Child Support Transfers under Family Complexity

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Abstract

When parents engage in childbearing with more than one partner or *multi-partnered fertility*, this gives rise to a complex family system with strong implications for transfers to children. This study therefore seeks to measure the effect of multi-partnered fertility on formal and informal child support transfers, specifically to non-marital children. Using data from the Fragile Families and Child Wellbeing Study (FFCWS), the study goes beyond previous works by attempting to isolate causal effects of male and female multi-partnered fertility. I find that in general, the probability of receiving formal and/or informal child support contributions decline as the number of children a parent has with more than one partner rises. The study confirms a causal adverse effect of male multi-partnered fertility on receiving any child support payments. These findings underscore the need to revisit child support policies for complex families.

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Introduction

When one or both parents engage in childbearing with more than one partner or *multi-partnered fertility*, this constitutes a complex family system with serious ramifications for children. Multi-partnered fertility has been rising steadily in recent decades, particularly among unmarried males and females. By the late 1990s, in nearly 60% of unmarried urban couples who conceived a child together, at least one partner had already parented a child with someone else (Carlson & Furstenberg Jr., 2006; 2007). This figure is expected to increase as successive cohorts enter childbearing age (Carlson & Furstenberg Jr., 2006; 2007; Guzzo & Furstenberg Jr., 2007; Logan et al., 2006; Bronte-Tinkew et al., 2009).

Despite this high prevalence of multi-partnered fertility, very few studies to date have empirically explored the implications of this type of family complexity for transfers from non-custodial parents (typically fathers) to their offspring. Child support payments are an important source of income for reducing poverty among non-marital children (Freeman & Waldfogel, 2001) and it is thus salient to observe how the rate of child support compliance changes once a parent acquires subsequent families.

Economic theory predicts that multi-partnered fertility will induce lower child support transfers relative to single-partnered fertility (Weiss & Willis, 1985; Willis, 1999; Willis & Haaga, 1996). Two empirical studies to date have confirmed this theory at least to some extent. Nepomnyaschy & Garfinkel (2010) find that both male and female multi-partnered fertility reduce informal and total child support payments. By contrast, Meyer et al. (2005) found that male but not female multi-partnered fertility lowered the rate of formal child support compliance.

These studies provide important preliminary findings but have yet to establish whether the relationship between multi-partnered fertility and child support transfers is causal. My study uncovers the impact of male and female multi-partnered fertility on child support transfers to

non-marital children and expands on the prior works in key ways. First, I present a theoretical model showing that male and female multi-partnered fertility have different effects on child support transfers. In particular, I highlight the importance of female multi-partnered fertility and illustrate its ambivalent effects on child support transfers. To establish causality, I address omitted variable, measurement error and simultaneity biases plaguing the model.

To empirically explore this research problem, I utilize longitudinal data from the Fragile Families and Child Wellbeing Study (FFCWS). This Study samples a large number of unmarried parents living in urban areas and provides detailed information on their fertility decisions and other related characteristics. These data also provide the ideal opportunity to distinguish between voluntary (i.e. informal monetary) and involuntary (i.e. formal court-ordered) child support arrangements, allowing for a more complete approach to evaluating child support transfers in complex families. The study concludes that the probability of receiving child support transfers declines as the number of children parents have with more than one partner rises. However, once biases from omitted variables, measurement error and simultaneity are addressed, 2SLS estimation confirms the adverse impact of multi-partnered fertility on child support transfers but only for fathers.

The paper is organized henceforth as follows: section II discusses the theory and background of multi-partnered fertility and child support transfers, empirical findings and my contribution to the literature; section III presents a theoretical model of decision-making under family complexity; section IV discusses the data and details the empirical strategies; section V outlines the construction of variables and the summary statistics; section VI shows the results and sensitivity checks; section VII summarizes the findings and lists policy recommendations.

II. Theory and Background

Past works theorize that multi-partnered fertility will induce lower child support contributions. However, the mechanisms that underlie the relationship between multi-partnered fertility and child support transfers for males and females are similar in some respects but different in others.

Willis' model emphasizes that male multi-partnered fertility negatively affects child support transfers due to diminishing marginal utility from each child with an additional partner (Willis, 1999; Willis & Haaga, 1996). Willis (1999) asserts that as the number of children with different partners rises, the non-custodial father's degree of altruism to each child will undoubtedly fall: the time and resources he can devote to each child with an additional partner decline because there are more children (in different households) competing for his "diluted" resources (Blake 1981, 1989; Bronte-Tinkew et al., 2009).

For multi-partnered mothers, the quality of the relationship with her non-custodial partners may dictate how much child support she receives. As a partner's trust rises, so do his transfers. If by having children with a different partner the mother has prompted mistrust (possibly due to fidelity or paternity concerns), this will inevitably lower the quality of their relationship and thus child support payments (Tach et al., 2010). Having children with multiple partners may even lead the father to question the mother's parenting quality and the quality of their child(ren) together. Child support transfers are expected to decline as a result.

Asymmetric information from either male or female multi-partnered fertility should also lower child support contributions. Because the non-custodial father cannot effectively monitor how resources are being allocated in the child's household, he is wary about how his child support payments are being used (Edin, 1994; Willis, 2004; Weiss & Willis 1985). In fact, Edin

(1994) highlights that non-custodial fathers fear mothers are potentially allocating child support payments to themselves rather than to the children. Hence, as the number of children in different households rises, it becomes increasingly difficult for him to monitor the allocation of resources within each household (Ermisch & Pronzato, 2008; Weiss & Willis, 1985). Further, non-custodial fathers may suspect that their child support transfers are being allocated to children of the mother's other partners (Edin, 1994; Willis, 2004; Graham & Beller, 2002; Weiss & Willis, 1985). Consequently, within the context of multi-partnered fertility, potential misallocation of resources within the household will trigger lower child support contributions from non-custodial fathers.

State child support enforcement plays a key role in how much child support a father will pay and more stringent child support enforcement policies are positively associated with child support payments (Freeman & Waldfogel, 2001; Sorenson, 1997; Sorenson & Hill, 2004; Garfinkel and Robins, 1994). In addition, stringent child support enforcement policies decrease incentives to engage in non-marital fertility and fertility with multiple partners (Willis, 1999; Aizer & McLanahan, 2006; Plotnick, 2006; Garfinkel et al., 2003). That said, it is imperative to distinguish between a father's ability and willingness to pay child support.

The mechanisms described above all speak to a non-custodial father's willingness to pay, with only the "diminishing marginal utility" argument alluding to his ability to pay. A non-custodial father's ability to pay child support is positively related to his income, thus increasing child support payments (Willis, 1999). A non-custodial father's willingness to pay is also expected to boost child support payments independent of income (Nepomnyaschy & Garfinkel, 2010). Child support policies therefore assess the non-custodial parent's ability to pay and attempt to enforce payments regardless of the willingness to pay child support (Sinkewicz &

Garfinkel, 2009; Meyer at al., 2005; Roff, 2008; Nepomnyaschy, 2007; Sorenson & Hill, 2004). Therefore, child support enforcement is expected to lower multi-partnered fertility and its effects on child support transfers by ultimately overriding a non-custodial father's unwillingness to pay child support.

Three studies to date have empirically explored child support transfers in complex families, but two of these studies only included multi-partnered fertility as confounds in the child support model. Meyer et al. (2005) used Wisconsin data on welfare participants to explore the implications of male and female multi-partnered fertility for formal child support compliance. They find that male multi-partnered fertility decreases the rate of child support compliance whereas female multi-partnered fertility does not significantly impact the compliance rate. Nepomnyaschy & Garfinkel (2010) use data from the Fragile Families and Child Wellbeing Study (FFWCS) to examine child support enforcement and child support contributions to non-marital children. They include male and female multi-partnered fertility as confounds in their model. They find that both male and female multi-partnered fertility significantly affect informal and total child support payments but not formal child support payments. Ermisch & Pronzato (2008) explored intra-household allocation of resources and child support payments using the British Household Panel Survey (BHPS). They control for the number of children a father has acquired with his new partner, but find no statistically significant effects on child support payments.

These studies all estimated the relationship between parents' multi-partnered fertility and child support contributions, but treated multi-partnered fertility as an exogenous variable. Multi-partnered fertility is potentially endogenous in the model if there are unobserved characteristics that simultaneously influence parents' fertility behavior and child support payments. My study

attempts to confirm a causal relationship between multi-partnered fertility and child support transfers using two-stage least squares (2SLS) estimation. In the next section, I also provide a theoretical contribution to the literature by clearly illustrating how child support transfers change under multi-partnered fertility relative to the single-partnered case.

III. Decision-Making under Family Complexity

This model seeks to uncover the impact on child support contributions of family complexity given by parents' multi-partnered fertility. Weiss & Willis (1985) explored the case of single-partnered fertility – where parents have children only with each other – and child support transfers post-divorce. They illustrated that in the divorce state, monitoring and enforcement of resource allocation in the custodian's household becomes increasingly difficult. Therefore, transfers to children of divorce will be inevitably lower than in the marriage state. Willis (1999) on the other hand, theorized that a male having children with multiple partners will lower his overall utility given that the utility he gets from his children is a decreasing function of his number of childbearing partners. Subsequently, his altruism declines as the number of children with different partners rises.

Yet to be explored in the literature however, is how female multi-partnered fertility influences child support receipts. My model extends both the Weiss & Willis (1985) and Willis (1999) models by showing how child support contributions from the non-custodian change when either parent acquires subsequent families. Similar to Weiss and Willis (1985), I construct a theoretical model that shows child support transfers within the dissolved non-marital family (where unmarried parents have split but have one child with each other). I then contrast this with a more complex family scenario, where either parent bears a child with a different partner.

