) generally will not affect the support he is ordered to pay. Nonetheless, the presence of another man's children in the household may affect the father's relationship with the family and his motivation for providing economic support to the household. On the other hand, the mother may have more contact with the child support system or be more knowledgeable about how it works. This may lead to greater child support enforcement and higher payments. Thus, the effect of family complexity on child support payments is an empirical question.

FAMILY COMPLEXITY

Measures of family complexity are difficult. From a child support policy perspective, we would like to know the extent to which fathers and mothers have had children with multiple partners, although the extent to which a parent marries or cohabits with another partner (without having new children) may also be of concern. These data do not exist; instead there are limited and partial estimates. Moreover, estimates based on a single point in time are of course much lower than those that account for the percentage of children who will ever spend time in a complex family. High rates of union formation and dissolution, especially when cohabitation is considered, mean that about 30 percent of all children will spend some time in a stepfamily (Bumpass, Raley, and Sweet, 1995).

Acs and Nelson (2003) use the National Survey of America's Families to document children's living arrangements at a point in time. In 2002, 82 percent of children lived in "simple" families: 60 percent with married biological (or adoptive) parents, 19 percent with a single (noncohabiting) mother, and 3 percent with a single (noncohabiting) father. Another 3 percent lived with both parents, but the parents were not married. Eight percent were living with a parent and stepparent, 3 percent with a parent

and a nonparent cohabitor, and 4 percent with neither parent.[5] While this provides a type of child-based estimate, it underestimates complexity. Some children living only with their mother are also living with a half-sibling (so the children are all living with their mother, but the children have different fathers).

One source of data that can be used to examine multiple-partner fertility is the Fragile Families study, which provides detailed information on 4,209 births of children born to unmarried and married parents in 20 large cities (Carlson and Furstenberg, 2003; see also Mincy, 2002). One year after birth, three-quarters of the children lived in families in which the mother did not have children with any other father; this figure includes those who were only children (37 percent) and those who had full siblings (38 percent). Multiple fathers were more common as the number of children born to a mother increased: of mothers with two children, about one-third were associated with two fathers; among those with five or more children, nearly three-quarters were associated with more than one father. Carlson and Furstenberg also examined whether the fathers had had multiple partners, but because this information came from the mother, it is limited. They found that multiple-partner fertility of mothers was more common among non-Hispanic black women, when the mother had a child as a teen, and when the parents were unmarried.

In summary, multiple-partner fertility raises difficult policy issues in child support and in initiatives encouraging marriage among welfare participants. Although estimates of multiple-partner fertility are emerging, it is difficult to examine the perspective of both parents, and no systematic information is available on the extent to which a welfare population has multiple-partner fertility. This paper documents the extent of multiple-partner fertility for this population and analyzes implications for the amount of child support paid.

---

[5]The Current Population Survey also provides estimates of children's living arrangements (Fields, 2003), but these estimates are limited because children categorized as living with two "parents" include those living with both biological parents and those living with a biological parent and a stepparent. Moreover, measures of cohabitation are unable to distinguish whether a child living with cohabiting partners is living with one or two parents.

DATA AND APPROACH

Data

Quantitative research on complex families is difficult given data limitations. A key difficulty results from inherent problems with sample definitions of complex family structures. Asking respondents to report on the subsequent marriage, cohabitation, and fertility history of former partners is problematic, both because of the sensitivity of these topics and because respondents may have limited information on their former partner's relationships occurring after (or before) their own. Surveys designed to include multiple partners as respondents are also difficult and expensive to field. To our knowledge, no national survey uses such a design and includes a large enough sample to support estimation based on detailed categories of complex families.

To address these issues we use a unique data set constructed from merged administrative data on TANF recipients in the state of Wisconsin. We use longitudinal data from (1) the Client Assistance for Re-employment and Economic Support (CARES) system, which includes information collected in administering W-2 (Wisconsin's TANF program) and related means-tested programs; (2) the Unemployment Insurance (UI) system, which includes information on quarterly earnings of individual covered workers ("covered" workers include over 90 percent of Wisconsin workers); and (3) the Kids Information Data System (KIDS), the state's management information system for child support. KIDS contains detailed information on child support orders and payments and limited demographic information on parents. It also contains information on paternity, so we can examine whether each of the children living with the mother has a legally established father (that is, whether the child was born in a marital union, in which case legal paternity is presumed, or in a nonmarital union, in which case paternity must be formally established).

Our sample begins with 16,319 women with children who received TANF cash benefits or other work supports in the Wisconsin Works (W-2) program from September 1, 1997, to June 30, 1998, the

first 10 months of the program.[6] We identify the legal fathers of all the children in these families. We then return to the data sources to identify all legally established children of these fathers, including those whose mothers do and do not receive TANF.[7]

For this research, administrative records are limited in several ways. First, they do not include information on all fathers because not all paternities are legally established; however, paternity establishment rates for nonmarital births in Wisconsin are close to 90 percent (U.S. Department of Health and Human Services, 2003). Second, some subsequent births will not be recorded in administrative data (for example, births within marriage); however, note that over 85 percent of children in families receiving TANF benefits in Wisconsin were born outside of marriage (Meyer and Cancian, 2001). Third, the administrative records we use do not generally record cohabitation, so the number of adults who are intimately associated with children's lives are not captured in our measures of complexity. The limitations of our administrative data mean that our estimates of family complexity are conservative.

Despite these limitations, these data provide a unique opportunity to consider the implications of multiple-partner fertility for child support. The data used are derived from a state with administrative data of particularly high quality, and are based on an unusually comprehensive set of longitudinal files, allowing for complex linkages over time and across multiple couples. We are not aware of any other comparable administrative data. The large sample makes it possible to consider less common family structures, which is particularly important given the topic. Finally, the availability of information on a representative sample (virtually the full population in a given period) addresses concerns about representativeness that are a problem in some alternative information sources. Overall, the resulting estimates are an important contribution to the picture of complex families that is emerging from ethnographic and smaller-scale survey research.

