NBER WORKING PAPER SERIES

CHILD SUPPORT AND FATHERS' REMARRIAGE AND FERTILITY

David E. Bloom Cecilia Conrad Cynthia Miller

Working Paper 5781

NATIONAL BUREAU OF ECONOMIC RESEARCH 1050 Massachusetts Avenue Cambridge, MA 02138 October 1996

We thank Philip Robins, Robert Mare, Irwin Garfinkel, Sherry Glied, participants at the conference "The Effects of Child Support Enforcement on Nonresident Fathers," and participants at the Columbia University Labor Economics Seminar for helpful comments. This paper is part of NBER's research programs in Aging, Health Care and Labor Studies. Any opinions expressed are those of the authors and not those of the National Bureau of Economic Research.

© 1996 by David E. Bloom, Cecilia Conrad and Cynthia Miller. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

CHILD SUPPORT AND FATHERS' REMARRIAGE AND FERTILITY

ABSTRACT

This paper tests the hypothesis that child support obligations impede remarriage among nonresident fathers. Hazard models fit to data from the National Longitudinal Survey of Youth and from the Survey of Income and Program Participation reveal that child support obligations deter remarriage among low-income nonresident fathers. The benefits to children of stricter child support enforcement are thus diminished by the negative effects of child support on remarriage, as a substantial share of nonresident fathers remarry and help support women with children. Indeed, simple calculations based on our findings suggest that the financial benefits to children in single-parent families of improved enforcement may be substantially or completely offset by the negative effects of enforcement that operate indirectly through diminished remarriage. The results provide no evidence that child support influences the nature of matches in the remarriage market or the likelihood of subsequent fertility.

David E. Bloom Harvard Institute for International Development One Eliot Street Cambridge, MA 02138 and NBER dbloom@hiid.edu Cecilia Conrad
Department of Economics
Pomona College
425 N College Avenue
Claremont, CA 91711
cconrad@pomona.edu

Cynthia Miller
Manpower Demonstration
Research Corporation
3 Park Avenue
New York, NY 10016
cmiller@opr.princeton.edu

I. INTRODUCTION

In 1995 one in four children in the U.S. lived in poverty. The child poverty rate increased steadily during the 1980s, and this increase can be attributed in large part to a rise in the number of children living in female-headed families (Bane and Ellwood 1989). More than 50 percent of all children in female-headed families live in poverty. Children in these families must rely on the income of only one parent, and the income of the mother is typically lower than that of the absent father.

This relationship between trends in family structure and child poverty derives from the fact that most absent parents do not continue to share their incomes with their children after divorce. In other words, most fathers do not pay child support. Currently, only half of all nonresident fathers have a legal obligation to pay child support and only 39 percent of all fathers make any payments to their nonresident children.

Statistics like these, on child poverty and child support, are often mentioned together to illustrate the potential benefits of a more strictly enforced child support system. In fact, child support has become an enormously popular policy in the effort to improve the economic status of children. An array of increasingly stringent laws has been passed at both the state and federal levels, with the hope of more strictly enforcing payments and improving the lives of children.

What is often neglected in discussions of child support enforcement and child well-being, however, is that a significant fraction of all children eligible to receive child support, although not necessarily receiving support from their biological fathers, are being supported by two parents, a biological mother and a stepfather. In this way, as was illustrated in another context by Duncan and Hoffman (1985), the current status of the child

support system understates the well-being of children of divorce by not considering the possibility of remarriage among families headed by custodial mothers.

Another factor that has been ignored in this debate, and one on which we focus in this paper, is the possibility of an interaction between stricter enforcement and remarriage. In particular, given the increased emphasis on child support as a means to transfer resources to children, we examine whether the effort to more strictly enforce these payments might also reduce resources for some children by altering fathers' remarriage behavior. In this case, a move towards stricter child support enforcement is not unambiguously good for children.

To illustrate, consider the population of children eligible to receive child support. At present, one-half of these children receive no support through child support or their custodial parents' remarriage. One-quarter of all eligible children receive support through child support but not through remarriage, while the remaining one-quarter receive support through remarriage and may or may not also receive child support payments. One potential tradeoff of more strictly enforcing child support can be stated as follows. Will an increase in child support enforcement, in an effort to help the group of children not receiving any support, diminish the number of children who are supported through remarriage?

While child support enforcement might also affect the remarriage behavior of custodial mothers, in this paper we examine the association between child support and fathers' new family formation, including (re)marriage and fertility subsequent to remarriage. The pool of men eligible to marry women who head families consists in part of unmarried fathers, many

of whom have a legal obligation to pay (and some of whom actually do pay) child support. These child support obligations may diminish a man's willingness or ability to undertake the financial obligations associated with marriage. Such obligations may also diminish a man's desirability as a marriage partner to a prospective spouse seeking a companion who can offer financial support and security. In fact, empirical estimates suggest that child support payments might significantly reduce a man's probability of remarriage. Figure 1 reports estimates from two independent samples of the effect of a typical child support payment on a man's yearly probability of remarriage. These estimates were calculated using the coefficient on income in a hazard model of remarriage, the average amount of child support typically paid, and the amount of child support that would be paid under a perfectly enforced system using the Wisconsin child support guidelines. The estimates indicate that child support payments may reduce a man's yearly probability of remarriage by up to 15 to 20 percent.

That child support constrains fathers' behavior might also be inferred from recent reports in the popular press. The press commonly reports accounts of fathers' complaints that child support obligations leave them unable to start or support new families (see NYT 1994 and NPR April 22, 1996). Similar reports are also made by individuals involved in developing child support policy (Williams 1994). Moreover, noncustodial fathers have formed fathers' rights groups to protect fathers' interests in the child custody and child support system.¹ Thus, by studying the impact of child support on fathers' behavior, we hope to assess fathers' claims that these payments represent a significant burden.

¹ An example of such a group is the Children's Rights Council.

Finally, the enforcement of child support payments might also affect fathers' fertility, which we interpret broadly to include both marriage to a woman with children and fertility within a new marriage. Stronger child support enforcement may not only affect fathers' remarriage rates, but may also affect their willingness to marry women with children. Such a finding would suggest that stricter enforcement might reduce the flow of resources to children through its effect on this aspect of fathers' behavior.

We also examine the effects of child support enforcement on fathers' fertility within new marriages. While the nature of these effects are less relevant to the well-being of children in single-mother families, examining this relationship will provide another clue as to whether child support represents a constraint for fathers. The effect of child support on fertility in new marriages is also interesting in its own right, given that births following remarriage represent an increasing proportion of total births (Wineberg 1985).

To examine the association between child support and new family formation, we use cross-state variation in the level of child support enforcement to identify the effects of the child support system on fathers' remarriage and fertility. When possible, we also examine the association between actual child support payments and these behaviors and attempt to control for the possibility that the effect of payments on family formation is not causal, but rather an artifact of common determinants.

