The Chicken and Egg of Economic Disadvantage and Multiple Partner Fertility by Lindsay M. Monte, Northwestern University
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#### Abstract

There exists a known correlation between childbearing with more than one partner (or multiple partner fertility) and economic disadvantage, and plausible explanations exist for a causal relationship going in either direction. On the one hand, an argument could be made that multiple partner fertility causes disadvantage by creating often unstable blended families, thus increasing the likelihood of single-parenthood and its associated economic repercussions. Alternately, one could also argue that poverty strains nuclear families and increases their risk of dissolution, which would then put women at greater risk of multiple partner fertility. In this paper, I examine the causal direction of this relationship by locating the arrival of children by a second father in women's life histories of childbearing, work, and public assistance use in an effort to shed some light on the chicken-and-egg question of which comes first in the relationship between multiple partner fertility and disadvantage. Using the Illinois Family Study dataset, I find that while relative economic well-being in this low-income sample is not predictive of a birth to a second partner, women are subject to significantly greater economic stress subsequent to the transition into multiple partner fertility.


## INTRODUCTION

Women's fertility and their economic well-being are inextricably linked; it has been said that motherhood is the single greatest predictor of poverty for women (Schwarz, 20??). However, like socio-economic status, fertility is not uniform across women. In this paper, using a sample of low-income women in Illinois, I examine both the precursors and the effects of fertility decisions for women's well-being. Specifically, I examine the trajectory into, and ramifications of, the decision to have children with multiple partners, in an effort to disentangle some of causal questions about the interaction of maternity and poverty specifically with regards to children by multiple men.

## LITERATURE REVIEW

Multiple partner fertility is defined as having children with more than one partner. Largely unstudied until recently, we have few estimates as to the prevalence of multiple partner fertility families, although social scientists are working to rectify that. Studies of remarried women have found that women complete roughly a third of their fertility in their remarriages (Glick and Lin 1987; Wineberg 1990), and given that more recent work has found that successive cohorts of American men are transitioning to multiple partner fertility at higher rates (Guzzo and Furstenberg 2007), these numbers seem destined to rise. Further, the recent rise in non-marital fertility appears to have prompted a rise in non-marital multiple partner fertility. Not only are divorced individuals now more likely than ever before to conceive a child in a subsequent cohabiting relationship (Carlson and Furstenberg 2006), but due to the instability of unmarried childbearing relationships, many of the parents of children from a first unmarried relationship swiftly find themselves in the risk set for a birth with a second partner. A recent study of a nationwide urban birth cohort found that in nearly $60 \%$ of unmarried couples with a new baby, one or both of the parents also had a child by a previous partner at the time of the focal birth (Carlson and Furstenberg 2006).

As we have gained more information about multiple partner fertility families, poverty has emerged as a striking correlate. Multiple partner fertility is correlated with being AfricanAmerican, having low levels of education, and histories of substance abuse or incarceration, and is three times higher among unmarried than among married parents (Carlson and Furstenberg

2006; Mincy 2002). We also know that multiple partner fertility is strongly correlated with the circumstances of the first birth; parents who were young and/or unmarried at the time of the first birth are at increased risk of subsequent multiple partner fertility (Guzzo and Furstenberg 2007; Morgan and Rindfuss 1999). Thus, the hazard of having children by multiple partners is much greater among the otherwise disadvantaged (Blank 1997; Guzzo and Furstenberg 2007).

However, we also know that multiple partner fertility is correlated with lower levels of father involvement (Manning and Smock 1999) and child support (Manning and Smock, 2000). Similarly, multiple partner fertility is known to be associated with lower levels of kin support, despite the fact that multiple partner fertility expands the kin network (Harknett and Knab, 2007). Thus, multiple partner fertility appears to create larger families while at the same time reducing the resources available to parents.

These findings suggest two competing - or compounding - directions for the relationship between multiple partner fertility and economic well-being which beg further examination. Controlling for other risk factors, does poverty actually cause multiple partner fertility? Or is multiple partner fertility the central cause of subsequent economic difficulties? In this study of a sample of welfare recipients in Illinois, I explore the causal direction of this relationship in an effort to shed some light on the chicken-and-egg question of which comes first - poverty or multiple partner fertility?

## DATA AND METHODS

For these analyses, I use the Illinois Family Study dataset (henceforth, IFS), a longitudinal dataset following a representative sample of individuals who were receiving welfare in Illinois in 1998. The IFS dataset includes four annual surveys with these individuals starting in the fall of 1999, as well as continuous administrative records of employment, cash welfare, food stamps and Medicaid receipt provided by the state of Illinois, and dating back in some cases into the 1980s. The IFS sample was randomly selected from all individuals who were the primary recipient on a Temporary Assistance for Needy Families (TANF) grant in nine stratified counties in Illinois in the fall of 1998. Welfare recipients in these counties make up roughly $75 \%$ of the entire caseload for the state of Illinois, and the full IFS sample consists of more than 1,300 respondents.

The questions I ask concern the causal direction of the relationship between poverty and multiple partner fertility. I measure poverty using employment and income, as well as measures of the receipt of social welfare programs (welfare, food stamps and Medicaid) as proxies for poverty status. Prior research suggests that welfare entry is most likely among the most disadvantaged (Acs, Phillips and Nelson 2003), and that food stamps and Medicaid benefits are similarly linked to extremes of economic deprivation (Bhattarai, Duffy and Raymond 2005; Davidoff, Garrett and Yemane 2001). Thus, in using measures of the receipt of these programs in a sample of almost uniformly poor women, I am approximating relative deprivation in the sample.

