The Effects of Child Support on the Labor Supply of Custodial Mothers Participating in TANF[1]

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[1] This analysis draws on earlier related analysis of Maria Cancian and Robert Haveman (Cancian, M., & Haveman, R. (2001). "Experimental Impacts on Resident Mothers' work, wages, and earnings" In Maria Cancian and Daniel R. Meyer, W-2 Child Support Demonstration Evaluation, Phase 1: Final Report. Volume I: Effects of the Experiment. Madison: University of Wisconsin-Madison)

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ABSTRACT

Child support is a critical source of income, especially for the growing proportion of children born to unmarried mothers. Current social policy supports custodial parent employment (e.g. the EITC and other work supports have largely taken the place of an entitlement to cash assistance for single mothers of young children). But given many single mothers' limited earnings potential, child support from noncustodial fathers is also important. This raises questions about the effects of child support on custodial mothers' labor supply, and whether policies that increase child support receipt will thereby discourage mothers' employment. All else equal, microeconomic theory suggests that non-labor income such as child support will reduce labor supply. Early empirical studies supported this prediction. However, the endogeneity between child support receipt and mother's labor supply was not explicitly addressed in this literature. We use data from a statewide randomized experiment conducted in Wisconsin to examine the effects of child support receipt on the labor supply of custodial mothers participating in TANF (N=2,159). Unlike previous research in this area, we do not find any negative effect of child support on the likelihood to work for pay or the number of hours worked in a given week. This suggests that efforts to pursue noncustodial father's contributions and increase the regularity of total income received by custodial mothers are not likely to reduce mothers' labor supply. Major reforms to social welfare policies in the U.S. have been focused on increasing custodial mothers' labor supply and child support collections. Our results suggest that these policies are not necessarily at cross purposes; in this regard, efforts to increase the labor supply of both parents are compatible.

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1. Introduction

Custodial-parent families (i.e. families in which the child lives with only one biological parent, including those in which the child lives with a parent and stepparent) in the United States (U.S.) continue being disproportionally poor relative to two-parent families. The incidence of poverty is particularly high if custodial-parent families are female headed. In 2011, the poverty rate for custodial-mother families was about five times (40.9 percent) that of two-parent families (8.8 percent) and about twice the poverty rate observed among custodial-father families (21.9 percent) (U.S. Bureau of the Census, Current Population Survey, Annual Social and Economic Supplements).

Because cash assistance has declined dramatically in the last decade, and receipt of child support (i.e. monetary transfers from parents who do not live with their children) is generally small (Cancian, Meyer & Park, 2003; Grall, 2011) and irregular (Ha, Cancian, & Meyer, 2011) among low-income families, custodial parents earnings are instrumental for reducing income poverty among these families. Moreover, as the overarching principle of the U.S. child support system is that both parents have financial responsibility for their biological children (Cancian, Meyer and Han, 2011; Meyer, 2012), noncustodial parent contributions are expected to be complemented by custodial parent earnings.

Yet, custodial parents' decision to work may differ depending on whether or not they receive child support. In fact, microeconomic theory suggests that non-labor income such as child support unambiguously reduces the labor supply of the recipient (e.g. decision to work at all, the number of hours worked, etc.). That is, assuming leisure is a normal good, additional

income provided by the noncustodial parent will lead the custodial parent to consume more hours of leisure and fewer hours of work (Killingsworth & Heckman, 1986). A counterargument to this theory is that child support income may enable low-income, custodial parents to increase their labor supply by providing resources to overcome limitations to work for pay (e.g. lack of resources to pay for child care, commute to work or receive job training to improve their employability). Hence, child support may not reduce custodial parent's labor supply, as predicted by standard microeconomic theory.

Early studies indicated that child support has a small, negative effect on the labor supply of custodial mothers (Graham, 1990; Graham & Beller, 1989; Hu, 1999). However, the endogeneity between child support receipt and mother's labor supply was not explicitly addressed in this literature. The purpose of this paper is to address this question using data from a randomized experiment conducted in the state of Wisconsin. Specific aims are: (1) to determine the extent to which child support receipt reduce the likelihood to work for pay among custodial mothers participating in the Temporary Assistance for Needy Families (TANF) program; and (2) to determine the extent to which child support receipt reduce hours worked among custodial mothers participating in TANF. We estimate a series of regressions to isolate the effect of child support on two labor supply outcomes: (1) the decision to work for pay, and (2) number of weekly hours worked in the month prior to the survey.