II. CHILD SUPPORT AND REMARRIAGE

Previous research on the determinants of remarriage has applied labor market search theory to the marriage market (Beller and Graham 1985, Chiswick

and Lehrer 1990, Folk, Beller and Graham 1991, Hutchens 1979). Within this framework, the payment of child support affects the probability of remarriage through its effect on income. As we note below, however, the theory implies that income has an ambiguous effect on the time to remarriage.

In a scenario analogous to wage offers in the labor market, a single individual searching in the marriage market will face a variety of marriage opportunities or offers, the distribution of which will depend on how his characteristics are valued by potential spouses. The distribution of offers is likely to depend on his observable characteristics, such as age, education, and income, and on his unobservable characteristics, such as responsibility or character. The existence of children from a previous relationship, for example, may reduce the average marital offer, because it represents a specific investment that is not transferable to a new relationship and may, in the eyes of the potential partner, decrease the quality of the new relationship.

Assuming that marriage offers arrive randomly from this distribution and that search is costly, search theory implies that the individual will develop an optimal stopping rule, in which he will stop searching and accept a marriage offer when the value of this offer is at least as great as some minimum acceptable offer. The marital offer can be viewed as an expected stream of real income or commodities, which includes affection, children, efficiencies from the division of labor, and the realization of scale economies in household production.

Thus the probability of remarriage within a given period will depend on the probability of receiving an acceptable offer within that period. Within this framework, an increase in income, if it is valued positively by potential

spouses, will alter a man's distribution of marital offers in a way that may decrease his time to remarriage; for a given minimum acceptable offer, he will be more likely to accept the next offer received. However, an increase in income may also alter the man's behavior, in that he raises his minimum acceptable offer. A man who alters his minimum acceptable offer, for example, might become more or less likely to marry a woman with children from a previous relationship. An increase in his minimum acceptable offer may result in an increased time to remarriage. Thus, the net effect of a change in income on the time to marriage is ambiguous.

The effect of child support on remarriage is analogous to that of income. As a kind of lump-sum tax, it reduces the father's attractiveness to potential spouses, but may also cause the man to alter his expectations in the marriage market. Thus a child support award that is strictly enforced has an ambiguous effect on the probability of remarriage within a given period for the noncustodial parent. An additional implication of the theory is that the nature of the matches among men who remarry may be different for men who pay child support and men who do not.

While we treat a child support payment as a tax in this example, it is also likely that the father derives utility, or happiness, from making payments for the support of his children. Thus, the payment of child support is to some extent volitional and to some extent the result of the state enforcement.² We account for this factor in the empirical analyses.

Although a substantial body of literature exists on the determinants of remarriage (Chiswick and Lehrer 1990, Hutchens 1979, Koo and Suchindran 1980,

² It is interesting to note, in this context, that on average, fathers who have child support obligations pay about 60 percent of what they owe, and virtually none pay more than the amount owed.

Spanier and Glick 1980), surprisingly little of this research examines remarriage among men.³ Among women, however, this research has several major findings: black and Hispanic women remarry more slowly than white women, time to remarriage increases with age at divorce, children lower the probability of remarriage among younger women, and women with higher incomes remarry less rapidly.

The few studies that examine remarriage among men suggest several differences between men and women. Glick (1980) finds that age at divorce and the presence of children at divorce have no effect on men's time to remarriage. Becker, Landes, and Michael (1977) also find that the existence of children from a previous marriage has no effect on a man's likelihood of remarriage. Both studies find that while a woman's income is inversely related to her likelihood of remarriage, a man's income is significantly and positively related to his likelihood of remarriage. Each of these relationships can be easily explained within the search framework described earlier.

Although we are not aware of any studies of the effects of child support on men's remarriage, three recent studies examine the effects of child support receipts on women's remarriage (Beller and Graham 1985, Folk, Beller and Graham 1992, Yun 1992). The evidence suggests that the receipt of child support tends to reduce a woman's probability of remarriage, but that this effect is small. In theory, the effect of child support receipts on a woman's likelihood of remarriage is ambiguous. Child support receipts may increase her well-being while single and reduce her incentive to search, but they may

³ One exception is Glick (1980). Becker, Landes, and Michael (1977) also estimate the determinants of remarriage among men as part of a larger study on marriage behavior.

also make her more attractive as a marriage partner than a woman with children who does not receive such payments. Yun (1992) also finds that, controlling for a range of individual characteristics and the previous husband's income, women who receive higher amounts of child support, as compared with women who receive less or no child support, tend to remarry higher-income men. This effect is interpreted as one in which child support income allows a woman to spend more time searching for a "higher-quality" mate.

In our empirical analyses, we first adopt a reduced-form strategy and model remarriage as a function of the level of state child support enforcement and several individual-level factors that have been found to affect remarriage. Examining the direct effect of enforcement on remarriage allows us to use data that contain no information on actual child support payments. In this model we expect stricter policies to affect remarriage behavior by increasing the likelihood and amount of child support payments. As mentioned earlier, however, the net effect of stricter enforcement is theoretically indeterminate.

We also examine, when possible, the effects on fathers' remarriage of actual payments. Along with the decisions regarding marital search, however, the nonresident father will also decide whether to pay child support. As mentioned earlier, whether he makes such payments will depend both on his own calculation of the costs and benefits of paying support, including the strictness of state child support enforcement. Thus child support payments are likely to be endogenous in the remarriage equation, given the existence of unobservable variables that affect both the probability of remarriage and the

⁴ While in practice the mother's remarriage has been found to have a negative impact on child support receipts (Hill 1992), child support award levels are typically not formally changed when the mother remarries.

probability of making a payment. We attempt to control for this endogeneity in the empirical analyses.

III. DATA AND ANALYSIS

We use individual-level data from two surveys that contain marital and fertility histories. The first data set we use is the Survey of Income and Program Participation (SIPP). The SIPP consists of a series of 28- to 32month panels, the first of which was initiated in 1984, in which a nationally representative sample of households is interviewed every four months for the duration of the panel. The survey obtains detailed information about monthly income, program participation, and household composition. Using the marital history, fertility history, and detailed household relationship topical modules from the 1990 SIPP, we construct a cross-sectional sample of nonresident fathers. We follow Sorenson's (1995) methodology to obtain this sample. Roughly, we identify nonresident fathers by including (1) men who reported making child support payments to nonresident children and (2) men who are divorced, separated, or remarried and report having fathered more children than are currently living in their household. Additional restrictions on the age of the father and the length of the current marriage are imposed on the latter group to omit those men who are incorrectly included because they have adult children who have left the household. We also restrict the sample to divorces that occurred between 1981 and 1989, given that the child support enforcement variables cover this time period.

We also use data from the 1979-92 National Longitudinal Survey of Youth (NLSY). In 1979 the NLSY surveyed a sample of approximately 13,000 women and men ages 14 to 21. Respondents have been reinterviewed in each year

thereafter and asked about such topics as labor force participation, school status, income, marital status, and fertility. We use information from the 1990 and 1991 marital and fertility history questions to construct a sample of men who divorced between 1981 and 1989 and had children at divorce. To examine the effects on remarriage of actual child support payments, we use a subset of these divorces occurring from 1982 to 1987, given that the NLSY surveyed fathers about payments only during these years.

