CHILD SUPPORT REFORM AND NONCUSTODIAL'S LABOR SUPPLY

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Data from court records and a telephone survey after a Wisconsin child support reform began indicate that immediate withholding increases noncustodial's work hours. The support order is modeled as a lump sum tax, whereby parents are expected to work more to maintain own consumption levels. However the reform attempted to impose a percentage-of-income support standard that would reduce the net wage per work hour, which could have the opposite effect. It was not possible to monitor the percentage standard.

INTRODUCTION

The Family Support Act of 1988 requires all states to adopt income withholding for child support obligations by 1994. The Act also requires that the states adopt numeric child support guidelines to determine child support obligations. Wisconsin has been experimenting with reforms of this type since 1984. (Garfinkel, et al. 1988). This paper evaluates the effects of Wisconsin's percentage-of-gross-income support standard and immediate income withholding on the employment behavior of noncustodial parents (NCs). The specific focus is annual work hours.

It is less likely that child support reform will be a divisive influence on the relationship between NCs and their ex-mates if they are willing and able to work more hours to offset the potential reduction in their incomes caused by support payments. Evidence that the reforms lead to reduced work hours would indicate that NCs tend to be disgruntled by the new policies. Hence this evaluation can provide some insights about the repercussions of the reforms for family and individual well-being.

Economic theory suggests that the effect of having to pay a "tax" out of total employment income that does not vary with that income will be to increase labor supply to pay the tax. Ordinarily, child support awards are set in fixed dollar amounts. Hence the income effect of having to pay them would be to increase work hours. Immediate income withholding is intended to better enforce child support orders, and thus the main hypothesis is that this reform will increase NC's labor supply.

An effective percentage standard would change child support obligations as earned income changes. In that case the policy would change the net wage rate per work hour, with substitution effects that could offset the income effect of having to pay child support. Hence my analysis controls for the percentage standard. However because it is administratively difficult to change support awards as income changes it is

very unlikely that the Wisconsin percentage standard was effective.

In late 1983, Wisconsin established a percentage-of-income standard for use by the courts to set support awards. Between January and June 1984 ten Wisconsin pilot counties began to use income withholding on a routine basis. In 1985 the legislature made the percentage standard presumptive as of July 1987, and allowed additional counties to use immediate withholding. Therefore many of the control counties also began withholding during 1985. All Wisconsin counties were required to do so as of July 1987.

To evaluate the effects of the percentage standard and withholding, the Institute for Research on Poverty randomly sampled family court records (CRD) in 20 Wisconsin counties. These records involve divorce, separation, and paternity cases for which there was at least one child under age 18. The ten pilot counties had agreed to implement immediate income withholding for all cases in which it was possible on a routine basis. Ten "matched" control counties were chosen based on county population, divorce rate, geographic location, average per capita income, and the unemployment rate. The control counties have slightly higher populations, numbers of divorces, per capita incomes, and unemployment rates.

The CRD sample for the years 1980-1986 was divided into six cohorts by the year during which the case began. Within each county about 30 to 150 cases were chosen in each cohort, and sample weights were constructed to adjust for the differences in the proportions of cases selected in each county and cohort.

For each case, information was collected about every court action, such as about custody, visitation, and support orders. Additionally the CRD provided demographic information, such as the number and ages of children. Unfortunately, much of the income and employment data is missing. For that reason, the Institute also conducted a telephone interview during Summer 1987 to collect extensive information from a sample of parents from cohorts 4, 5, and 6. The Parent Survey (PS) refers to cases collected after the implementation of withholding on a statewide basis. It obtained information on pilot and control county parents' experience with withholding before Summer 1987.

An important aspect of implementation is that it occurred gradually. Withholding began first and progressed the most in the pilot counties. The proportion of cases assigned withholding increased from 4, 5, and 6 percent in the first three predemonstration cohorts to 57, 56, and 65

percent in the demonstration-period cohorts. Additionally, the use of withholding increased in the control counties from 25 percent for cohort 4 to over half of the cases for cohort 6. Thus simple comparisons of collections in pilot versus control counties will seriously underestimate withholding effects.

Because the labor supply information was collected by telephone after withholding began, this study is restricted to the demonstration period. Before/after analyses of work hours are not possible. However, we can infer from cross-site analyses, and by comparing the labor supply behavior of individual NCs who either did or did not have an immediate income withholding assignment.

Analysis Sample Parent Survey interviews were completed for 734 of 1521 CRD noncustodials, for a final response rate of about 48 percent. (About 15 percent of those NCs that were contacted by mail or telephone to request an interview refused.)