Data come from the Wisconsin Child Support Demonstration Evaluation (CSDE), which uses an experimental design to evaluate the effects of a full pass-through policy of child support on custodial-mother families participating in TANF. The full pass-through policy allowed custodial mothers to receive all child support paid on behalf of their children. It also allowed disregarding child support income for purposes of calculating other public benefits such as

TANF. Because participants in the experiment were randomly assigned to one of two pass-through eligibility statuses (i.e. receive full amount of child support or not), the CSDE data provides a unique opportunity to estimate the effects of child support by eliminating the bias introduced by self-selection into child support receipt.

This study extends previous research by examining the relationship between child support receipt and custodial mother labor supply among a population that has been particularly affected by recent changes in social welfare policies. At the very least, results from this study may have implications for the child support system. If efforts to increase noncustodial father's contributions affect mother's participation in the labor market, enforcement policies may be unintentionally discouraging custodial mother's participation in the labor market. As major reforms to the child support system have been focused on both increasing custodial mothers' labor supply (e.g. the 1996 Personal Responsibility and Work Opportunity Act-PRWORA) and child support collections (e.g. 1984 and 1988 amendments to the Social Security Act), ignoring the potential effect of child support income on labor supply may reduce the effectiveness of these policies. Alternatively, child support may increase family income without affecting custodial mothers' labor supply. Moreover, total family income may not capture family wellbeing if custodial mothers were more time with their children as a result of child support receipt.

The remainder of this paper proceeds as follows. Section two describes the policy context in which the CSDE took place. Section three presents the theoretical approach. We describe the static model of family labor supply and discuss predictions of the effects of changes in non-labor income such as child support. Section four summarizes main findings from previous research on this area. Section five describes the data, sample, methodological approach and key

measures. Section six presents the results, and section seven concludes with a discussion of findings in the context of current policy and limitations of the study.

2. Policy Context

With the enactment of welfare reform, (i.e, the 1996 Personal Responsibility and Work Opportunity Act-PRWORA), the U.S. moved forward with a different approach to assisting low-income families with children. The overarching purpose of PWRORA is to promote self-sufficiency by conditioning cash assistance on parents' participation in the labor market. Hence, participants in the program, known nationwide as Temporary Assistance for Needy Families (TANF), are expected to work for pay or meet related program requirements. The Wisconsin TANF program, W-2, attempts to recreate some features of the job market (e.g. cash assistance that does not vary with family size, amount received depends on hours of work) in order to promote employment among participants. Consistent with this approach, most custodial mothers in the original W-2 program were allowed to receive all child support paid on behalf of their children and child support income was ignored in the determination of TANF eligibility[2].

The Wisconsin's approach provided the opportunity to conduct an experimental evaluation of the effects of child support on a host of individual and family outcomes. In the fall of 1997, both recipients of Aid to Families with Dependent Children program (AFDC) transitioning to TANF and new applicants to TANF were randomly assigned to one of two pass-through eligibility statuses. Participants in the experimental group received the full amount of child support paid by the noncustodial parent while participants in the control group received a

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[2] These measures were particularly exceptional since custodial parents in other states were not allowed to receive all child support paid on behalf of their children. Under the current policy, most states do not distribute any child support in order to offset welfare expenditures. Some other states pass through only a portion of noncustodial parent's payments. Also, the vast majority of states do not have a disregard policy of child support income for purposes of calculating other public benefits such as TANF.

partial pass-through of the first $50 per month, or 41 percent of the amount paid, whichever was larger. All participants in TANF were placed in one of four tiers of employment: (1) transition, which is provided for those having a disability that limits their capacity to work for pay or need to care for a child with a disability (i.e. work activities for which participants receive $628 per month), (2) community service jobs (i.e. public service jobs funded by the state for which participants receive $673 per month), (3) trial jobs (i.e. to provide work experience in jobs partially subsidized by the state; participants should be paid at least minimum wage), and (4) case management services (i.e. to help find an unsubsidized job for which participants receive market wage). The program also included a category of "Caretaker of Newborn" that provided $673 per month for parents caring for a child younger than 13 weeks.

In July of 2002, all custodial parents began to receive the full pass-through of child support. In 2003, with the end of the federal waiver that allowed the experiment, Wisconsin adopted a policy in which custodial parents receiving TANF are not able to receive all child support paid on behalf of their children. Our analysis considers outcomes in 1999.

3. Theoretical Approach

The theoretical approach of this study is based on standard microeconomic theory of labor supply, which provides a framework to test basic predictions of the effects of non-labor income (such as child support) on custodial mother's labor supply. Because the vast majority of prior research is informed by the static model of female labor supply, using this approach also facilitates the discussion and understanding of our findings. We describe the model, and then use standard comparative statics to discuss basic predictions of the effects of child support on custodial mother's labor supply.

