

**“JUST GET ME TO THE CHURCH . . .”:
ASSESSING POLICIES TO PROMOTE
MARRIAGE AMONG FRAGILE
FAMILIES**

**Center for Research on Child Wellbeing
Working Paper #02-02-FF**

February 2002

**Ronald B. Mincy
Chien-Chung Huang**

Draft: Please do not cite without permission from the authors.

“Just Get Me to the Church...”: Assessing Policies to Promote Marriage among Fragile Families

by

Ronald B. Mincy

Columbia University

Chien-Chung Huang

Rutgers, The State University of New Jersey

November 16, 2001

Prepared for the MacArthur Network Meeting, Evanston, Illinois, November 30, 2001

We are grateful to Marah Curtis for computational assistance. Support for this research was provided by the Ford Foundation . The Fragile Families Study is supported by grants from NICHD, the Ford Foundation, the Robert Wood Johnson Foundation, the William T. Grant Foundation, the Public Policy Institute of California, the California HealthCare Foundation, the Hogg Foundation, the St.David's Hospital Foundation, the Commonwealth Fund, the Fund for New Jersey, the Healthcare Foundation of New Jersey, the Foundation for Child Development, the David and Lucile Packard Foundation, the Kronkosky Charitable Foundation, the A.L. Mailman Family Foundation, the William and Flora Hewlett Foundation, the John D. and Catherine T. MacArthur Foundation, the Charles Stewart Mott Foundation, St. Vincent Hospitals and Health Services in Indianapolis, and the Bendheim Thoman Center for Research on Child Well-being.

Abstract

This article examines alternative approaches to encourage family formation among fragile families, including higher cash benefits, more liberal acceptance of welfare applications, more effective child support enforcement, and efforts to increase education and employment of low-income parents. We examine these approaches by refining and expanding previous work on a generalized logit model of the mothers' actual family formation outcomes, in a hierarchy that includes father absence, father involvement, cohabitation, and marriage. Refinements involve measurements of family formation that make our results more comparable to other studies and new controls for previous fertility with the father of the focal child and with another partner (multiple partner fertility). We estimate these models using interim data from the Fragile Families and Child Well-Being 12 month follow-up Survey. The results indicate that, unlike their effects on mature families, cash benefits increase the odds of family formation (short of marriage) among fragile families and effective child support enforcement increases the odds of marriage. However, the father's employment status outweighs the effects of these traditional income security policies on family formation, because it affects outcomes all along the hierarchy, including marriage, and its effects are larger. Unlike previous research, our data on previous fertility enables us to separate the effects of previous children in common from multiple partner fertility on family formation. Both significantly affect family formation (though in opposite directions), but even after including these variables, blacks, who are more likely to bring children from previous unions into a new union, have substantially lower odds of cohabitation and marriage than non-Hispanic whites.

INTRODUCTION

After nearly four decades of silence on the issue, federal lawmakers have begun to renew their interest in welfare legislation as a vehicle through which to increase the role of fathers in families. This interest was last witnessed in 1961, when the Kennedy Administration created the AFDC-U program in an ill-fated attempt to reduce desertion as a cause of the unexpected rise in the welfare caseload that had been occurring since the ADC program was launched in the mid-30s (Steiner, 1966). Then as now, reducing marital dissolution was at the center of policymakers' interest in welfare, marriage, and fathers. However, financial contributions to children and families are no longer the primary focus. Instead, Rep. Shaw (E. Clay Shaw, Jr. R-FL), who chaired the House Subcommittee on Human Resources, and a number of his colleagues, were deeply concerned that the abandonment by the general public of the "biblical principles on which this Nation was founded"¹ was having adverse effects on individuals and the society at large.

Consistent with this broader goal, the strategies now being contemplated by policymakers and proponents of using welfare to promote marriage go well beyond reducing the marriage disincentives in our tax and transfer systems. Thus, hearings before the same subcommittee on May 11, 2001 mainly addressed funding efforts to prevent divorce through pre-marital education and counseling, or efforts to reduce divorce through marriage enrichment or marriage saver services. While such efforts would reduce the number of new welfare cases that occur through divorce or separation, one wonders:

¹ 105th Congress, Congressional Record; H1219 □ H1221, Search for Values; March 17, 1998

What effect they would have on the poverty and welfare dependency arising from children being born to low-income, unwed, parents who were poor or near poor even before their child was born? Recent estimates suggest that more than a quarter of all poor children in the United States are born to such fragile families (Sorenson, Mincy, and Halpern, 2000) and that nearly two thirds of poor children in the child support caseload are born to unwed parents (**Sorenson, 19xx**). Is marriage promotion the best way to encourage the formation and maintenance of two parent families for these children?

Analyses based upon recent studies of young disadvantaged unwed parents are mixed. McClanahan and Carlson (2001) report that ... percent of disadvantaged unwed, parenting couples are romantically involved at the birth of their child, ... of this group ... are cohabiting, at least some of the time, and ... percent anticipate marriage. They conclude that the birth of the child represents a “magic moment” when On the other hand, McClanahan and Carlson (2001) also report that these parenting couples face significant barriers to marriage and parenting. Two fifths of the mothers and fathers lacked a high-school diploma; nearly a fifth of the fathers were neither at work nor in school during the week before the child’s birth, which radically reduces the probability that mothers want to marry or actually marry them (Mincy and Dupree, 2001, Testa, et. al. 1989).