We also assess the effects of child support enforcement on the marriage behavior of men who have fathered children nonmaritally. To do this, we use a sample of men from the NLSY who report that they fathered a child at least one year prior to their first marriage or fathered a child during the 1980s but had not yet married as of the 1990 and 1991 surveys.

To measure child support enforcement, we use information from the Office of Child Support Enforcement's Annual Reports to Congress. These reports contain information about caseload size and collections for all cases within the OCSE system. The four variables we use to measure the level of child support enforcement are collections per case (standardized by state per capita income), the percentage of cases in which a collection is made, collections divided by expenditures, and total expenditures divided by the number of female-headed families in the state. These variables are available for every year since 1980. We measure state enforcement for a given father by the level of these variables in the year in which he divorced or separated or, in the case of nonmarital births, the year in which he became a father.

Appendix 1 presents means for the samples of nonresident fathers from

⁵ The OCSE caseload includes all women receiving AFDC and any non-AFDC-eligible women who request assistance.

the SIPP and the NLSY. As expected, the SIPP fathers are several years older at divorce and have higher incomes than the NLSY fathers. The NLSY nonmarital fathers are also generally younger, less educated, and have lower incomes than the ever-married NLSY fathers. Among the ever-married fathers, over 40 percent were observed to remarry within the survey period, and they remarried, on average, 2.5 years after divorce. Fewer of the nonmarital fathers married during the panel, and those who did marry took 4.5 years to do so.6

The table also indicates that 64 percent of the NLSY fathers report making child support payments to their children sometime during the two years following divorce. This percentage is higher than that found using the Current Population Survey-Child Support Supplement data, the data most commonly used to calculate child support statistics, suggesting that these fathers are overreporting the payment of support. Note also that child support payments made by the fathers are a substantial fraction, 15 percent, of pretax income for the SIPP fathers, and somewhat less so, 9 percent, for the NLSY fathers.

CHILD SUPPORT ENFORCEMENT AND REMARRIAGE

Table 1 examines the effects of child support enforcement on the hazard of remarriage by fitting a proportional hazards model to each of the evermarried samples. In each of the models we control for several individual characteristics that may affect the hazard of remarriage. For the NLSY sample

⁶ Although some of the fathers may enter into cohabitational unions, rather than formal marriages, we cannot observe cohabitation in these data. Thus, we focus our analyses on entry into formal marriage.

⁷ Selzter and Brandreth (1993) compare men's and women's reports of payments and receipts and find that fathers report making more payments than mothers report receiving.

all of the individual characteristics are measured at the time of divorce, and for the SIPP sample each of the variables, except the father's age, is measured as of the 1990 survey. We also control for an array of state-specific factors that may influence both the level of child support enforcement and men's remarriage. The state variables, measured in the year of separation or divorce, are the unemployment rate, real per capita income, and the marriage rate in 1980. We also include the real AFDC maximum benefit, given that AFDC generosity may be correlated with child support policy but may also affect men's remarriage through its effect on women's desire to marry. Finally, all models include a series of dummy variables for year of divorce and region (full model results are reported in Appendix 2).

We examine the effects of each enforcement variable separately, given that they are fairly highly correlated with one another. Each of the enforcement variables has a negative coefficient, with the exception of total expenditures per case for the NLSY sample, and the magnitudes of the coefficients are somewhat similar across the samples. However, the only statistically significant coefficient is that for the collection rate for the SIPP sample.

While we find no consistent significant effects of enforcement on fathers' remarriage hazards, one could imagine that a child support obligation represents a relatively greater burden for lower-income men. We test this hypothesis by interacting each enforcement variable with a dummy variable indicating whether the respondent has income below the sample average. We also examine whether the effects of enforcement differ by education level by interacting each of the variables with a dummy variable indicating whether the

⁸ These data were provided by Robert Moffitt.

father had a high school education or less. Panel 1 of Table 2 presents the results for the income interactions. Collections per case now has a significantly negative effect on the remarriage of low-income men, and this effect is consistent across the samples. The coefficient on the collection rate is significantly negative only for the SIPP sample, while the coefficient on collections divided by expenditures is significant at the 10 percent level only for the NLSY sample. Finally, although the coefficients on the interaction terms for total expenditures per female-headed family are both negative, they are not significant for either sample. On the whole, however, the pattern of coefficients suggests that any effects of enforcement will be found primarily among lower-income men.

Panel 2 of Table 2 presents results from the models that include interactions of the enforcement variables with the education level of the father. The results indicate that the effects of enforcement do not vary by education level. The only coefficient that is marginally significant is that for the interaction of the collection rate with low education for the SIPP sample. When the models are estimated for the low education sample separately, only the coefficient on the collection rate is statistically significant.

As a further test of the effects of the enforcement variables, we estimate similar models for men who did not have children at divorce. If the policies we observe to affect remarriage are truly capturing child support enforcement, then they should have no effects on the remarriage behavior of men without children. Table 3 presents the results. The models are estimated using samples of low-income men both with and without children at divorce, given that these are the men for whom we found effects of enforcement. The

coefficients indicate that, while collections per case and the collection rate negatively affect remarriage for men with children, they have no such effects for men without children. The coefficients for this group, in addition to being statistically insignificant, are all very close to zero. Although the coefficients for collections divided by expenditures and expenditures per female-headed family show similar patterns, the coefficients on these variables for men with children are not statistically significant. These results suggest that the effects of enforcement we observe are related to the child support system and not to other unobservable state characteristics that may be correlated with enforcement.

The fact that these coefficients are estimated from a hazard model, coupled with the fact that each of the enforcement variables is measured in different units, makes it difficult to interpret the reported coefficients. Table 4 provides the percentage reduction in the yearly hazard of remarriage given a 10 percent increase in two enforcement variables from their sample averages. To calculate these effects, we use the coefficients reported in Table 3. The results indicate that a 10 percent increase in the level of enforcement has a fairly small effect on remarriage probabilities for low-income fathers. The fall in the yearly probability of remarriage ranges from 3.3 percent to 9.4 percent.

Given the substantial dispersion that exists across states in the level of enforcement, however, we can also examine the percentage reduction in the

The results in Table 3 also suggest that the negative effect of stricter enforcement on fathers' remarriage is not caused by the fact that enforcement may reduce custodial mothers' desire to marry. If remarriage behavior on the other side of the market were driving our results, we would expect stricter enforcement to have negative effects on the remarriage of men without children. We assume here that men with and without children at divorce are equally likely to marry single mothers.

yearly hazard of remarriage associated with moving from the 30th to the 10th most effective state. Using the collection rate, for example, this increase in enforcement implies a change in the collection rate of 5.2 points, which reduces the yearly hazard of remarriage by about 30 percent. Thus, the variation across states suggests that there is substantial room for improvement in child support enforcement, with our estimates indicating that this improvement may have sizable effects on remarriage probabilities.