---

[6]This sample was originally drawn as part of the Wisconsin Child Support Demonstration Evaluation (for details on sample selection see Meyer and Cancian, 2001).

[7]Cases used in the analysis are children who were born, and fathers who had paternity established, by the end of 1999.

Samples and Approach: Descriptive Analyses

Our first analyses provide descriptive information on the degree of complication in mothers' and fathers' families. Given multiple-partner fertility, as well as the availability of information on all of the mothers' resident children but only legally established paternities for fathers, we consider family structure from the perspective of both mothers and of fathers. In particular, we document:

A. The distribution of family complexity for all mothers in our sample (16,319 mothers). In this analysis we count each mother once, and *for each mother* consider the number of children she has and the number of legally established fathers of her children. We also examine the complexity of these fathers' situations, focusing on whether he has legal children in other families.[8]

B. The distribution of family complexity for all fathers and the mothers of their children. This analysis begins with the 16,319 mothers in Sample A and examines the legally established fathers of all of her children. We examine each father only once, even if he has children with multiple mothers in our original sample (the case for about 8 percent of fathers when their children entered W-2). We examine men who were fathers at the end of 1999 (17,647). We report on the *joint complexity of the fathers' families, and the families of the mothers of his children* (regardless of whether the mothers are in our original sample).[9]

We present a variety of simple descriptive analyses that document the distribution of alternative family structures and the extent of family complexity.

Sample and Approach: Analysis of Child Support Payments

We then turn to a description of the relationship between family complexity and fathers' payments of formal child support. We focus on fathers, so our sample begins with the 17,647 fathers in Sample B. We first document the differences in child support payment by the numbers of mothers with whom the father has children and by whether any of those mothers have children with other fathers. We then use a set of multivariate models to control for other differences which may be correlated with family complexity. Our primary dependent variable is the total amount of child support paid in 2000 by each

[8]When we are considering fathers' family complexity, in some cases these "other" families will include a mother in our sample.

[9]Note that women receiving TANF are not in this analysis if there are no legally established fathers of their children.

father. For fathers with multiple obligations we sum across payments to all mothers. We first analyze the probability that a father pays child support to any of the mothers of his children (using a probit analysis). We then consider the total amount of child support paid to these mothers for the 10,761 fathers who paid any support (using ordinary least squares).[10]

For both the analysis of any payments and the analysis of amount paid, we estimate models with and without a measure of total child support ordered (summed over all obligations). For example, we first estimate the correlates of paying any support, with a special focus on measures of family complexity, but without any controls for total child support ordered. We then add to the model a control for the total amount of current child support ordered. Comparing the results from these two models allows us to see the extent to which the relationship between family complexity and the payment of child support is mediated through the level of child support orders.

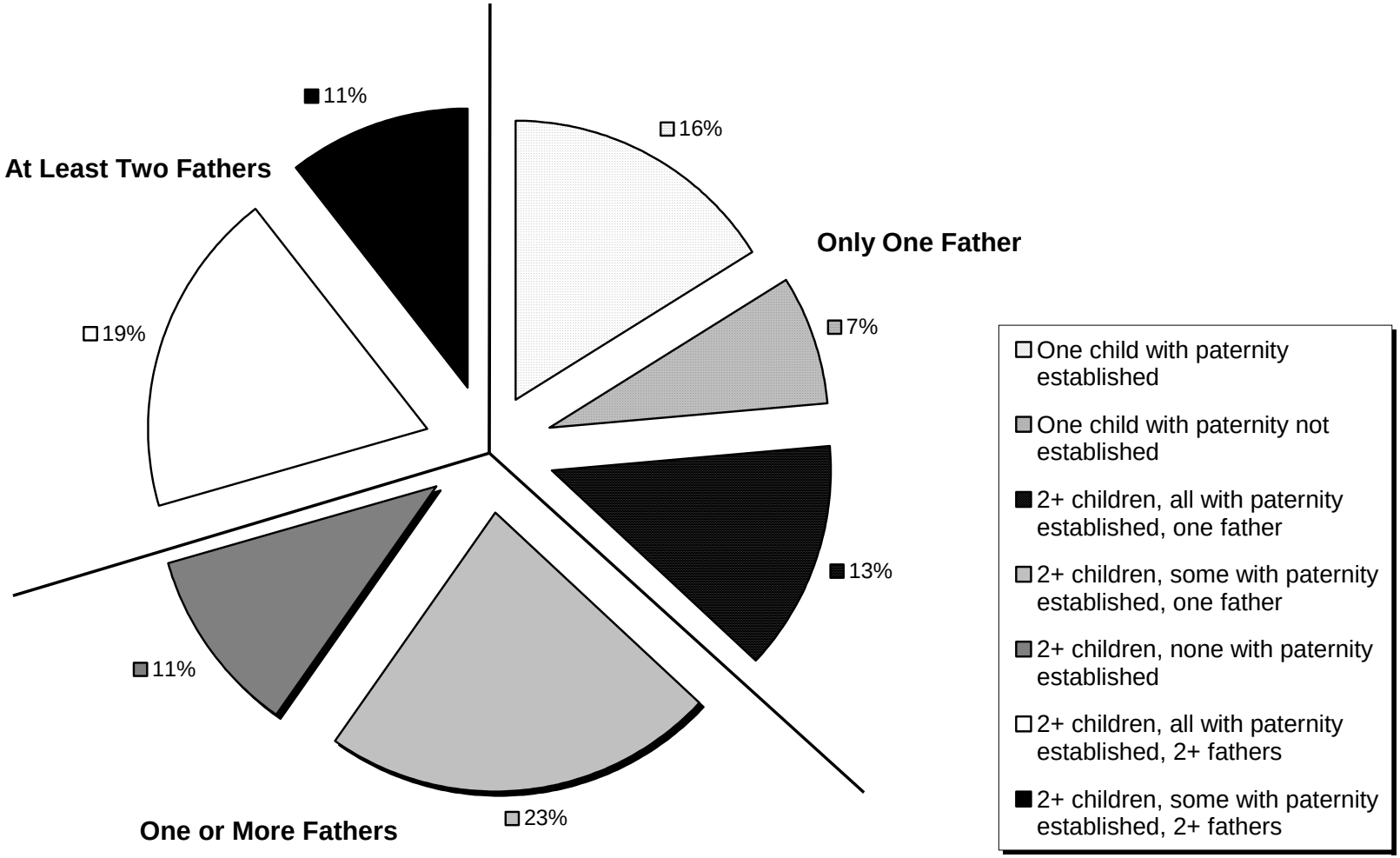
In all models, our measures of complexity include the number of mothers associated with that father, whether he owes support to each mother, and the number of his children. We also control for other variables that have been found to be associated with child support payments: fathers' earnings, race, and age; the age of his youngest child, his location, and whether any of his children are marital children. We also control for mother's education and whether her initial TANF assignment was to cash benefits or to services only. (When there are multiple mothers, we select a mother at random for these characteristics.)

