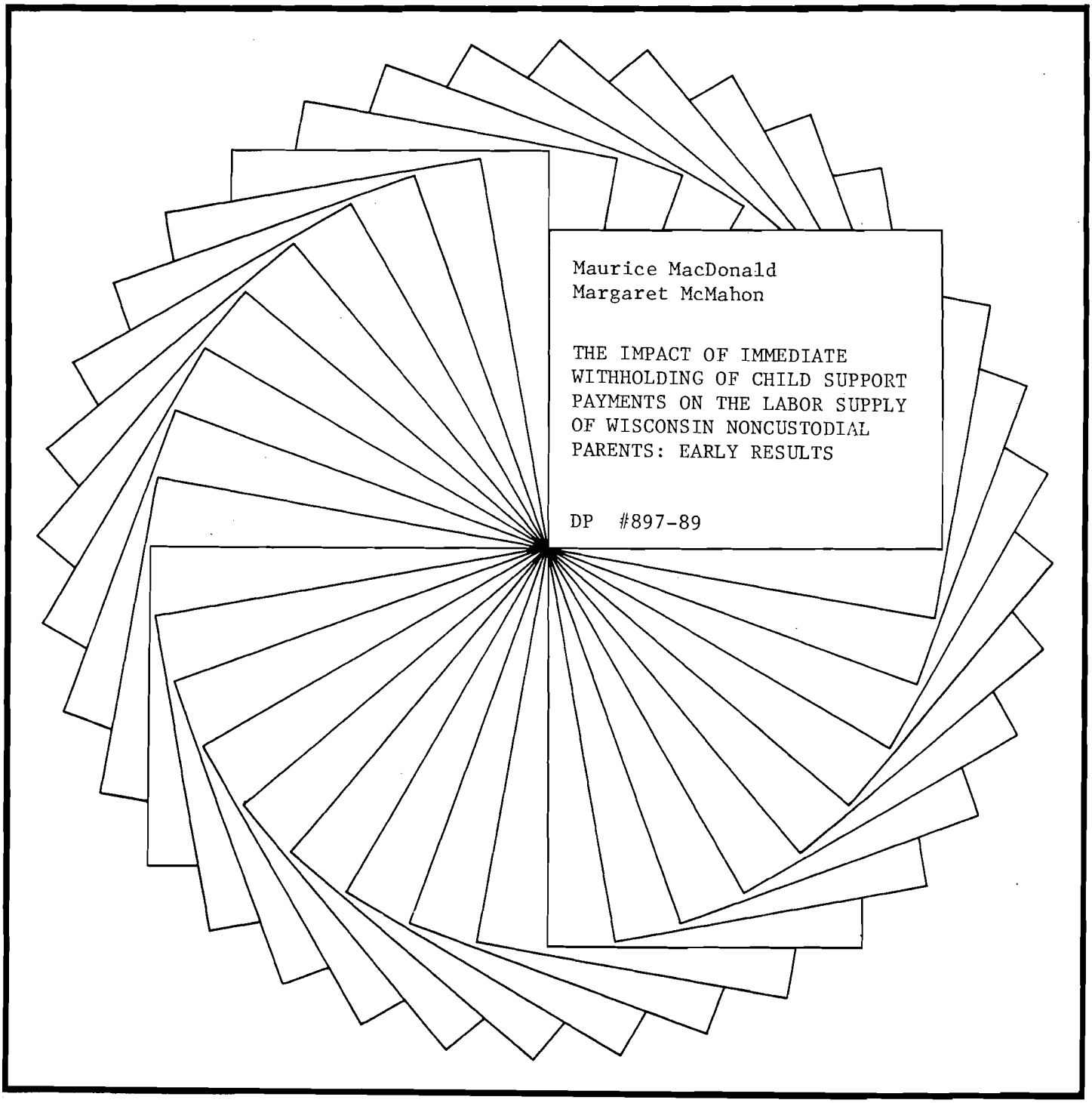
University of Wisconsin-Madison

IRP Discussion Papers



Institute for Research on Poverty
Discussion Paper No. 897-89

The Impact of Immediate Withholding of Child Support Payments on the Labor Supply of Wisconsin Noncustodial Parents: Early Results