Moreover, these parents live in states with poverty programs that offer varying degrees of support to two parent families. For example, 18 states still deny cash assistance to two parent families; even though recent studies have shown that such benefits can provide marriage incentives to welfare recipients (cite MFIP and Mincy and Durpre, 2000). Also, since a father that legitimates a birth is free of concerns about

concerns about child support enforcement, effective child support enforcement is another plausible tool that policy makers can use to affect marriage rates among welfare recipients. Finally, through Welfare-to-Work program the federal government subsidizes so-called non-custodial parent programs through which states offer job search assistance to fathers who are unable to pay or child support obligations. Such assistance might also be available to unwed fathers who married the mothers of their children. 2

The purpose of this paper is to assess the likely effectiveness of these alternative approaches by expanding previous work on the determinants of marital plans and outcomes of low-income unwed mothers. Following, Mincy and Dupree (2000), we derive and estimate generalized ordered-logit models of the effects of policy variables-- and controls for demographic characteristics – on an expanded range of options in the process of forming a fragile family. This time, we include previous fertility, among the demographic controls. The effect of a previous birth on an unmarried mother’s marriage prospects has been difficult to determine in the literature, because previously available data make it difficult to determine whether the unmarried mother’s current partner is the father of all of her children (Bloom, et. al. 1989, **Lichter, Manning and Smock, xx**). Because we rely on the Fragile Families and Child Well-being data, however, we are able to make this distinction with greater certainty. Besides the core policy question of interest, therefore, we seek in this paper to refine our own work and to advance the literature.

2 Nock (199) hypothesizes that assistance in employment is one way that extended family members and others increase the earnings of fathers who marry the mothers of their children. Such social capital investments are one reason, he argues, for the wage premiums of married.

FRAGILE FAMILIES AND FAMILY FORMATION POLICES

Anti-poverty policies designed for mothers (and children) who entered poverty following marital dissolution, may have ambiguous effects on young, low-income, unwed parents who are beginning, rather the ending, a process of family formation (Mincy and Dupree, 2000 and Mincy and Pouncy 1999). Ambiguity arises for at least two reasons. First, unwed mothers often maintain informal relationships with the fathers of their children. More generous cash benefits create opportunities for unwed mothers to achieve higher levels of utility by secretly pooling their incomes with the fathers of their children. This creates an income effect that may dominate the usual independence effect, which encourages mothers in unsatisfactory relationships with the fathers of their children to divorce if they are married or to go it alone if they are not (Moffitt, 1998).

Second, effective child support enforcement has been shown to effect mothers and fathers differently (Nichols, 1995; Case, 1998; Garfinkel, et. al. Forthcoming). It increases the economic independence of mothers, which encourages mothers in unsatisfactory relationships to divorce, if they are married, and to raise their children without the father's non-monetary input, if they are not. Thus, the effect of child support enforcement depends upon the dominant response, that of the mother or father. However, there is an additional source of ambiguity when thinking about fragile families. Most mothers in fragile families are on good-to-romantic terms with the fathers of their children. These mothers may view child support enforcement as intrusive and stressful, and seek to avoid it by failing to cooperate or by marrying the fathers of their children.

Besides welfare and child support enforcement, the labor market experiences of mothers and fathers, should also affect mothers' family formation plans. Ventura et. al.

(1995), for example, suggests that increased female labor force participation and the declining gap between the wages of low-skilled men and women have been important causes of the decline in marriage rates that have helped increase the proportion of unwed births. Thus, as welfare reform pushes the least skilled women into the labor force³, they will be less likely to plan to form families with the fathers of their children.

On the other hand, Wilson (1987) developed the “male marriageable pool index,” to argue that male unemployment makes them less attractive as spouses and contributes to declining marriage rates. Empirical studies have generally found support for this hypothesis, although they clearly show that declines in the labor force experiences of black males, for example, account for only a small share of the decline in black marriage rates (Testa, 1991 and Hoffman, Duncan, and Mincy, 1991). Thus we expect that mothers are more likely to plan to form families with the fathers of their children, when these fathers are employed.

Mincy and Dupree (2000) find some preliminary support for non-traditional effects of policy variables on family formation among fragile families. Their model ranks the mother’s planned relationship with the father of her children in a hierarchy that includes: no relationship, a visiting relationship, cohabitation and marriage. They estimate the determinants of the mother’s choice using a generalized ordered logit model.

They find that additional cash benefits increase the odds that unwed mothers plan to form some type of family relationship with the father of their child over father absence and the odds that mothers form a household unit (cohabitation or marriage) over the two non-residential alternatives.. However, higher cash benefits have no significant effect on

³ In his July 16th speech before the National Conference of State Legislators, Ron Haskins, the Staff Director of the House Ways and Means Committee and chief architect of PRWORA, described PRWORA

the odds that mothers plan to marry the fathers of their children over the three unmarried alternatives. They also find that greater liberality in the acceptance of applications for welfare increases the odds that mothers plan a household relationship and marriage over weaker family forms. Moreover, they find that more effective child support enforcement reduces the odds that mothers plan to form some type of family and her plans to a form a household unit with the father of her child, but they find no statistically significant effect on the odds that the mother plans to marry the father, over lesser alternatives. These results are generally consistent with Greene and Moore (1996) who also find evidence of adverse effects of child support enforcement on father involvement in a multinomial logit model.

However, the effects of the father's employment status on the mother's plans dominate the effects of these traditional income security policies. Public policies, such as the NCP programs, can affect the father's employment status. If the father was employed in the previous week, the odds that the mother plans to form some family unit rise by 233 percent; the odds that the mother plans to form a household unit rise by 41 percent; and the odds that the mother plans to marry the father rise by 48 percent. Increases in the generosity of cash benefits, the percent of applications accepted and the effectiveness of child support enforcement have smaller effects on mother's plans.

Mincy and Dupree are cautious about their findings of the effects of policy variables on mothers' plans, for several reasons. First, some unwed pregnant couples will marry between conception and the birth (Bachrach, 1987). Unobservable attributes that are correlated with welfare and child support policies can affect this decision to legitimate, which could introduce selection bias into the model (Nixon, 1995-*get*

as the most successful work program the United States has ever seen.

complete citation). They explore this possibility, indirectly, by estimating a model of the effects of policy variables on mothers' actual family formation outcomes, including a similar hierarchy: no involvement, some involvement (visits and financial or other contributions during the pregnancy), cohabitation and marriage. These results for the effects of policy variables on actual family formation outcomes are generally in the same direction, but smaller, less robust, and weaker in statistical significance than the effects of these variables on mothers' family formation plans.