CHILD SUPPORT PAYMENTS AND REMARRIAGE

We next examine data on actual payments made by fathers, in an effort to quantify the effects of child support per se on the hazard of remarriage.

This analysis is performed using the NLSY sample, given that the SIPP survey contains no information on payments made immediately following divorce. In addition, we must restrict the analysis to fathers who divorced between 1982 and 1987, since questions about child support payments were asked only in the 1982 to 1988 surveys.

Table 5 presents the results for the estimated effects of child support payments on the hazard of remarriage. All of the individual and state-level variables included in previous models are included here. The child support variable is coded as 1 if the father paid child support at some point during the two years following divorce and 0 otherwise. The results in column 1 indicate that paying child support has no significant effect on time to remarriage. However, the coefficient on child support is likely to be biased, given the existence of unobservables that influence both payments and remarriage behavior. To account for this, we employ a two-stage approach and predict child support payments in the first stage using the state enforcement

variables as instruments. The second stage examines the effect of predicted payments on the hazard of remarriage.

Columns 2 through 4 of Table 5 present different estimates of the effect of child support payments on remarriage using different pairs of the enforcement variables as instruments. In theory, the coefficient for instrumented, or predicted, payments should suffer from less bias than that for actual payments. As the F-statistics in row 3 indicate, however, the state enforcement variables used in the reduced form analysis are relatively poor instruments, in that they have very little power to predict payments in this sample. Moreover, the coefficient on predicted payments is not consistent across the columns. The results (not reported) were also statistically insignificant for the sample of low income fathers and the sample of less educated fathers.

Thus, although we find that child support enforcement policies affect remarriage probabilities among low income fathers, these same policies do not seem to affect the likelihood of payment immediately after divorce. We should note that in the SIPP sample the enforcement variables measured in 1990 significantly predict the probability and level of payments among SIPP fathers in 1990. One possible explanation for the results for the NLSY sample is that the enforcement variables may not affect payments immediately following divorce, but may affect payments over a longer horizon. It may also be the case that some lower-income fathers do not make payments but nonetheless build up considerable arrearages that may affect marriage behavior. A state's child support enforcement effort provides information on both the probability that a child support obligation exists and the probability that the father will have to meet this obligation, now or in the future. Johnson and Doolittle (this

volume) report that fathers in the Parents' Fair Share Program who have little or no income to pay child support are often acutely aware of the sometimes large amounts of child support they owe.

THE NATURE OF MATCHES

We next examine the effects of child support enforcement on another aspect of marriage behavior, the nature of marital matches. As mentioned earlier, one implication of the search model is that a man who faces an altered distribution of marital offers may change his minimum acceptable offer. An analogous situation for women arises, it is argued, when the receipt of child support income allows them to search longer for a more "attractive" mate. This argument is tested by Yun (1992), who examines the impact of child support receipts on the characteristics of a woman's new husband. We examine this issue for fathers by examining, among fathers who remarry, the effect of child support enforcement on the characteristics of the new spouse. In particular, we consider the new spouse's age, education and income.

We assume that assortative mating is optimal in the marriage market or, stated differently, that an optimal match is one in which the two spouses possess similar characteristics. With this assumption, we use the absolute age difference between the spouses as the dependent variable in the analyses. If child support enforcement affects the nature of marital sorting through its effect on the man's minimum acceptable offer, we would expect it to increase this age difference, as he accepts a less than optimal match. In contrast, we use the level of the new wife's education and income in the analyses of these characteristics, given that higher education and income may signal a higher

"quality" mate, or a higher marital offer. The results from these models are presented in Table 6 (full model results are present in Appendix 3). The results indicate that child support enforcement has no effect on the nature of matches. For the age difference, for example, the coefficients are not statistically significant, nor are they consistently signed across enforcement variables or samples. Similar models run for the low-income and low-education samples were generally not statistically significant. The exception to these results is that three of the four enforcement variables had significant (at 10 percent) and positive effects on the spouses' age difference for the low income NLSY sample. In general, however, while we find that child support enforcement alters the time to remarriage among some nonresident fathers, it appears to exert no significant effects on this aspect of marriage behavior.

NONMARITAL FERTILITY AND FIRST MARRIAGE

As a final look at the effects of child support enforcement on fathers' marriage behavior, we examine the time to first marriage for men who father children nonmaritally. For these men, the obligation to pay child support begins with the birth of the first child. To examine this issue, we use a sample of men from the NLSY who fathered a child prior to first marriage. Child support enforcement variables are measured as of the year of the child's birth.

The results are presented in Table 7. The first column of the table presents hazard estimates for the full sample, and the second column presents estimates for a sample of low-income fathers. The results indicate that child support enforcement has no impact on the time to first marriage for nonmarital fathers. None of the coefficients is significantly negative, and one

coefficient, that for the collection rate, is positive for the low-income sample. When the model was estimated for the sample of low-education fathers, the enforcement variables were also insignificant.²⁰

We also examined the effects of payments on time to first marriage, by instrumenting reported payments with the enforcement variables. Although not reported, the first stage enforcement variables did not significantly predict whether payments were made in the two years following the birth of the child, and the resulting estimates for the effects of payments on time to marriage were insigificant. Thus, there appear to be no discernible effects of child support enforcement on the marriage of men who become liable to pay support through the birth of a nonmarital child.

CHILD SUPPORT AND FERTILITY

Another important aspect of new family formation is fertility. We measure fertility in two ways: remarriage to a woman with children and fertility within a new marriage. Of special interest is the effect of child support on the probability of remarriage to a woman with children. As mentioned earlier, remarriage is a common route out of poverty for many poor single-mother families; a father who marries a woman with children typically assumes some of the financial responsibility for those children. Stricter child support enforcement could have unintended consequences if it reduces the likelihood of marriage for women with children.

In theory child support enforcement has an ambiguous effect on a man's propensity to marry a woman with children. First, children from a previous

Given that we define our sample based on self-reported nonmarital fertility, this sample may be a somewhat select group of nonmarital fathers.

union represent an investment in marriage-specific capital, which may reduce a woman's attractiveness in the remarriage market. If women with children from a prior marriage are at a disadvantage in the marriage market, we might expect to see them ultimately matched with men who are at a similar disadvantage, that is, those with child support obligations. This factor should increase the likelihood that men who pay child support marry women with children. However, a man with a child support obligation may be less willing or able to assume financial responsibility for the children of a new spouse.

Furthermore, strict state enforcement of child support payments may make remarriage less attractive for women with children, as they are more likely to receive regular child support payments.

Table 8 presents estimates of the effects of child support enforcement on the probability, among men who remarry, of marrying a woman with children (see Appendix 4 for full model results). The top panel of the table presents estimates for the full sample, and the bottom panel presents estimates for the low-income subsample. Although all but one of the coefficients are negative, none is statistically significant. The coefficient on expenditures per female-headed family comes the closest to significance, with a t value of 1.7 for the NLSY sample.