Maurice MacDonald
and
Margaret McMahon
School of Family Resources
and Consumer Sciences
Institute for Research on Poverty
University of Wisconsin-Madison

November 1989

The research reported in this paper was supported by the Wisconsin Department of Health and Social Services and by the Ford Foundation. We wish to acknowledge Pat Brown, Nancy Maritato, and Dan Meyer for assistance in constructing the data files used for this study, and for their helpful discussions with us. Additionally we thank Irv Garfinkel and Marieka Klawitter for their advice and comments.

Abstract

This paper presents preliminary results of a study to evaluate the effects of Wisconsin's percentage-of-gross-income-child support standard and income withholding on the employment behavior of noncustodial parents. Data from court records and a telephone survey that was carried out after a demonstration of a child support assurance system was implemented in Wisconsin indicate that withholding may increase the hours that noncustodial parents work in the course of a year. As a minimum the data show that withholding does not induce reductions in the work effort of noncustodial parents. This result is in keeping with economic theory, which suggests that, when faced with a lump-sum tax, workers increase hours of work to maintain their consumption levels. The percentage-of-income standard, by reducing the net wage rate per hour of work, may have an opposite effect on hours of work. It was not possible to monitor this effect.

I. 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. These changes have evolved from a series of minor reforms that began in the 1970s and represent a considerable move toward more effective and uniform procedures for determining and collecting child support payments from nonresident parents. Wisconsin has been experimenting with reforms of this type since 1984.

This paper is a report on work in progress. It presents preliminary results of a study to evaluate the effects of Wisconsin's percentage-of-gross-income support standard and income withholding on the employment behavior of noncustodial parents (NCs). The analysis reported here is part of a larger study of the effects of these new policies on a variety of outcomes. These include impacts on support payments, custody and visitation, marriage behavior, and the work behavior of custodial parents (Garfinkel et al., 1988). The focus here is on the extent to which the reforms have affected annual work hours by NCs.

Because earnings are the largest component of total income for most workers, the work behavior effects of withholding should be closely related to effects on child support payments. Garfinkel and Klawitter (1989) recently analyzed the effect of income withholding on child support collections. Based on an extensive analysis with before/after and cross-county comparisons using data for 1980-1986 for parents with

and without withholding assignments, they concluded that routine withholding increases child support payments by 11 to 30 percent. Relative to the difference between current payments and estimates of ability to pay support, they described this range of potential effects as modest. But by the standard of most program interventions it was judged to be substantial.

To the extent that noncustodial workers are willing and able to work more hours to offset the potential reduction in their incomes caused by support payments, it is less likely that child support reform will be a divisive influence on the relationship between NCs and their ex-mates. On the other hand, evidence that the reforms lead to reduced work hours would indicate that NCs tend to be discouraged or disgruntled by the new policies. Thus evaluating the labor supply response of NCs can potentially provide important insights about the repercussions of the reforms for family and individual well-being.

The labor supply response to withholding and the percentage-of-income standard is also indicative of the extent to which more NCs have to rely on government programs such as Unemployment Insurance or General Assistance. Although preliminary cross-tabulations did not indicate any increase in noncustodials' reliance on public income sources (see Institute for Research on Poverty, 1988), the multivariate analysis conducted for this study provides further evidence to verify that initial finding.

A. Applying Labor Supply Theory

How will NCs' work hours be affected by their child support obligations when withholding is used to better enforce payments? Other

things equal (such as pay rates, and income from nonemployment sources), the answer depends on the individual preferences of NCs for spending time on the job to obtain income, versus spending their time in other ways, e.g., leisure. If the reform induces more work hours, then it will be at the expense of NCs' nonemployment time. If not, NCs have decided to work more hours to reduce the impact on their own household's consumption of increasing child support obligations.