Preferences of the custodial mother are represented in equation 3.1. Where L is the non-working time, and C is a basket of goods and services (consumption).

$$U = U(L, C) \tag{3.1}$$

In order to pick the optimum amounts of non-working time and consumption the custodial mother maximizes her utility subject to an income constraint, as represented in equation 3.2, and time constraint, summarized in equation 3.3. In 3.2, P represents the price of the basket of goods and services, R represents the amount of non-labor income received by the custodial mother, W is the wage rate, and H are the hours of work. In 3.3, T represents the total available time.

$$PC \leq R + WH \tag{3.2}$$

$$T = H + L \tag{3.3}$$

The maximization of equation (3.1) subject to equation 3.2 leads to the following first-order conditions:

$$PC = R + WH \tag{3.4}$$

$$U_L - \mu W \geq 0, with > then \ H = 0 \tag{3.5}$$

$$U_C - \mu P = 0 \tag{3.6}$$

Where U_L represents the partial derivative of U with respect to non-working time (L), U_C represents the partial derivative of U with respect to the consumption of a basket of goods (C), and μ is the marginal utility of income to the family. Manipulation of equations 3.4 to 3.6 lead to the optimum number of hours devoted to work for pay (H^*), leisure (L^*), and the amount of goods and services consumed (C^*). This model allows for cases in which $H^* = 0$, which would be the scenario in which the custodial mother decides not to work at all. The additional, non-labor income may lead the mother to make different choices about the number of hours worked

for pay and the number of hours devoted to leisure. Assuming leisure is a normal good, the prediction of the static model is that non-labor income such as child support will reduce hours worked (an income effect).

4. Literature Review

Early studies that examined the effect of child support on female labor supply found that women receiving child support were more likely to work for pay and work longer hours than their counterparts (Beller and Graham, 1986). Studies that followed this line of research suggested that these findings could not be possible as there was evidence on the negative effects of welfare income on labor supply. As child support is non-labor income as well, it was expected that it would have the same negative effect on female labor supply. Researchers argued that these contradictory findings were explained by endogeneity and self-selection. As a result, subsequent studies attempted to overcome these issues in order to provide a more precise estimate of the effects of child support income on custodial mother labor supply.

Overall, studies conducted in the nineties suggest that child support income has a negative effect on the labor supply of custodial mothers, but that this effect is relatively small as compared with other non-labor income. In one study focused on divorced or separated women, Graham and Beller (1989) examined the determinants of hours worked when welfare participation and child support are endogenously determined. Using the 1979/1982 Current Population Survey (CPS) data, these authors estimated a series of OLS models of hours worked. The main methodological contribution from this approach was that estimates were corrected for participation in AFDC and child support (receipt and amount). The correction term included in the OLS models was obtained from bivariate *probit* models of participation in AFDC and child

support receipt. Results indicated that child support reduces hours worked of divorced or separated women, but this effect is about one-third that of AFDC income.

Graham (1990) examined possible explanations as to why child support income has a lower effect on labor supply than other non-labor income. Unlike Graham and Beller (1989), Graham (1990) focused on a sample of divorced or separated mothers due child support. Results from this study conformed to general findings of Graham and Beller (1989). Among a subsample of custodial mothers due child support, noncustodial father's contributions reduce hours worked but only about half as much as other non-labor income sources. This study also showed that when actual child support is replaced with predicted permanent child support, the effect of child support on female labor supply is undistinguishable from other income. Graham argues that these findings are explained by the fact that child support is a risky and uncertain income source.

We conclude this section by discussing what is known about the role of cash benefits such as TANF and EITC in the analysis of the effects of child support on custodial mother's labor supply. Understanding these relationships is important because decisions about whether to work for pay may be influenced by the whole package of non-labor income. The standard microeconomic model of female labor supply predicts that an increase in non-labor income unambiguously decreases labor supply. However, it does not provide insights about the effects of different sources of non-labor income on the decision to work for pay (e.g. child support vs. TANF). If participation in the labor market, TANF, and EITC were independent, we could estimate the role of cash benefits by including these variables in regression analyses. Because there is in fact a relationship between the decisions to work for pay and to apply for cash benefits, modeling multiple incentives faced by individuals is a very complex task (Ellwood, 2001; Meyer & Rosenbaum, 2001) that continues challenging empirical research in this area. In

fact, to the best of our knowledge, there is no single study in which decisions about labor supply, child support receipt and cash benefits are modeled altogether. Nevertheless, some studies that examine the role of AFDC/TANF and EITC in the labor supply of single mothers may provide some insights on the potential net effect of child support and cash benefits in the labor supply of low-income, custodial mother families.