However, the central variable in these analyses is a measure of whether and when a women has a child with a second father. ${ }^{1}$ One of the benefits of using the IFS dataset is that although the dataset itself focuses on the mothers, we do also have a good deal of information about these women's co-residential children, including birth dates and first and last names. My coding of multiple partner fertility status relies on this information. I determine multiple partner fertility first using survey responses to questions in which women identified by name which of their children their current partner had fathered. Thus, women whose partner was the biological father of all of her children were coded as not demonstrating multiple partner fertility, while women whose partner fathered only some of her children were coded as multiple partner fertility parents. The timing of the transition to multiple partner fertility was then coded using the birth date of the oldest child of the current partner.

Unfortunately, however, the fertility questions in the survey were not asked or contained missing data for more than half of the sample at each wave. Thus, I also coded multiple partner fertility using the respondent's and her children's last name data. Prior research suggests that the choice of a child's last name is largely limited to the father's last name, the mother's last name or some hyphenated combination there-of; there does not exist a precedent for other names to be used, or for last names to be unique to the child (Edin and Kefalas 2005; Edin 2007). Thus, in instances in which the mother has one last name (i.e. Smith) and all of her children have a different last name (i.e., Jones), I presume that all of the children share the same father and have that father's last name; such a family would be coded as no multiple partner fertility. However,

[^0]for families in which the mother has one name (i.e., Smith) and her children have two different names (i.e., Jones and Moore), then I presume that the children have two different fathers and that each carries his father's last name; such a family would be coded as demonstrating multiple partner fertility.

The complication arises when a family all has the same last name. If the whole family has the same name, the mother is divorced or widowed at baseline and she has no additional children over the course of observations, I presume the family all to carry a single father's last name and code them as no multiple partner fertility. However, the problem with this coding schema lies in those women who are unmarried and who share the same last name with all of their children (and who haven't answered survey questions regarding their fertility). For these women, it is impossible to determine if the children share the same or different fathers, as they likely all carry the mother's last name. By necessity, these families are excluded from my analysis.

For the families in which I am able to determine multiple partner fertility, I prioritize the survey data, but if it is not available, I use the last name data. I code multiple partner fertility as zero in any month prior to the birth of a child by a second father, and one in the month of the birth and in all subsequent months until censoring or the end of the observations.

Subsequent to a number of exclusions, my sub-sample represents just over half of the full IFS sample. I limit my sample to only women, as the handful of men in the sample are outliers on a number of key dimensions. I also use only those respondents who reported having biological children in the home, excluding custodial grandparents, and foster and adoptive parents. Of the remaining sample, more than 500 families are excluded due to the combination of missing survey data and a never-married mother who shares the same last name with her children. Additional families are dropped due to missing data issues (primarily child birth date) or multiple partner fertility occurring prior to the age of 18 . The end result is a sample of 728 women, $43 \%$ of whom exhibit multiple partner fertility. ${ }^{2}$

The data are set up in a time series format, with each individual having a span of years over which they are observed. The majority of observations are set up as person-months, but due

[^1]to the quarterly nature of the employment and income data provided by the state, the models that examine employment and income from work are set up as person-quarters.

I run two sets of analyses to test each of my two causal hypotheses. In the first, I use multinomial logit models to examine how economic circumstances in the year preceding a hypothetical conception point predict the transition into either a same partner birth, a multiple partner birth or no birth. In the second, I use fixed effect regression models to examine economic well-being subsequent to birth transitions while controlling for un-measurable individual characteristics likely to affect the outcomes of interest; in these models I compare economic sufficiency for women who have only had a single birth to women with multiple births to the same partner to women with a birth to a second partner. Given that a causal experiment testing the direction of the relationship between poverty and multiple partner fertility is impossible, these longitudinal examinations of, first, the fertility ramifications of relative economic well-being and, second, the economic implications of fertility patterns, allows some insight into the causal direction of the relationship between economic status and children by multiple men.

In the first analysis, the independent variable of interest is a measure of previous financial well-being, lagged to reflect the woman's economic circumstances in the year preceding any potential conception. That is, at any point in time, there was a point roughly nine months earlier when a woman either did or did not get pregnant, by one partner or another, in order to give birth at that point in time. ${ }^{3}$ In order to approximate her economic circumstances at that "conception point," I created measures of her average income in the year prior to that point, as well as the percentage of the preceding year that the woman was employed or received benefits from each of the social programs. I then use each of these measures of economic well-being to model the odds of having a multiple partner fertility birth versus no birth, and the odds of a multiple partner fertility birth versus a same partner birth. In this analysis, women are removed from the risk set following the first observed birth.

The measures of economic well-being are constructed using administrative data provided by the state of Illinois. I use quarterly income obtained from Unemployment Insurance records

[^2]to create a measure of average income in the four quarters preceding the hypothetical conception point. I use the same data to create a measure of number of quarters employed in the year preceding the conception point. I also use welfare data itemizing women's monthly welfare grants to calculate the number of months in which the woman was receiving a welfare grant in the year preceding the conception point, and do the same for food stamp grants and Medicaid receipt. I then use all of these as varied proxies for economic well-being to predict fertility transitions.