However, the father's employment status bears a strong, robust, and statistically significant relationship to actual family formation. If the father was employed in the previous week, the odds that the mothers forms some family unit with the father rise by 148 percent; the odds that the mother plans to form a household unit rise by 52 percent; and the odds that the mother plans to marry the father rise by 94 percent. Moreover, consistent with other literature, mother's employment last year has no impact on mother's actual family (Brines and Joyner, 1999 and Booth and Brown, 1996).

Finally, Mincy and Dupree also include demographic controls for age and race, and mother's and father's education in their models. Age (specified as dummy variables for teenagers, young adults, and adults) performs erratically in the plans model. However, the odds in favor of moving up the hierarchy are smaller if the fathers are teenagers, which is rare in their sample. Neither mothers' nor fathers' education has a significant effect on mothers' family formation plans, except that mothers' are more likely to plan marriage to a father with a high school diploma or more, which is 64 percent of their sample). The age and educational variables perform better in the actual family formation model. The odds in favor of marriage are higher for mothers with a high school diploma

or more and fathers' education significantly improves the odds in favor of family formation all along the hierarchy.

In contrast to these results, which improve substantially between the plans and actual outcomes models, race has a consistently strong effect on family formation. In particular, black mothers are less likely to plan or actually form families with the fathers of their children. The odds in favor of black mothers plans to a form household or marry the fathers of their children are 45 percent and 57 percent lower than the odds that non-Hispanic white mothers do so. The odds in favor of black mothers actually forming some type of family, a household, or marrying the fathers of their children are 44 percent, 64, percent, and 80 percent lower than the odds that non-Hispanic white mothers do so. These results are fully consistent with previous literature (Manning and Smock, xxx, etc, except that (xx) finds that though black women not mothers have similar expectations of marrying their (cohabiting?) partners, they are less likely to actually do so.

In summary, though many refinements are needed, Mincy and Dupree make marriage several contributions to the literature. First they model family formation decisions in a hierarchy that mirrors the preferences of young parents and social policy. According to both, marriage is best for unwed parents and for their children. When unwed parent choose among these options (marriage, cohabitation, visiting, and no involvement), a lot more is at stake than when they choose among the red, blue, or yellow buses (**Manski, xx**).

Second, through this model they provide policy makers with a way to think through how they may wish to help young parenting couples realize their preferences by moving up along the hierarchy toward more stable family forms that produce better child

outcomes. Their initial conclusion is that the fathers' employment status is far more important than traditional income security policies⁴, such as more generous cash benefits or more effective child support, and that cash benefits, at least, affect fragile families differently than they affect mature marital relationships. In particular, cash benefits generally have been generally found to discourage family formation by increasing the likelihood of divorce (Becker, 1981 and Moffit, 1998). However, fragile families who are more likely to be romantically involved than couples in a mature marital relationship can secretly pool their incomes and may use these benefits to underwrite their informal relationships.

Third, Mincy and Dupree show that race matters when policy makers think about using public policy to influence family formation. For a variety of reasons, black mothers are much less likely to formalize relationships with the fathers of their children, and Mincy and Dupree show that even after accounting for cross racial differences in employment (and other variables) much of the racial differential in family formation patterns remains unexplained.

⁴ Mincy and Dupree acknowledge that these strong employment effects may be the result of omitted variables bias. That is some variables, such as the father's substance abuse or criminal activity, may be directly related to his employment status and inversely related to her planned or actual family formation. Other results, not reported here, confirm that substance abuse, though not criminal activity, diminish the employment effects somewhat, but all else equal, dominant still characterizes the effects of employment on mother's planned and actual family formation.

REFINEMENTS.

This paper makes several refinements with respect to omitted variables, variable specifications, and the time frame over which policy can affect family formation decisions. These changes are interrelated, because the full 20 cities baseline data and an interim data file from the 2-month follow-up survey file is now available, which includes data on previous fertility and provides better measures of some of the underlying constructs of interest.⁵ This section discusses how the new data on previous fertility may help to explain the much lower odds of family formation among black mothers. A later section describes how the new data improves our ability to measure outcomes along the family formation hierarchy (the left-hand side variable).

Unlike the baseline survey, the 12-month follow-up includes detailed information about the couples' fertility history. Preliminary analyses of these data show that although overall fertility rates among the mothers in our sample vary little by race and ethnicity, the rate of multiple partner fertility among black mothers and fathers is at least double the rate of multiple partner fertility among non-Hispanic white and Hispanic parents (Mincy, 2001). Research has shown that:

- the relationship between fertility and union status varies greatly by race and ethnicity,
- previous children affect the transition to marriage differently by race and ethnicity, and
- previous children lower the marriage prospects of mothers and fathers.

Thus, the absence of previous fertility variables may be an important source of omitted variables bias for the race coefficient in the Mincy and Dupree results.

⁵ Mincy and Dupree used interim data from the first 7 cities of the Fragile Families and Child Well-being Baseline Survey.

About 40 percent of cohabiting couples live together with children (Bumpass and Lu, 2001). Therefore, children play an important role in the literature on the transition to marriage among cohabiters (Landale and Forste, 1991; Landale and Fennelly, 1992; Manning 1993; Manning and Smock, 1995; Manning and Landale, 1996, and Smock and Manning, 1997). Research on such transitions after first births point to significant race and ethnic differences related to the presence of children. Generally, this research shows that unwed childbearing is much more common among cohabiting Puerto Rican women than among black or non-Hispanic white women and that an unwed first birth hastens the transition to marriage among non-Hispanic white cohabiting women, has no effect on the transition to marriage among black cohabiting women, and reduces the prospects of marriage among Puerto Rican cohabiting women.