RESULTS

Figure 1 shows the distribution of family complexity among mothers (Sample A) at the end of 1999, focusing on the number of fathers associated with each mother. We differentiate cases in which we do not know the number of fathers (children without paternity legally established) from those in which we do, either because all children have had paternity established or because there is only one child (and thus

[10]We also estimated a tobit model of amount paid for all fathers (including those who did not pay any support), and results were qualitatively similar.

Figure 1
Distribution of Family Complexity at the End of 1999 among Custodial Mothers

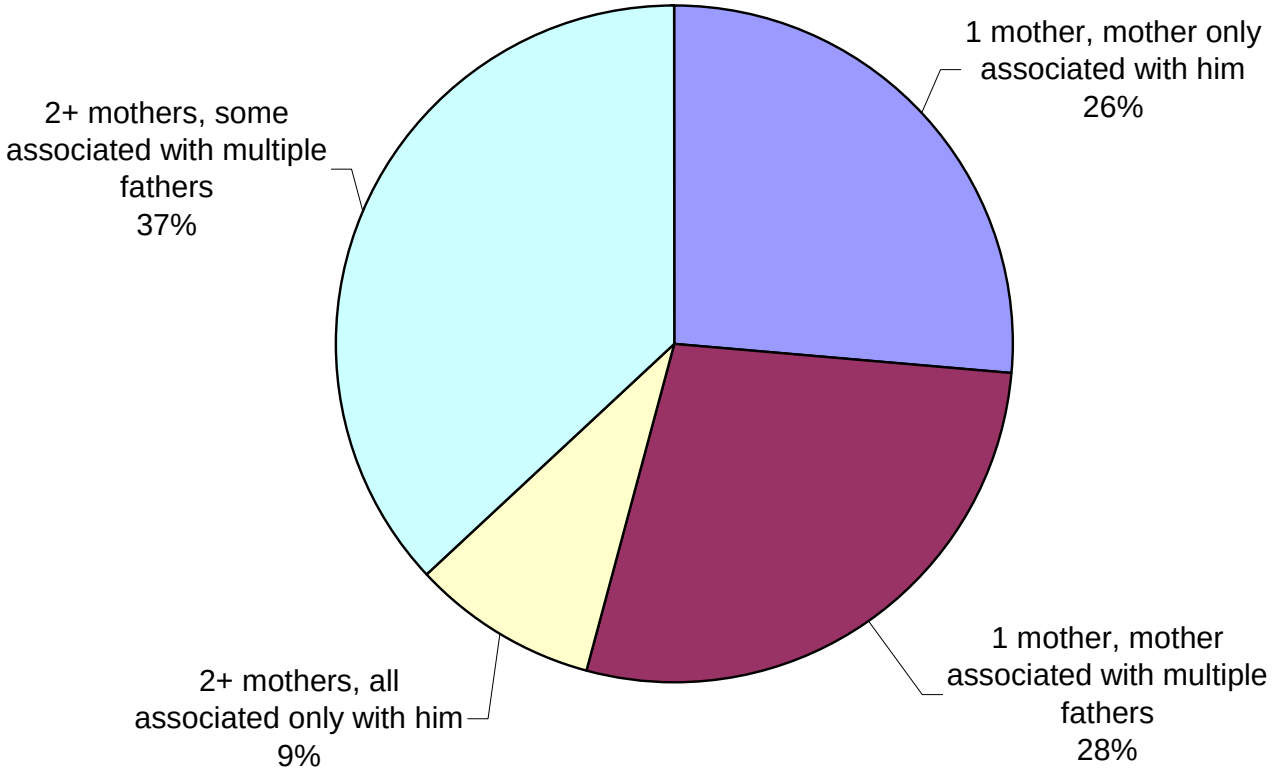


only one father). Thirty percent of the mothers are confirmed to have children with at least two partners; 19 percent have paternity legally established for all their children and 11 percent have paternity legally established for only some of her children. Thirty-six percent of mothers have children with only one father—13 percent have multiple children with a single father and 23 percent have only one child (16 percent with paternity established, 7 percent without). In the remaining 34 percent of mothers, we are unable to verify the level of family complexity. This category includes those with multiple children, some of whom do not have paternity established.

Figure 1 shows 30 percent of mothers with confirmed family complexity (at least two fathers), but this does not reflect any complexity of the fathers' unions. While not reflected in Figure 1, another 20 percent of mothers were associated with only one father, but that father had children with multiple mothers. Thus, if we consider the mother to have a complex family if either she or her partner(s) have had children with multiple partners, the level of confirmed complexity at the end of 1999 rises to 50 percent of all mothers. Recall that these figures understate total complexity, since 41 percent of mothers have at least one child without legally established paternity and thus may face additional complexity in either the mother's or father's situation, which we are unable to observe.