In all of the models used in this first analysis, I include the same set of controls. Given the known significance of age with regards to income (Danziger and Haveman 2001), I control for the women's age in 1998 when the sample was selected; I do not include a continuous measure of her age as I include controls for the year of the observation in order to capture the effects of time, and a continuous measure of age would covary with these time measures. Given the heightened disadvantage found for women who give birth at an early age (Maynard 1997), I also control for the respondent's age when she gave birth to her first child. Additionally, given the role of family size in economic well-being, I include a continuous measure of the number of children that a woman has at any given observation.

I also control for race/ethnicity, although due to the fact that almost all of the women who identified themselves as Hispanic selected "other" for their racial category, I use Hispanic as its own racial/ethnic category, mutually exclusive of black and white. ${ }^{4}$ I further control for the respondents' education levels. Education is time varying, changing at survey dates as women identify increases in education across time. Additionally, as noted above, I control for time in 2year spans. Notably, the controls for time vary depending on the span of administrative data available for analysis, and in all models, the years 1997-1998 are the omitted comparison group, as the sample was drawn from women who were on the welfare rolls in 1998.

In the second set of analyses, a woman's fertility status becomes the independent, rather than dependent, variable of interest, and the measures change slightly as I examine women's economic circumstances across a variety of family forms (i.e, single birth, multiple births to same partner, and births to two fathers). For these analyses, I run fixed effect models in which I compare women's financial well-being, measured by their employment, welfare, food stamp and

[^3]Medicaid receipt, across their fertility states. The data are still longitudinal and arranged in person-months and person-quarters, but economic well-being is measured subsequent to women's entry into as many of the three mutually exclusive fertility states as she experiences. Multiple partner fertility is measured as the first birth to a second father and all subsequent months until censoring. Same partner births are measured as multiple births to the same partner, while the no birth category represents women who have had only one birth to a single father.

For these models, employment is measured using a dichotomous variable indicating whether the woman is employed in that quarter. Welfare receipt and Medicaid are similarly measured as receiving or not in any given month. Income is quarterly, and is measured in 100s of dollars.

Due to the fact that these are fixed effect regression models, I omit all of the static control variables in the second analysis. However, I retain the time-variant measures of education. I also remove the measure of number of children and instead include a control for how many more than two children a woman has. And finally, given the ramifications of child age on women's work status and benefit receipt, I control for the age of the respondent's youngest child at any given time.

In both of these analyses, the women are left and right censored on a number of different dimensions. Observations start for these women when the women are at least 18, have at least one child and have some administrative record. These left-hand censors are chosen for the following reasons: first, because prior to the age of 18 the respondents could be the child on someone else's welfare grant rather than the head of household, second, because I am interested in fertility transitions after the first child, and third, because prior to the first available administrative record, the respondent could have resided in another state and so a lack of records of their employment and program participation might indicate non-residence, not nonparticipation. Additionally, all respondents are right censored 5 years after the birth of their last observed child. However, women with multiple partner fertility may be right censored sooner, as they are additionally censored at any birth subsequent to the first birth to a second father.

## RESULTS

Women who exhibit multiple partner fertility comprise $43 \%$ of my sample of 728 women (see Table 1). The multiple partner fertility women are slightly younger at the first survey, and
have more children over the course of observation than do women who have children with just one partner. They are significantly more likely to be black and less likely to be white than are women who have children with just one partner. They are also significantly more likely to have higher education.

In my first set of analyses, I test the theory that women who are more disadvantaged are more likely to end up with children by multiple partners. First, I test duration measures of program use as predictors of fertility (see Table 2). I use multinomial logit models and lagged measures of time on welfare, time receiving food stamps and time on Medicaid in the year preceding a hypothetical point of conception to predict the odds that women will either have no birth, will have a second (or higher) birth to the same father, or will have a birth to a second father. In each of my models, I use multiple partner fertility as my reference category.

I find that neither time on welfare nor receiving food stamps was related to subsequent fertility (see Table 2). However, women who did not give birth spent more time on Medicaid in the year prior to the conception point than did women who had a multiple partner fertility birth. The fact that there is no distinction between a multiple partner fertility birth and a same partner birth suggests that this may be capturing the effect of Medicaid on the likelihood of any birth relative to no birth, rather than no birth compared to a multiple partner fertility birth. I speculate that this is because Medicaid coverage in Illinois includes birth control ${ }^{5}$; we know that few pregnancies are planned in poor populations and that the reliability of condom use in relationships declines over time (Edin et al. 2007), so the availability of prescription contraceptives through Medicaid may be the driving force for this distinction.

Next, I examine employment and income in the year preceding the point of conception (see Table 3). I find that women who have a multiple partner fertility birth spent more time in the labor market in the year preceding their point of conception that did women who either had no birth, or those who had another birth with the same partner (although this relationship is only significant at the .1 level). However, I do not find significant differences in the predictive value of average income.

These results suggest little support for the hypothesis that poverty predisposes women to multiple partner fertility. If poverty were to be causally associated with multiple partner fertility, we would expect that women who ended up with a birth to a second partner would have lower

[^4]incomes and be more reliant on social programs in the year preceding conception. Instead, it appears that women who spend more time in the labor market are at greater risk of multiple partner fertility. It is my belief that these results suggest that these women are similar to the majority of Americans in that they are most likely to meet their sexual partners at work (Raine and Madden 2006). Thus, women who are employed, and employed for longer durations, are more likely to meet a man who would be a new sexual partner, and thus are more likely to conceive a child by that new partner.