Economists refer to this second possibility as an income effect, because that behavior is intended to increase or maintain income from employment. Additionally, 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 (unless the extra work hours are deemed so valuable for other uses that it is worth reducing consumption to spend that time outside employment).

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 hypothesis is that this reform will increase NCs' labor supply.

However, if the percentage-of-income standard is effective, such that child support obligations change as earned income changes, the potential labor supply influences of the Wisconsin reforms are more complicated. In that case the percentage standard would reduce the net wage rate received per hour of work so that the gain from each additional work hour is reduced. This change would tend to cause NCs to work fewer hours and would offset the income effect of having to pay child support. Hence we control for which NCs have support awards that

are supposed to vary as a percentage of gross income. Because it is administratively difficult to monitor awards that are specified in percentage terms so that payment amounts change with income, we expect to be unable to measure this effect.

B. Overview

Our approach to estimating the NC labor supply response to the reforms involved three steps. First we estimated a model to explain variation in NC labor supply using telephone survey data collected to evaluate the reforms. Second, these models were augmented by variables indicating which NCs had been subject to the percentage standard and income withholding to yield preliminary results on the effects of the reforms. (The details for these two steps are described by McMahon, 1989.) As a third step for this report, we confronted a number of complicating factors about the extent to which the telephone survey properly represents all of the NCs who were affected by the reforms, and about how the process by which the courts assigned withholding may affect our estimation. (Ideally, it would have been desirable to take one more step, to control explicitly for differences in preimplementation earnings behavior that may confound the results reported here. However, there is some doubt whether this can be done, such that the findings reported here may be the final results.)[1]

Paraphrasing liberally from Garfinkel and Klawitter (1989), the remainder of this section provides background about the nature of the Wisconsin child support reforms, and on the data collection procedures. Section 2 discusses the data bases we used to select our analysis sample of NCs, as well as the sample weights invoked to represent the

population that the reforms were aimed at. The survey methods for obtaining data on employment, wages, and household demographics are explained, along with our application of the standard procedure for dealing with missing wage data. Section 3 is devoted to our efforts to minimize two separate, but probably related, kinds of potential biases in our survey data. One of these problems stems from the need to use what we find to be a nonrepresentative sample of all NCs. The other is that the NCs to whom the courts assign immediate withholding may also be a nonrandom subset of all NCs. Readers who wish to get to the "bottom line" should feel free to skip this section. Finally, Section 4 presents the labor supply analysis results. Three versions are presented, corresponding to three different variables that were used to measure withholding treatment effects. Besides explaining what we think all of the results imply, Section 4 discusses the advantages and disadvantages of the alternative withholding treatment measures. A brief conclusion highlights the study's aim, methods, and findings.

C. Evaluation Design and Data Collection

Based on an evaluation conducted for the Wisconsin Department of Health and Social Services (DHSS) in 1982, the Institute for Research on Poverty recommended a number of reforms to construct a new system for setting and collecting child support payments. This Child Support Assurance System (CSAS) is intended to make parents responsible for sharing income with their children and would make government more responsible for assuring that children receive that support.

> In addition to strengthening laws to establish paternity and child support awards, CSAS consists of three components. The proportion of their income that nonresident parents are required to share with their children is specified in law. The resulting child support

> obligation is withheld from wages and other sources of income in all cases just like income and payroll taxes. The child is entitled to receive all that the nonresident parent pays, but no less than the assured benefit. If the nonresident parent pays less than the assured benefit, the state pays for the public supplement. [Garfinkel and Klawitter, 1989, p.6]

Although the assured benefit has not begun yet, Wisconsin has been implementing the other two components. In late 1983, DHSS published a percentage-of-income standard for use by the courts to establish 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, allowed additional counties to use immediate withholding, and required all counties 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 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 in 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. As Garfinkel and Klawitter report, the control counties have slightly higher populations, numbers of divorces, per capita incomes, and unemployment rates.