Eissa and Liebman (1996) look at the effect of the 1986 tax reform on female labor supply. This reform included an expansion of the EITC that particularly affected single women with children. The authors use the 1986 to 1990 March CPS to compare single women (widowed, divorced, and never married) who have children (treatment group) with single women without children. The treatment is the change in total family income and the outcomes of interest are labor force participation and hours worked. Estimations from a difference-in-difference approach indicate that the EITC expansion had a positive effect in the labor supply of single mothers. Participation in the labor market increased by up to 2.8 percentage points for all women with children and by 6.1 percent among those single mothers with less than high school. The authors did not find any effect on hours worked.

Meyer and Rosenbaum (2001) examine the effects of several policy changes in the labor supply of single mothers between 1984 and 1996. The authors undertake a multiple datasets (CPS Outgoing Rotation Group Files and the March CPS files)-multiple methods (structural model and natural experiment) approach in order to extend prior work by Eissa and Liebman and provide robust estimates of labor supply effects of these policies (i.e. EITC, AFDC maximum benefit, Food Stamps, Medicaid, welfare waivers and time limits, training and child care benefits). Following a difference in difference approach, Meyer and Rosenbaum compare single mothers vs. single women. Between 1984 and 1996, single mothers increased weekly

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employment in up to 6.8 percentage points and annual employment up to 11.3 percentage points. Using findings from the structural model the authors decompose these changes for the entire period of analysis (1984-1996) and the period of economic expansion (1992-1996). Results suggest that EITC explains 62 percent of the increase in employment between 1984 and 1996 but only 27% of the increase in the period of economic growth. Other policy changes such as welfare benefit cuts, welfare waivers, child care and training programs had a less fundamental role in employment expansion.

Although none of these studies explicitly examined the role of child support receipt, we can use their findings to discuss some general hypotheses of the influence of cash benefits in the analysis of child support effects on custodial mother's labor supply. Taken together, the EITC expansion and 1996 welfare reform created incentives to increase participation in the labor market. Because estimates indicate that child support payments for low-income families are irregular (Ha, Cancian & Meyer, 2011), and small (Cancian, Meyer, and Park 2003; Grall, 2011), one could anticipate that custodial mother's labor supply may be more responsive to cash benefits that are more regular and larger than noncustodial fathers contributions. Hence, if child support payments are so little, the combined influence of cash benefits and child support income may have a net effect that is similar to the effect of EITC alone on labor supply. On the other hand, the fact that about half of custodial mothers under poverty do not work for pay suggests that some low-income mothers may not benefit from policies such as EITC and therefore, their decisions about labor supply are not yet influenced by these policies.

5. **Data, Sample, Methods and Measures**

Data and Sample. We use survey data from the Wisconsin Child Support Demonstration Evaluation (CSDE), which uses an experimental design to evaluate the effects of child support

on several outcomes. Custodial mothers transitioning from AFDC to TANF and new entrants to

TANF were randomly assigned to experimental and control groups. The experimental group

received the full amount paid by the noncustodial father while the control group received a

partial pass through of child support (i.e. $50 per month or 41 percent of the amount paid,

whichever was larger). This study collected three waves of information about the custodial

mother, one focal child, and the focal child's noncustodial father. The first wave was collected in

the first half of 1999 and focuses on the experiences of 1998. The second wave was collected in

the first half of 2000, and looks at the events during 1999. The third wave focused on

experiences of 2001. Because the effects of the experiment may take some time to be observed

(e.g. custodial mothers may make decisions about their labor supply after they observe either a

regular pattern of child support payments or an increased amount of child support income), our

main analyses are based on labor outcomes at wave 2. The final sample for the study includes

2,159 custodial mothers who were interviewed at both baseline and wave 2. Survey data provide

comprehensive information on employment history, child support, demographics, and

socioeconomic characteristics of the custodial mother and her family.

Method. When randomized experiments are perfectly implemented, the simple

comparison between experimental and control groups provide the unbiased causal effect.