In the second set of analyses, I examine the economic circumstances of women subsequent to fertility transitions. I run fixed effect models examining women's financial wellbeing concordant to their varied fertility statuses: single birth to single father, multiple births to single father, or higher-order birth to second father. First I examine program use. I find that both women with multiple same partner births and women with only a single birth are at significantly lower odds of receiving a welfare check, food stamps or Medicaid than are women who demonstrate multiple partner fertility (see Table 4). If we presume that higher levels of program use accords to greater financial difficulties, as has been shown previously (i.e., Acs, Phillips and Nelson 2003; i.e., Bhattarai, Duffy and Raymond 2005; Davidoff, Garrett and Yemane 2001), these findings suggest that women who experience multiple partner fertility are subsequently in poorer economic stead than they were prior to their fertility transition, even controlling for the number and age of their children.

Finally, I examine employment. Here I find that both women with multiple births to the same partner or women with no births subsequent to their first are at significantly higher odds of being employed than are women with multiple partner births, although income net of time employed is again not significantly related to multiple partner fertility. That is, women who demonstrate multiple partner fertility work less following that transition, although their wages are not significantly different when they do work. These results suggest that multiple partner fertility does have ramifications for women's well-being, at least in a population of poor women. That is, women appear to be more reliant on social programs and spend less time in the workforce when they become multiple partner fertility mothers.

## DISCUSSION

Given a known correlation between multiple partner fertility and poverty, I sought in this paper to offer some insight into the direction of the relationship between the two. Using a sample of already low-income women in Illinois, I find that relative poverty does not predict entry into multiple partner fertility, but that subsequent to multiple partner fertility, women are less likely to work and are more reliant on social services, suggesting that the move into multiple partner fertility had negative economic consequences.

More specifically, I find that neither income from work nor participation in a variety of social welfare programs are related to the fertility choices I examine, which suggests that relative economic well-being in either direction has little impact on the trajectory to a child with a second partner. The notable exception to this is a significant relationship between longer durations on Medicaid and an increased likelihood of no birth as compared to a multiple partner fertility birth. In the absence of a similar distinction for same partner and multiple partner births, this relationship seems likely to simply be a reflection of the availability of prescription birth control to women on Medicaid, which would decrease the likelihood of any birth for women covered by Medicaid benefits.

In fact, the only economic marker to delineate the likelihood of a multiple partner birth from either of the two other birth outcomes is time in the labor force, and the direction of the effect is the opposite of what would be predicted under the hypothesis that poverty breeds multiple partner fertility. That is, women who demonstrate multiple partner fertility spent more time in the labor force in the year prior to conception than did either women with a single birth or women with multiple births to the same father. When combined with the lack of effect of income, this leads me to social causes of multiple partner fertility, rather than economic ones. That is, the vast majority of Americans meet their sexual partners in the work place. These results suggest that poor women are no different.

In contrast, subsequent to fertility transitions, I find that women who demonstrate multiple partner fertility are less likely to be employed than either single birth or multiple same partner birth women, a finding I believe stems from varying availability of kin networks. In this low-income sample, women likely have limited choices for childcare while they are at work. Most daycare centers do not take children during the non-standard work hours that many lowincome women are forced to take. Further, such childcare costs money that few of these women have. This leaves family. In poor communities, we know that extended family, and
grandmothers in particular, play an instrumental role in the childcare networks that allow mothers to work (see, for example, Snyder and Adelman 2004). However, when women have children by multiple partners, rather than growing the kin network on which they can call, prior research suggests that the kin withdraw some of their support (Harknett and Knab 2007). Put bluntly, while paternal grandmas may be willing to watch their own grandchildren, they may not be interested in being a babysitting service for children with whom they do not share blood, even if those children are the half-siblings of their grandkids. This leaves women with children by multiple partners in a childcare bind that women with a child or children by only a single partner do not face, and may explain their significantly lower levels of employment than either of the single partner birth categories.

That there is no distinction by income in either of the directional models may be an effect of the dataset used. Because this is a welfare sample, most of these women hold minimum wage jobs when they are employed and few move up to significantly higher hourly wages over the course of our observations. Thus, the lack of an income effect may be because, net of time employed, these women are fairly homogenous in their salaries, and the distinction instead lies in the amount of time employed. Although there are many benefits to using the IFS dataset for this work, the limited range of incomes is a notable limitation; further work would be required to see if these patterns hold in samples with greater income variation.

The effects on program uptake are striking, however. On every measure, women with births by multiple partners are at significantly greater odds of receiving social welfare assistance than are women with either a single birth or multiple births to the same partner, even controlling for number and age of children. Assuming that program receipt is serving as an effective proxy for economic well-being, these results suggest that women who have a multiple partner fertility birth are at a significant financial disadvantage compared to their own well-being prior to the multiple partner fertility transition.

There are numerous possible mechanisms for this effect, not least of which may be the difference in labor force participation. As noted above, the divergence in employment patterns may be a function of dwindling kin support following a multiple partner birth, a suggestion that is reinforced by the IFS survey data. Although it is in no way definitive, I do find that women who exhibit multiple partner fertility at the baseline survey are more likely to report that they
lack "enough" people whom they could ask for small favors than are women who have only single partner birth(s).