Among the low-income samples, the coefficients are generally more negative (bottom panel), a pattern that is consistent with the results for time to remarriage. However, they are all statistically insignificant. The coefficients estimated for the samples of low-education fathers (not reported) were very similar, in both sign and significance, to those reported for the

¹¹ The models of fertility subsequent to marriage were not estimated for the nonmarital fathers, given that so few of them were observed to marry during the panel.

full sample.

We also examine, using the NLSY subsample, the effects of actual payments on the probability of remarriage to a woman with children. These estimates are reported in Table 9. Column 1 presents the results from a model in which the payment of child support is coded as a dummy variable set to 1 if the father paid support in the two years following divorce and 0 otherwise. The coefficient on payment suggests that, conditional on remarriage, the payment of child support has a negative effect on the probability of marriage to a woman with children. As noted earlier, the coefficient on actual payments is likely to be biased, given the existence of unobservables that affect both the payment of support and remarriage behavior. We also present in columns 2 through 4 the effects of instrumented payments on the probability of remarriage to a women with children. Again, however, the results indicate that the enforcement variables are weak instruments, and none of the coefficients for instrumented child support payments is significant.

In sum, we find no strong evidence that among nonresident fathers who remarry, those living in high enforcement states are less likely to marry a woman with children from a previous relationship. These results suggests that there will be no negative effects of stricter enforcement through this aspect of fathers' behavior for poor single mothers, many of whom leave poverty through remarriage.

We next examine the effects of enforcement on fertility within a new marriage. Fertility after remarriage is yet another aspect of new family formation, and according to recent estimates, an increasingly important one. Wineberg (1985) finds that, among women who have been married twice, 35 percent of total births to these women occurred after remarriage. Examining

the effects of child support enforcement on new fertility will help to complete our analysis of how the child support system affects fathers' behavior.

The demand for children, as for any other normal commodity, is typically assumed to depend upon income and prices. While the price of children is often measured by the price of the mother's time (Becker 1960, Willis 1973), child support affects the demand for children through its effect on family income, given that the birth of a new child does not typically alter the original child support order. A child support obligation then, as a reduction in income, is expected to reduce the demand for new children.

Table 10 presents estimates for the effects of child support enforcement on the likelihood, among fathers who remarry, that they father one or more children by the time of the survey (full model results are presented in Appendix 5). Each of the models includes individual and state characteristics and the number of years the couple has been married. In addition, we include the wife's rather than the husband's age and education to capture the price of children for the mother. The estimates indicate that, conditional on fathers' remarriage, stricter child support enforcement has no significant negative effects on the likelihood that new children will be fathered. In addition,

 $^{^{12}}$ Only a handful of state child support guidelines allow an adjustment to the child support award following the birth of a new child to the nonresident parent (Williams 1994).

¹³ When the traditional fertility model is expanded to include both the quantity and quality of children, an increase in nonwage income may have no, or even a positive, effect on the number of children demanded. Here we do not distinguish between quality and quantity, and assume that the wealth elasticity for a first child within the new marriage is positive.

¹⁴ We also estimated a model in which the dependent variable was the number of new children. The results were similar to those reported in Table 10.

one enforcement variable has a significantly positive effect on this probability in the NLSY sample. Although the enforcement variables are measured in the year the father divorced, we estimated models in which they were recoded to the year of remarriage. The results were similar to those reported here. We also tested whether the effects of enforcement differ by income and education level and found no significant differences.

CHILD SUPPORT ENFORCEMENT AND NONMARITAL FERTILITY

We next look at the effects of child support on nonmarital fertility.

Case (this volume) finds that child support enforcement reduces out-of-wedlock birth rates. In this paper, however, we estimate the likelihood of subsequent fertility given a first nonresident child, or the existence of a child support obligation. To do this, we use the sample of nonmarital fathers from the NLSY to estimate a hazard model for the time to a second nonmarital birth.

Table 11 presents the results for the full sample and a low-income sample. While the coefficients are generally negative in sign, most are not statistically significant. The exception to this pattern is for the collection rate, which has a significantly negative effect on fertility for the full sample and a somewhat more negative effect for the low-income sample.

The results in this section suggest that child support enforcement has more substantial effects on remarriage behavior than on fertility behavior.

We examined the likelihood of becoming a stepfather among men who remarry.

While the results indicate that there may be some negative effects on this likelihood, the coefficients were generally not significant. With respect to new fertility, both within and outside of marriage, child support enforcement appears to exert no significant influence on this behavior. Only one

enforcement variable reduced the likelihood of fathering new children nonmaritally and none affected fertility within remarriage. One possible explanation for these findings is that, while stricter enforcement may lower the father's income, it may also reduce the cost of children for the new wife, given that she is more assured that she would receive child support upon divorce.

IV. DISCUSSION

This paper has assessed the potential tradeoffs of a more strictly enforced child support system. The tradeoff we examine, and one that has been ignored in the effort to enforce child support, relates to the linkage between child support and fathers' new family formation. Both child support and remarriage are important avenues through which children are supported.

Stricter child support enforcement, while attempting to provide more resources for children, may also have negative effects on children's economic well-being if it discourages or hinders remarriage behavior among mothers or fathers.

We find that child support enforcement reduces remarriage probabilities among low-income fathers. A 10 percent increase in enforcement, for example, can be expected to reduce the yearly probability of remarriage for low-income fathers by up to 10 percent. This result has two implications for child support reform. First, assuming that marriage is assortative on income, those female-headed families whose remarriage probabilities will be most affected by child support enforcement are the lower-income families, those who may stand to benefit most from remarriage. Second, given that higher-income fathers have more ability to pay child support yet do not appear to be burdened by these payments, a majority of the resource transfer from fathers to children

can occur with little effect on remarriage probabilities.

We also explored the extent to which child support affects the nature of marital matches, using information on the age, education, and income of the new spouse. Marital search theory suggests that a child support obligation may cause a man to alter his expectations in the marriage market. Our results suggest either that enforcement has no effect on this aspect of remarriage behavior, or that it affects the father's acceptable offer and distribution of potential offers in ways that are offsetting.

Finally, we examined the effect of child support enforcement on fertility, including the likelihood of becoming a stepfather and fathering new children. We find little evidence that enforcement has significant effects on the likelihood of marriage to a woman with children or on the likelihood of new fertility subsequent to remarriage. Thus, although stricter child support enforcement may engender costs in terms of fathers' remarriage rates, there appear to be no effects on other aspects of remarriage behavior. 15

The foregoing analyses highlight two key effects of increases in the enforcement of child support awards. The first effect represents the direct positive effect of increased enforcement on child support received. The second effect is an indirect negative effect that operates by reducing remarriage rates of nonresident fathers, some fraction of whom would presumably have remarried custodial mothers and provided support for their children. Whether the economic well-being of children living with lone custodial mothers is, on average, improved or diminished by increased

¹⁵ The fertility models we estimate are conditional upon remarriage and do not account for the possibility that the fathers who remarry are a select group. The estimates may provide little information, therefore, on the effects of enforcement on the fertility behavior of those men who are not observed to remarry.

enforcement of child support depends on the relative magnitudes of these two effects.