We now consider the perspective of *fathers*. In Figure 2 we examine the complexity of the obligations of those fathers who were legally responsible for a child who had entered W-2 (Sample B), considering his obligations to his children receiving W-2 and other children. For fathers, we only have information on legally recognized paternities—the fathers of children without paternity established are by definition not included in this analysis. Only 26 percent of the fathers had "simple" obligations, in that they had legally established paternity for the children of one mother, who only had children with one father (him). An additional 28 percent of fathers had legally established paternity for children with only one mother, but that mother had children with multiple fathers. Nine percent of fathers had children with two or more mothers, but were the only legally established father of those mothers' children. Finally, 37

Figure 2
Family Complexity of Noncustodial Fathers and Associated Mothers at the End of 1999



percent of fathers had children with multiple mothers, and at least one of those mothers had more than one legally established father of their children.[11]

The precise proportion of families with "simple" or "complicated" family structures varies depending on the definition of the sample (whether we consider mothers or fathers) and the dimensions considered (mother experiencing multiple-partner fertility, father experiencing multiple-partner fertility, either, or both). Complexity also changes over time, as both partners may have more children and as legal establishment of paternity occurs.[12] In addition, in many cases the mother has more than one child and at least one of them does not have paternity legally established, in which case we cannot accurately measure family complexity. Nonetheless, by all the definitions and measures discussed here, levels of complexity are high—at least 50 percent of mothers and 74 percent of the fathers faced complexity in either their own or their ex-partners' situation. These complexities create challenges (as well as potential opportunities) for the child support and welfare systems.

Our measures underestimate complexity for both mothers and fathers involved in the child support system. We showed in Figure 1 that for about one-third of mothers we were uncertain whether there were multiple fathers because paternity had not been formally established for some children. While administrative data do not, almost by definition, include information on fathers without legally established paternity, we have matched survey information about all fathers for a stratified random sample of those in our administrative data. The first wave of the Survey of Wisconsin Works Families was conducted in the spring of 2000, and response rates were 82 percent, giving a sample size of approximately 2,400. (For more information, see Krecker, 2001, and Ziliak and Krecker, 2001). Mothers

---

[11]Note that the proportion of fathers with multiple-partner fertility experienced by both mother and father (37 percent) is not equal to the proportion of mothers with multiple-partner fertility experienced by both mother and father (21 percent). In large part the difference results from the fact that calculations for mothers include all her children (regardless of paternity establishment). In contrast, the calculations represented in Figure 2 include fathers with paternity legally established. Recall that about 40 percent of the mothers have at least one child without paternity established. As noted below, survey estimates (which include information on paternities not legally established) suggest that more than half of the mothers in this situation have had children with multiple partners.

[12]The proportion of mothers who have had children with multiple men (considering only those with legally established paternity) grew from 21 to 35 percent over the three years following entrance into W-2.

were asked whether each of their children shared the same father or had a different father. We examine mothers for whom we are uncertain whether there are one or more fathers based on the administrative data and for whom we have survey information (N=725). Among these mothers, over 60 percent report more than one father of their children. This supplemental analysis suggests that, overall, measures of family complexity derived from administrative data are likely to substantially understate levels of complexity.

CHILD SUPPORT AND FAMILY COMPLEXITY

Are these levels of complexity associated with whether fathers pay support? For a number of reasons we might expect father's child support payments to be directly or indirectly affected by family complexity. As discussed above, fathers facing multiple obligations may be overwhelmed by the financial burden of multiple orders—which may reduce the proportion of the child support obligation that they are able to meet, or may even reduce the absolute amount paid. Alternatively, multiple orders may increase the probability that fathers will be subject to effective enforcement and pay at least some support. In addition, fathers with multiple obligations may have different payment patterns because of underlying differences in their characteristics or opportunities. For example, fathers with limited employment opportunities may have more difficulty sustaining stable personal relationships and less ability to meet their child support obligations.

Table 1 shows the relationship between the two components of our family complexity measure and two child support outcomes: whether paid, and amount paid if having paid any. We see that the likelihood of paying child support is higher for fathers with children with multiple mothers, though there is no apparent additional increase associated with three or more mothers. Among those fathers who do pay child support, those associated with three or more mothers pay higher amounts on average than those with one or two. Whether any of these mothers have children with separate fathers also has a statistically significant relationship with the outcomes: there is a higher likelihood of paying child support and higher payments (when paying) in those situations where at least one of the mothers has other children with a

Table 1
Child Support Outcomes by Measures of Family Complexity

				Among those Paying Any		
	N	Mean Percentage Paying Child Support in 2000	Std. Dev.	N	Mean Payment Amount in 2000	Std Dev
Number of Mothers						
One	9,538	54%	49.9	2,478	$2,246.46	$2,183.58
Two	4,940	70	45.8	2,656	2,154.64	2,058.25
Three	2,007	68	46.7	1,090	2,645.26	2,801.29
Four or more	1,162	70	46.0	4,537	2,704.94	2,951.87
		Prob(X2)<.0001			Prob(F)<.0001	
Some Mothers Have Children with Other Fathers						
Yes	11,423	63%	48.3	7,193	$2,501.74	$2,670.22
No	6,224	57	49.5	3,568	2,368.29	2395.94
		Prob(t)<.0001			Prob(t)<.0001	

different partner. For both of these components of complexity, the simple bivariate relationships suggest that greater complexity is positively associated with the likelihood of paying and the amount of payment. We now turn to a multivariate descriptive analysis to examine whether these positive associations are maintained when we control for other differences that may correlate with higher complexity.

Table 2 presents the multivariate estimates of the correlates of fathers' paying any formal child support in 2000.[13] The results in the first columns (Model 1: without controls for order amounts) suggest that a father's likelihood of paying at least some child support increases significantly as the number of mothers with whom he has children increases. In addition, having child support orders in place for all these mothers further increases the probability of payment. These relationships may reflect the increased exposure of a father with multiple obligations to the child support enforcement system. The more women a father has obligations toward, the more likely it may be that child support is aggressively pursued either directly by a mother or indirectly by an enforcement agency. In contrast to the simple bivariate results, having a partner who had children with another man does not change the likelihood of payment when other factors are controlled.