Although the experiment in the CSDE was correctly implemented, the technical report of the

study indicates that there were some randomly occurring differences in initial characteristics

(Cancian, Caspar, and Meyer, 2001). For this reason, and the fact that controlling for observable

characteristics provides more precise estimates, we estimated regression-adjusted means rather

than simple means. In the first set of regressions we estimate the effect of child support on the

likelihood to work for pay. We use a *probit* model as summarized in equation 4.1. The dependent

variable is whether the mother is working at wave 2, and the key independent variable is the assignment to the experimental group (T_i). The vector X_i represents the set of control variables included in the analyses. We estimate three specifications of this model. The first includes only the assignment to the experimental group. In the second we add several variables that may affect labor supply, all measured at baseline so that they are not affected by experimental-group status: custodial mother's age, race, education, whether the mother has experienced multiple-partner fertility (MPF), whether the mother had a child support order, mother's TANF tier, mother's AFDC history, whether the mother has a health condition that limits the kind or amount of work she can do, and whether there is a member of the household with a health condition that limits mother's ability to work. In the final specification we add potentially endogenous variables such as marital status of the custodial mother and total number of children in the household (both at wave 2). These set of models address specific aim 1 of the study (i.e. to determine the extent to which child support receipt reduce the likelihood to work for pay among custodial mothers participating in TANF).

$$\Pr(\text{Working} = 1)_i = \beta_0 + \beta_1 T_i + \beta_3' X_i + e_i \qquad (4.1)$$

In the second set of regressions we estimate the effect of child support on hours worked. We use a *Tobit* model as summarized in equations 4.2 and 4.3. The dependent variable is the total number of hours worked per week at wave 2, and the key independent variable is the assignment to the experimental group (T_i). The same vector of control variables used for the estimation of equation 4.1 is included in the estimation of equation 4.2 as well as the strategy of adding control variables progressively. We also estimated the Heckman selection model (two-step estimation), which relaxes the assumption that the same probability mechanism determines

the decision to work for pay and the number of hours worked[3]. This approach is limited, as we do not have an instrumental variable that predicts participation in the labor market and does not affect hours worked. Therefore, identification in the Heckman selection model is solely based on the nonlinearity in the functional form. Nonetheless, we include this approach as an alternative specification. This set of models address specific aim 2 of the study (i.e. to determine the extent to which child support receipt reduce the hours worked among custodial mothers participating in TANF).

$$H_i = \beta_0 + \beta_1 T_i + \beta_2' X_i + e_i \qquad (4.2)$$

$$H_i \begin{cases} > 0 & \text{if } \Pr(\text{Working} = 1) > 0 \\ = 0 & \text{Otherwise} \end{cases} \qquad (4.3)$$

Measures.

Working for pay. This is a dummy variable indicating whether the custodial mother did any work for pay during the four weeks prior to the survey (excluding work required by TANF [4]).

Hours worked. This is a continuous measure of the number of hours that the custodial mother usually worked per week, during the four weeks prior to the survey. This measure includes hours worked in all different jobs the mother has.

Control variables. A series of dichotomous variables were created in order to indicate whether the custodial mother has less than high school ($<$ 12 years of schooling), high school (=12 years), more than high school (>12 years), or education was missing (having more than

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[3] We could also estimate a two-part, *Tobit* model. However, this specification assumes that the two parts –the decision to work for pay and the number of hours worked- are independent. Because this is likely not the case in this analysis, we estimated a Heckman selection model.
[4] Mothers in TANF tiers of trial jobs, community services jobs and transition jobs were required to work 40, 30 and 28 hours per week, respectively.

high school was used as the reference category). Custodial mother's race was measured using dichotomous variables for white, African American, other, or missing (other as reference category); marital status was measure using dichotomous variables for single, married, cohabitating, or missing (single as reference category). Multiple-partner fertility was coded as a dummy variable (1=mothers has children by more than one partner). Whether the mother had a child support order at baseline was also coded as a dummy variable (1=yes). Additional dichotomous variables were created to indicate whether the mother was in a TANF lower tier (transition job or community service job), a TANF upper tier (trial jobs partially subsidized by the state and unsubsidized jobs) or at the caretaker of a newborn TANF tier, at baseline (upper tier as reference category), and whether the mother has received AFDC transfers 24 months before entry, for 0 months, 1 to 18 months or 19 to 24 months, at baseline (0 months as reference category). Whether the mother or other member of the household have a health condition that limits the mother's ability to work were coded as dummy variables (1=having the health condition).

6. Results

Descriptive statistics.

Table 1 presents descriptive statistics for the variables included in the multivariate analyses. About two thirds of the full sample was working for pay at wave 2 and, on average, these mothers were working 38 hours per week. The mean age of these mothers at baseline was 29 and more than half of them were African American (58%). Only 19 percent of the sample had more than high school and about half had children by more than one partner. The majority of mothers had child support order in place (57%), were at the lower tier of TANF (state subsidized jobs) (53%) and had received AFDC transfers between 19 to 24 months before transitioning or

enrolling TANF (45%). Small differences between treatment and control groups were not statistically significant at conventional levels. Overall, custodial mothers in the treatment and control group are very homogeneous.

[TABLE 1]

Multivariate analyses.