In an effort to assess the net gain or loss to children of increased enforcement, we consider a 10 percent increase in child support collection rates. Regressing the dollar value of child support receipts on state child support collection rates, we estimate an \$87.50 increase in receipts per household using the March/April 1990 Current Population Survey (Child Support Supplement). We estimate a \$33.00 increase in receipts per houshold using the 1990 SIPP sample of nonresident fathers.

We construct an estimate of financial support forgone as a result of increased enforcement as the product of (1) our estimates of the effect of enforcement on yearly remarriage rates (see Table 4); (2) the share of nonresident fathers in the pool of marriageable men; (3) the average income of nonresident fathers; and (4) the average share of income devoted to children. We perform these calculations separately for all nonresident fathers and for lower-income nonresident fathers (i.e., those with annual incomes below \$24,000). Average income is \$27,000 for the sample of all nonresident fathers in the SIPP, and \$13,000 for the sample of low-income nonresident fathers. Nonresident fathers represent 15 percent of all 18-55 year old men not currently married in the CPS. Finally, we assume that stepfathers devote one-fourth of their resources to supporting their stepchildren. 16

Table 12 reports the results. The calculations make it clear that the financial gain to children of increased enforcement is substantially

¹⁶ As no data are available on the share of income devoted to stepchildren, we base this assumption on Lazear and Michael (1988) and Gronau (1991) who report that parents devote 25-38 percent of family expenditures to the children with whom they reside.

overstated by the direct effect of increased enforcement on child support receipts. Indeed, using the low estimate of the elasticity of receipts with respect to enforcement allows the negative remarriage effect to completely offset the positive payment effect. Thus, increased child support enforcement may be far less beneficial to the economic well-being of children than would otherwise appear. And in some cases, as the calculations illustrate, the benefits may be close to zero. The movement to strengthen the child support system has gained considerable momentum in recent years, but these findings suggest that there is more flash than substance to the claim that increased child support enforcement increases the economic well-being of children. While increased enforcement appears to channel more resources from nonresident fathers to their biological children, it diminishes the resources those fathers would devote to stepchildren they would otherwise have had.

REFERENCES

Bane, M., and D. Ellwood. 1986. "Slipping into and out of Poverty: The Dynamics of Spells." Journal of Human Resorces.

_____. 1989. "One Fifth of the Nation's Children: Why Are They Poor?" Science 245: 1047-1053.

Becker, G. 1960. "An Economic Analysis of Fertility." in *Demographic and Economic Change in Developing Countries*. Princeton, N.J.: Princeton University Press.

Becker, G., E. Landes, and R. Michael. 1977. "An Economic Analysis of Marital Instability." *Journal of Political Economy* 85(6):1141-1187.

Beller, A., and J. Graham. 1985. "Variations in the Economic Well Being of Women and Their Children: The Role of Child Support Income." In Horizontal Equity, Uncertainty and Economic Well Being. M. David and T. Smeeding, eds., Chicago: University of Chicago Press.

Bumpass, L. 1984. "Children and Marital Disruption: A Replication and Update." *Demography* 21:71-82.

Case, A. 1996. "Child Support Enforcement and Out-of-Wedlock Birth Rates." this volume.

Chiswick, C., and E. Lehrer. 1990. "On Marriage-Specific Human Capital: Its Role as a Determinant of Remarriage." *Journal of Population Economics*, 3:193-213.

Folk, K., J. Graham, and A. Beller. 1992. "Child Support and Remarriage: Implications for the Economic Well-Being of Children." *Journal of Family Issues* 13:142-157.

Glick, P. 1980. "Remarriage: Some Recent Changes and Variations." *Journal of Family Issues* 1:455-478.

Gronau, R. 1991. "The Intrafamily Allocation of Goods-How to Separate the Adult from the Child" Journal of Labor Economics 3:207-235.

Hill, M. 1992. "The Role of Economic Resources and Remarriage in Financial Assistance for Children of Divorce." *Journal of Family Issues* 13:158-178.

Hutchens, R. 1979. "Welfare, Remarriage and Marital Search." American Economic Review 69:369-379.

Johnson, E., and F. Doolittle. 1996. "Parent's Fair Share Program" this volume.

Koo, H., and C. Suchindran, 1980. "Effects of Children on Women's Remarriage Prospects." Journal of Family Issues 1:497-515.

Lazear, E., and R. Michael, 1988. Allocation of Income Within the Household. Chicago: University of Chicago Press.

National Public Radio. "Morning Edition." April 22, 1996.

New York Times. 1994. "In Tough Mood, Britain Pursues Absent Parents." February 7, p. x.

Seltzer, J., and Y. Brandreth. 1993. "What Fathers Say about Involvement with Children after Separation." NSFH Working Paper No. 57, Center for Demography and Ecology, University of Wisconsin-Madison.

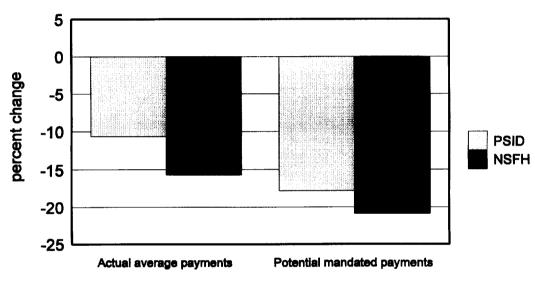
Sorenson, E. 1995. Nonresident Fathers. Mimeo. Urban Institute.

Spanier, G., and P. Glick. 1980. "Paths to Remarriage." Journal of Divorce 3:283-298.

Williams, R. 1994. "An Overview of Child Support Guidelines in the United States." In Child Support Guidelines: The Next Generation. U.S. Department of Health and Human Services, The Office of Child Support Enforcement.

Yun, K. 1992. "Effects of Child Support on Remarriage of Single Mothers." In Child Support Assurance: Design Issues, Expected Impacts, and Political Barriers as Seen from Wisconsin. I. Garfinkel, S. McLanahan, and P. Robins, eds., Washington, D.C.: The Urban Institute Press.

Figure 1: The expected percent change in the yearly hazard of remarriage for actual and potential child support payments



Calculations based on hazard model estimates

TABLE 1

The effect of child support enforcement on the hazard of remarriage

	SIPP	NLSY	
Collections	058	078	
per case	(.048)	(.079)	
Collection	021	018	
rate	(.011)	(.019)	
Collections/	044	007	
expenditures	(.044)	(.062)	
Expenditures	001	.002	
per female- headed family	(.002)	(.004)	
N	563	267	

Notes: Each coefficient represents a separate regression. Also included are individual and state characteristics and time dummies for year of divorce. See appendix 2 for full model results. Standard errors are in parentheses.