Model with no Multi-Partnered Fertility

First, consider a case where an unmarried mother has one child for whom she is the primary caregiver called the *focal child*[1]. Her utility is given by $U(C, X_m)$, where C is the focal child's consumption and X_m is the mother's consumption. Her budget constraint is given by $X_m = Y_m - C + S$, where S is the child support payment from the focal child's non-custodial father and Y_m denotes the mother's resources from labor, welfare benefits, etc. By maximizing this utility function, the model yields the focal child's consumption function, $C = f(Y_m + S)$, increasing in Y_m and S; Y_m is given. The economic interpretation of $\frac{dC}{dS}$, the slope of the child consumption function, is the fraction of an additional dollar of child support that is actually consumed by the focal child. The intercept of the child consumption function is necessarily a function of Y_m.

Assume that although the focal child's father is non-resident, he knows the mother's utility function, and thus C(S). He chooses S to maximize his utility $V(C(S), X_m)$ subject to his budget constraint $X_f = Y_f - S$, where X_f denotes his private consumption and Y_f denotes his income[2]. This yields the optimal child support transfers function, $S^* = l(Y_m, Y_f)$. From the first-order condition, we can easily show that at S^*, $\frac{Vx}{Vc} = \frac{dC}{dS}$. Thus, the slope of the father's indifference curve (i.e. the marginal rate of substitution between the father's private consumption and child support transfers) is equal to the slope of the focal child's consumption function at S^* shown in Figure 1.

Fathers will voluntarily pay child support if $\frac{Vx}{Vc} \leq (\frac{dC}{dS})_{s=0}$. Since V_x (i.e. the marginal utility of the father's consumption) is declining in X_f, an increase in the father's income will lower $\frac{Vx}{Vc}$

[1] Like Weiss & Willis (1985), I assume that the focal child is a couple-specific public good even after dissolution occurs.

[2] I assume for simplicity the absence of a court order requiring child support payments.

and thus increase the likelihood that he will make positive child support transfers. This is depicted in Figure 1 as indifference curve I^2. On the other hand, since V_c (i.e. the marginal utility to the father of the focal child's consumption) is declining in C (and thus declining in Y_m), an increase in the mother's income will increase $\frac{Vx}{Vc}$. This makes the father's indifference curve steeper (shown as I^3 in Figure 1) and subsequently, the father is less likely to make positive transfers to the focal child.[3] Therefore, within the context of single-partnered fertility, fathers will continue to make positive transfers to the focal child as long as his income is sufficiently high relative to the mother's income. This offsets the utility foregone from his private consumption by raising the utility he gains from the focal child's additional consumption.

Model with Multi-Partnered Fertility

Now consider the case where the father has a second child with a different partner, modifying his utility function to $V(min(C(S), C_2 /\alpha), X_f)$ subject to $X_f = Y_f – S – S_2$. The preference parameter α, allows the focal child's father to value both children differently based on characteristics such as birth order, gender, etc. Additional support for the second child lowers X_f thereby increasing V_x. As V_x rises, so does the slope of the father's indifference curve (I^3), thereby reducing the probability of making positive transfers to the focal child. The model therefore indicates that child support transfers will unambiguously fall when the father engages in multi-partnered fertility behavior.

Now consider the case where the mother has a second child, but with a different partner. Assume she values both children equally, such that her utility function can be recast as $U(min(C, C_1), X_m)$ subject to $X_m = Y_m + S + S_1 – 2C$; S_1 denotes the child support payments she potentially

[3] The model abstracts away from court-ordered child support, but is informative about what factors lead fathers to fall into arrears on the child support order. Fathers whose S^* value is below the court ordered amount are those less likely to make the court-ordered payments.

receives from the second child's father[4]. Maximizing this Leontief utility function yields $C = h(Y_m + S + S_1)$. If $S_1 > 0$, this will inevitably shift the focal child's consumption function upward. However, the effect of female multi-partnered fertility on S is ambiguous and depends on the size of S_1. On the one hand, the presence of a second child causes the mother to split her resources between two children and thus the focal child will receive a smaller share of the mother's resources than he/she originally received. Consequently, the slope of the new consumption function will be flatter than the slope of C(S) I. For $S_1 < \varepsilon$, the focal child's consumption function is depicted by C(S) II. The focal child's father will transfer $S = S' > S^*$, illustrating the *altruistic-father* effect of female multi-partnered fertility. Low child support transfers from her other partner will cause a mother's resources to be so diluted, that both children are now worse off. Observing this, the focal child's father raises his child support transfers in order to raise the focal child's consumption level. Essentially, he becomes more altruistic when the mother's other partner shirks his child support obligations. By contrast, if $S_1 > \varepsilon$, the child support transfers of the second child's father are sufficiently large such that the mother can allocate more of her resources to the focal child (since she values both children equally). This increases both the intercept and the slope of the focal child's consumption function given by C(S) III. As a result, S falls to S'', illustrating the free-rider effect of female multi-partnered fertility on child support transfers. The focal child's father hence shirks his own child support obligations given that there are sufficient resources in the household to maintain the focal child's level of welfare.

Contrary to the single-partnered fertility example, multi-partnered fertility unequivocally changes child support payments independent of parents' relative resources. Male multi-partnered

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[4] I assume that the new partner's child support payments are exogenous in the model.

fertility unambiguously lowers child support payments reinforcing Willis (1999). However, female multi-partnered fertility may induce higher or lower child support transfers depending on how much child support she receives from her other partners. With large enough transfers from other partners, the non-resident father will choose to free-ride and pay less child support. However, where other partners make low child support transfers (and essentially free-ride), the non-resident father will make higher than optimal child support transfers to offset the mother's diminished resources.

IV. Data and Empirical Strategies

The data I use for this study come from the Fragile Families and Child Wellbeing Study (FFCWS), which aims at observing the characteristics, conditions and capabilities of unmarried parents. It utilizes stratified random sampling to select parents from twenty large urban cities, with populations of 200,000 or more people. Both mothers and fathers were initially interviewed at the "magic moment" when they were in the hospital for the birth of their child. This child is designated in the study as the *focal child*[5]. Nearly 5,000 children born from 1998 to 2000 were sampled and follow-up interviews were conducted when the focal child was approximately one, three and five years old. I create a panel dataset using these follow-up interviews, spanning the years 1999 to 2006.

Fertility behaviors of both parents are assessed at all follow-up interviews. Specifically, parents are asked about their number of childbearing partners as well as the number of children they have with other partners. These fertility questions are also asked of parents concerning the other parent. For this study, I use the number of children a parent has with another partner to measure multi-partnered fertility. Hence, if a parent reports that he/she has children with a

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[5] If the birth was a multiple birth, the Study chooses only one of the children as the focal child.

different partner, the parent is coded as multi-partnered. Similarly, if a parent reports that the other parent has children with a different partner, the latter parent is also coded as multi-partnered. Binary indicators of the number of children a parent has with different partner are used to measure multi-partnered fertility (see section V for more details). I argue that these indicators provide a better assessment of how the non-custodial parent's resources are being shared within the context of multi-partnered fertility (as opposed to using the number of childbearing partners). As shown in sections II and III, the mechanisms that underlie the relationship between multi-partnered fertility and child support transfers are not only captured by the number of childbearing partners but also the number of children with each partner. For instance, if a father has two childbearing partners, this is not a clear indicator of the number of children he has with each partner. Having three children with an additional partner means he must split his resources with these three children plus the focal child. Consequently, using the number of childbearing partners to measure multi-partnered fertility would only show that resources are being split between two households and not the extent to which his resources are diluted.

Throughout all follow-up interviews, the FFCWS gathers data on formal and informal child support agreements and transfer amounts. Mothers, who chiefly report these data, may under-estimate the child support payments they receive while fathers may over-estimate their child support transfers. To what extent either parent misestimates the child support payment amount is debatable; however, I rely mostly on the custodial mothers' reports since these are less likely to have non-response bias relative to non-resident fathers' reports (Nepomnyaschy, 2009). Still, to maximize the number of observations in the analysis sample, I utilize fathers' responses for formal and informal child support whenever mothers' responses are missing. It is important to

caution that this may introduce measurement error into the dependent outcome. However, if the measurement error is uncorrelated with the independent variables in the model, then the estimators should remain unbiased (Wooldridge, 2003). Moreover, Smock and Manning (1997) show that the difference between the resident and non-resident parent's child support reports are not statistically significant and hence, combining reports of custodial mothers and non-custodial fathers should not yield any additional bias.

While the FFCWS has detailed information on type of child support arrangements and actual child support payments over time, there are some limitations in using these data to answer the research question. First, because the child support data are reported by parents, they are likely less accurate than data from administrative sources. For formal child support, parents sometimes report the child support order amount, time since the agreement was reached but not actual payments or they reported the child support amount, actual payments but not the time since the agreement was reached. This creates serious challenges in attempting to create a child support outcome measure using actual payments only (see Appendix for list of relevant FFCWS questions on formal child support). Conveniently however, most parents report whether the formally agreed upon amount was paid in full or only partially paid.

The data on informal child support transfers bring a different set of challenges. Parents report informal payments in all follow-up interviews. The agreed upon amount under the informal child support arrangement was available for the first and third-year follow-up interviews but by the fifth-year follow-up interview, there was no survey question concerning informal child support compliance (see Appendix for list of relevant FFCWS questions on informal child support). As a result, I could not determine whether fathers had fully complied with their informal child support agreements by year five. Moreover, many observations were missing for informal payments –

parents typically say whether payments were made but the amount of the payments were oftentimes missing.

With all these data challenges in mind, the most convenient way to measure child support transfers is to construct a set of binary indicators illustrating: (a) whether the father had been fully or at least partially compliant with his formal child support agreement, (b) whether the father has made any informal payments and (c) if any formal or informal transfers were made. By using binary indicators, this also helps reduce measurement error in the dependent outcomes.