When samples include women with more than one child, studies have had difficulty determining the effects of children on the transition from cohabitation to marriage, because available data has made it difficult to determine if all of the children with whom a cohabiting couple lives are the biological children of both partners. The information is critical because a cohabiting couple living exclusively with biological children they have had in common will be more likely to marry than a cohabiting couple living with at least one child from a previous marital or non-marital relationship. Studies have resolved this problem by excluding (or including) observations in which marriage occurs within 6 months of the child's birth, since these children are very likely to be the biological children of current cohabiters.

Children also play an important role in the more recent and less extensive literature on the marriage prospects of unwed mothers and fathers (Bennett, Bloom and

Miller, 1995; and Knock, 1998). Most studies, employ a six-month old exclusion, and confirm the hypothesis that a previous birth with a different partner lowers a woman's marriage prospects, because a new partner is reluctant to take responsibility for non-biological children.

Nock (1998) employs a different strategy in his study of the effects of premarital fertility on the marriage prospects of men. The NLSY, on which he relies, makes it impossible to distinguish between the effects of a premarital birth on marriage to the mother of a man's more recent children and the effects of such a birth on marriage to other women. However, he reasons that the effects will be similar. Some men with a premarital birth avoid or delay marriage to avoid or delay the financial obligations that would follow if they legitimated the birth. Having delayed marriage to the mother of their first child, unmarried fathers do not benefit from the social capital and returns to work experience that arise as their married counterparts attempt to meet the higher provider-role expectations they face. Having placed themselves on a lower employment and earnings trajectory, unmarried fathers become less attractive marriage partners later in life.

Nock finds support for his hypothesis. After controlling for race and family background characteristics, he finds that men with a premarital birth in the previous year have a probability of first marriage 47 percent lower than men without a premarital birth. This estimate is unaffected by the inclusion of selection-control variables, observed before a premarital birth, that are reasonably correlated with men's future earnings capacity and their ability to meet financial obligations. Moreover, he finds that though self-selection and premarital births account for some of the reduced socioeconomic

attainment of young adult men, their decisions to cohabit, rather than marry, also play a significant role.

Thus, avoiding the financial (and other responsibilities) for their own premarital children or the prospective financial (and other responsibilities) for the pre-marital children of their current partners is expected to play a central role in reducing the marriage probabilities of new mothers and fathers who have a child in common. Also, even men who meet their financial obligations to their children from a previous union (married or not) should have lower marriage prospects, because they have lower disposal income to bring to their new families if they meet those obligations and they signal their duplicity as providers if they do not.

Fortunately, the Fragile Families and Child Well-being Survey enable researchers to distinguish between children in common and children from other unions. Therefore, we can provide separate estimates of the effects of previous children in common from multiple partner fertility on family formation.

THE DATA AND METHODOLOGY

The Fragile Families and Child Well-being Survey is a national study designed to provide longitudinal data on the conditions and capabilities of new unmarried parents and the consequences for child well-being. The survey includes information about fathers the nature of the relationships between unmarried mothers and fathers and extent which fathers are involved in with children. The study follows a birth cohort about 3700 children born to unmarried parents and 20 U.S. cities, selected based on variations in their labor market conditions, generosity of welfare benefits and strictness of child support enforcement. This variation will allow for comparisons of family formation,

father involvement, and child well-being outcomes in a variety of policy and employment conditions. The full sample is representative of all nonmarital births to parents residing in cities with populations over 200,000. To permit comparisons across critical domains, a total of 1,100 married parents were interviewed in all 20 cities, in the full baseline survey. New mothers were interviewed in hospitals or birthing clinics within 48 hours after giving birth, and fathers were interviewed either in the hospital, birthing clinic, or elsewhere as soon as possible following the birth of their child. Follow-up interviews are scheduled when the child is 12, 30, and 48 months old.

Despite assertions that fathers are unresponsive to surveys, response rates for both mothers and fathers in the baseline Fragile Families and Child-wellbeing Survey are encouraging: fully 85 percent of eligible mothers and 76 percent of eligible fathers participated in the study. However, response rates were much higher for fathers who maintained some positive relationship with the mothers. Additionally, the interviewer asked the mother to provide some basic demographic information for use in situations in which the father was not interviewed. This will allow larger samples to be used in the analysis, with control variables to account for missing data on some fathers.

We use data from a special interim file of the Fragile Families and Child Well-Being , 12-month Follow-up Survey. This file includes complete samples for Oakland CA and Austin TX and partial samples for the remaining 18 cities. Missing data reflect fathers who could not be reached during the initial follow-up interview cycle. We are undertaking additional efforts to contact these fathers in order to increase the response rate of biological fathers in the survey. While data reported for all fathers by mothers indicate that these fathers match fathers for whom we have data on employment,

education, demographic, and other characteristics, the former are less likely than the latter to have maintained close relationships with the mother over the first 12 months of the child's life. Even at this early stage, response rates to the follow-up survey are encouraging, as the interim file includes about 64 percent of the mothers and fathers who responded to the baseline survey.

Methodology

Following Mincy and Dupree, we model the latent process:

$$Y_i^* = x_i \beta^* + \epsilon_i,$$

where Y_i^* represents the exact point along the family formation hierarchy chosen by mothers and fathers, x_i is a vector of policy variables couples faces, as well as a series of demographic control variables, and ϵ_i represent the error term, which we assume follows a cumulative distribution function.