Working for pay. In Table 2 we present results of regressions for the working for pay outcome (i.e. whether the mother did any work for pay during the four weeks prior to the survey, excluding work required by TANF). Although being in the treatment group (i.e. full pass through of child support payments) is negatively associated with the likelihood to work for pay in the three specifications of this model, none of these coefficients is statistically significant at conventional levels. That is, we do not find evidence that child support receipt reduces the likelihood to work for pay among custodial mothers participating in TANF. Marginal effects of control variables are consistent with previous empirical evidence on the determinants of female labor supply. Women with less than high school education are less likely to work for pay than women with more than high school education as well as mothers in lower tiers of TANF (subsidized jobs) and longer history of participation in AFDC at baseline. Also, as one could expect, mothers with a health condition that limit their capacity to work are less likely to work for pay.

[TABLE 2]

Hours worked. Table 3 summarizes the results of analyses on hours worked. For models 1 to 3 we present both the marginal effects of the truncated expected value (conditional on H>0), and the marginal effects of the censored expected value (unconditional on H>0). The estimated effect of being in the experimental group on hours worked is not statistically significant for any of the estimates (and the mean of the marginal effect is positive). The results from the Heckman

selection model are consistent with conclusions from *Tobit* models. That is, we do not find

evidence that child support receipt reduces the number or hours worked. Again, the marginal

effects of control variables are consistent with previous empirical evidence on the determinants

of female labor supply.

[TABLE 3]

One of the most frequent explanations for this result is that child support is an uncertain

source of income for low income families and, therefore, custodial mothers do not make

decisions about labor supply considering monetary contributions from the noncustodial father. In

order to assess whether results may look different in the context of increased regularity in total

child support income we re-examined this relationship in the context of multiple-partner fertility

(MPF), a phenomenon that is particularly frequent among the most disadvantaged families

(Carlson & Furstenberg, 2006).

The total child support income received by custodial mothers experiencing MPF may be

more regular than the child support income received by custodial mothers having children with a

single partner because the likelihood of paying any child support is higher for fathers who have

children with multiple mothers[5] (Meyer, Cancian & Cook, 2005). Also, the probability of

receiving child support from any father may be higher than the probability of receiving from one

particular father. The increased regularity in total child support income may influence custodial

mother's decision to work for pay because they may be more likely to include child support

income in their budgeting process. If this is the case, child support receipt may affect low-

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[5] New fertility on one parent's side is associated with an increased risk of new fertility on the other parent's side (Cancian, Meyer, & Cook, 2011). This finding suggest that it is reasonable to assume that the increased likelihood of paying child support among father's who have children with multiple mothers is somehow similar to the increased likelihood of receiving child support among mother's who have children with multiple fathers.

income, custodial mother's labor supply in the direction predicted by standard microeconomic theory.

We re-estimated models summarized in equations 4.1 and 4.2 including an interaction term of multiple-partner fertility and random assignment to a group receiving more child support. Results remained the same and we did not find evidence of any moderating role of MPF in the association between child support receipt and custodial mother labor supply (results not shown but available upon request).

7. Discussion

The overarching question of this study was whether child support receipt reduces the labor supply of custodial mothers participating in TANF. In contrast to previous research, we did not find any effect of child support receipt on the likelihood to work for pay and hours worked. It may be that previous analyses may have confounded child support effects with other unobserved characteristics that affect female labor supply. The analysis also confirmed previous finding that factors including having less than high school education, or having a health condition were statistically significant factors discouraging work for pay.

Efforts to pursue noncustodial father's contributions and increase the regularity of total income received by custodial mothers are not likely to affect their labor supply. As major reforms to social welfare policies in the U.S. have been focused on increasing custodial mothers' labor supply and child support collections, this result suggests that implementing these policies simultaneously is not reducing the potential antipoverty effectiveness of child support. Results also suggest that some of these mothers are out of the labor force for reasons related to structural poverty or socioeconomic disadvantage. They are less likely to work if they have less education,

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a health condition that limits their ability to work, or if they have responsibilities to take care of someone in the household having health problems.

Findings from this study should be interpreted in light of the following limitations. First, results cannot be generalized to all custodial-mother families as child support payments are particularly irregular and small among disadvantaged families like those participating in TANF. As a result, the custodial mother may not make decisions about labor supply considering monetary contributions from the noncustodial father. Moreover, the realization that they usually get small and irregular amounts of child support may underscore the importance of working for pay among these women. Second, there is one characteristic of the Wisconsin experiment that may make it a weaker test. Although custodial mothers in the experimental group received on average higher amounts than those in the control group, the difference was only $297 per year in 1998 and $191 per year in 1999. With such small amount of additional non-labor income, it is not surprising that child support income did not have an effect on labor supply.