However, the heightened reliance of multiple partner fertility women on social welfare programs may also be a function of reduced paternal investment, and infrequent child support payments. That is, prior research suggests that couple relationships are placed under particular strain in instances of multiple partner fertility, which means that these women are more likely to (re)enter single parenthood following their entry into multiple partner fertility than are women with children by just one partner (Carlson and Furstenberg 2007). Moreover, not only do lowincome women usually partner with low-income men who are often unable to pay child support (Magnuson and Gibson 2007), but the "first fathers" of the children of women with multiple partner fertility are less likely to stay involved with their children following the mother's repartnering with another man (Claessens 2007), further limiting the likelihood of contributions.

Unfortunately, the IFS survey lacks sufficient information about the respondent's romantic relationships to include measures of paternal support in these models, and it must be acknowledged that this is a significant limitation to this paper. Even though less than half the sample is in any sort of romantic relationship at the start of the survey (including relationships with men who are the father to none of their children), the significance of those partners earnings is likely to be high. Regrettably, due to the limitations of the survey, measures of cohabitation and paternal support are omitted. Additional work will be required to see if these patterns hold when you control for men's contributions. It should also be noted that this analysis is further limited because it captures only conceptions resulting in birth. It may be that pregnancies that miscarry or which the mother chooses to abort follow different patterns than those represented here.

However, even with the truncated economic range and lack of information about relationships and parity, these results are important. Not only are the women in this sample in the economic bracket that is most targeted for public policy interventions, but they are also those whose partners are least likely to contribute financially on a regular basis (Sorensen and Zibman 2001). Thus, the first limitation heightens the policy relevance of these results and the second may not be as important as it would be in a higher income sample.

## CONCLUSION

These results suggest that, at least in a sample of very poor women in Illinois, economic well-being does not predict transitions into multiple partner fertility, but that multiple partner fertility does predict subsequent economic well-being. While time in the labor market is associated with increased risk of having a birth to a second partner, income from employment is unassociated in either direction with fertility decisions with regards to multiple partner fertility, as are measures of the duration of most social program involvement. Examining the relationship from the other direction, however, I do find a consistent relationship between multiple partner fertility and subsequent economic well-being, with multiple partner fertility mothers being less likely to work and more likely to rely on income from social welfare programs.

While preliminary and limited by the economic truncation of the sample, these finding nonetheless suggest directions for future work and, perhaps more importantly, indicate that while anti-poverty policy may not stem the rising tide of multiple partner fertility births, income supports are nonetheless vital to this especially vulnerable sub-sample of women and their children.

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TABLE 1
IFS Sample Means \& Descriptives

|  | Full Sample | Women who <br> exhibit MPF | Women who do <br> not exhibit MPF |
| :--- | :---: | :---: | :---: |
| Women who experience MPF | $43 \%$ | $100 \%$ | $0 \%$ |
| Mean Respondent Age at Baseline Survey | 30 | 28 | 31 |
| Mean Number of Children by end of survey | 2 | 3 | 2 |
| Black | $73 \%$ | $78 \%$ | $68 \%$ |
| White <br> Hispanic | $20 \%$ | $15 \%$ | $23 \%$ |
| Respondent does not have a HS diploma <br> R has a GED | $3 \%$ | $6 \%$ | $9 \%$ |
| R has a High School Diploma | $11 \%$ | $38 \%$ | $32 \%$ |
| R has a degree from either |  |  |  |
| a 2 or 4 year college | $55 \%$ | $13 \%$ | $10 \%$ |
| N | $7 \%$ | $51 \%$ | $58 \%$ |