The employment section of the PS interview was designed to obtain information on the beginning and end dates for all the jobs that the respondent had held during 1986, up to and including those held at the time of the interview. For each job respondents were asked about whether they had been an employee or had been self-employed. Employees were asked about the number of hours they had worked per week on average for each job. If the job involved self-employment, the questions about hours were not asked. Seventy-one PS respondents (10 percent) were self-employed for all 1986, and thus there are no data on their work hours, which means they could not be used to analyze labor supply. Of the 663 noncustodials that remained, the interviewers were not able to obtain information on employment hours for 35. Hence the analysis sample for evaluating labor supply effects consists of 628 noncustodials who were employees during 1986, and for whom we were able to obtain complete information on their work hours. (Only 11 PS respondents were self-employed for part of 1986.)

The PS interview failed to get wage information from 37 of the 663 noncustodials who were not self-employed throughout 1986. I used the subsample of 663 noncustodials to predict wage rates for all 628 cases in the labor supply analysis sample, to retain the 37 cases without wage information. (See the Appendix to MacDonald and McMahon, 1989).

SELECTIVITY ISSUES

An obvious issue is the extent to which PS respondents are "selected" as a nonrandom subset of the CRD. This sample selectivity could result from problems in locating NCs to request interviews, as well as differential rates of refusal to be interviewed.

Even if we had been able to interview all CRD NCs, the analysis of the effects of withholding presents another type of selectivity problem. If the courts assigned immediate withholding more often to selected types of NCs, then the individual case treatment variables we use to measure the effects of withholding on labor supply will be misleading unless we correct for that selection process.

I used the same procedure to correct for both PS sample selectivity and withholding selectivity. CRD data and variables defining the noncustodials that responded to the PS or were assigned withholding were used to predict which types of noncustodials were more likely to respond to the PS, or to be assigned withholding. These predicted variables were then used to generate new variables (PS lambda and withholding lambda) to correct for selectivity in the labor supply analysis. (MacDonald and McMahon, 1989).

The PS was more likely to interview noncustodials who had court awards. Among those who had awards, the PS also interviewed more NCs who had been assigned withholding. With respect to income the PS was less likely to have interviewed those NCs for whom there is missing data, or who had income amounts below $495 per month. Additionally CRD tabulations show that, given an award, income withholding is assigned more often to noncustodials with relatively high incomes.

The support award amount is very important because it measures the decrease in income from the reform if the entire award is collected. To the extent that those who had awards in the PS had amounts that are not representative of the entire CRD population, it would be desirable to have an alternative measure of the award amount. Thus the CRD was also used to predict award amounts for all of the PS cases, correcting for which types have an award.

Labor Supply Analysis And
Results

The dependent variable for the evaluation of the labor supply effects of the child support reform was defined as the total hours of work that the PS respondents performed as employees during calendar year 1986. Table 1 provides abbreviations and definitions for all of the independent variables that were used to analyze the sources of variation in annual work hours. As indicated in Table 2 the average annual hours for the 628 PS analysis sample members was 2018.

"Selectivity corrected" ordinary least squares regressions were specified in double-log form, which refers to the use of the natural log transformation of the hours, wage, and award amount variables. This specification is desirable because it permits interpretation of the wage and award coefficients as elasticities (measuring the effect, in percentage terms, on the natural log of work hours of a 1 percent change in those independent variables.)

In addition to the wage rate, economic theory dictates including the person's nonearned income

and the income of any spouse. Because we used a number of sociodemographic variables to predict our wage rate measure the list of additional labor supply predictors is short.

Table 1. Parent Survey Variable Definitions (N = 628).

Dependent Variables
Ln Hours: Natural log of 1986 work hours.

Treatment Variables
PSTD: Dummy variable = 1 if PS respondent reported standard was applied as a percentage of their income.
PILCO: Equals 1 if NC's case was from a pilot county.
CRDW: Equals 1 if CRD variable indicates immediate withholding.
PSW: Equals 1 if PS respondent reported immediate withholding.

Other Independent Variables
LNWAGE: Predicted natural log of reported wage rate in PS
LNAWD: Predicted natural log of award amount, from CRD
UNEARN: NC's nonearned income (also excludes any public assistance).
SUNEARN: Spouse's income.
COH5:   Cohort 5 of CRD sample.
COH6:   Cohort 6 of CRD sample.
PRESCH: Equals 1 for preschool children.
LIMILL: Limiting condition on kind or amount of work.
ILL: Severe work limitation due to illness.
CPAR: Equals 1 if custodial parent in PS.

Selectivity Correctors
Withholding Lambda: (Heckman) correction term, predicted from CRD.
PS Response Lambda: (Heckman) correction term, predicted from CRD.