While our primary interest in this paper is the relationship between child support and family complexity, we also include other factors in our models. Many of the other relationships shown in the model are similar to those found in previous research. The probability the father will pay any child support decreases with older children. Black and Hispanic fathers are less likely to pay child support than are white fathers. We find higher probability of payment among older fathers, those with higher earnings, those outside Wisconsin, and fathers associated with a mother with a high school diploma or education

[13]The Appendix table provides information on the distributions of the variables included in the model.

Table 2
Probit Model of Noncustodial Fathers Paying Child Support to Any Custodial Mother in 2000

Parameter	Model 1: Excludes Amount Owed		Model 2: Includes Amount Owed	
	Coefficient	Standard Error	Coefficient	Standard Error
Intercept	**0.646****	**0.051**	**0.262****	**0.055**
Number of mothers (compared to one)				
Two	**0.524****	**0.028**	**0.312****	**0.030**
Three	**0.614****	**0.039**	**0.238****	**0.043**
Four or more	**0.784****	**0.049**	**0.202****	**0.056**
Some mothers have children with other fathers	0.031	0.024	0.047	0.025
Some mothers without orders	**-0.717****	**0.024**	**-0.396****	**0.028**
Any marital child	**-0.063***	**0.027**	**-0.105****	**0.028**
Age of youngest child (compared to 0–5)				
6–11	**-0.120****	**0.027**	-0.042	0.028
12–17	-0.048	0.040	0.044	0.040
18 or over	**-0.161***	**0.064**	-0.003	0.064
Father's race (compared to white)				
Black	**-0.479****	**0.036**	**-0.470****	**0.036**
Asian	-0.311	0.160	-0.285	0.164
Native American	-0.028	0.089	-0.038	0.090
Hispanic	**-0.382****	**0.054**	**-0.380****	**0.055**
Other	**-0.350****	**0.038**	**-0.318****	**0.039**
Father's formal earnings in 1999 (compared to $1–$5,000)				
No formal earnings	**-0.599****	**0.029**	**-0.554****	**0.029**
$5,000–10,000	**0.653****	**0.043**	**0.626****	**0.044**
$10,000–20,000	**0.924****	**0.041**	**0.865****	**0.042**
$20,000–30,000	**0.914****	**0.049**	**0.792****	**0.051**
$30,000–40,000	**0.813****	**0.069**	**0.629****	**0.073**
$40,000 or more	**0.745****	**0.089**	**0.471****	**0.097**
Father's age (compared to 20–24)				
Under 20	-0.241	0.128	-0.185	0.128
25–29	-0.001	0.036	-0.020	0.037
30–39	0.039	0.037	0.006	0.037
40+	**0.125****	**0.044**	**0.105***	**0.044**
Father's region (compared to Milwaukee)				
Elsewhere in Wisconsin	0.048	0.031	**0.069***	**0.032**
Outside Wisconsin	**0.362****	**0.039**	**0.330****	**0.040**
Education of a random mother (compared to less than 12)				
12	**0.082****	**0.024**	**0.076****	**0.024**
> 12	**0.176****	**0.039**	**0.146****	**0.039**
Total child support owed ($100s)			**0.017****	**0.001**
Log-likelihood	-8958.64		-8686.45	
N	17,647		17,619	

** p < .01; * p < .05.
Note: Model also includes indicator variables for those missing father's age, child's age, father's location, social security numbers (and thus earnings), mother's education, and for mother's initial TANF placement.

beyond high school. In contrast to prior research, fathers with marital children are less likely to pay than fathers with nonmarital children.[14]

We also estimate a second model that includes a control for the total amount owed as well as the other variables. The results of this model are shown in the second set of columns (Model 2), and they suggest that fathers who owe more support are more likely to pay some support. This model also allows us to see the extent to which the relationship between family complexity and payments is mediated through the effects of complexity on the total amount of the child support order. Comparing results in the two models, we find that having obligations to more than one mother is associated with a higher probability of payment in both models. However, in contrast to the results in Model 1, when we control for the total amount of the child support ordered, the magnitude of the estimated relationship is smaller for those associated with three or four mothers. The direction and statistical significance of the relationships between child support payment and other variables are generally the same across the two models.

As noted above, we also estimated a model of total support paid, with and without the amount of current child support that the father owed in 2000. Table 3 shows the results. As in our analysis of any payment, when we do not control for the amount ordered, we find that the amount paid increases with the number of mothers for whose children he has established legal paternity. More support is also paid by fathers who have a child support order associated with each mother. Having partners who have children with other fathers is not associated with any difference in payment amounts.

Most of the other estimated relationships are consistent with those found in the analysis of any payment, as well as with prior research. Fathers of marital children pay more. Fathers with older children

---

[14]The estimated negative relationship between marital children decreases in magnitude and becomes marginally significant (p=.11) when we add to the model a set of indicator variables for number of children. All other relationships reported in Table 2 for Models 1 and 2 and in Table 3, Model 1, are robust to this alternative specification. Therefore, for consistency we do not include number of children in the models because to do so would lead to overspecification of Table 3, Model 2. Given the number of mothers, children, and father's income, order amounts will in theory generally follow directly from the guidelines.

Table 3
OLS Model of Total Child Support Noncustodial Fathers Paid to All Mothers in 2000 (If Paid Any)