Issues and Empirical Strategies

To begin empirically exploring the research question, I first make the following data restrictions. The data are restricted to parents who were unmarried at the time of the focal child's birth and are neither married nor cohabiting ex post. This ensures that transfers from the non-custodial father are indeed for child support of the focal child. For parents who are coresiding, a father's "child support payments" may be in exchange for housing and other privileges and hence, are not necessarily allocated to the needs of the focal child[6]. Second, the sample is restricted to mothers who are primary caregivers (i.e. living with the focal child all or most of the time) to ensure that mothers are the custodial parents in this study.

The child support transfers function can be written as a linear probability model:

$$P(S_{it} = 1 | \cdot) = P^{m}_{it}\, \omega_1 + P^{f}_{it}\, \omega_2 + T_{it}\, \omega_3 + Y_{it-1}\, \omega_4 + n_i\, \omega_5 + X_{it}\, \omega_6 + e_{it} \qquad (1)$$

where S denotes binary indicators for formal, informal or any child support transfers received, $P^{m,f}$ are vectors of multi-partnered fertility indicators for mothers and fathers

[6] While some coresiding parents do have formal or informal child support agreements, I have chosen to exclude coresiding couples to be consistent with previous literature and to ensure that child support transfers are *inter-household* transfers. Resident fathers provide *intra-household* transfers of not only explicit monetary payments but implicit benefits as well, which are not readily comparable with non-custodial fathers (Nepomnyaschy & Garfinkel, 2010).

respectively; T is a vector of state-specific indicators of child support enforcement, average male and female wages and TANF benefit levels for a family of three. Y is a vector of parents' resources such as income and welfare benefits; these measures are lagged by one wave because child support payments may also determine income and welfare benefits thereby introducing simultaneity bias. n denotes baseline variables (such as contributions and father's abortion preferences during pregnancy) expected to proxy for a father's willingness to pay child support. However, it is important to caution that a father's willingness to pay child support may vary over time and subsequently, these proxies are not sufficient to capture the willingness-to-pay effect. X is a vector of observed child and parental characteristics such as parents' age, race-ethnicity and education as well as the child's gender.

More nuanced versions of the model can be used to determine how multi-partnered fertility ex post as well as how child support transfers from other partners affect child support transfers to the focal child.

To test how other partners' child support payments influence the father's transfers to the focal child, Equation (1) can be recast as follows:

$$P(S_{it} = 1 | \cdot) = P^m_{it}\, \gamma_1 + P^f_{it}\, \gamma_2 + \gamma_3\, \Theta_{it-1} + P^m_{it} * \Theta_{it-1}\, \gamma_4 + T_{it}\, \gamma_5 + Y_{it-1}\, \gamma_6 + n_i\, \gamma_7 + X_{it}\, \gamma_8 + \mu_{it} \qquad (2)$$

where Θ is a lagged binary measure[7] indicating whether the multi-partnered mother receives no child support payments from her other partners. This model tests the theory depicted in section III that the father will raise his transfers when other partners shirk their child support payments. The interaction effect given by γ_4 indicates the effect of other partners' zero transfers

[7] The measure is lagged by one wave to ensure that the focal child's father responds to the other partners' child support delinquency and not vice versa. It is important to note that the mother's other childbearing partners may be responding to the focal father's child support payments (or delinquency) as well.

on the focal father's transfers conditional on the mother's multi-partnered fertility; this I refer to as the *altruistic-father* effect.

To test the effect of multi-partnered fertility ex post on child support transfers, Equation (1) can also be recast as:

$$P(S_{it} = 1 | \cdot) = \lambda_1 \Delta P^{m}_{it} + \lambda_2 \Delta P^{f}_{it} + P^{m1}_{it}\,\alpha_1 + P^{f1}_{it}\,\alpha_2 + T_{it}\,\alpha_3 + Y_{it-1}\,\alpha_4 + n_i\,\alpha_5 + X_{it}\,\alpha_6 + \epsilon_{it} \quad (3)$$

where ΔP denotes whether a parent has had at least one child with a different partner since the focal child's birth or new multi-partnered fertility. P^{m1}, P^{f1} are vectors of the number of children the parent had with a different partner by the first follow-up interview. Therefore, while Equation (1) measures the overall multi-partnered fertility effect, Equation (3) attempts to capture the effect of new multi-partnered fertility or subsequent families on child support transfers.

Since S_{it} represents binary outcomes, both OLS and logistic regression[8] models are useful in estimating equations (1), (2) and (3). However, it does not effectively address sources of bias plaguing the model. Unobserved characteristics that cause childbearing with multiple partners may also influence child support payments, resulting in omitted variable bias. It is important to note that these unobserved factors may be both time-invariant (such as ability, values and preferences) and time-variant (such as the propensity to allow free-riding and willingness to pay child support).

I employ fixed effects estimation to eliminate time-invariant unobserved heterogeneity. Equation (1) can therefore be recast as a time-demeaned equation given by:

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[8] For the logistic regression model: $P(S_{it} = 1 | z) = G(z)$ where $G(z) = \frac{\exp(z)}{1+\exp(z)}$.

$$P(\dot{S}_{it} = 1 | \cdot) = \dot{P}^{m}_{it}\, \omega_1 + \dot{P}^{f}_{it}\, \omega_2 + \dot{T}_{it}\, \omega_3 + \dot{Y}_{it-1}\, \omega_4 + \dot{n}_{i}\, \omega_5 + \dot{X}_{it}\, \omega_6 + \dot{e}_{it} \qquad (4)$$

where all variables are time-demeaned.

However, estimating equation (4) by pooled OLS may not be sufficient to deal with omitted variable bias from time-varying unobserved factors. In addition, an underlying simultaneous relationship (i.e. reverse causal relationship) between child support and multi-partnered fertility may exist since the father's child support obligations possibly influence the fertility behavior of either parent ex post. Both omitted variable bias and simultaneity are expected to downward bias estimated effects of multi-partnered fertility.

Another area of concern, specific to these data, is measurement error in the multi-partnered fertility measures. It is entirely possible that the number of children a parent has with multiple partners is underreported. Since the analysis sample is restricted to non-coresiding parents, children with additional partners ex post may be unknown in many instances (especially for non-resident fathers). This creates non-classical measurement error which may either amplify or attenuate the estimated effects of multi-partnered fertility (Haider and Solon, 2006). Likewise, there were several inconsistencies in the reports of the number of children a parent had with a different partner. Some parents reported fewer multi-partnered children in later waves than they had reported in earlier waves. As such, measurement error in the multi-partnered fertility measures may generate biased results if not effectively addressed[9].

A single solution to time-variant and time-invariant unobserved heterogeneity, reverse causality and measurement error in the model is the *two-stage least squares* (2SLS) estimation.

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[9] To deal with these inconsistencies, I replace values of later waves with values of earlier waves if parents' report having more children in earlier waves than in later waves. While it is possible that parents may have lost a child due to death, this should only be a negligible percentage relative to the number of inconsistencies in the multi-partnered fertility measures (about 4% of the analysis sample). Results are not statistically different if these inconsistent reports are excluded from the analysis sample altogether.

2SLS will need at least as many instruments as there are endogenous regressors in the model in order to identify the exogenous impacts of parents' multi-partnered fertility on child support transfers. For simplicity, I construct two binary indicators for male and female multi-partnered fertility equal to 1 if the parent has at least one child with a different partner and equal to 0 otherwise. Therefore, two instrumental variables are required for the model to be identified. In 2SLS estimation, an instrumental variable must explain the endogenous regressor without being correlated with the outcome other than through the said endogenous regressor. I propose as instrumental variables for male and female multi-partnered fertility, sex ratios as well as the prevalence of HIV/AIDS and other sexually transmitted diseases (STDs)[10].

The sex-ratio as a determinant of multi-partnered fertility is based on the theory by Cox (1940) that the ratio of men to women in a geographical area significantly impacts the percentage of individuals who can marry; this also varies drastically by racial-ethnic group. Harknett and McLanahan (2004) add that these marriage market conditions significantly influence the search for mates and subsequently marriage; this is clearly observed among Blacks since Black females significantly outnumber Black males in many geographical areas. In cities and racial-ethnic groups where there is an imbalanced sex-ratio in favor of males (i.e. more females to each unmarried male), men can choose to forego marriage and maximize childbearing with as many women as possible (Willis, 1999). In this way, sex-ratios help determine male multi-partnered fertility and subsequently female multi-partnered fertility because women will have more unstable unions.

With these issues in mind, I construct a sex-ratio indicator such that racially endogamous parents (i.e. parents of the same race-ethnic group) are assigned the race-specific sex ratio for

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[10] For this study, STD prevalence is restricted to the following diseases: Gonorrhea, Syphilis and Chlamydia. The data were retrieved from the Centers for Disease Control and Prevalence (CDC).

their city[11]. For instance, Black parents from Newark are assigned the ratio of Black males to Black females in the city of Newark. However, by constructing the measure in this way, inter-racial couples would be excluded from the analysis. Research has shown that inter-racial unions are largely linked to socio-economic and cultural resources and are consequently, not randomly formed (Kalmijn, 1998; Zhang & Hook, 2009). Excluding these couples from the analysis would therefore introduce bias into the 2SLS model. To address this problem, I assign to interracial couples the mother's race-specific sex-ratio for her city. The sex-ratio indicator is assumed to explain multi-partnered fertility, remain uncorrelated with the error term and only explain child support transfers through fertility decisions. On average, the sex-ratio indicator is 0.91 (s.d. = 0.17) in the FFCWS sample, indicating a shortage of men in general.