Since we cannot observe Y_i^* , we model the couples family formation process using four discrete, ranked ranges:

$$Y_i = 1 \text{ if } Y_i^* < \theta_1$$

$$Y_i = 2 \text{ if } \theta_1 < Y_i^* < \theta_2$$

$$Y_i = 3 \text{ if } \theta_2 < Y_i^* < \theta_3$$

$$Y_i = 4 \text{ if } Y_i^* > \theta_3,$$

where each θ represents a cut-point along the latent scale that divides the couples decisions into four categories: (1) father absence, (2) father involved, (3) cohabitation and (4) marriage.

We focus on the couples' actual family formation outcomes by the 12-month follow-up for three reasons. First, the mothers' baseline interviews occurred within 48 hours of the birth of the focal child. Most unwed pregnancies are unintended or poorly timed, and therefore, these 48 hours are undoubtedly a time of great stress, mixed with other emotions that accompany the delivery (Bennett, Bloom and Miller, 1995). Within a year of the birth, however, the couple and members of the extended family will have had an opportunity to adjust, and therefore, policy variables are likely to affect decisions made over a more routine period. Second, family formation decisions by the 12-month follow-up are more likely to avoid an important source of sample selection bias, because unwed couples who legitimated the conception before giving birth, at least in part because of the policy variables, are included in the sample. Third, examining the effects of policy variables on family formation outcomes by 12-month follow-up allows us to use better data on union status than was available in the baseline survey. Further, several researchers are using the same data, and it will be helpful to compare results across studies. (McClanahan and Carlson, 2001, Teitler, 2000).

With three exceptions, related to previous fertility, our model includes the same right hand side variables (at twelve months), as the more robust, actual outcomes model, estimated by Mincy and Dupree.⁶ The change in the left hand side variable reflects

⁶ Unlike Mincy and Dupree, we also specify age because we are most interested in the policy and related employment effects, next interested in the race effects, as modified by the inclusion of previous fertility, least interested in age effects.

changes in the status of parental relationships since the child was born and changes in survey questions relating to cohabitation. The interim 12-month follow-up survey provides seven options for characterizing mothers' relationships with the fathers of their children:

- 1 married
- 2 romantically involved and cohabiting
- 3 romantically involved and some visiting
- 4 romantically involved and not visiting
- 5 separated and divorced
- 6 friend
- 7 not in relationship.

We use these options to specify four cut-points for our final model:

- 1 married
- 2 cohabiting
- 3 involved (romantically involved visiting, romantically involved and not visiting, separated, divorced, and friends), and
- 4 father absence.

--Table 1 here--

Table 1 shows the distribution of mother's actual family formation outcomes across these cut-points at the 12-month follow-up.

--Table 2 here--

Table 2 summarizes the sample means and proportions of the right-hand side variables used in this analysis, along with their expected effects.⁷ These variables fall into one of four general categories:

⁷ A negative sign does not mean that we expect the coefficient to be negative, since these are log odds, but instead means that we expect higher values of a variable to reduce the odds that a mothers' outcome in which the father is more involved (e.g. any family over no relationship, a household unit over the two lower alternatives, a married unit over the previous three alternatives.)

1. demographic characteristics associated with each individual in the relationship,
2. education and employment variables, both of which can be affected by policy;
3. previous fertility; and
4. and policy related characteristics specific to the state in which the mother resides.

Note that all of our policy variables have ambiguous effects.

We define the variables as follows:

Race/Ethnicity

Black – Mother: Mother: Mother’s reported race was non-Hispanic black.

Hispanic – Mother: Mother: Mother’s reported ethnicity was Hispanic.

Age

Age Mother: Mother’s reported age (or calculated age based on date-of-birth).

Age Father: Father’s reported age (or calculated age based on date-of-birth). If the father was not interviewed, then the variable is based on the mother’s report of the father’s age.

Education

HS Diploma or More: The mother reported having at least a high school diploma or equivalent certificate.

HS Diploma or More: The father reported having at least a high school diploma or equivalent certificate. If the father was not interviewed, then the variable is based on the mother’s report of the father’s educational attainment.

Fertility

Total Children with Father: The mother reported the number of children she has in common with the father of the focal child.

Multiple Partner Fertility - Mother: Dichotomous variable indicating whether or not the mother had child with a partner other than the father of the focal child

Multiple Partner Fertility - Father: Dichotomous variable indicating whether or not the father of the focal child had child with other women based on mother reported.

Employment Status

Father worked last week: Dichotomous variable indicating whether or not the father reported working last week. If the father was not interviewed, then the variable is based on the mother’s report of his employment status.

Mother worked last year: Dichotomous variable indicating whether or not the mother reported working last year.

State Policy Environment

Grant Amount: The state TANF grant amount for a family of three as of 1997.

Applications Accepted: Percent of assistance applications accepted in the county in 1998.

Collections: Percent of TANF cases with child support collections in 1997.

Our estimation procedure and the levels assigned to each category variable imply that the four family formation outcomes are not equal in their utility; father absence is the worst case scenario whereas marriage is the best possible outcome. Some analysts may find such a ranking problematic – for example, one may argue that there is no substantive difference between marriage and cohabitation to warrant cohabitation being labeled with a 3 while marriage is labeled with a 4. We did not assign these rankings based on some presumed societal norm, but on the general responses from the interviewees when asked about their views on marriage. When asked if being single is more advantageous than being married, two-thirds of the sample disagreed. An almost equal percentage indicated that marriage was better than cohabitation and three-quarters stated that marriage is better for children. As such, our rankings are justified based on the respondents' own preferences. That the rankings also conform to the objectives of the current Administration and Congress, with respect to marriage promotion is also helpful.