Table 2. Means and Standard Deviations for Parent Survey Labor Supply Analysis (N = 628)[a].

	Mean	Standard Deviation
Ln Hours	7.61[b]	2.12
Treatment Variables		
PSTD	0.24	0.43
PILCO	0.46	0.50
CRDW	0.48	0.50
PSW	0.57	0.50
Other Independent Variables		
LNWAGE	2.12	0.31
LNAWD	6.57	0.97
UNEARN (thousand $)	0.55	2.83
SUNEARN (thousand $)	1.87	5.38
COH5	0.37	0.48
COH6	0.37	0.48
PRESCH	0.15	0.36
ILL	0.15	0.36
LIMILL	0.08	0.27
CPAR	0.02	0.13
Selectivity Correctors		
Withholding lambda	0.46	0.88
PS response lambda	0.07	0.51

[a]Variables defined in Table 1.

[b]Antilog is 2018 hours.

Treatment Variables And Selectivity Correctors

PS respondents were asked whether their support orders are supposed to change as a percentage of income with changes in their income. This is the basis for the dummy variable PSTD.

The availability of both CRD and PS information about withholding status also provides two different variables that can be used to measure the effect of immediate withholding at the individual level: Court Record Withholding (CRDW) and Parent Survey Withholding (PSW). The first indicates that, according to the CRD, the NC was assigned immediate withholding. The second indicates that the Parent Survey respondents reported that their child support payments were immediately deducted from their paychecks. Although it is possible that some PS respondents misstated their true status for withholding, the information from the PS responses is more recent. Hence some cases that were assigned withholding subsequent to their court date may be more correctly represented by PSW than CRDW. The means for these variables do indicate that more NCs said that they were subject to withholding in the PS than according to the CRD. Fifty-seven percent of the PS respondents reported immediate withholding, compared to 48 percent in the CRD.

A third variable was also used to measure withholding. Abbreviated as PILCO, it merely indicates that the NC case was determined in a pilot county. Because withholding began to be implemented earlier in the pilot counties, NCs from those counties are more likely to have income withheld, compared to those from control counties. Although we expected that the individual-level information from CRDW and PSW would provide a more accurate measure of the effects of withholding, PILCO should provide a "lower-bound" estimate of those effects on labor supply. Forty-six percent of the PS analysis sample NCs were from courts in the ten pilot counties.

Preliminary work with the labor supply equations indicated that the PS and withholding lambda correctors may be too collinear to permit using them together. When both the withholding lambda and the PS lambda were included as predictors of work hours, the withholding lambda was significant, but the PS lambda was not. However when entered alone, the PS variable became significant. (These results probably stem from the common influence of the employment-related court record variables.) Given this evidence for collinearity between the PS response and withholding selectivity correctors, I had to assume that either the PS lambda or the withholding lambda corrects sufficiently for selectivity into both the PS sample and the withholding treatment group.

It also seemed best to correct with the PS lambda only when the pilot county variable was specified as the measure of withholding treatment because that treatment measure is not specific to individual NC analysis cases. The predicted withholding status for each case that supports the withholding lambda seemed more appropriate to use with the immediate withholding indicator from either the CRD or PS.

Table 3 provides three versions of PS labor supply estimation, corresponding to the separate use of the three different withholding treatment variables. Model 1 uses the pilot county dummy to indicate withholding, Model 2 uses the court record variable indicating immediate withholding was assigned by the courts, and Model 3 used the PS response to the question about whether the NC was subject to immediate withholding.

Table 3. Weighted OLS Regressions on Noncustodial Parent's 1986 Employment Hours (N = 628)[a].

	Model 1	Model 2	Model 3
Treatment Variables			
PSTD	0.05	0.03	0.02
PILCO	-0.05	--	--
CRDW	--	0.07	--
PSW	--	--	0.10*
Other Independent Variables			
LNWAGE	0.27*	0.22*	0.22*
LNAWD	0.05	0.06*	0.06*
UNEARN	0.00	0.00	0.00
SUNEARN	0.00	0.00	0.00
PRESCH	0.05	0.04	0.04
COH5	-0.03	-0.05	-0.05
COH6	-0.15*	-0.24*	-0.22*
LIMILL	0.06	0.03	0.03
ILL	-0.17	-0.14	-0.14*
CPAR	0.06	0.07	0.11
Selectivity Correctors			
Withholding lambda	--	0.09*	0.08*
PS response lambda	0.11*	--	--
Intercept	6.81	6.75	6.66
Adjusted R^2	0.11	0.09	0.10

[a]Variables defined in Table 1.

*Significant at 0.05 level.