Predemonstration data were collected for three years, covering July 1980 through December 1983. During the demonstration period the sample included cases that began one month after the withholding implementation date in each pilot or control county. Case selection continued until

May 31, 1986. (The exact implementation dates of routine withholding in the pilot and control counties are reported in Garfinkel and Klawitter. Here it suffices to note that the controls all implemented withholding later than for the pilots.)

The entire 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. As explained in more detail below, 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 court record 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. That Parent Survey refers to cases collected after the implementation of withholding in the pilot counties and prior to the implementation of withholding on a statewide basis.

An important aspect of implementation is that it occurred gradually. Withholding began first and progressed the most in the pilot counties. Defining a case as having an immediate assignment if there was an income assignment within 60 days of the first court action with a child support order, Garfinkel and Klawitter estimated that 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. Also they note that, even

by the third year, routine withholding was not fully implemented in the pilot counties. Additionally, the use of withholding increased in the control counties from 20 and 25 percent for cohorts 3 and 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.

Briefly, then, the data we analyze here are from court records and a telephone survey for the period after the percentage standard and routine income withholding demonstration began in the pilot counties. Legislation enacted after the demonstration began also permitted the use of withholding in the control counties, and the percentage standard was available for use in both pilots and controls throughout the demonstration period. Because the labor supply information was collected by telephone from the postimplementation cohorts, our evaluation of withholding effects is restricted to the demonstration period. Thus before/after analyses of work hours are not possible. However, we are able to make inferences 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.

II. DATA BASES AND ANALYSIS SAMPLE DEFINITION

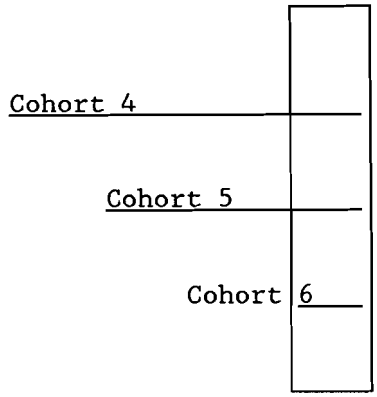
Figure 1 specifies the exact dates that define cohorts 4, 5, and 6. As explained above, all three of these cohorts were sampled after the implementation dates for the percentage standard and immediate withholding in the pilot counties. We refer to the information about NC parents and their court case that was obtained from the court records,

Figure 1

Data Structure for Post-Implementation CRD and PS Interviews

Cohort Number:	4	5	6
Cohort Date	1/84 to 12/84	10/84 to 6/85	10/85 to 6/86

Data



(10/83)--Percentage-of-income standard published.

(1/84-6/84)--Immediate income withholding pilots begin.

_____--Court record data set (1984-1986).

Parent Survey (1984-1986)--questions refer primarily to the 1986 calendar year.

coded, cleaned, and documented in machine readable form as the Court Record Data base (CRD).

For the purposes of this study it was necessary to exclude two types of CRD cases from the analysis. "Action to compel" (ATC) cases were excluded because many of these cases had originally entered the courts before withholding was implemented. Additionally all cases that resulted in joint or split child custody were excluded because of ambiguity about which parent would be liable for child support payments and during what time periods. Although joint or split custody cases have support awards assigned, these may change as the child's residence changes. It would be very difficult to link changes in custody or support awards to employment data for the relevant periods. Thus the exclusion of ATC and joint/split custody cases restricted our noncustodial cases from the court records to those whose case type was either divorce/separation or paternity.

The telephone survey of parents from the court records was conducted during summer 1987 to obtain information about employment and other relevant variables needed to evaluate the effects of implementing the standard and withholding reforms. The data base constructed from those interviews is called the Parent Survey data (PS). The rectangle in Figure 1 illustrates that the Parent Survey provides a cross-section for the 1986 calendar year. With respect to labor supply, the Parent Survey interviewed noncustodials about their jobs and employment for a period that was roughly one (cohort 6), two (cohort 5), or three (cohort 4) years after their court case began. About 17 percent of all the NCs in the PS were interviewed before their court case had reached the stage at which their court award or withholding status had been determined.