The model in question attempts to estimate the impact of various factors on the probability that a mother's actual family formation outcome falls into one category as opposed to another. For a multinomial dependent variable in which the categories are actually ranked, the best statistical procedure to use is the ordered logit regression. This procedure estimates the independent variables' effects on a mother's outcome falling above or below a given cut-point.⁸ The more commonly used version of the ordered logit assumes that the impact of each variable is the same for all cut-points, something known as the proportional odds assumption. While this method is useful in many situations, it appears unlikely that such an assumption would hold true in this situation. A

⁸ Each cut-point is defined by its separation of two contiguous categories. Since this dependent variable has a total of four categories, there are three cut-points.

policy that may encourage a mother to go from cohabitation to marriage would not have a similar impact for a mother who does not want the father involved. Moreover, a statistical test did not support the proportional odds assumption.⁹

To estimate the hypothesized effects, we use a less restrictive method, known as generalized ordered logit. The key difference between the two methods is that the latter produces three sets of coefficients that correspond to each cut-point. Therefore, the first set of coefficients refers to the odds that a mother's family formation outcome falls into categories 2, 3, or 4 instead of category 1. Similarly, the second set refers to the odds that a mother's family formation outcome falls into categories 3 or 4 instead of 1 or 2, with the same logic extending to the third set of coefficients. Since referring to these cut-points and various sets of coefficients can quickly become cumbersome and confusing, we report the results using the following language to refer to the various cut-points and the corresponding effects measured by the coefficients: cut-point 1 refers to the odds that the mother outcome is *any family unit* as opposed to having an absent father. Cut-point 2 will refer to the odds that the mother's outcome is to form a *household family unit* (either cohabitation or marriage) as opposed to the other two alternatives. Last, cut-point 3 refers simply to the odds that the mother outcome is to form a *married family unit* instead of any of the three alternatives.

RESULTS

This section reports the results of estimation of two models; only the second model includes variables on previous fertility. We focus on two issues:

1. the relative importance of policy variables (cash assistance, child support) ,and policy-related variables (mother's and father's employment), and

⁹ The χ^2 statistic for this test is 106.32 on 49 degrees of freedom; the critical value for this number of degrees of freedom is approximately 56.3.

2. the extent to which the inclusion of previous fertility diminishes the large racial differentials in family formation outcomes.

--Table 3 here--

Effects of Welfare Policy

Table 3 presents the results of our estimated model. As previously stated, unlike decisions about marriage and unwed births, which do not allow for intermediate steps in the process of family formation, we were unable to predict a priori whether cash benefits would encourage or discourage unwed mothers plans to form families with the fathers of their children. If, like Becker (1981), we consider only the independence effect, more generous cash benefits discourage family formation. However, if we also consider the income effect that cash benefits may have on unwed parents who conceal income-pooling, more generous cash benefits may encourage the formation of fragile families.

The results of the generalized ordered logit model suggest that the latter effect dominates. Each additional \$100 of benefits increases the odds that the mother is in any family relationship with the father by 14 percent and household formation by 11 percent. However, more generous benefits have no independent effect on the odds that mothers marry the fathers of their children. This is consistent with our interpretation that fragile families use cash benefits to pool their income, and thereby achieve a higher level of utility. The absence of an effect on the odds of marriage is also consistent with this interpretation, since marital status would be more difficult to conceal, and would require that couples sacrifice benefits. Second, if mothers live in states that are more liberal in accepting applications for cash assistance; this has no effect on the likelihood that they move up the hierarchy of family formation.

Effects of Child Support Policy

Our results are also consistent with findings of previous research that the responses of fathers dominate the effects of child support enforcement on family structure. The effects of child support enforcement on family structure are ambiguous, because effective child support enforcement has opposite effects on the family formation plans of mothers and fathers. The outcome depends upon the dominant response, and in past research this has been the fathers' response. For example, effective child support enforcement programs encourage wives to divorce their husbands and encourage women to become unwed mothers. However, these programs also discourage husbands from divorce and men from becoming unwed fathers. Nixon (1995) finds that states with more effective child support enforcement programs have slightly lower divorce rates. Similarly, Case (1998) and Garfinkel, et.al. (2000) find that states with more effective paternity establishment or child support collections have lower rates of unwed births.

In the present case, fathers will be highly motivated to marry the mothers of their children, if the mothers live in states that effectively collect child support, because in such a state remaining unmarried is a poor strategy for escaping the financial obligation for children. According to our results, if a state increases the percentage of TANF cases on which it collects child support by 10 percent, the odds that the mother marries the father of her children increase by 24 percent. However, increases in child support collections have no statistically significant effect on the odds in favor of less formal family relationships.

This result is also consistent with a hypothesis offered by Mincy and Dupree about the way mothers in fragile families respond to effective child support collections. Mothers who live in states that effectively collect child support are in a better position to

divorce their husbands or to raise children born out of wedlock, with only the financial support of the father. If they are in unsatisfactory relationships with the fathers of their children, they will use child support collections to obtain financial support, but otherwise not involve the father. However, most of the mothers in our sample are romantically involved with the fathers of their children and many others still maintain friendships with these fathers. Therefore, effective child support enforcement may only create stress in a relationship that mothers wish to continue. These mothers may be motivated to free their relationships of child support intermediation by failing to cooperate with child support enforcement or by marrying the fathers of their children.

Effects of Employment and Education

Whatever the interpretation of the effects of traditional income security policy variables on mothers' family formation outcomes, employment experiences, especially the father's, are more important. If the father was employed in the previous week, the odds that the mother plans to form any family unit with him rise by 59 percent; the odds that the mother plans to form a household rise by 65 percent; and the odds that the mother plans to marry the father rise by 112 percent. Even if a state could increase the percentage of TANF cases on which it collected child support by 10 percent, this would have no effect on movement along the hierarchy until marriage, and then would increase the odds of marriage by just about the same amount (24 percent). Surely the cost of devising a successful employment program, even for low-skilled men, is less than the cost of increasing child support collections by 10 percent.