HIV/AIDS and STD prevalence by city and race/ethnicity may also help determine multi-partnered fertility. I hypothesize that as HIV/AIDS and STD cases rise, individuals will perceive it to be more risky to engage in sexual relations (without condoms) with more than one partner. As a result, the prevalence of HIV/AIDS and other STDs are expected to be negatively associated with the number of sexual partners and subsequently, multi-partnered fertility. A positive relationship between multi-partnered fertility and sexually transmitted diseases may also exist if HIV/AIDS and other STDs induce higher relationship instability. I construct annual HIV/AIDS rates for each FFCWS city and by racial-ethnic group. These rates are assigned in the analysis sample based on the mother's city and her race/ethnicity. In addition, I construct annual STD rates for each of the fifteen states sampled by the FFCWS[12] as well as by racial-ethnic

[11] The cities sampled by the FFCWS are the the cities where focal children were born. There are no available data on either parent's current city. The data on sex-ratios were retrieved from the 2000 Census (Harknett & McLanahan, 2004).

[12] There are twenty cities and fifteen states sampled by the FFCWS: Indianapolis, IN; Austin, TX; Boston, MA; Santa Ana, CA; Richmond, VA; Corpus Christi, TX; Toledo, OH; New York, NY; Birmingham, AL; Pittsburgh,

group. These rates are assigned in the analysis sample based on the mother's state and her race/ethnicity. I argue that HIV/AIDS and STD prevalence will only influence child support transfers through parents' fertility once child, parental and state-specific controls are accounted for in the model. The average aids rate in the analysis sample is approximately 20 per 100,000 persons. (See Appendix B for the summary means of the other HIV/AIDS and STD rates).

The first-stage regressions for female and male multi-partnered fertility are:

$$P^{f}_{it} = T_{it}\,\theta_1 + Y_{it-1}\,\theta_2 + n_i\,\theta_3 + X_{it}\,\theta_4 + \pi\,SR_i + H_{it}\rho + v_{1it} \qquad (5)$$

$$P^{m}_{it} = T_{it}\,\varphi_1 + Y_{it-1}\,\varphi_2 + n_i\,\varphi_3 + X_{it}\,\varphi_4 + \kappa\,SR_i + H_{it}\,\rho + v_{2it} \qquad (6)$$

where *SR* denotes the sex-ratio indicator and *H* is the vector of HIV/AIDS and STD rates. After both (5) and (6) are estimated, the predicted values for P^f and P^m (Π^f and Π^m) are plugged into the second-stage regression,

$$S_{it} = \varsigma_1\,\Pi^{f}_{it} + \varsigma_2\,\Pi^{m}_{it} + T_{it}\,\psi_1 + Y_{it-1}\,\psi_2 + n_i\,\psi_3 + X_{it}\,\psi_4 + \xi_{it} \qquad (7)$$

where ς_1 and ς_2 denote the unbiased 2SLS estimators of parents' multi-partnered fertility. For 2SLS, the dependent outcome S denotes any formal or informal child support transfers received.

V. Description of Variables and Summary Statistics

To test the relationship between parents' multi-partnered fertility and child support transfers, I define binary indicators for formal and informal child support transfers separately. For formal transfers, there are two binary indicators (N = 1795): (1) Set equal to 1 if the agreed upon payment was paid in full and 0 if partial or no payments were made; (2) Set equal to 1 if any payments were made and 0 if no payments were made. These indicators are conditional on having a formal child support agreement. For informal child support transfers (N = 2700), I

PA; Nashville, TN; Norfolk, VA; Jacksonville, FL; San Antonio, TX; Philadelphia, PA; and Chicago, IL; Newark, NJ; Oakland, CA; Detroit, MI; and San Jose, CA.

construct a binary indicator equal to 1 if any payments were made and equal to 0 if no payments were made. The informal child support indicator is conditioned on *not* having a formal child support agreement. Finally, I construct a binary indicator equal to 1 if any formal or informal transfers were made and equal 0 if no child support transfers were made (N = 4495). The total analysis sample consists of 2,166 focal children in the 4,495 child-year observations.

To take advantage of the rich fertility data provided by FFCWS, I utilize different indicators of multi-partnered fertility based on the empirical model being used. First, to estimate equations (1), (2) and (4), I define a set of four binary indicators to measure each parent's multi-partnered fertility. These indicators are set equal to 1 if the parent had 0, 1, 2 or 3-plus children with a different partner and 0 otherwise; the reference category is the indicator for 0 children with a different partner or single-partnered fertility. Second, to estimate equation (3), I define a binary indicator equal to 1 if a parent had a least one child with a different partner since the focal child's birth (i.e. subsequent families) and 0 otherwise. Finally, for the 2SLS equations (5) – (7), I construct two binary indicators for parents' multi-partnered fertility set equal to 1 if a parent has at least one child with a different partner and equal to 0 if the parent has no children with a different partner (i.e. the parent only has children with the other focal parent). Since there must be at least one instrumental variable per endogenous regressor, this ensures that the model is identified.

To measure state child support enforcement, I construct an annual index for state child support performance under the guidelines of the Child Support Performance and Incentive Act of 1998 (CSPIA). I use the methodology formulated by Huang and Edwards (2009) to create this index. On five key areas of performance – paternity establishment, establishment of child support orders, collection of current child support orders, collection of child support in arrears

and cost effectiveness of the current enforcement system – Huang and Edwards (2009) rates the efficacy of each state's child support system. Like Huang and Edwards, I standardize the scores of each of the five performance categories for all fifteen states sampled in the FFCWS from 1999 to 2006; I then create an index by summing the means of the five standardized scores. As a second measure of child support enforcement, I use standardized child support enforcement expenditures per capita for each state. The other state-specific variables – male and female wages and TANF benefit levels for a family of three – are also year-specific and are constructed for years 1999 to 2006[13].

Summary Statistics

Table 1 presents the summary statistics of the main variables used in the regression models[14]. Within the analysis sample, 40% of focal children have formal child support orders. Of these, approximately 30% of non-custodial fathers are fully compliant while just over 60% of non-custodial fathers make at least some formal child support payments. For those children without child support orders, nearly 50% of non-custodial fathers make informal monetary payments. 55% of all non-custodial fathers make either formal or informal transfers in total.

Concerning multi-partnered fertility, nearly half of mothers and almost 60% of fathers in the analysis sample have children with more than one partner. However, about half of multi-partnered mothers and about 40% of multi-partnered fathers have only one child with a different partner. The summary statistics also show that parents in the analysis sample are largely disadvantaged. Approximately 75% of mothers have high school diplomas or less. In addition, mothers earn on average about $10,000 annually and fathers earn about $20,000 annually; approximately 40% of mothers were on welfare. Approximately 65% of non-custodial fathers

[13] TANF benefits for a family of three were constructed for 1999 to 2005 based on data availability.
[14] Refer to the Appendix for summary statistics of variables used only in the nuanced versions of the model.

made contributions (in-cash or in-kind) to the mother while she was pregnant with the focal child and 16% of fathers even suggested the mother have an abortion.

In Table 2, summary means and standard deviations are presented for dependent and independent variables by parent's multi-partnered fertility status. Relative to single-partnered parents, children of multi-partnered parents receive significantly less formal and informal transfers. Only half of children whose parents engage in multi-partnered fertility receive any formal or informal transfers compared to two-thirds of children whose parents are single-partnered. Multi-partnered mothers overwhelmingly have lower education and higher welfare participation. Multi-partnered fathers are also characterized by lower education, lower earnings and higher incidence of welfare participation. These preliminary findings suggest that multi-partnered fertility is not only associated with lower formal and informal child support transfers but also more disadvantaged situations. Subsequently, treating multi-partnered fertility as exogenous in the model is indeed erroneous.

VI. Results

First, I estimate the model given by equation (1). Column (1) in Table 3 presents OLS estimates for any child support transfers. From column (1), the probability of receiving any formal or informal transfers falls by approximately 5 percentage points when a mother has one child with a different partner. However, the likelihood of receiving any transfers falls by approximately 18 percentage points as the number of children the mother has with another partner rises to three or more. Similarly, the probability of receiving any transfers falls by 11 percentage points and 16 percentage points respectively, when the number of children a father has with more than one partner increases from one to three-plus. The logit estimates given in Column (2) are similar to the OLS estimates and therefore reinforce the findings of the linear

probability model. The probability of receiving any transfers is lower by 6 percentage points if a mother has one child with another partner. However, the probability of receiving any transfers declines by about 20 percentage points when a mother has three or more children with a different partner. The probability of giving any formal or informal transfers to the focal child declines by about 12 percentage points if a father has only one child with a different partner; by having three or more children with another partner, this leads to a decline of approximately 18 percentage points.

Table 4 – 6 show OLS and logit estimates for formal (full or any) and informal child support payments separately. These results also indicate that there is a decline in the probability of receiving formal and informal transfers as the number of children parents have with more than one partner rises. These findings (along with the large F-statistics) confirm the theory that both male and female multi-partnered fertility should negatively impact child support transfers. The mechanisms discussed in section II and III such as diminishing marginal utility, asymmetric information, relationship quality and the free-rider problem are all possibly at work to produce these adverse relationships. Notwithstanding, the estimated effects of female multi-partnered fertility are not as robust as the estimated effects of male multi-partnered fertility, which may be attributed to the positive altruistic-father effect competing with the other mechanisms.

Nuanced Models

To test whether the altruistic-father hypothesis (depicted in section III) is at work, I estimate equation (2), which accounts for child support payment delinquency of the mother's other partners. From Table 7, the findings suggest that child support transfers to the focal child decline even when the mother's other childbearing partners shirk their child support obligations. Therefore, within the context of female multi-partnered fertility, the altruistic-father hypothesis

does not hold where the non-custodial father increases his transfers to offset the mother's diminished resources. Other mechanisms such as relationship quality and asymmetric information potentially dominate the effect of female multi-partnered fertility on child support transfers.