TABLE 2

The effect of child support enforcement on the hazard of remarriage: interactions with income and education level

(1)	S	SIPP		NLSY	
	CSE	CSE*lowinc	CSE	CSE*lowinc	
ollections	.043	197	.092	293	
er case	(.063)	(.083)	(.101)	(.128)	
ollection	.002	048	.007	042	
ate	(.012)	(.016)	(.025)	(.028)	
ollections/	.006	105	.067	163	
penditures	(.055)	(.074)	(.074)	(.099)	
penditures	.001	003	.003	002	
r female- aded family	(.003)	(.002)	(.004)	(.004)	
,	CSE	CSE*lowed	CSE	CSE*lowed	
lections	033	051	242	.204	
case	(.060)	(.078)	(.211)	(.229)	
llection	007	026	0002	024	
te	(.013)	(.016)	(.032)	(.037)	
llections/	039	010	306	.302	
penditures	(.059)	(.074)	(.306)	(.303)	
penditures	001	001	.015	014	
r female- aded family	(.002)	(.002)	(.006)	(.006)	
	_	63	_	67	

Notes: The columns labelled CSE show the effects of enforcement for fathers with above average income, while the columns labelled CSE*lowinc and CSE*lowed show the coefficients on the interactions of each enforcement variable with low income status and low education status, respectively. Low income is defined as having income below the sample average (\$24,000 for the SIPP and \$11,000 for the NLSY). Low education is defined as having completed high school or less. Also included are individual and state characteristics and time dummies for year of divorce. Standard errors are in parentheses.

TABLE 3

The effect of child support enforcement on the hazard of remarriage: men with and without children at divorce

	SIPP		NLSY	
	with children	w/out children	with children	w/out children
Collections	142	.006	211	039
per case	(.083)	(.083)	(.121)	(.116)
Collection	062	.008	055	001
rate	(.021)	(.019)	(.027)	(.027)
. Collections/	089	004	044	. 006
expenditures	(.069)	(.078)	(.102)	(.087)
Expenditures	005	.003	.003	.007
per female- headed family	(.004)	(.005)	(.005)	(.005)
N	304	180	139	179

Notes: Samples are restricted to men with below average income (\$24,000 for the SIPP and \$11,000 for the NLSY). Also included are individual and state characteristics and time dummies for year of divorce. Standard errors are in parentheses.

TABLE 4

The percentage reduction in the yearly hazard of remarriage for an increase in child support enforcement; sample of low-income fathers

SIPP	NLSY	
	11201	
3.3	4.8	
9.4	8.3	
31.2	27.8	
	9.4	9.4 8.3

Notes: Estimates are derived from coefficients reported in Table 3.

TABLE 5

The effect of child support payments on the hazard of remarriage - NLSY

			•	
Coefficient	.159	. 624	3.25	1.61
on whether paid child support	(.309)	(1.87)	(2.06)	(1.59)
Instruments used	none	cpc, crate	crate, col/exp	cpc, expend
lst stage F	na	2.06	1.60	3.99
tatistic for nstruments p value]		[.36]	[.45]	[.14]

Notes: The models are estimated using a subsample of NLSY fathers who divorced between 1982 and 1987 (N=150). Each column represents a separate regression. The enforcement variables are coded as follows: cpc=collections per case, crate=collection rate, col/exp=collections/expenditures, and expend=expenditures per female-headed family. Also included are individual and state characteristics and time dummies for year of divorce. Standard errors are in parentheses.

TABLE 6

The effect of child support enforcement on the nature of marital matches

	SIPP	NLSY
Spouses' age differer	ace (absolute value)	
Collections	.011	016
per case	(.184)	(.292)
Collection	014	.007
rate	(.019)	(.072)
Collections/	. 245	.094
expenditures	(.193)	(.014)
Expenditures	004	001
per female-	(.010)	(.014)
headed family		
New wife's income		
Collections	-84.1	257.4
per case	(656.4)	(674.1)
Collection	-16.3	-22.1
rate	(175.2)	(135.4)
Collections/	-50.1	-20.6
expenditures	(690.0)	(519.6)
Expenditures	-68.6	23.3
per female- headed family	(36.6)	(27.1)
New wife's education		
Collections	004	
per case	(.081)	
Collection	0003	
rate	(.021)	
Collections/	.082	
expenditures	(.085)	
Expenditures	001	
per female- headed family	(.004)	

Notes: Models are estimated using samples of nonresident fathers who remarried (N=246 for the SIPP and N=124 for the NLSY). Also included are those individual and state variables included in previous models. See Appendix 3 for full model results.

TABLE 7

The effect of child support enforcement on the hazard of first marriage among men who fathered a child nonmaritally

	All	Low-income	
Collections	005	.090	
per case	(.109)	(.079)	
Collection	.066	. 1.01	
rate	(.043)	(.055)	
Collections/	043	.033	
expenditures	(.105)	(.119)	
Expenditures	003	003	
per female- headed family	(.008)	(.010)	
N	156	110	

Notes: Sample consists of men who fathered children prior to a first marriage. The low-income sample consists of fathers with incomes of less than \$6000 (the sample average is \$4700). Each coefficient represents a separate regression. Also included are individual and state characteristics and time dummies for year of divorce. Standard errors are in parentheses.

TABLE 8

The effect of child support enforcement on the likelihood of remarriage to a woman with children

SY 01 33) 10 08)
01 33) 10 08)
33) LO 08)
10
08)
13
· -
26)
024
)15)
30
54)
.5
.2)
73
18)
01
93)
3

Notes: Models estimated using samples of nonresident fathers who remarried (N=246 for the SIPP and N=124 for the NLSY). Probit models are estimated for the SIPP samples and OLS models are estimated for the NLSY samples (attaining convergence for the probit model proved difficult with the small NLSY sample). Also included are individual and state characteristics. See Appendix 4 for full model results.

TABLE 9

The effect of child support payments on the likelihood of remarriage to a woman with children - NLSY

Coefficient	-1.33	-4.38	2.33	-3.38
n whether paid hild support	(.654)	(3.12)	(4.26)	(3.37)
nstruments	none	cpc,	crate,	cpc,
sed		crate	col/exp	expend
st stage F	na	3.06	.66	1.39
tatistic for		[.22]	[.72]	[.49]
nstruments p value]				

Notes: The models are estimated using a subsample of NLSY fathers who divorced between 1982 and 1987 and remarried by the 1990/91 surveys (N=58). Each column represents a separate OLS regression. The enforcement variables are coded as follows: cpc=collections per case, crate=collection rate, col/exp=collections/expenditures, and expend=expenditures per female-headed family. Also included are individual and state characteristics and time dummies for year of divorce. Standard errors are in parentheses.