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| TABLE 2 <br> Multinomial Logistic Regression Models predicting Fertility by Lagged forms of Support |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  |
|  | B | SE | $\mathrm{P}>\|\mathrm{t}\|$ | B | SE | $\mathrm{P}>\|\mathrm{t}\|$ | B | SE | $P>\|t\|$ |
| No Birth (as compared to MPF birth) |  |  |  |  |  |  |  |  |  |
| Time on Welfare in year prior to conception point (1) | 0.11 | 0.17 | 0.53 |  |  |  |  |  |  |
| Time on Food Stamps in year prior to conception point (1) |  |  |  | 0.87 | 0.62 | 0.16 |  |  |  |
| Time on Medicaid in year prior to conception point (1) |  |  |  |  |  |  | 0.53 | 0.19 | 0.01 |
| R's Age at baseline interview | -5.6E-05 | 4.4E-05 | 0.21 | -2.0E-04 | 9.8E-05 | 0.04 | $3.1 \mathrm{E}-04$ | 5.4E-05 | 0.00 |
| R's age at first birth | 0.07 | 0.03 | 0.01 | 0.10 | 0.05 | 0.07 | -0.05 | 0.03 | 0.10 |
| Number of R's Children (continuous) | -0.13 | 0.06 | 0.05 | -0.02 | 0.15 | 0.89 | -0.59 | 0.06 | 0.00 |
| R is black (2) | -0.01 | 0.17 | 0.94 | 0.15 | 0.34 | 0.67 | -0.10 | 0.17 | 0.58 |
| R is Hispanic (3) | 0.16 | 0.29 | 0.57 | 0.20 | 0.55 | 0.72 | 0.10 | 0.28 | 0.73 |
| $R$ has a GED (4) | 0.01 | 0.41 | 0.99 | 0.06 | 0.45 | 0.89 | 0.51 | 0.38 | 0.19 |
| R has a High School Diploma (4) | 0.06 | 0.13 | 0.64 | 0.26 | 0.31 | 0.40 | 0.10 | 0.13 | 0.47 |
| $R$ has a degree from either |  |  |  |  |  |  |  |  |  |
| a 2 or 4 year college (4) | -0.13 | 0.54 | 0.81 | -0.09 | 0.63 | 0.88 | 0.44 | 0.52 | 0.39 |
| 1989-1990 | 1.31 | 0.42 | 0.00 |  |  |  | -0.21 | 0.43 | 0.62 |
| 1991-1992 | 0.56 | 0.23 | 0.02 |  |  |  | -0.70 | 0.24 | 0.00 |
| 1993-1994 | 0.51 | 0.21 | 0.02 |  |  |  | -0.40 | 0.21 | 0.06 |
| 1995-1996 | 0.43 | 0.20 | 0.03 |  |  |  | -0.01 | 0.20 | 0.96 |
| 1997-1998 | (Omitted) |  |  | (Omitted) |  |  | (Omitted) |  |  |
| 1999-2000 | 0.07 | 0.19 | 0.70 | -16.47 | 1.07 | 0.00 | 0.12 | 0.18 | 0.52 |
| 2001-2002 | 0.44 | 0.28 | 0.12 | -16.04 | 1.10 | 0.00 | 0.87 | 0.26 | 0.00 |
| Constant | 2.57 |  |  | 18.99 |  |  | 3.85 |  |  |
| Same Partner Birth (as compared to MPF birth) |  |  |  |  |  |  |  |  |  |
| Time on Welfare in year prior to conception point (1) | -0.11 | 0.22 | 0.63 |  |  |  |  |  |  |
| Time on Food Stamps in year prior to conception point (1) |  |  |  | 0.83 | 0.87 | 0.34 |  |  |  |
| Time on Medicaid in year prior to conception point (1) |  |  |  |  |  |  | 0.02 | 0.26 | 0.94 |
| R's Age at baseline interview | -3.1E-04 | 7.0E-05 | 0.00 | -7.9E-04 | 2.2E-04 | 0.00 | -4.5E-04 | 8.3E-05 | 0.00 |
| R's age at first birth | 0.19 | 0.04 | 0.00 | 0.32 | 0.09 | 0.00 | 0.24 | 0.04 | 0.00 |
| Number of R's Children (continuous) | 0.29 | 0.09 | 0.00 | 0.38 | 0.24 | 0.11 | 0.34 | 0.08 | 0.00 |
| R is black (2) | -0.12 | 0.23 | 0.62 | 0.43 | 0.59 | 0.47 | -0.13 | 0.23 | 0.57 |
| R is Hispanic (3) | 0.23 | 0.36 | 0.53 | 0.34 | 0.93 | 0.71 | 0.32 | 0.36 | 0.38 |
| $R$ has a GED (4) | 0.05 | 0.60 | 0.93 | 0.39 | 0.70 | 0.58 | -0.17 | 0.58 | 0.77 |
| R has a High School Diploma (4) | 0.14 | 0.17 | 0.43 | 0.87 | 0.46 | 0.06 | 0.19 | 0.18 | 0.28 |
| $R$ has a degree from either |  |  |  |  |  |  |  |  |  |
| a 2 or 4 year college (4) | 0.09 | 0.80 | 0.92 | 0.35 | 0.98 | 0.72 | -0.09 | 0.79 | 0.91 |
| 1989-1990 | 2.44 | 0.50 | 0.00 |  |  |  | 2.81 | 0.51 | 0.00 |
| 1991-1992 | 1.24 | 0.32 | 0.00 |  |  |  | 1.53 | 0.33 | 0.00 |
| 1993-1994 | 0.91 | 0.28 | 0.00 |  |  |  | 1.12 | 0.29 | 0.00 |
| 1995-1996 | 0.63 | 0.27 | 0.02 |  |  |  | 0.84 | 0.27 | 0.00 |
| 1997-1998 | (Omitted) |  |  | (Omitted) |  |  | (Omitted) |  |  |
| 1999-2000 | -0.41 | 0.27 | 0.13 | 0.73 | 1.51 | 0.63 | -0.36 | 0.27 | 0.18 |
| 2001-2002 | -0.65 | 0.42 | 0.12 | 0.31 | 1.53 | 0.84 | -0.67 | 0.39 | 0.09 |
| Constant | -1.42 |  |  | -2.23 |  |  | -1.28 |  |  |
| N | 728 |  |  | 728 |  |  | 728 |  |  |
| YEARS EXAMINED | 1989-2002 |  |  | 1998-2002 | 2 |  | 1989-200 |  |  |

NOTES:
(1) These variables are lagged to capture the year-long period ending 9 months prior to the measure; the variables are intended to capture the subjects econol status in the period preceding conception (for those women who subsequently have a birth) or the period preceding the choice not to conceive (for those wom who do not give birth).
(2) White is the omitted category.
(3) The majority of Hispanics identified their race as "other" and so I am treating Hispanic ethnicity as it's own "racial" category, mutually exclusive of white and black.
(4) Less that a high school diploma is the omitted category.