	Model 1: Excludes Amount Owed		Model 2: Includes Amount Owed	
Parameter	Coefficient	Standard Error	Coefficient	Standard Error
Intercept	**882.29****	**97.37**	**-400.52****	**87.98**
Number of mothers (compared to one)				
Two	**697.44****	**54.36**	**-113.16***	**49.56**
Three	**1142.99****	**76.28**	**-263.26****	**71.01**
Four or more	**1385.23****	**94.54**	**-838.82****	**91.22**
Some mothers have children with other fathers	-38.73	48.41	32.87	42.33
Some mothers without orders	**-918.60****	**50.29**	**284.07****	**48.67**
Any marital child	**437.05****	**51.88**	**158.68****	**45.60**
Age of youngest child (compared to 0–5)				
6–11	**-206.85****	**52.59**	54.98	46.19
12–17	**-526.89****	**79.45**	-62.79	69.92
18 or over	**-789.07****	**150.33**	18.68	132.15
Father's race (compared to white)				
Black	**-432.91****	**64.11**	**-385.67****	**56.05**
Asian	-87.29	314.53	-48.47	274.93
Native American	209.73	148.30	207.24	129.62
Hispanic	-123.75	103.24	-121.40	90.25
Other	**-250.05****	**70.46**	-100.40	61.65
Father's formal earnings in 1999 (compared to $1–$5,000)				
No formal earnings	**444.95****	**68.02**	**561.30****	**59.49**
$5,000–10,000	**790.28****	**74.28**	**702.19****	**64.95**
$10,000–20,000	**1710.76****	**66.22**	**1393.22****	**58.14**
$20,000–30,000	**2728.18****	**77.15**	**1991.90****	**68.64**
$30,000–40,000	**3665.39****	**105.82**	**2427.27****	**94.96**
$40,000 or more	**4901.01****	**141.98**	**2969.31****	**128.56**
Father's age (compared to 20–24)				
Under 20	260.70	300.07	417.65	262.30
25–29	**145.38***	**72.10**	16.19	63.08
30–39	**350.75****	**73.17**	**136.69***	**64.07**
40+	**445.17****	**87.02**	**286.57****	**76.11**
Father's region (compared to Milwaukee)				
Elsewhere in Wisconsin	**361.10****	**58.51**	**319.60****	**51.15**
Outside Wisconsin	**669.16****	**86.77**	**528.07****	**75.88**
Education of a random mother (compared to less than 12)				
12	**129.87****	**45.81**	**96.97***	**40.04**
> 12	**258.52****	**71.86**	**125.47***	**62.86**
Total child support owed ($100s)			**56.13****	**0.98**
R-Squared	0.29		0.46	
N	10,761		10,760	

** p < .01; * p < .05

Note: Model also includes indicator variables for those missing father's age, child's age, father's location, social security numbers (and thus earnings), mother's education, and for mother's initial TANF placement.

pay less, as do black fathers and those in Milwaukee (the major urban area in the state). Older fathers pay more, as do fathers with higher earnings. (Note, however, that fathers without formal earnings in the UI data in 1999 make higher payments than those with very low earnings, $1–5,000, perhaps because those without formal earnings have other sources of income.) Fathers associated with more highly educated mothers pay more.

We also estimate the relationship between family complexity and amount of child support paid, accounting for the level of child support owed. In Model 2 the effect of the number of mothers is actually reversed—controlling for the amount of child support ordered, fathers associated with a greater number of mothers pay less support. These results suggest that as the number of mothers increases, fathers' orders increase—as would be expected given the structure of the child support guidelines. Furthermore, among fathers who make any payment, those with more mothers pay more, but payments may not increase as much as orders.

Although the relationship between the component of family complexity determined by the number of mothers a man has had children with and the amount of child support paid changes substantially with the addition of the amount of support ordered, the direction and statistical significance of most other measured relationships is the same in both models. One notable exception is the relationship between amount paid and having a child support order for every mother. When we do not control for total amount ordered, we find that having an order established with every mother is associated with a large and statistically significant increase in support paid. However, controlling for total support ordered, we find that fathers with an order for every mother pay significantly *less* support.

CONCLUSIONS AND POLICY IMPLICATIONS

Using a unique set of merged administrative data reports from mothers receiving TANF and fathers associated with their children, we have documented the prevalence of multiple-partner fertility and complex family structures. Because we focus on the family structure of parents in which the mother received TANF, and because our sample includes all such parents, regardless of the age of their children,

our estimates are not directly comparable to estimates based on a sample of families with new births (Carlson and Furstenberg, 2003). Like the Fragile Families study, we find substantial amounts of complexity. Our preferred approach for this analysis (examining complexity among both mothers and fathers, and focusing on the fathers' perspective) documents complexity of some type in about three-quarters of all cases. Using information on formal child support payments, we analyze the implications of complex family structures for child support payments.

We outline here some of the policy implications of these findings. Complex families require complex child support policy. All states have some policies in place regarding the treatment of children born to a new couple after an original child support order has been set. And some states have developed a set of rules for handling cases that include more complex circumstances involving multiple-partner fertility (Brito, forthcoming). However, these policies generally are not based on a set of guiding principles developed for this purpose. The policy responses highlight some of the thorny issues raised by multiple-partner fertility.

One set of concerns relates to equity across mothers, fathers, and children with different family structures. To illustrate some of the issues, Table 4 shows the child support that would be owed *to* custodial mothers, or owed *by* noncustodial fathers, given the number of children and sets of biological parents and using the Wisconsin guidelines. For simplicity, we assume a fathers' income of $20,000.[15] The first panel shows the amount owed to a given mother with one, two, or three children. Wisconsin child support guidelines call for a mother to receive 17 percent of the father's income for support of one child, 25 percent for support of two children, and 29 percent for support of three children, resulting in orders of $3,400, $5,000, and $5,800, as shown in the first column. However, child support orders are calculated for a given couple. So, as shown in the second column, if a mother has two children, one with each of two fathers, Wisconsin guidelines call for each father to pay 17 percent of his income for his child. Thus, in this example, the amount due a mother with two children is $6,800 if there are two fathers,

[15]Fathers with low income have additional adjustments that are not reflected here.

Table 4
Total Amount Owed to Custodial Mother
by Number of Children and Fathers
If All Fathers Have Income of $20,000

	Owed to Mother: Number of Fathers		
Children	1	2	3
1	3,400	na	na
2	5,000	6,800	na
3	5,800	8,400	10,200

	Owed by Father: Number of Mothers		
Children	1	2	3
1	3,400	na	na
2	5,000	6,222[a]	na
3	5,800	7,550[b]	8,564[c]

[a]For a father with 2 children with 2 mothers (1 each): first child is 17% of $20,000 or $3,400; second child is 17% of remaining income (i.e., .17*(20,000 & 3,400) = $2,822; total = $6,222.

[b]For 3 children with 2 mothers: If single child support order established first, 17% of $20,000, or $3,400 for that child, plus 25% of remaining income (.25%*(20,000 & 3,400), or $4,150 for other two children; total = $7,550. Otherwise, 25% of 20,000, or $5,000.