Notwithstanding these limitations, results from this study may have implications for social welfare policies in the U.S. Some states have implemented programs aimed at improving the employability of disadvantaged, noncustodial fathers, hoping that these interventions will facilitate child support payments and, therefore, improve the economic wellbeing of custodial-parent families. As custodial mothers earnings continue being instrumental to the economic wellbeing of these families, mothers should also benefit from efforts to improve employability. Our results suggest that these policies are not necessarily at cross purposes; in this regard, efforts to increase the labor supply of both parents are compatible.

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Table 1. Descriptive statistics, full sample and by treatment status.

	Full Sample	Treatment	Control
Treatment	0.503		
	(0.500)		
Working	0.606	0.605	0.608
	(0.489)	(0.489)	(0.488)
Total hours worked (all)	22.564	22.836	22.289
	(20.797)	(21.343)	(20.236)
Total hours worked (working)	37.502	38.061	36.941
	(12.586)	(13.393)	(11.704)
Age	29.114	29.179	29.049
	(7.215)	(7.153)	(7.280)
African American	0.579	0.596	0.562
	(0.494)	(0.491)	(0.496)
White	0.300	0.287	0.313
	(0.458)	(0.452)	(0.464)
Other	0.102	0.097	0.107
	(0.303)	(0.296)	(0.309)
Less than high school	0.435	0.439	0.432
	(0.496)	(0.496)	(0.496)
High school	0.371	0.373	0.369
	(0.483)	(0.484)	(0.483)
More than high school	0.194	0.188	0.199
	(0.395)	(0.391)	(0.400)
Missing education	0.005	0.005	0.006
	(0.071)	(0.068)	(0.075)
MPF at baseline	0.482	0.486	0.478
	(0.500)	(0.500)	(0.500)
Child support order at baseline	0.573	0.572	0.574
	(0.495)	(0.495)	(0.495)
Caretaker of newborn TANF tier at baseline	0.104	0.108	0.100
	(0.305)	(0.310)	(0.300)
Lower TANF tier at baseline	0.531	0.520	0.543
	(0.499)	(0.500)	(0.498)
Upper TANF tier at baseline	0.365	0.372	0.358
	(0.482)	(0.484)	(0.479)
AFDC receipt 24 months before entry (0 months)	0.198	0.201	0.195
	(0.398)	(0.401)	(0.396)
AFDC receipt 24 months before entry (1-18 months)	0.353	0.347	0.358
	(0.478)	(0.476)	(0.480)
AFDC receipt 24 months before entry (19-24 months)	0.449	0.452	0.447
	(0.498)	(0.498)	(0.497)
Married	0.069	0.070	0.069
	(0.254)	(0.255)	(0.253)
Cohabiting	0.165	0.166	0.165
	(0.372)	(0.372)	(0.371)
Missing marital status	0.004	0.005	0.004
	(0.064)	(0.068)	(0.061)
Total children	2.449	2.417	2.482
	(1.397)	(1.366)	(1.428)
Health condition (mother)	0.212	0.199	0.224

	(0.409)	(0.399)	(0.417)
Missing health condition (mother)	0.007	0.010	0.004
	(0.083)	(0.100)	(0.061)
Health condition (other)	0.091	0.087	0.095
	(0.287)	(0.281)	(0.293)
Missing health condition (other)	0.007	0.010	0.004
	(0.083)	(0.100)	(0.061)
Observations	2159	1085	1074

Notes: All variables measured at baseline except labor outcomes, marital status and total children that are measured at wave 2. Means (and standard deviations) or proportions presented. Statistical significance of bivariate tests for mean difference between those in the treatment and those in the control group* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2. Regression on working for pay. Probit models results.

	Model 1	Model 2	Model 3
Treatment	-0.003	-0.007	-0.008
	(0.021)	(0.020)	(0.020)
Age		-0.001	-0.001
		(0.001)	(0.001)
African American		0.035	0.030
		(0.033)	(0.033)
White		0.065	0.059
		(0.036)	(0.036)
Missing race		0.015	0.014
		(0.079)	(0.079)
Less than high school		-0.214***	-0.208***
		(0.027)	(0.027)
High school		-0.069*	-0.068*
		(0.029)	(0.029)
Missing education		0.069	0.055
		(0.160)	(0.160)
MPF at baseline		0.001	0.013
		(0.021)	(0.021)
Child support order at baseline		0.061**	0.065**
		(0.022)	(0.022)
Caretaker of newborn TANF tier at baseline		-0.128***	-0.129***
		(0.037)	(0.037)
Lower TANF tier at baseline		-0.147***	-0.147***
		(0.021)	(0.021)
AFDC receipt 24 months before entry (1-18 months)		-0.079**	-0.077*
		(0.030)	(0.030)
AFDC receipt 24 months before entry (19-24 months)		-0.148***	-0.143***
		(0.031)	(0.031)
Health condition (mother)		-0.191***	-0.191***
		(0.024)	(0.024)
Missing health condition (mother)		-0.391**	-0.388**
		(0.142)	(0.142)
Health condition (other)		-0.046	-0.044
		(0.034)	(0.034)
Married			-0.026
			(0.040)
Cohabiting			-0.025
			(0.027)
Total children			-0.016*
			(0.008)
Total Observations	2,159	2,159	2,159