Though father absence is unlikely, even for high school dropouts in our sample, a high school diploma improves the odds that mothers move further along the family

formation hierarchy. However, if the mother has a high school diploma or more, the odds that she forms a household unit with the father of her child household increase 24 percent and the odds in favor of marriage increase by 54 percent. If the father has a high school diploma or more, her odds of forming a household unit or marrying increase by similar amounts. Thus, increasing the educational attainment of parents in fragile families is also effective way to promote marriage.

Effects of Demographic Characteristics

As in previous work, black mothers have much lower odds of family formation than non-Hispanic white mothers, however, our results show that this occurs all along the hierarchy. Though marginally significant, the odds that black mothers form any family relationship with the fathers of their children are 30 percent lower than the odds that non-Hispanic white mothers to do so. However, the odds that black mothers form a household unit are 73 percent lower than the odds that non-Hispanic white mothers do and the odds that black mothers marry the fathers of their children are fully 83 percent below the odds that white mothers do so.

Finally, mother's age has a significant impact on the odds in favor family formation all along the hierarchy; however father's age has no significant impact.

Effects of Previous Fertility.

To determine if previous fertility diminishes racial differentials in family formation, table 4 includes variables measuring previous fertility: the total number of children with the father, the multiple partner fertility of mothers and the multiple partner fertility of fathers. Inclusion of these durables has little impact on the overall performance of the model. The impact of cash benefits applications accepted is

unchanged. Child support enforcement is to have a smaller impact on the odds in favor of marriage. And the coefficients on whether the father worked last week are also somewhat diminished.

Moreover, except for the multiple partner fertility of mothers, all of our measures of previous fertility significantly affect family formation all along the hierarchy, as expected. Thus, if a mother has an additional child with the father, it increases the odds that she:

- forms any family with that father by 51 percent,
- forms a household unit by 29 percent, and
- marries the father by 39 percent.

If she has already had a previous child, with another partner, this has no effect on the odds that she forms any family with the father of the focal child. However, multiple partner fertility of mothers does reduce the odds that she forms a household unit with that father by 24 percent and reduces the odds that she marries that father by 56 percent. If, the other hand, the father has a child by previous relationship, this reduces the odds that she:

- forms any family with the father by 67 percent,
- forms a household with that father by 49 percent, and
- marries the father by 51 percent.

Though racial differentials are attenuated by the inclusion of previous fertility, they remain large. Unlike in table 3, race has no impact on the odds that black mothers form any relationship with the fathers of their child. The odds that black mothers form a household unit are now 65 percent lower than the odds that non-Hispanic white mothers do and the odds that black mothers marry the fathers of their children are now 77 percent below the odds that white mothers do so.

Discussion and Implications

There is growing evidence that the ideal context to promote child well-being is a healthy, conflict-free marriage involving a couple who live only with their common, biological children. Early findings from the Fragile Families and Child-Well being Survey show that after the birth of their child, many of these couples are still romantically involved and intend to marry. This has encouraged some policymakers and policy analysts to recommend using TANF funds to pay for marriage promotion efforts among fragile families (Horn and Sawhill, 2001). Most parents in fragile families already believe that marriage is best for them and for their children, and therefore, additional expenditures to promote the idea marriage would seem to be low priority. However, there are many tools that policymakers have used in efforts to reduce child poverty, which might also be helpful in encouraging fragile families to marry or to form more enduring relationships and thereby provide more consistent team-parenting relationships for their children. These tools include traditional approaches such as raising cash benefits, more liberal acceptance of welfare applications, more effective child support enforcement, and improving the education and employment of low-income mothers. Increasing the employment of low-income fathers is another possibility raised by the widespread recognition that the labor market prospects of low-skilled men have continued to diminished, even during the 9 year expansion that supported the most recent welfare reform.

Among these tools we find that cash benefits increase the odds of family formation (short of marriage) among fragile families and effective child support enforcement increases the odds of marriage. However, the father's employment status

outweighs the effects of these traditional income security policies on family formation, because it affects outcomes all along the hierarchy --from father absence, to involvement, to cohabitation to marriage -- and its effects are larger. Nevertheless, marriage promotion will face particular obstacles because more than one third of new unwed mothers (and fathers) have children from previous relationships (multiple partner fertility), which lowers their prospects of marrying the father of their newborns. Moreover, even after accounting for differences in employment, multiple partner fertility, and other factors, blacks have substantially lower odds of marriage to non-Hispanic white. Thus, family marriage policies will undoubtedly have to account long-standing differences in transformation patterns by race and ethnicity.