To show the effect of parents' multi-partnered fertility ex post, I estimate equation (3) using the logistic regression. Table 8 has two sets of multi-partnered fertility indicators: the first set shows new multi-partnered fertility since the birth of the focal child or subsequent families; the second set of indicators shows parents' initial level of multi-partnered fertility. This specification allows us to observe whether multi-partnered fertility ex post affects child support contributions conditional on initial-level multi-partnered fertility. Table 8 results indicate that acquiring subsequent families lowers the probability of receiving formal and/or informal child support transfers holding initial-level multi-partnered fertility constant.

Table 3 – 6 present fixed effect (FE) estimates of equation (4) in order to address unobserved heterogeneity plaguing the model. The results show robust and substantial adverse effects of both male and female multi-partnered fertility on receiving any transfers as well as informal transfers. It is important to caution however, that FE does not address the time-varying unobserved characteristics that may bias the multi-partnered fertility estimates. Salient unobserved factors such as a mother's propensity to allow free-riding and father's willingness to pay child support may vary over time. Subsequently, the two-stage least squares (2SLS) model is more appropriate when dealing with both time-variant and time-invariant unobserved heterogeneity as well as biases from simultaneity and measurement error.

Two-Stage Least Squares (2SLS) Model

In Tables 9 and 10, I estimate equations (5) – (7) using the 2SLS procedure to correct for biases from unobserved heterogeneity, simultaneity and measurement error and thus establish causality. OLS estimates in Table 9 column (3) indicate that the likelihood of receiving child support transfers is lower by 7 and 12 percentage points for multi-partnered mothers and fathers respectively. After correcting for potential biases however, 2SLS estimates in column (4) confirm that male multi-partnered fertility has a robust adverse impact on receiving any child support transfers. By contrast, the impact of female multi-partnered fertility on transfers is not statistically different from zero. Correcting for biases from omitted variables, simultaneity and measurement error using 2SLS yields more consistent (though less efficient) results relative to the simple regression model. The robust regression-based test of endogeneity rejects the null hypothesis that male and female multi-partnered fertility are exogenous in the model. Further, the first-stage regressions for male and female multi-partnered fertility (from equations 5 and 6) shown in columns (1) and (2) both surpass the Stock and Watson threshold for weak instrument bias (i.e. the first-stage F-statistics are greater than 10). Hence, the 2SLS model provides strong evidence that male multi-partnered fertility yields a decline in the probability of receiving any formal or informal child support transfers.

Other Findings

There are other interesting findings from the regression models that have strong theoretical implications. First, logit regressions indicate that there is a positive impact of a father's earnings on the probability of receiving formal and/or informal child support transfers. By contrast, being a mother on welfare is associated with a lower probability of receiving formal and/or informal child support transfers. These empirical findings reinforce the model presented in section III that

non-custodial fathers will continue to make positive transfers when their resources are sufficiently high or the mother's resources are sufficiently low. Black mothers are also more likely to receive informal transfers relative to white mothers. Fathers who have married a new partner since the birth of the focal child are more likely to make formal child support payments but less likely to make informal child support payments.

There were some puzzling findings in this study as well. Male children are significantly less likely to receive formal child support transfers. In addition, the probability of receiving formal child support transfers decline as the number of children parents have together increase. These findings may be attributed to the selection effect induced by the sample restriction of non-marital children only. Non-custodial fathers may hence place a lower value on non-marital children relative to children conceived within marriage.

Sensitivity Checks

Combining mother and father reports on child support transfers may introduce non-response bias into the model – fathers who actually provide interviews in the FFCWS are inherently different from those who were not interviewed (Nepomnyaschy, 2009). My assumption that measurement error in the dependent outcomes is unrelated to the independent variables may therefore be incorrect. To see how sensitive my results are to combining mother and father reports, I re-do all analyses using only the mother's child support responses. The results (available upon request) are statistically similar in all respects to the original findings presented.

In addition, by using all independent variables in the 2SLS model, there may be further bias if some control variables are not exogenous. Variables such as lagged income and welfare, parents married to new partners, contributions during pregnancy, father's abortion preferences and the number of children parents have together, may all be correlated with the error term. In

addition, since the the instruments are either city or state-specific, they may be correlated with other unobserved factors that also vary at the city or state level such as policy regimes and crime rates. These unobserved factors may simultaneously impact multi-partnered fertility behavior as well as child support payments, rendering the instruments invalid. With these caveats in mind, I re-ran the 2SLS model controlling for only child and parental demographic characteristics as well as city fixed effects. The results shown in Table 10 corroborate the original 2SLS findings presented in Table 9. Moreover, the test for over-indentifying restrictions was easily passed suggesting that the instruments are indeed exogenous[15].

VII. Summary and Policy Recommendations

This study is aimed at investigating child support transfers to children of complex families. In the United States, parents having children with multiple partners are on the rise, particularly among low-income and unmarried parents. As such, this calls for a more profound look at how children fare under these circumstances. The Fragile Families and Child Wellbeing Study (FFCWS) provides an ideal dataset with which to answer this research question because a large percentage of the sample population consists of low-income unmarried parents. This dataset is especially advantageous since it offers child support information on not only families with formal child support awards but informal child support arrangements as well, allowing for a much richer analysis of the research problem.

The study finds that even after after accounting for child, parental and state-specific characteristics in the logistic regression model, the adverse effects of both male and female multi-partnered fertility remain robust and substantial for formal, informal and any transfers.

[15] It is important to caution that the test for over-identifying restrictions assumes that at least one of the instrumental variables is exogenous.

This general finding builds on Nepomnyaschy & Garfinkel (2010) by showing robust multi-partnered fertility effects on formal child support transfers. Moreover, the study finds other significant and nuanced results not yet shown in the literature. The probability of receiving formal, informal and any child support contributions falls as the number of children parents have with more than one partner rises. The probability of receiving formal, informal and any child support transfers also declines when parents acquire subsequent families since the birth of the focal child. In addition, the study finds a robust positive relationship between child support payment delinquency of the focal child's father and that of the mother's other partners; this implies that underlying mechanisms such as relationship quality and asymmetric information potentially dominate the female multi-partnered fertility effect.

To establish causality, I exploit 2SLS estimation to address econometric concerns such as reverse causality, measurement error and unobserved heterogeneity. The findings from 2SLS indicate that male multi-partnered fertility significantly lowers the probability of receiving any child support transfers. However, there is no conclusive effect of female multi-partnered fertility on child support transfers, thus underscoring the findings of Meyer et al. (2005).

In view of the fact that the father's ability to pay child support (i.e. his income) is controlled for in the model, the adverse relationship between male multi-partnered fertility and child support transfers is primarily explained by the non-custodial father's general unwillingness to make child support transfers. He may be unwilling to pay child support due to diminishing marginal utility, asymmetric information or diluted resources as detailed in sections II and III. Interestingly, state child support enforcement is clearly not sufficient to override unwillingness to pay child support when fathers engage in multi-partnered fertility.

Policy Recommendations

The findings of this study underscore the need for child support policies that specifically target children in complex family structures. An effective system for collecting child support is critically important given that multi-partnered fertility is linked to higher child support payment delinquency (Brito, 2005; Meyer et al., 2005). In addition, programs that encourage family planning may also help allay multi-partnered fertility among non-marital families. Finally, strategies that enhance employment opportunities for males would be beneficial to children of complex families because higher earnings lead to higher transfers from non-custodial fathers.

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Table 1. Summary Statistics

Variable	Mean	SD	Min	Max
Formal Agreement [N = 4495]	0.40	0.49	0	1
Formal Child Support (Full) [N=1795]	0.28	0.45	0	1
Formal Child Support (Any) [N=1795]	0.64	0.48	0	1
Informal Child Support (Any) [N=2700]	0.50	0.50	0	1
Any Formal or Informal Transfers [N=4495]	0.55	0.50	0	1
Multi-Partnered Fertility (MPF)				
Mother has no children w.o.p.[16] (Reference)	0.48	0.50	0	1
Mother has 1 child w.o.p.	0.26	0.44	0	1
Mother has 2 children w.o.p.	0.14	0.35	0	1
Mother has 3-plus children w.o.p.	0.12	0.32	0	1
Father has no children w.o.p. (Reference)	0.39	0.49	0	1
Father has 1 child w.o.p.	0.25	0.43	0	1
Father has 2 children w.o.p.	0.18	0.38	0	1
Father has 3-plus Children w.o.p.	0.18	0.39	0	1
Other Independent Variables				
Child is Male	0.53	0.50	0	1
Mother's Age at Birth	23.54	5.53	14	47
Father's Age at Birth	26.24	6.74	15	65
HS Dropout	0.39	0.49	0	1
High School (HS)	0.35	0.48	0	1
Some College	0.23	0.42	0	1
College	0.03	0.17	0	1
Father has Different Educ.	0.50	0.50	0	1
Mother is White	0.13	0.33	0	1
Mother is Black	0.66	0.47	0	1
Mother is Hispanic	0.21	0.41	0	1
Father is of Different Race	0.12	0.32	0	1
Mother Remarried	0.04	0.20	0	1
Father Remarried	0.07	0.26		
Number of Kids together	1.59	0.93	1	10
Father Contributed during Pregnancy	0.64	0.48	0	1
Father Suggested Abortion	0.16	0.36	0	1
CSE Index	-0.03	0.45	1.2	0.97

[16] w.o.p – with other partner/s

CSE Expenditure per Capita (std.)	0.03	0.92	-1.7	2.45
State Female Wages	711.89	68.52	548	860
State Male Wages	560.20	56.47	444	705
TANF Benefits	426.27	154.36	185	704
Mother's Earnings (Annual) – Lagged	10149.88	14503.80	0	160000
Father's Earnings (Annual) – Lagged	20055.20	22524.86	0	230000
Mother is on Welfare – Lagged	0.40	0.49	0	1

The sample is restricted to unmarried parents at the time of the focal child's birth who are neither married nor cohabiting in subsequent interviews; in addition, the focal child is living with the mother all or most of the time. N denotes child-years. Number of child-years for independent variables = 4844.