Although none of the models indicate that the percentage standard has a labor supply effect, the coefficients on the award amount in all three do indicate that those NCs who are ordered to pay more child support work more hours. For every 10 percent increase in the award amount, work hours appear to increase 0.6 percent.

For comparison, note that the wage coefficient indicates that NCs are much more responsive to the effect of increased wages. Using Models 2 and 3 the conclusion would be that doubling the wage would increase work hours by 22 percent.

It is somewhat surprising that the coefficients for nonearned income (respondent's or spouse's) show no effect on labor supply. These results differ from the usual finding that nonearned income reduces men's labor supply. Perhaps that finding does not hold when the sample is restricted to the divorce and paternity cases analyzed here.

Similarly, the strong negative effect of a more recent court date (COH6) was not anticipated. Those whose case had been decided about one year before the parent interview are predicted to work from 15 to 24 percent fewer hours annually. It seems likely that this difference is associated with the personal turmoil that a divorce or paternity case engenders.

Impacts Of Immediate Withholding

Reading from left to right, Table 3 shows that the coefficients for the three withholding treatment variables increase from Model 1 to 3, as is consistent with their definitions. PILCO has the smallest coefficient, and it is not statistically significant; this county level indicator of the extent of withholding shows no effect of that policy. Hence our "lower bound" estimate of the magnitude of withholding's labor supply impact is that there is none. Model 2 produced a coefficient for the CR withholding treatment dummy with a value of 0.07, but it too was not significantly different from zero. However Model 3's use of the respondent's indicator from the PS yields a withholding treatment coefficient value of 0.10, and it is statistically significant. Based on that evidence from Model 3, the inference is that those NCs who had immediate withholding worked 10 percent more hours than those who did not (10 percent more in natural log hours—more about interpreting this below).

There are a number of caveats that need to be kept in mind when considering these results. First, unless there is substantially more error in the CRD withholding measure, it is puzzling why the PS treatment variable should be significant while the CRD version of that same variable was not. Second, if there is an important effect of withholding on employment, it would seem that even a county level variable like PILCO would show a positive impact on work hours for the NCs from those counties which implemented withholding earliest. Third—and this applies to all three models— it may be that the method used to correct for selectivity bias in PS response and/or withholding assignment has not adequately controlled for the compositional differences between the CRD and PS samples.

Nevertheless, there is much to recommend for the findings from Model 3. It is likely that the PS respondents understood the withholding question and thereby provided more accurate information about 1986 withholding status than the CRD variable could have. The prediction equation for withholding correctly predicted this status for 75 percent of the CRD cases. Hence, provided that there is sufficient collinearity between the factors that influence both PS response status and withholding, Model 3 would provide unbiased estimates of the effect of withholding, as measured at the individual level. What if Model 3 is correct? What can be said about the practical importance of its withholding treatment coefficient? A 10 percent effect from withholding on the natural log of annual work hours, when evaluated at the sample average of 2018 work hours, would imply an increase of about six hours per week. For an NC whose annual work hours were one-half the average, the impact would be 3.25 hours per week. At 25 percent above average annual hours, the effect would be nearly eight hours per week. Based on these

illustrations, it seems that immediate withholding does have a sizable impact on work hours, as would be predicted from labor supply theory.

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CONCLUSION

To evaluate the effects of immediate income withholding and the percentage-of-gross income standard for setting child support orders, this study analyzed the annual work hours of noncustodial parents from a court record case sample of 10 pilot and 10 control counties in Wisconsin. The pilot counties implemented the standard and withholding as part of a demonstration that began during 1984, but by 1985 the control counties had also begun to implement the reforms. The lessons that may be learned from Wisconsin's experience with these particular reforms are important for national policy because the same types of child support enforcement mechanisms have recently been mandated by the Family Support Act of 1988.

The results from the labor supply models vary with respect to the alternative withholding treatment variables—from no effect that withholding is responsible for, to a 10 percent increase in the dependent variable. Evaluated at the mean annual hours for the sample of parent survey respondents, that percentage translates as a six hour per week change in work hours.

At a minimum, these results indicate that withholding has not induced reductions in noncustodial parents' work effort. Assuming that the correction for sample and withholding assignment selectivity has been effective, the parent survey response measure of withholding's effect suggests that noncustodials actually work more hours because of immediate income withholding. If correct, this result implies that the adoption of immediate withholding nationwide will lead to greater personal responsibility for child support payments among noncustodials.

Nevertheless these conclusions remain very tentative. There is an obvious need to study the labor supply effects of child support reform with larger and more representative samples. Additionally it will be important to analyze more aspects of labor supply, such as the length of unemployment spells, or weeks worked. We have focused on one important summary measure—annual work hours. But it may be that decomposing that measure would lead to a different perspective.

REFERENCES

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