These cases were included in the analysis to allow for the possibility that expectations about the effect of the standard and withholding could have influenced work behavior. Our preliminary analysis of the Parent Survey data that excluded these same cases produced essentially the same results about withholding and the standard as reported here (see McMahon, 1989, p.29).

Because of uncertainty about how many parents could be interviewed for the Parent Survey within cost and time constraints, the court records for cohorts 4, 5, and 6 were subdivided into 20 randomly assigned subgroups for the survey. The work to attempt to locate and interview respondents was completed for 15 of these 20 subgroups, or strata. These 15 strata included 1521 noncustodial CRD cases. Parent Survey interviews were completed for 734 of these noncustodials, for a response rate of about 48 percent. About 15 percent of those NCs that we were able to contact by mail or telephone to request their cooperation in the PS interview refused.

Most labor supply studies separate males from females for analysis purposes. The 734 CRD noncustodials interviewed in the PS included both males and females from the court record, but only 3 percent were female. Also, 2 percent of all PS respondents from the original 1521 CRD NCs were determined to be custodial parents at the time of the PS (according to the PS definitions--based on the parent with whom a randomly selected child resided during most of 1986--which need not be the same as the legal custody status in the CRD). Because the percentages of females and PS custodials were so low, we decided to include them in the labor supply analysis by using dummy variables to control for the differences in wages that may be expected for females, and for changes in labor

supply that persons who may have recently become custodial parents may experience. (In the future, we plan to focus our analysis on males only.)

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 of 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 the labor supply effects of the reforms 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.)

In addition to complete information on work hours, data on wage rates is another critical element for labor supply analysis. We used the pay rate for the most recent job for which the respondent reported a wage rate directly (hourly employment), or for which we could construct a wage (for salaried employees) by dividing their reports of work hours for the job into the amount of earnings they reported for that job. When the survey failed to obtain the wage information for the most recent job, the next most recent job's wage information was obtained,

etc. Nevertheless, the PS interview failed to get wage information from 37 of the 663 noncustodials who were not self-employed throughout 1986. Appendix A contains the equations we derived using that subsample of 663 noncustodials to predict wage rates for the 628 cases in the labor supply analysis sample, so that we would not have to exclude any cases from that sample for lack of wage information.

In summary, from the 1521 noncustodials in the CRD we were able to use 628 of the 734 PS respondents to analyze how withholding and the standard may have affected employment hours. Seventy-one of the 734 respondents would not have been subject to withholding because they were self-employed throughout 1986, and thus excluding them is appropriate. Another 35 PS respondents could not be included in the labor supply analysis sample because of missing data on their 1986 work hours.

A. Sample Weighting

Because the Parent Survey did not attempt to interview all of the NCs from the CRD, but only those in the 15 strata we mentioned earlier, there is a different set of sample weights for the PS than for the CRD. The original CRD sample was stratified in a manner that selected varying proportions of each county's court records based on the size of the county's court record caseload, mix of cases by type (paternity or divorce), and cohort. Hence we analyzed the CRD with weighted data, where the weights depend on the county size, case mix, and cohort. Analyses of the PS sample were conducted by reweighting to account for the differences between the entire CRD sample and that portion of it that was used to locate and interview NCs by telephone. Hence, except for the potential of differential response rates in the PS (discussed

next), both the CRD and the PS results reported here refer to the population of NCs in the ten pilot and ten control counties.