Table 2. Variables by Parents' Multi-Partnered Fertility (MPF)

	N = 2495		**N = 1110**		**N = 2946**	
	MPF – Mother		NO MPF		MPF – Dad	
	Mean	SD	Mean	SD	Mean	SD
Child Support Measures						
Formal Transfers (Full)	0.25	0.43	0.38	0.49	0.25	0.43
Formal Transfers (Any)	0.61	0.49	0.71	0.46	0.61	0.49
Informal Transfers (Any)	0.43	0.50	0.64	0.48	0.42	0.49
Any Formal or Informal Transfers	0.50	0.50	0.67	0.47	0.50	0.50
MPF Measures						
Mother has 0 children w.o.p.[17]			0.46	0.50	0.42	0.49
Mother has 1 child w.o.p.	0.50	0.50	0.25	0.43	0.28	0.45
Mother has 2 children w.o.p.	0.28	0.45	0.16	0.36	0.16	0.37
Mother has 3-plus children w.o.p.	0.22	0.42	0.13	0.34	0.14	0.34
Father has 0 children w.o.p.	0.32	0.46				
Father has 1 child w.o.p.	0.25	0.43	0.43	0.50	0.40	0.49
Father has 2 children w.o.p.	0.20	0.40	0.29	0.45	0.29	0.46
Father has 3-plus Children w.o.p.	0.23	0.42	0.28	0.45	0.30	0.46
Independent Variables						
Child is Male	0.54	0.50	0.52	0.50	0.52	0.50
Mother's Age at Birth	25.09	5.84	21.15	4.02	24.17	5.69
Father's Age at Birth	27.60	7.17	23.18	4.85	27.56	7.03
Number of Kids together	1.63	0.94	1.57	0.95	1.60	0.92
Mother married new partner	0.06	0.23	0.02	0.15	0.05	0.21

[17] w.o.p. – with other partner/s

Father married new partner	0.09	0.29	0.03	0.16	0.10	0.30
Mother is White	0.10	0.30	0.18	0.38	0.11	0.31
Mother is Black	0.72	0.45	0.58	0.49	0.69	0.46
Mother is Hispanic	0.18	0.39	0.25	0.43	0.20	0.40
Father is of Different Race	0.11	0.31	0.12	0.32	0.12	0.33
HS Dropout	0.43	0.49	0.39	0.49	0.39	0.49
High School (HS)	0.37	0.48	0.30	0.46	0.37	0.48
Some College	0.19	0.39	0.27	0.44	0.22	0.42
College	0.02	0.14	0.04	0.20	0.03	0.16
Father has Different Educ.	0.51	0.50	0.50	0.50	0.50	0.50
CSE Index	-0.03	0.44	-0.06	0.46	-0.03	0.45
CSE Expenditures per Capita	0.06	0.91	-0.01	0.96	0.03	0.91
State Female Wages	6.57	0.10	6.55	0.10	6.57	0.10
State Male Wages	6.33	0.10	6.31	0.10	6.33	0.10
TANF Benefits	6.00	0.39	5.95	0.40	5.99	0.39
Father Contributed during Preg.	0.64	0.48	0.69	0.46	0.61	0.49
Father Suggested Abortion	0.16	0.37	0.15	0.36	0.17	0.38
Mother's Earnings – Lagged	9442.53	14233.00	9062.67	12902.30	10714.60	15036.74
Father's Earnings – Lagged	19264.3	22155.43	20299.47	21212.97	20122.30	23263.70
Mother is on Welfare – Lagged	0.47	0.50	0.32	0.47	0.41	0.49

The sample is restricted to unmarried parents at the time of the focal child's birth who are neither married nor cohabiting in subsequent interviews; in addition, the focal child is living with the mother all or most of the time. N denotes child-years. Number of focal children = 1244 for mother's MPF subsample; Number of focal children = 695 for no MPF subsample; Number of focal children = 1483 for father's MPF subsample.

Table 3. OLS, Logit and FE Estimates of the Effect of MPF on Receiving Any Transfers

	(1)	(2)	(3)
VARIABLES	Any Transfers OLS	Any Transfers Logit	Any Transfers FE
Mom – 1 child w.o.p.[18]	-0.054***	-0.241***	-0.083*
	(0.021)	(0.091)	(0.043)
Mom – 2 children w.o.p.	-0.046*	-0.205*	-0.082
	(0.025)	(0.111)	(0.057)
Mom – 3-plus children w.o.p.	-0.184***	-0.819***	-0.051
	(0.028)	(0.129)	(0.074)
Dad – 1 children w.o.p	-0.105***	-0.470***	-0.069**
	(0.020)	(0.091)	(0.035)
Dad – 2 children w.o.p.	-0.094***	-0.420***	0.005
	(0.023)	(0.105)	(0.044)
Dad – 3-plus children w.o.p.	-0.162***	-0.724***	-0.032
	(0.024)	(0.107)	(0.049)
F-Statistic	*18.16****	*100.93****	*1.51*
Child is Male	-0.015	-0.070	
	(0.016)	(0.074)	
Mother's Age at Birth	0.003	0.012	
	(0.002)	(0.009)	
Father's Age at Birth	0.005***	0.021***	
	(0.002)	(0.007)	
# of Kids together	-0.010	-0.046	0.010
	(0.009)	(0.039)	(0.022)
Mother married new partner	0.021	0.099	-0.025
	(0.041)	(0.189)	(0.049)
Father married new partner	0.043	0.192	0.047
	(0.029)	(0.129)	(0.032)
Mother is Black	0.056**	0.253**	
	(0.028)	(0.126)	
Mother is Hispanic	-0.014	-0.060	
	(0.031)	(0.138)	
Father – Diff. Race	-0.022	-0.100	
	(0.027)	(0.120)	
HS Dropout	-0.014	-0.061	
	(0.020)	(0.087)	
Some College	0.074***	0.340***	
	(0.023)	(0.104)	
College	0.096**	0.488*	
	(0.048)	(0.257)	

[18] w.o.p. – with other partner/s

Father – Diff. Educ	-0.012	-0.058	
	(0.017)	(0.075)	
CSE Index	0.004	0.018	0.075
	(0.018)	(0.082)	(0.046)
CSE Expenditure	0.002	0.007	
	(0.013)	(0.061)	
Male Wages (log)	0.108	0.497	-0.617*
	(0.162)	(0.722)	(0.325)
Female Wages (log)	-0.458***	-2.077***	-0.670**
	(0.151)	(0.676)	(0.296)
TANF Benefits (log)	0.001	0.003	-0.091
	(0.037)	(0.165)	(0.199)
Contributed during Pregnancy	0.208***	0.906***	
	(0.018)	(0.082)	
Dad suggest Abortion	0.034	0.152	
	(0.024)	(0.109)	
Mother's Earnings – Lagged	0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)
Father's Earnings – Lagged	0.000***	0.000***	-0.000
	(0.000)	(0.000)	(0.000)
Mother on Welfare – Lagged	-0.065***	-0.285***	-0.029
	(0.016)	(0.073)	(0.022)
Log-Likelihood Value	-	-2850.30	-
Pseudo R^2	0.10	0.08	0.03
No. of Focal Children	2166	2166	2166
N = Child-Years	4495	4495	4495

Robust-clustered standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The analysis sample is restricted to parents unmarried at the time of the focal child's birth who are neither married nor cohabiting ex post; mothers must also be living with the focal children all or most of the time.

Table 4. OLS, Logit and FE Estimates of the Effect of MPF on Formal (Full) Transfers

	(1)	(2)	(3)
VARIABLES	Formal(Full) OLS	Formal(Full) Logit	Formal(Full) FE
Mom – 1 child w.o.p.[19]	-0.029	-0.161	-0.085
	(0.027)	(0.144)	(0.080)
Mom – 2 children w.o.p.	-0.050	-0.270	-0.014
	(0.035)	(0.190)	(0.094)
Mom – 3-plus children w.o.p.	-0.141***	-0.878***	0.068
	(0.038)	(0.256)	(0.093)
Dad – 1 children w.o.p	-0.078***	-0.393***	0.067
	(0.028)	(0.144)	(0.063)
Dad – 2 children w.o.p.	-0.106***	-0.575***	-0.037
	(0.032)	(0.176)	(0.082)
Dad – 3-plus children w.o.p.	-0.155***	-0.903***	0.015
	(0.033)	(0.197)	(0.095)
F-Statistic	*6.16****	*33.65****	*1.12*
Child is Male	-0.080***	-0.438***	
	(0.022)	(0.118)	
Mother's Age at Birth	-0.001	-0.008	
	(0.003)	(0.016)	
Father's Age at Birth	0.011***	0.061***	
	(0.002)	(0.012)	
# of Kids together	-0.031***	-0.179**	-0.087**
	(0.012)	(0.077)	(0.037)
Mother married new partner	0.020	0.132	-0.004
	(0.047)	(0.251)	(0.084)
Father married new partner	0.090**	0.467***	0.086*
	(0.037)	(0.181)	(0.051)
Mother is Black	-0.003	0.002	
	(0.038)	(0.193)	
Mother is Hispanic	0.051	0.284	
	(0.042)	(0.213)	
Father – Diff. Race	-0.040	-0.208	
	(0.040)	(0.216)	
HS Dropout	0.006	0.026	
	(0.026)	(0.146)	
Some College	0.035	0.180	
	(0.031)	(0.157)	
College	0.042	0.157	
	(0.081)	(0.397)	

[19] w.o.p. – with other partner/s

Father – Diff. Educ	-0.036	-0.210*	
	(0.022)	(0.120)	
CSE Index	0.031	0.157	0.099
	(0.029)	(0.158)	(0.091)
CSE Expenditure	0.000	-0.008	
	(0.017)	(0.092)	
Male Wages (log)	0.695***	3.805***	0.409
	(0.228)	(1.262)	(0.512)
Female Wages (log)	-0.733***	-4.195***	-0.982**
	(0.209)	(1.174)	(0.484)
TANF Benefits (log)	-0.005	0.023	-0.046
	(0.049)	(0.262)	(0.299)
Contributed during Pregnancy	0.066***	0.384***	
	(0.025)	(0.140)	
Dad suggest Abortion	-0.027	-0.170	
	(0.034)	(0.198)	
Mother's Earnings – Lagged	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)
Father's Earnings – Lagged	0.000***	0.000***	0.000
	(0.000)	(0.000)	(0.000)
Mother on Welfare – Lagged	-0.087***	-0.492***	-0.012
	(0.023)	(0.130)	(0.035)
Log-Likelihood Value	-	-979.92	-
Pseudo R^2	0.09	0.08	0.04
No. of Focal Children	1021	1021	1021
N = Child-Years	1795	1795	1795

Robust-clustered standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The analysis sample is restricted to parents unmarried at the time of the focal child's birth who are neither married nor cohabiting ex post; mothers must also be living with the focal children all or most of the time.