[c]For 3 children with 3 mothers (1 each), first child: 17% ($3,400), second child: 17% of remaining income (.17*(20,000 & 3,400) = $2,822, third child: 17% of remaining income (.17*(20,000 & 3,400 & 2,822) = $2,342; total $8,564.

compared to $5,000 if there is only one father. Similarly, a mother with three children would have child support orders totaling $5,800, $8,400, or $10,200 if there were one, two, or three fathers involved.

The second panel shows the difference in the amount of child support owed by a noncustodial father. In the simple case of one father and one mother the two tables are identical—as shown in the first column, the father would owe $3,400, $5,000, and $5,800 for one, two, or three children. If a father owes child support to two children, one born to each of two mothers, Wisconsin guidelines call for the first child to receive 17 percent of his income ($3,400), and for the second child to receive 17 percent of the income that remains after he has paid his first obligation ($20,000 & $3,400). Because the guidelines call for these "serial" orders to reflect prior obligations, there is less increase in the amounts owed by fathers with multiple partners than in the amounts owed to mothers with multiple partners. On the other hand, children of the same father, each living only with their mother, will be ordered different levels of support depending on which order is set first. The difference can be significant; the three children of a single father would have orders ranging from $2,342 to $3,400 (note c).

The application of the Wisconsin guidelines, as illustrated in Table 4, demonstrates how the resources ordered for custodial parents and required from noncustodial parents vary substantially with household configurations. These variations result in large part from applications of policy developed for the relatively simple case of divorcing parents with a common set of biological children. This paper has demonstrated a substantial amount of family complexity. The substantial incidence of multiple-partner fertility highlights the need for child support policy to consider the possibility that both the custodial and noncustodial parent will have children with other partners; many children will live in households with half-siblings, often relying on a mother who must manage relationships with multiple fathers, some of whom are also managing relationships and obligations to multiple mothers. While the child support system requires guidelines that can be applied systematically and assure horizontal equity, the complex family formation patterns documented here make it particularly challenging to develop guidelines that will be appropriate to the variety of situations in which they will be applied. The issues are difficult and it

is not obvious how best to adjust the guidelines. Ongoing research is attempting to identify the way different principles of justice would approach the obligations of partners in complex relationships, and to review cross-state variation in current policies (Brito, forthcoming).

In addition to implications for child support policy, the results reported here suggest the tremendous challenges facing any initiative aimed at increasing marriage among TANF families. Clearly, even if effective policies were designed to encourage marriage, for many families it is not logically possible for marriage to result in all the children living with their biological parents.

Multiple-partner fertility raises a set of challenges for any subsequent marriage. If a mother has children with multiple fathers, marrying one father means that some of her children will be raised by a stepfather. Empirical research suggests that the greatest benefits from marriage accrue to children living with both biological parents, rather than with a parent and stepparent (see McLanahan and Sandefur, 1994; Hofferth, 2003). Moreover, if the father she marries has previously had children with another mother, then the mother in that previous relationship cannot rely on the same father as a marriage partner. Multiple-partner fertility may require each spouse to negotiate complex relationships with one another's former partners if relationships between nonresident parents and their children are to be preserved.

The research reported here uses a unique set of data to consider a complex set of family formation patterns that have been difficult to examine. Much remains to be done, both to understand the implications of these patterns for outcomes of interest and to explore implications for family policy. In considering child support or welfare policy, many analysts have in mind a mother, a father, and their children. Often, complex patterns of multiple-partner fertility have been accounted for, if at all, as an afterthought or a special case. The results presented here emphasize the need to design policy reforms and related evaluation research with complex families in mind.

Appendix Table
Characteristics of Noncustodial Fathers

	Mean	Frequency	Percentage
Total UI Wages in 1999 ($)	7,531		
Total child support owed in 2000 ($)	2,359		
Number of mothers			
One		9,538	54.05
Two		4,940	27.99
Three		2,007	11.37
Four or more		1,162	6.58
Some mothers have children with other fathers			
Yes		11,423	64.73
No		6,224	35.27
Some mothers without orders			
Yes		7,913	44.84
No		9,734	55.16
Number of legal children			
One		6,041	34.23
Two		4,570	25.9
Three		3,085	17.48
Four or more		3,951	22.39
Any marital child			
Yes		4,805	27.23
No		12,842	72.77
Age of youngest child			
0–5		9,137	51.78
6–11		5,600	31.73
12–17		2,247	12.73
18 or over		650	3.68
Missing		13	0.07
Father's race			
White		3,046	17.26
Black		8,803	49.88
Asian		124	0.7
Native American		319	1.81
Hispanic		1,040	5.89
Other		4,315	24.45
Father's formal earnings in 1999			
No formal earnings		6,881	38.99
$1–$5,000		3,479	19.72
$5,000–10,000		1,751	9.93
$10,000–20,000		2,596	14.71
$20,000–30,000		1,576	8.94
$30,000–40,000		656	3.72
$40,000 or more		339	1.92
Missing		369	2.09

(table continues)

Appendix Table, continued

	Mean	Frequency	Percentage
Father's age			
Under 20		117	0.66
20–24		2,520	14.28
25–29		4,440	25.16
30–39		6,817	38.63
40+		3,636	20.6
Missing		117	0.66
Father's region			
Milwaukee		7,191	40.75
Elsewhere in Wisconsin		4,206	23.83
Outside Wisconsin		1,821	10.32
Missing		4,429	25.1
Education of a random mother			
< 12		9,037	51.21
12		6,692	37.92
> 12		1,758	9.96
Missing		160	0.91
Initial TANF placement tier of a random mother			
Upper		5,692	32.25
Lower		11,955	67.75

References

Acs, Gregory, and Sandi Nelson. 2003. "Changes in Family Structure and Child Well-Being: Evidence from the 2002 National Survey of America's Families." Washington, DC, Urban Institute, mimeo.