| TABLE 3 <br> Multinomial Logistic Regression Models predicting Fertility by Employment and Income |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 |  |  | Model 2 |  |  |
|  | B | SE | $\mathrm{P}>\|\mathrm{t}\|$ | B | SE | $\mathrm{P}>\|\mathrm{t}\|$ |
| No Birth (as compared to MPF birth) |  |  |  |  |  |  |
| Time Employed in year prior to conception point (1) | -0.57 | 0.20 | 0.01 |  |  |  |
| Avg. Quarterly Income in year prior to conception point (1) (\$100s) |  |  |  | -0.01 | 0.01 | 0.20 |
| R's Age at baseline interview | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| R's age at first birth | -0.05 | 0.04 | 0.26 | -0.05 | 0.04 | 0.17 |
| Number of R's Children (continuous) | -0.51 | 0.08 | 0.00 | -0.53 | 0.08 | 0.00 |
| R is black (2) | 0.13 | 0.21 | 0.54 | 0.17 | 0.20 | 0.41 |
| R is Hispanic (3) | 0.40 | 0.38 | 0.29 | 0.42 | 0.36 | 0.25 |
| R has a GED (4) | 0.52 | 0.38 | 0.16 | 0.54 | 0.38 | 0.15 |
| R has a High School Diploma (4) | 0.22 | 0.18 | 0.22 | 0.19 | 0.17 | 0.28 |
| R has a degree from either |  |  |  |  |  |  |
| a 2 or 4 year college (4) | 0.39 | 0.48 | 0.41 | 0.36 | 0.48 | 0.46 |
| 1995-1996 | 0.14 | 0.30 | 0.64 | 0.14 | 0.26 | 0.60 |
| 1997-1998 | (Omitted) |  |  | (Omitted) |  |  |
| 1999-2000 | 0.05 | 0.19 | 0.81 | 0.10 | 0.18 | 0.59 |
| 2001-2002 | 0.82 | 0.27 | 0.00 | 0.84 | 0.27 | 0.00 |
| Constant | 2.95 |  |  | 2.57 |  |  |
| Same Partner Birth (as compared to MPF birth) |  |  |  |  |  |  |
| Time Employed in year prior to conception point (1) | -0.57 | 0.30 | 0.06 |  |  |  |
| Avg. Quarterly Income in year prior to conception point (1) (\$100s) |  |  |  | 0.00 | 0.01 | 0.65 |
| R's Age at baseline interview | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| R's age at first birth | 0.31 | 0.06 | 0.00 | 0.32 | 0.06 | 0.00 |
| Number of R's Children (continuous) | 0.43 | 0.12 | 0.00 | 0.45 | 0.12 | 0.00 |
| R is black (2) | -0.05 | 0.32 | 0.89 | 0.07 | 0.31 | 0.82 |
| R is Hispanic (3) | 0.50 | 0.52 | 0.34 | 0.46 | 0.50 | 0.36 |
| R has a GED (4) | -0.14 | 0.58 | 0.81 | -0.22 | 0.59 | 0.71 |
| R has a High School Diploma (4) | 0.48 | 0.26 | 0.07 | 0.38 | 0.25 | 0.13 |
| R has a degree from either |  |  |  |  |  |  |
| a 2 or 4 year college (4) | -0.06 | 0.77 | 0.94 | -0.20 | 0.78 | 0.80 |
| 1995-1996 | 0.65 | 0.41 | 0.12 | 0.81 | 0.36 | 0.02 |
| 1997-1998 | (Omitted) |  |  | (Omitted) |  |  |
| 1999-2000 | -0.48 | 0.28 | 0.08 | -0.42 | 0.27 | 0.12 |
| 2001-2002 | -0.74 | 0.40 | 0.07 | -0.77 | 0.40 | 0.05 |
| Constant | -1.38 |  |  | -1.86 |  |  |
| N | 647 |  |  | 647 |  |  |
| YEARS EXAMINED | 1995-2002 |  |  | 1995-2002 |  |  |

NOTES:
(1) These variables are lagged to capture the year-long period ending 9 months prior to the measure; the variables are intended to capture the subjects economic status in the period preceding conception (for those women who subsequently have a birth) or the period preceding the choice not to conceive (for those women who do not give birth).
(2) White is the omitted category.
(3) The majority of Hispanics identified their race as "other" and so I am treating Hispanic ethnicity as it's own "racial" category, mutually exclusive of white and black.
(4) Less that a high school diploma is the omitted category.