Notes: Marginal effects (and standard errors) presented. Statistical significance: $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 3. Regression on hours worked. Tobit and Heckman selection models results.

	Model 1		Model 2		Model 3		Heckman selection model (Model 2)
	Conditional expected value (H>0)	Unconditional expected value	Conditional expected value (H>0)	Unconditional expected value	Conditional expected value (H>0)	Unconditional expected value	
Treatment	0.252	0.359	0.139	0.198	0.118	0.169	1.206
	(0.690)	(0.984)	(0.663)	(0.944)	(0.663)	(0.944)	(0.791)
Age			-0.036	-0.052	-0.038	-0.054	-0.029
			(0.050)	(0.071)	(0.050)	(0.071)	(0.060)
African American			0.689	0.981	0.639	0.910	-1.650
			(1.141)	(1.625)	(1.145)	(1.631)	(1.482)
White			1.070	1.524	1.000	1.425	-2.253
			(1.219)	(1.737)	(1.227)	(1.748)	(1.723)
Missing race			-0.753	-1.072	-0.717	-1.021	-2.285
			(2.745)	(3.909)	(2.747)	(3.913)	(3.290)
Less than high school			-6.888***	-9.811***	-6.791***	-9.673***	3.721
			(0.917)	(1.305)	(0.920)	(1.310)	(4.389)
High school			-2.245*	-3.197*	-2.214*	-3.154*	0.132
			(0.917)	(1.306)	(0.917)	(1.306)	(1.597)
Missing education			4.276	6.090	4.060	5.784	0.804
			(5.594)	(7.968)	(5.599)	(7.975)	(7.131)
MPF at baseline			0.624	0.888	0.872	1.243	1.304
			(0.696)	(0.991)	(0.725)	(1.033)	(0.833)
Child support order at baseline			1.811*	2.580*	1.883*	2.682*	-2.179
			(0.750)	(1.068)	(0.754)	(1.074)	(1.551)
Caretaker of newborn TANF tier			-4.211***	-5.998***	-4.256***	-6.062***	0.609
			(1.224)	(1.743)	(1.227)	(1.747)	(2.659)
Lower TANF tier			-4.916***	-7.003***	-4.904***	-6.985***	1.536
			(0.725)	(1.032)	(0.726)	(1.034)	(2.910)
AFDC receipt 24 months before entry (1-18 months)			-2.384*	-3.395*	-2.372*	-3.379*	0.931
			(0.976)	(1.391)	(0.977)	(1.392)	(1.811)
AFDC receipt 24 months before entry (19-24 months)			-4.904***	-6.985***	-4.812***	-6.854***	2.235
			(1.040)	(1.481)	(1.045)	(1.489)	(3.211)
Health condition (mother)			-7.085***	-10.092***	-7.074***	-10.075***	1.788
			(0.887)	(1.264)	(0.888)	(1.264)	(4.137)
Missing health condition (mother)			-15.118**	-21.533**	-15.099**	-21.506**	7.366
			(5.220)	(7.436)	(5.225)	(7.442)	(11.312)
Health condition (other)			-1.224	-1.744	-1.190	-1.695	3.831*
			(1.204)	(1.714)	(1.204)	(1.715)	(1.904)
Married					-0.831	-1.184	

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						(1.341)	(1.911)
Cohabiting						-0.147	-0.209
						(0.916)	(1.304)
Missing marital status						-1.573	-2.241
						(5.293)	(7.539)
Total children						-0.312	-0.444
						(0.267)	(0.380)
Constant							42.895***
							(3.415)
Lambda							-11.729
							(12.650)
Total Observations	2,159	2,159	2,159	2,159	2,159	2,159	2,159
R2							

Notes: Marginal effects (and standard errors) presented for models 1, 2, and 3. Coefficients (and standard errors) presented for Heckman selection model. Statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$