Barnow, Burt S. 1994. "Economic Studies of Expenditures on Children and Their Relationship to Child Support Guidelines." In Margaret Campbell Haynes, ed., *Child Support Guidelines: The Next Generation.* Washington, DC: U.S. Department of Health and Human Services.

Bartfeld, Judi, and Daniel R. Meyer. 2003. "Child Support Compliance in the Welfare Reform Era." *Social Service Review*, 77: 347–372.

Beller, Andrea H., and John W. Graham. 1993. *Small Change: The Economics of Child Support.* New Haven: Yale University Press.

Betson, David M. 1990. "Alternative Estimates of the Cost of Children from the 1980–86 Consumer Expenditure Survey." Institute for Research on Poverty, Special Report 51, University of Wisconsin–Madison.

Brito, Tonya. Forthcoming. "Legal Issues, Complicated Families, and Child Support Policy." Report to the Wisconsin Department of Workforce Development.

Bumpass, Larry L., R. Kelly Raley, and James A. Sweet. 1995. "The Changing Character of Stepfamilies: Implications of Cohabitation and Nonmarital Childbearing." *Demography* 32: 425–436.

Carlson, Marcia, and Frank Furstenberg, Jr. 2003. "Complex Families: Documenting the Prevalence and Correlates of Multi-Partnered Fertility in the United States." Center for Research on Child-Wellbeing, Working Paper 2003-14-FF, Princeton, NJ, October.

Fields, Jason. 2003. "Children's Living Arrangements and Characteristics: March 2002." Current Population Reports, P20-547. U.S. Bureau of the Census, Washington, DC.

Freeman, Richard B., and Jane Waldfogel. 2001. "Dunning Delinquent Dads: The Effects of Child Support Enforcement Policy on Child Support Receipt by Never Married Women." *Journal of Human Resources* 36: 207–225.

Garfinkel, Irwin, Sara S. McLanahan, and Daniel R. Meyer. 1998. "A Brief History of Child Support Policy in the United States." In Garfinkel, McLanahan, Meyer, and Judith Seltzer, eds., *Fathers under Fire: The Revolution in Child Support Enforcement*. New York: Russell Sage Foundation.

Gennetian, Lisa, and Virginia Knox. 2003. "Staying Single: The Effects of Welfare Reform Policies on Marriage and Cohabitation." MDRC, The Next Generation Working Paper Series #13, New York. April.

Hofferth, Sandra L. 2003. "Are Stepfathers Bad for Children?" Paper presented at the National Poverty Center conference, "Marriage and Family Formation among Low-Income Couples," Washington, DC, September 4–5, 2003.

Krecker, Margaret L. 2001. "Design and Content of the Survey of Wisconsin Works Families." Technical Report 5 in *W-2 Child Support Demonstration Evaluation, Phase 1: Final Report. Volume III: Technical Reports*, ed. Daniel R. Meyer and Maria Cancian. Report to the Wisconsin Department of Workforce Development.

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

Meyer, Daniel R., and Maria Cancian. 2001. *W-2 Child Support Demonstration Evaluation, Phase 1: Final Report. Volume I: Effects of the Experiment.* Report to the Wisconsin Department of Workforce Development.

Mincy, Ronald B. 2002. "Who Should Marry Whom? Multiple Partner Fertility among New Parents." Center for Research on Child Wellbeing, Working Paper 02-03-FF, Princeton, NJ.

Minow, Martha. 1998. "How Should We Think about Child Support Obligations?" In Garfinkel, McLanahan, Meyer, and Seltzer, eds. *Fathers under Fire: The Revolution in Child Support Enforcement*. New York: Russell Sage Foundation.

Ooms, Theodora, Stacey Bouchet, and Mary Parke. 2004. *Beyond Marriage Licenses: Efforts in States to Strengthen Marriage and Two-Parent Families.* Washington, DC: Center for Law and Social Policy.

Pate, David J., Jr. 2002. "An Ethnographic Inquiry into the Life Experiences of African American Fathers with Children on W-2." Volume 2, Chapter 2 of Daniel R. Meyer and Maria Cancian, *Nonexperimental Analyses of the Full Disregard and Pass-Through*. Report to the Wisconsin Department of Workforce Development.

Powers, Elizabeth T., and Andrea H. Beller. 2003. "The Problem of Multiple Fathers: Family Structure and the Payment of Child Support." Paper presented at the Association for Public Policy Analysis and Management annual meeting, Washington, DC, November.

Rothe, Ingrid, and Daniel R. Meyer. 2000. "Setting Child Support Orders: Historical Approaches and Ongoing Struggles." *Focus* (newsletter of the Institute for Research on Poverty), 21(1): 58–63.

Sorensen, Elaine, and Ariel Hill. 2004. "Single Mothers and Their Child-Support Receipt: How Well Is Child-Support Enforcement Doing?" *Journal of Human Resources* 39: 135–154.

Stagner, Matthew, Jane Reardon-Anderson, Jennifer Ehrle, Katherine Kortenkamp, and Sara Bernstein. 2003. "Update on a Systematic Review of the Impact of Marriage and Relationship Programs." Presentation at the National Poverty Center conference, "Marriage and Family Formation among Low-Income Couples," Washington, DC, September 4–5.

Takas, Marianne. 1994. "Addressing Subsequent Families in Child Support Guidelines." In Margaret Campbell Haynes, ed., *Child Support Guidelines: The Next Generation.* Washington, DC: U.S. Department of Health and Human Services.

U.S. Department of Health and Human Services, Administration for Children and Families, Office of Child Support Enforcement. 2003. *Child Support Enforcement (CSE) FY 2002 Preliminary Data Report.* http://www.acf.hhs.gov/programs/cse/pubs/2003/reports/prelim_datareport/index.html.

Ziliak, James, and Margaret L. Krecker. 2001. "Nonresponse in the Survey of Wisconsin Works Families." Technical Report 6 in *W-2 Child Support Demonstration Evaluation, Phase 1: Final Report. Volume III: Technical Reports*, ed. Daniel R. Meyer and Maria Cancian. Report to the Wisconsin Department of Workforce Development.