References

- Bachrach, Christine. 1987. "Cohabitation and Reproductive Behavior in the U.S." *Demography*. 24/4, pp. 623-637.
- Bennett, Neil, G. David E. Bloom, and Cynthia Miller. 1995. "The Influence Of Nonmarital Childbearing Confirmation Of First Marriage." *Demography* 32:47-62.
- Case, Anne. 1998. "The Effects of Stronger Child Support Enforcement on Nonmarital Fertility." In *Fathers Under Fire: The Revolution in Child Support Enforcement*, edited by Irwin Garfinkel, Sara S. McLanahan, Daniel R. Meyer, and Judith A. Seltzer, NY: The Russell Sage Foundation, pp. 191-219.
- Garfinkel, Irwin, Chien-Chung Huang, Sara S. McLanahan, and Daniel Gaylin. Forthcoming. "Will Child Support Enforcement Reduce Nonmarital Childbearing?" *Journal of Population Economics*.
- Mincy, Ronald B. and Alan Dupree. 2001. "Welfare Reform, Child Support, and Family Formation." *Children and Youth Services Review*. 23, 6/7, pp.577-601.
- Mincy, Ronald B. and Hillard Pouncy. 1999, "There Must be Fifty Ways to Start a Family: Social Policy And Fragile Families On Low-Income, Noncustodial Fathers," in *The Fatherhood Movement Kolar Called To Action*., Wade Horn, David Blankenhorn, Mitch Perlstein, and Don Eberly eds. (Lanham, M.D.: Lexington Books).
- Moffitt Robert A., 1998, "The Effect of Welfare on Marriage and Fertility," in *Welfare, The Family and Reproductive Behavior: Research Perspectives*, edited by Robert A. Moffitt, Washington, D.C.: National Academy Press.
- Landale, Nancy S. and Forste Renata. 1991. "Patters of Entry into Cohabitation and Marriage Among Mainland Puerto Rican Women" *Demography*. 28/4, pp587-607
- Landale, Nancy S. and Fennelly, Kathrine. 1992. "Informal Unions Among Mainland Puerto Ricans: Cohabitation or an Alternative to Legal Marriage" *Journal of Marriage and the Family*. 54: 269-280
- Manning, Wendy D. 1993. "Marriage and Cohabitation Following Premarital Conception". *Journal of marriage and the Family*. 55:839-850
- Manning, Wendy D. and Smock, Pamela J. 1995. "Why Marry? Race and the Transition to Marriage among Cohabitors". *Demography*. 32/4 pp.509-520
- Manning, Wendy D. and Landale, Nancy S. 1996. "Racial and Ethnic Differences in the Role of Cohabitation in Premarital Childbearing". *Journal of Marriage and the Family* 58:63-77
- Manning, Wendy D. and Smock, Pamela J. 1997. "Cohabiting Partners' Economic Circumstances and Marriage". *Demography*. 34/3, pp.331-341

Mincy, Ronald B. "Who Should Marry Whom?: Multiple Partner Fertility Among New Parents". APPAM November 3-4, 2001, Washington DC.

Brines, Julie and Joyner, Kara. 1999. "The Ties that Bind: Principles of Cohesion In Cohabitation and Marriage". *American Sociological Review*. 64:333-355

Brown, Susan L. and Booth, Alan. 1996. "Cohabitation Versus Marriage: A Comparison of Relationship Quality". *Journal of Marriage and the Family* 58:668-678.

**Table 1: Distribution of Left-hand Side Variable Components
at 12-month Followup**

Father Absence	14%
Father Involved	27%
Cohabiting	27%
Married	32%
N	3086

Table 2: Descriptive Statistics for Independent Variables

	Mean	Expected Effect
Race		
Non-Hispanic White – Mother	22%	Omitted
Black – Mother	49%	-
Hispanic – Mother	25%	-
Other Race – Mother	4%	?
Age		
Mother	26.4 (6.1)	+
Father	27.8 (7.4)	+
Education		
HS Diploma or Better – Mother	66%	+
HS Diploma or Better – Father	67%	+
Employment Status		
Father Worked last week	79%	+
Mother Worked last year	67%	+
Fertility		
Total Fertility with Father	1.6 (0.9)	+
Multiple Partner Fertility - Mother	36%	-
Multiple Partner Fertility - Father	35%	-
State Policy Environment		
Grant Amount [\$100]	3.24 (1.28)	?
Applications Accepted	0.67 (0.15)	?
Child Support Collections	0.32 (0.19)	?
N		3088

Note: Each question with different cases of refused to answer and don't know.

Table 3
The Generalized Logit Model of Mother's Family Formation Outcomes
Without Previous Fertility Variables

	Any Family		Household Family		Marriage Family	
	Odds Ratio	P	Odds Ratio	P	Odds Ratio	P
Black – Mother	0.70	+	0.27	***	0.17	***
Hispanic – Mother	0.91		0.89		0.64	**
Other Race – Mother	0.86		0.60	*	0.75	
Age – Mother	1.04	*	1.04	***	1.09	***
Age – Father	0.99		1.00		1.00	
HS Diploma or Better – Mother	1.10		1.24	*	1.54	***
HS Diploma or Better – Father	1.07		1.23	*	1.64	***
Father Worked last week	1.59	**	1.65	***	2.12	***
Mother Worked last year	0.99		1.27	*	0.96	
Total Children with Father	----		----		----	
Multiple Partner Fertility - Mother	----		----		----	
Multiple Partner Fertility - Father	----		----		----	
Grant Amount [\$100]	1.14	*	1.11	**	1.02	
Applications Accepted	0.77		0.96		0.78	
Child Support Collections	0.57		1.31		3.40	**
N			2319			
Log Likelihood			-2762.4			
Pseudo R Square			0.11			

+ p < .10, * p < .05, ** p < .01, *** p < .001

Table 4
The Generalized Logit Model of Mother's Family Formation Outcomes
With Previous Fertility Variables

	Any Family		Household Family		Marriage Family	
	Odds Ratio	P	Odds Ratio	P	Odds Ratio	P
Black – Mother	1.03		0.35	***	0.23	***
Hispanic – Mother	1.12		0.98		0.65	**
Other Race – Mother	1.00		0.64	+	0.72	
Age – Mother	1.02		1.03	**	1.09	***
Age – Father	1.02		1.02	*	1.01	
HS Diploma or Better – Mother	1.14		1.25	*	1.49	**
HS Diploma or Better – Father	1.15		1.22	+	1.60	***
Father Worked last week	1.46	**	1.58	***	2.16	***
Mother Worked last year	1.04		1.33	**	1.01	
Total Children with Father	1.51	***	1.29	***	1.39	***
Multiple Partner Fertility - Mother	0.81		0.76	**	0.44	***
Multiple Partner Fertility - Father	0.33	***	0.51	***	0.49	***
Grant Amount [\$100]	1.14	*	1.11	**	1.02	
Applications Accepted	0.78		0.96		0.75	
Child Support Collections	0.38		0.96		2.43	+
N			2319			
Log Likelihood			-2645.7			
Pseudo R Square			0.14			

+ p < .10, * p < .05, ** p < .01, *** p < .001