Table 5. OLS, Logit and FE Estimates of the Effect of MPF on Formal (Any) Transfers

	(1)	(2)	(3)
VARIABLES	Formal(Any) OLS	Formal(Any) Logit	Formal(Any) FE
Mom – 1 child w.o.p.[20]	-0.002	-0.006	-0.128
	(0.031)	(0.148)	(0.080)
Mom – 2 children w.o.p.	-0.030	-0.166	-0.014
	(0.037)	(0.179)	(0.098)
Mom – 3-plus children w.o.p.	-0.178***	-0.831***	-0.139
	(0.046)	(0.208)	(0.108)
Dad – 1 children w.o.p	-0.087***	-0.414***	-0.032
	(0.031)	(0.145)	(0.055)
Dad – 2 children w.o.p.	-0.050	-0.223	0.051
	(0.034)	(0.168)	(0.081)
Dad – 3-plus children w.o.p.	-0.146***	-0.689***	0.076
	(0.038)	(0.180)	(0.108)
F-Statistic	*6.18****	*35.90****	*1.05*
Child is Male	-0.069***	-0.337***	
	(0.025)	(0.123)	
Mother's Age at Birth	0.002	0.013	
	(0.003)	(0.016)	
Father's Age at Birth	0.007***	0.032***	
	(0.002)	(0.012)	
# of Kids together	-0.026*	-0.124**	-0.020
	(0.014)	(0.063)	(0.033)
Mother married new partner	0.070	0.360	-0.089
	(0.053)	(0.284)	(0.081)
Father married new partner	0.210***	1.181***	0.125***
	(0.033)	(0.228)	(0.045)
Mother is Black	-0.041	-0.223	
	(0.039)	(0.205)	
Mother is Hispanic	-0.026	-0.150	
	(0.044)	(0.229)	
Father – Diff. Race	-0.040	-0.210	
	(0.043)	(0.212)	
HS Dropout	-0.000	0.008	
	(0.031)	(0.143)	
Some College	0.059*	0.293*	
	(0.033)	(0.167)	
College	0.077	0.552	
	(0.073)	(0.501)	

[20] w.o.p. – with other partner/s

Father – Diff. Educ	0.010	0.051	
	(0.026)	(0.122)	
CSE Index	0.047	0.240	0.096
	(0.031)	(0.149)	(0.087)
CSE Expenditure	-0.010	-0.043	
	(0.020)	(0.097)	
Male Wages (log)	0.121	0.418	-0.313
	(0.265)	(1.244)	(0.522)
Female Wages (log)	-0.278	-1.219	-0.407
	(0.236)	(1.087)	(0.484)
TANF Benefits (log)	-0.009	-0.058	0.066
	(0.057)	(0.270)	(0.285)
Contributed during Pregnancy	0.123***	0.584***	
	(0.029)	(0.133)	
Dad suggest Abortion	-0.013	-0.064	
	(0.037)	(0.175)	
Mother's Earnings – Lagged	0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)
Father's Earnings – Lagged	0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)
Mother on Welfare – Lagged	-0.087***	-0.389***	-0.016
	(0.027)	(0.123)	(0.037)
Log-Likelihood Value	-	-1077.23	-
Pseudo R^2	0.10	0.09	0.03
No. of Focal Children	1021	1021	1021
N = Child-Years	1795	1795	1795

Robust-clustered standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The analysis sample is restricted to parents unmarried at the time of the focal child's birth who are neither married nor cohabiting ex post; mothers must also be living with the focal children all or most of the time.

Table 6. OLS, Logit and FE Estimates of the Effect of MPF on Informal (Any) Transfers

	(1)	(2)	(3)
VARIABLES	Informal(Any) OLS	Informal(Any) Logit	Informal(Any) FE
Mom – 1 child w.o.p.[21]	-0.086***	-0.403***	-0.089
	(0.026)	(0.119)	(0.055)
Mom – 2 children w.o.p.	-0.064**	-0.293**	-0.214***
	(0.031)	(0.145)	(0.073)
Mom – 3-plus children w.o.p.	-0.181***	-0.862***	-0.102
	(0.034)	(0.168)	(0.106)
Dad – 1 children w.o.p	-0.128***	-0.586***	-0.155***
	(0.026)	(0.120)	(0.048)
Dad – 2 children w.o.p.	-0.146***	-0.675***	-0.101*
	(0.029)	(0.136)	(0.055)
Dad – 3-plus children w.o.p.	-0.164***	-0.772***	-0.063
	(0.029)	(0.137)	(0.058)
F-Statistic	*15.53****	*86.91****	*3.31****
Child is Male	0.008	0.030	
	(0.020)	(0.095)	
Mother's Age at Birth	0.003	0.015	
	(0.003)	(0.012)	
Father's Age at Birth	0.004**	0.019**	
	(0.002)	(0.009)	
# of Kids together	-0.008	-0.036	0.020
	(0.011)	(0.052)	(0.033)
Mother married new partner	-0.082	-0.431	-0.047
	(0.054)	(0.296)	(0.066)
Father married new partner	-0.127***	-0.638***	-0.042
	(0.037)	(0.197)	(0.043)
Mother is Black	0.156***	0.722***	
	(0.035)	(0.168)	
Mother is Hispanic	0.056	0.253	
	(0.038)	(0.181)	
Father – Diff. Race	-0.014	-0.080	
	(0.032)	(0.149)	
HS Dropout	-0.017	-0.079	
	(0.024)	(0.109)	
Some College	0.072**	0.346**	
	(0.029)	(0.137)	
College	0.122**	0.581**	
	(0.057)	(0.296)	

[21] w.o.p. – with other partner/s

Father – Diff. Educ	-0.025	-0.118	
	(0.021)	(0.097)	
CSE Index	-0.047**	-0.230**	0.055
	(0.021)	(0.101)	(0.061)
CSE Expenditure	0.000	0.004	
	(0.016)	(0.076)	
Male Wages (log)	0.181	0.945	-0.631
	(0.201)	(0.935)	(0.446)
Female Wages (log)	-0.664***	-3.191***	-1.217***
	(0.197)	(0.922)	(0.411)
TANF Benefits (log)	0.032	0.144	-0.330
	(0.044)	(0.206)	(0.261)
Contributed during Pregnancy	0.252***	1.156***	
	(0.022)	(0.106)	
Dad suggest Abortion	0.051*	0.255*	
	(0.029)	(0.138)	
Mother's Earnings – Lagged	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)
Father's Earnings – Lagged	0.000**	0.000**	-0.000
	(0.000)	(0.000)	(0.000)
Mother on Welfare – Lagged	-0.062***	-0.298***	-0.053*
	(0.020)	(0.094)	(0.029)
Log-Likelihood Value	-	-1649.09	-
Pseudo R^2	0.15	0.12	0.12
No. of Focal Children	1570	1570	1570
N = Child-Years	2700	2700	2700

Robust-clustered standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The analysis sample is restricted to parents unmarried at the time of the focal child's birth who are neither married nor cohabiting ex post; mothers must also be living with the focal children all or most of the time.

Table 7. Logit Estimates showing how Child Support Transfers from Other Partners affect Child Support Transfers to the Focal Child ("Altruistic-Father" Effect)

	(1)	(2)	(3)	(4)
VARIABLES	Any Transfers Logit	Formal (Full) Logit	Formal (Any) Logit	Informal (Any) Logit
Mom – 1 child w.o.p.[22]	0.102	-0.037	0.400*	-0.267
	(0.150)	(0.230)	(0.234)	(0.211)
Mom – 2 children w.o.p.	0.012	-0.086	0.211	-0.275
	(0.168)	(0.266)	(0.249)	(0.247)
Mom – 3-plus children w.o.p.	-0.381**	-0.440	-0.555*	-0.310
	(0.182)	(0.335)	(0.284)	(0.261)
Dad – 1 children w.o.p	-0.337***	-0.327*	-0.191	-0.603***
	(0.116)	(0.179)	(0.178)	(0.162)
Dad – 2 children w.o.p.	-0.314**	-0.483**	-0.246	-0.559***
	(0.129)	(0.205)	(0.203)	(0.186)
Dad – 3-plus children w.o.p.	-0.619***	-0.769***	-0.542**	-0.783***
	(0.143)	(0.237)	(0.218)	(0.200)
F-Statistic	*28.81****	*14.13***	*20.29****	*25.45****
Mother's MPF*No Other Child Support	-0.420***	-0.313	-0.425**	-0.429**
	(0.137)	(0.224)	(0.208)	(0.200)
Log-Likelihood Value	-1637.19	-660.12	-715.64	-818.55
Pseudo R^2	0.07	0.08	0.10	0.11
No. of Focal Children	1808	901	901	1028
N = Child-Years	2561	1219	1219	1342

Robust-clustered standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

[22] w.o.p. – with other partner/s

All regressions control for the same variables used in the logistic regression model in Table 3. The analyses samples are restricted to parents unmarried at the time of the focal child's birth who are neither married nor cohabiting ex post; mothers must also be living with the focal children all or most of the time.