| TABLE 4 - FIXED EFFECTS <br> Odds Ratios Predicting Welfare, Food Stamps and Medicaid Receipt by Fertility |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Receive AFDC/TANF |  |  | Receive Food Stamps |  |  | Receive Medicaid |  |  |
|  | OR | SE | $\mathrm{P}>\|\mathrm{t}\|$ | OR | SE | $\mathrm{P}>\|\mathrm{t}\|$ | OR | SE | $\mathrm{P}>\|\mathrm{t}\|$ |
| R has multiple children, but all with the same partner (1) | 0.88 | 0.05 | 0.02 | 0.80 | 0.09 | 0.04 | 0.76 | 0.05 | 0.00 |
| $R$ has no birth subsequent to first in period examined (1) | 0.73 | 0.05 | 0.00 | 0.51 | 0.06 | 0.00 | 0.65 | 0.05 | 0.00 |
| Number of R's Children (2) | 1.39 | 0.06 | 0.00 | 1.46 | 0.13 | 0.00 | 1.13 | 0.05 | 0.01 |
| $R$ has a GED | 0.65 | 0.07 | 0.00 | 0.82 | 0.07 | 0.03 | 0.69 | 0.07 | 0.00 |
| R has a High School Diploma | 0.00 | 0.00 | 0.98 | 1.54 | 0.96 | 0.49 | 4.00 | 1.57 | 0.00 |
| $R$ has a degree from either a 2 or 4 year college | 0.00 | 0.00 | 0.98 | 0.87 | 0.53 | 0.82 | 2.07 | 0.78 | 0.06 |
| Age of youngest child | 0.89 | 0.01 | 0.00 | 1.05 | 0.02 | 0.00 | 0.93 | 0.01 | 0.00 |
| 1989-1990 | 0.75 | 0.08 | 0.01 |  |  |  | 0.52 | 0.06 | 0.00 |
| 1991-1992 | 0.52 | 0.04 | 0.00 |  |  |  | 0.43 | 0.04 | 0.00 |
| 1993-1994 | 0.54 | 0.03 | 0.00 |  |  |  | 0.53 | 0.04 | 0.00 |
| 1995-1996 | 0.60 | 0.03 | 0.00 |  |  |  | 0.61 | 0.03 | 0.00 |
| 1997-1998 | (Omitted) |  |  | (Omitted |  |  | (Omitted) |  |  |
| 1999-2000 | 0.13 | 0.01 | 0.00 | 1.81 | 0.10 | 0.00 | 0.35 | 0.02 | 0.00 |
| 2001-2002 | 0.01 | 0.00 | 0.00 | 1.09 | 0.09 | 0.29 | 0.17 | 0.01 | 0.00 |
| 2003-2004 | 0.00 | 0.00 | 0.00 | 0.76 | 0.10 | 0.03 | 0.13 | 0.02 | 0.00 |
| N | 728 |  |  | 728 |  |  | 728 |  |  |
| YEARS EXAMINED | 1989-200 |  |  | 1998-20 |  |  | 1989-20 |  |  |

NOTES:
(1) Women who have a birth to a second father are the comparison group.
(2) This variable indicates how many more than 2 children the respondent has, but is 0 in the case of a woman having 1 or 2 children.

| TABLE 5 - FIXED EFFECTS <br> Regressions predicting Employment \& Income by Fertility |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employed |  |  | \$100s Earned Income |  |  |
|  | OR | SE | $\mathrm{P}>\|\mathrm{t}\|$ | B | SE | $P>\|t\|$ |
| R has multiple children, but all with the same partner (1) | 1.96 | 0.26 | 0.00 | 0.61 | 1.07 | 0.57 |
| $R$ has no birth subsequent to first in period examined (1) | 1.43 | 0.21 | 0.01 | -0.62 | 1.02 | 0.54 |
| Number of R's Children (2) | 1.43 | 0.17 | 0.00 | -0.33 | 0.52 | 0.52 |
| $R$ has a GED | 1.83 | 0.29 | 0.00 | 6.55 | 2.68 | 0.02 |
| R has a High School Diploma | 0.79 | 0.65 | 0.77 | 3.05 | 0.81 | 0.00 |
| $R$ has a degree from either a 2 or 4 year college | 1.05 | 0.85 | 0.95 | 12.81 | 4.13 | 0.00 |
| Age of youngest child | 1.42 | 0.07 | 0.00 | 1.90 | 0.40 | 0.00 |
| 1995-1996 | 0.55 | 0.04 | 0.00 | -1.00 | 0.38 | 0.01 |
| 1997-1998 | (Omitted) |  |  | (Omitted) |  |  |
| 1999-2000 | 2.79 | 0.22 | 0.00 | 4.74 | 0.58 | 0.00 |
| 2001-2002 | 2.08 | 0.25 | 0.00 | 6.04 | 1.04 | 0.00 |
| 2003-2004 | 1.33 | 0.26 | 0.14 | 5.37 | 1.75 | 0.00 |
| Constant |  |  |  | 2.15 |  |  |
| N | 647 |  |  | 647 |  |  |
| YEARS EXAMINED | 1995-200 |  |  | 1995-200 |  |  |

## NOTES:

(1) Women who have a birth to a second father are the comparison group.
(2) This variable indicates how many more than 2 children the respondent has, but is 0 in the case of a woman having 1 or 2 children.


[^0]:    ${ }^{1}$ I model only the first birth to a second father. The study of additional births beyond that first birth and additional fathers beyond the first two are beyond the capacity of the data.

[^1]:    ${ }^{2}$ The women excluded are not notably different in terms of race, ethnicity, education or work history from the sample used. The excluded women are, however, slightly older on average, and have slightly more children, but they do not appear to vary markedly in terms of my key measures surrounding economic well-being.

[^2]:    ${ }^{3}$ I recognize that this is a rough approximation of point of (potential) conception given varying gestations and preterm delivery. However, the average economic circumstances in the range of months preceding this point should approximate the economic circumstances at the actual moment of conception, even if it happened a bit earlier or later than my proxy point.

[^3]:    ${ }^{4}$ It should also be noted that although there were 8 women in the sample who were not Hispanic and who identified their racial category as "other", those women were excluded from the analysis due to the small sample size and the high correlation between having a race of "other" and other control variables included in my models.

[^4]:    ${ }^{5} \mathrm{http}: / /$ www.illinoishealthywomen.com