TABLE 10

The effect of child support enforcement on likelihood of fertility within a new marriage

	SIPP	NLSY	
Collections	084	.421	
per case	(.080)	(.217)	
Collection	023	.094	
rate	(.018)	(.036)	
Collections/	.047	.056	
expenditures	(.066)	(.110)	
Expenditures	003	.021	
per female-	(.003)	(.008)	
headed family			

Notes: Probit models estimated using samples of nonresident fathers who remarried (N=246 for the SIPP and N=100 for the NLSY). Also included are individual and state variables. See Appendix 5 for full model results.

TABLE 11

The effect of child support payments on the hazard of a second nonmarital birth - NLSY

All	Low-income	
214	234	
(.154)	(.220)	
074	105	
(.037)	(.049)	
001	050	
(.106)	(.126)	
003	000	
(.006)	(.008)	
156	110	
	214 (.154) 074 (.037) .081 (.106) 003 (.006)	214

Notes: The sample consists of men who fathered children prior to a first marriage. The low income sample consists of fathers with incomes of less than \$6000 (the sample average is \$4700). Each coefficient represents a separate regression. Also included are individual and state characteristics and time dummies for year of nonmarital birth. Standard errors are in parentheses.

Table 12

Estimates of the net effect of increased enforcement on financial support for children

Sample of nonresident fathers:	Effect of enforcement on	child support receipts	
ALL	High	Low	
Payments effect	80	33	
Remarriage effect	-30	-30	
Net effect	<u>50</u>	<u>03</u>	
LOW-INCOME	High	Low	
Payments effect	80	33	
Remarriage effect	-44	- 44	
Net effect	<u>36</u>	- <u>11</u>	

Notes: Calculations are in dollars and are based on the estimated effect of enforcement on the hazard of remarriage for the SIPP sample, presented in Tables 1 and 3. The calculations in the column labelled "high" assume that a 10 percent increase in enforcement increases receipts by \$80, while those in the column labelled "low" assume that it increases receipts by \$33. These estimates were obtained from the 1990 Current Population Survey-Child Support Supplement and the 1990 SIPP sample of nonresident fathers, respectively. See the text for full details.

Appendix 1
Variable means

	SIPP	NLSY	NLSY nonmarital
Father's age at divorce	32.7	26.4	23.2
Education	12.9	11.7	11.4
<pre># children at divorce</pre>	1.8	1.4	-
Income at divorce	26455	13421	5573
Black	.14	.10	. 58
% remarried	.41	.46	.23
Years to remarriage	2.5	2.7	4.5
<pre>% paid child support</pre>	. 55	. 64	.27
Amount paid among payers	4021	1126	572
Payments as % of income	.15	. 09	.22
N	563	267	156

Notes: Sample weights used. Income, education, and child support payments for the SIPP sample are measured as of the 1990 survey. Information about child support payments for the NLSY samples are calculated using subsamples of fathers who divorced or fathered a nonmarital child between 1982-1987.

Appendix 2

Estimates for the effects of child support enforcement on the hazard of remarriage

	SIPP	NLSY	
Father's age	006	036	
at divorce	(.012)	(.052)	
Education	.044	.113	
	(.027)	(.057)	
# children	.006	258	
at divorce	(.072)	(.181)	
Income at	.019	.013	
divorce/1000	(.009)	(.013)	
Black	731	301	
	(.233)	(.271)	
State	.013	.008	
per capita income/100	(.006)	(.010)	
State	.067	.158	
unemployment rate	(.038)	(.069)	
State AFDC	008	011	
maximum benefit/10	(.009)	(.012)	
State marriage	062	.099	
rate - 1980	(.051)	(.074)	
-LogL	1406.0	571.2	
N	563	267	

Notes: Also included are variables for region, year of divorce, and income squared for the SIPP. Income and education for the SIPP sample are measured as of the 1990 survey. Standard errors are in parentheses.

Appendix 3

Estimates for the effects of child support on the nature of matches

	Age diffe	erence	Wife's	income (1000s
	SIPP	NLSY	SIPP	NLSY
Constant	6.3	2.8	-25.6	10.0
	(5.4)	(8.5)	(19.2)	(1.81)
Father's age	.20	.27	.38	.29
at divorce	(.05)	(.15)	(.17)	(.31)
Education	.17	63	37	51
	(.12)	(.27)	(.42)	(.55)
# children	.52	85	-1.26	.59
at divorce	(.32)	(.69)	(1.15)	(1.45)
Income at	.04	02	. 2 [·] 5	.09
divorce/1000	(.17)	(.04)	(. 05)	(.08)
Black	84	12	6.07	1.48
	(1.0)	(1.0)	(3.67)	(2.19)
State per capita income/100	05 (.03)	05 (.04)	.002 (.001)	.001 (.001)
State unemployment rate	19 (.16)	.69 (.26)	.18 (.56)	.42 (.57)
State AFDC maximum benefit/10	05 (.04)	.08 (.04)	007 (.013)	011 (.010)
State marriage	32	.04	.19	68
rate - 1980	(.22)	(.23)	(.77)	(.48)
И	246	124		

Notes: Also included are dummy variables for region and year of divorce. Standard errors are in parentheses. Income and education for the SIPP sample are measured as of the 1990 survey.

Appendix 4

Estimates for the effects of child support on the likelihood of remarriage to a woman with children

	SIPP	NLSY	
Constant	.041	-3.19	
	(1.67)	(3.44)	
Father's age	001	.096	
at divorce	(.014)	(.061)	
Education	006	.049	
	(.037)	(.091)	
# children	.109	.336	
at divorce	(.101)	(.267)	
Income at	011	017	
divorce/1000	(.005)	(.014)	
Black	267	.516	
	(.314)	(.378)	
State	.007	.022	
per capita	(.009)	(.021)	
income/100			
State	.051	148	
unemployment rate	(.049)	(.101)	
State AFDC	024	038	
maximum	(.011)	(.019)	
benefit/10		•	
State marriage	069	091	
rate - 1980	(.067)	(.092)	
		·	
N	246	124	

Notes: Also included are dummy variables for region and year of divorce. Standard errors are in parentheses. Income and education for the SIPP sample are measured as of the 1990 survey.

Appendix 5

Probit model estimates for the effects of child support enforcement on the likelihood of fertility within remarriage

	SIPP	NLSY
New wife's age	067	085
at remarriage	(.015)	(.037)
New wife's	062	199
education	(.052)	(.130)
# father's		
children	161	009
at divorce	(.113)	(.377)
# mother's		
children	185	. 652
at remarriage	(.117)	(.223)
Father's	.041	004
income at	(.062)	(.020)
remarriage/1000		
Black	.794	. 646
	(.355)	(.526)
State	.019	.003
per capita income/100	(.010)	(.022)
State	.053	.154
unemployment rate	(.049)	(.131)
State AFDC	031	.003
maximum penefit/10	(.112)	(.003)
State marriage	.089	037
rate - 1980	(.074)	(.088)
N	250	100

Notes: Also included are dummy variables for region and year of remarriage. Income and education for the SIPP sample are measured as of the 1990 survey. For the NLSY sample, education is the father's education and age and income are measured as of the year of remarriage. Standard errors are in parentheses.