Table 8. Logit Estimates of the Effect of Subsequent Families on Child Support Transfers

	(1)	(2)	(3)	(4)
VARIABLES	Any Transfers Logit	Formal (Full) Logit	Formal (Any) Logit	Informal (Any) Logit
Mother has Subsequent Families	-0.228***	-0.345**	-0.188*	-0.302*
	(0.088)	(0.141)	(0.102)	(0.176)
Father has Subsequent Families	-0.116**	-0.258**	-0.124	-0.116*
	(0.047)	(0.131)	(0.076)	(0.065)
Initial MPF				
Mom – 1 child w.o.p.[23]	-0.008	-0.069	0.082	-0.087
	(0.107)	(0.168)	(0.171)	(0.146)
Mom – 2 children w.o.p.	-0.058	-0.262	-0.166	-0.032
	(0.149)	(0.248)	(0.233)	(0.211)
Mom – 3-plus children w.o.p.	-0.681***	-0.911**	-1.076***	-0.416*
	(0.172)	(0.362)	(0.285)	(0.229)
Dad – 1 children w.o.p	-0.292***	-0.550***	-0.362**	-0.267*
	(0.112)	(0.182)	(0.171)	(0.154)
Dad – 2 children w.o.p.	-0.402***	-0.661***	-0.358*	-0.568***
	(0.132)	(0.229)	(0.215)	(0.178)
Dad – 3-plus children w.o.p.	-0.391***	-0.519**	-0.431*	-0.403**
	(0.148)	(0.261)	(0.237)	(0.198)
F-Statistic	*33.76****	*18.68****	*24.28****	*17.21****
Log-Likelihood Value	-1932.91	-725.10	-816.77	-1006.21
Psuedo R^2	0.07	0.10	0.10	0.09
No. of Focal Children	1897	940	940	1143
N = Child-Years	2994	1383	1383	1611

[23] w.o.p. – with other partner/s

Robust-clustered standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

All regressions control for the same variables used in the logistic regression model in Table 3. The analyses samples are restricted to parents unmarried at the time of the focal child's birth who are neither married nor cohabiting ex post; mothers must also be living with the focal children all or most of the time.

Table 9. OLS and 2SLS Estimates of the Effect of MPF on Any Child Support Transfers

	(1)	(2)	(3)	(4)
	First-Stage Regressions			
VARIABLES	Father's MPF	Mother's MPF	OLS	2SLS
Mother's MPF	-	-	-0.073***	0.346
			(0.018)	(0.294)
Father's MPF	-	-	-0.116***	-0.638**
			(0.017)	(0.253)
Instrumental Variables				
Sex-Ratio	-0.025	-0.020		
	(0.091)	(0.095)		
Aids Rate	-0.002***	-0.003***		
	(0.001)	(0.001)		
Aids Rate by Race	-0.011***	-0.004**		
	(0.002)	(0.002)		
STD Rate	0.002	0.008***		
	(0.002)	(0.002)		
STD Rate by Race	0.000	-0.000		
	(0.000)	(0.000)		
1^{st} -Stage F-Statistic	17.31***	10.04***		
Robust Regression F	-	-	-	3.18**
Over-ID $\sim X^2(3)$				2.25
No. of Focal Children	2166	2166	2166	2166
N = Child-Years	4495	4495	4495	4495
R-squared	0.13	0.19	0.10	-

Robust-clustered standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

All regressions control for the same variables used in the logistic regression model in Table 3 – 6. The analysis sample is restricted to parents unmarried at the time of the focal child's birth who are neither married nor cohabiting ex post; mothers must also be living with the focal children all or most of the time. The dependent outcome is any formal or informal child support transfers.

Table 10. OLS and 2SLS Models without Potentially Endogenous Controls (Robustness Check)

	(1)	(2)	(3)	(4)
	First-Stage Regressions			
VARIABLES	Father's MPF	Mother's MPF	OLS	2SLS
Mother's MPF	-	-	-0.089***	0.190
			(0.018)	(0.419)
Father's MPF	-	-	-0.134***	-0.605**
			(0.017)	(0.271)
Instrumental Variables				
Sex-Ratio	-0.013	-0.269**		
	(0.128)	(0.137)		
Aids Rate	-0.004**	-0.004***		
	(0.001)	(0.001)		
Aids Rate by Race	-0.012***	-0.006***		
	(0.002)	(0.002)		
STD Rate	0.024***	0.023***		
	(0.009)	(0.009)		
STD Rate by Race	0.000	-0.000		
	(0.000)	(0.000)		
1^{st} -Stage F-Statistic	30.08***	15.48***		
Robust Regression F	-	-	-	5.18***
Over-ID ~$X^2(3)$				4.16
No. of Focal Children	2239	2239	2239	2239
N = Child-Years	4623	4623	4623	4623
R-squared	0.10	0.17	0.05	-

Robust-clustered standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

All regressions control for child gender, age, race, education and city dummy variables. The analysis sample is restricted to parents unmarried at the time of the focal child's birth who are neither married nor cohabiting ex post; mothers must also be living with the focal children all or most of the time. The dependent outcome is any formal or informal child support transfers.

Appendix

Summary Means of Instrumental Variables

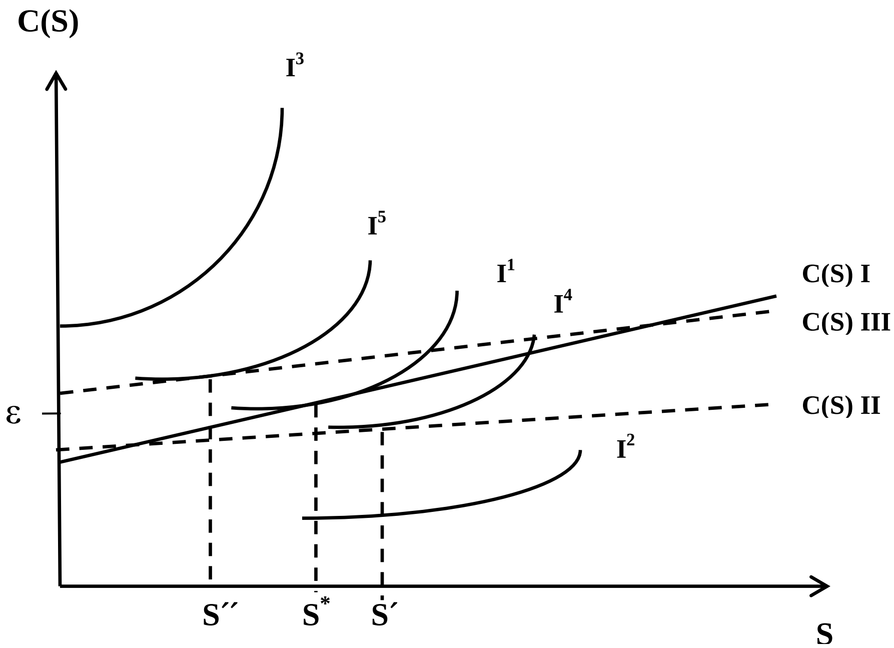
Instruments	**Mean**	**SD**
Sex-Ratio (city and race specific)	0.91	0.17
Annual Aids Rate (city-specific)	19.76	13.36
Annual Aids Rate by Race (nationwide)	40.60	19.58
Annual STD Rate (state-specific)	11.02	6.21
Annual STD Rate by Race (state-specific)	175.45	293.32

Source (Sex-Ratio): 2000 Census
Source (AIDS and STD Rates): Centers for Disease Control and Prevention (CDC)
Note: Aids and STD rates are per 100,000 persons.

Summary Means of Variables used in Nuanced Versions of the Model

Additional Variables	**Mean**	**SD**
No Other Child Support Transfers – Lagged	0.83	0.37
Mother's Subsequent Families	0.20	0.58
Father's Subsequent Families	0.34	0.90
Mother has 0 children with other partners – Year 1	0.56	0.50
Mother has 1 children with other partners – Year 1	0.24	0.43
Mother has 2 children with other partners – Year 1	0.11	0.31
Mother has 3-plus children with other partners – Year 1	0.09	0.28
Father has 0 children with other partners – Year 1	0.54	0.50
Father has 1 children with other partners – Year 1	0.20	0.40
Father has 2 children with other partners – Year 1	0.14	0.34
Father has 3-plus children with other partners – Year 1	0.13	0.33

Figure 1.



List of Relevant FFCWS Questions on Child Support

First and Third-Year Follow-Up Interviews

Formal Child Support Agreement:
Do you have legal agreement requiring father to provide financial support?
When was the legal agreement first reached?
How much are the payments supposed to be per month?
How much of the agreed on child support has father paid since agreement was reached?
What is the amount of arrears?

Informal Child Support Agreement:
Do you have informal financial support agreement with father?
How much has he agreed to give you each month?
How much have you received from father since informal agreement was reached?
Per what time period did he agree to pay this sum?
Has father paid anything toward child support since child was born? How much?

Fifth-Year Follow-Up Interview

Formal Child Support Agreement:
You have legal agreement/child support order requiring father's financial support of child?
When was that legal agreement first reached?
How much are the payments supposed to be per month?
How much of legally agreed upon child support has father actually paid?
Does father have arrears on child support he is supposed to pay to you?

Informal Child Support Agreement:
Does mother have a formal agreement with father? [If not…]
Has father paid anything toward child's support in last year?
How much have you received from father for child's support in past 12 months?