III. SELECTIVITY BIASES

The fact that only about half of all CRD noncustodials were located and interviewed by the PS raises the important question of the extent to which the PS labor supply data and other variables correctly represent the entire population of all CRD noncustodials. An obvious issue is the extent to which the Parent Survey respondents are "selected" as a nonrandom subset of the CRD. In other words there may be proportionately fewer NCs of particular types in the PS labor supply analysis sample than in the population. This sample selectivity would 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. Suppose, for example, that the courts tend to assign withholding more often to workers who have more stable employment histories. In this case the withholding variable would be more likely to be positively associated with more work hours even if the withholding treatment itself had no independent effect. The potential for this treatment selectivity problem required a method to attempt to separate the differences in work hours that are

due to withholding itself, versus those differences in hours that reflect compositional differences between those to whom the courts did or did not assign immediate withholding.

As will be explained in greater detail below, we 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.

To provide a perspective on the extent to which the CRD and PS samples differed with respect to some important noncustodial parents' characteristics, we tabulated and compared the two data sets on income, and award/withholding status. Tables 1 and 2 reveal that there are substantial differences between the two samples. The first panel of Table 1 compares the percentage distributions of award and withholding status in the CRD to the same distributions for the subset of 628 cases in the PS labor supply analysis sample. (Award and withholding status for this table are CRD variables, i.e., as from the court records.) The second panel of Table 1 compares the CRD and PS analysis samples with respect to their distributions for NC's Income.[2] Table 2 cross-tabulates noncustodial income and award and withholding status separately for the CRD and PS analysis sample.

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

Table 1

Court Record and Parent Survey Percentage Distributions (weighted) for Awards, Withholding, and Noncustodial's Income[a]

	Court Record N = 1521	Parent Survey Sample N = 628
Award/Withholding[b]		
No award	20.6%	14.2%
Award, no withholding	26.1	23.9
Award, withholding	53.3	61.9
	100.0	100.0
Noncustodial's Monthly Income		
Missing	25.5%	16.7%
$0-495	18.7	16.0
$496-1110	19.7	20.3
$1111-1645	14.4	19.4
$1646+	21.7	27.6
	100.0	100.0

[a]Income data from Department of Revenue, or Court Record if DOR information was not available.

[b]Award and withholding status from Court Record.

Table 2

Percentage Distributions of Monthly Noncustodial Income[a] within Award/Withholding Categories: Comparing Weighted Court Record and Parent Survey Samples

Award/ Withholding[b]	Monthly Noncustodial Income				
	Missing	$0-495	$496-1110	$1111-1645	$1646+
		Court Record (N = 1521)			
(n)	(370)	(308)	(318)	(223)	(302)
No award	40.2%	32.5%	12.6%	5.3%	4.6%
Award, no withholding	24.1	25.9	25.4	29.0	27.4
Award, withholding	35.7	41.7	62.0	65.7	68.0
	100.0	100.0	100.0	100.0	100.0
		Parent Survey (N = 628)			
(n)	(115)	(112)	(128)	(122)	(151)
No award	26.4%	35.8%	12.6%	3.1%	3.3%
Award, no withholding	23.5	21.6	23.9	25.2	24.7
Award, withholding	50.1	42.6	63.5	71.8	71.9
	100.0	100.0	100.0	100.0	100.0

[a]Income data from Department of Revenue, or Court Record if DOR information was not available.

[b]Award and withholding status from Court Record.

less likely to have interviewed those NCs for whom there is missing data, or who had income amounts below $495 per month. Table 2 also shows that the PS was less likely to obtain interviews with missing or low-income noncustodials who had no child support awards. Additionally the court-record tabulation at the top of the table indicates that, given an award, income withholding is assigned more often to noncustodials with relatively high incomes. These differences between the CRD and PS indicate that it could be very misleading to analyze the effects of withholding and the standard on work hours from the PS without correcting for PS nonresponse and withholding selectivity.

The fact that the percentage of NCs who had child support awards was higher in the PS than the CRD indicated a need to explore potential biases for measuring award amounts. We focused on this variable in particular because, like withholding status, it is a key determinant of the influence of child support policy on labor supply. As explained earlier the amount of the award measures the decrease in NC income due to that status if the award is collected. Hence larger awards will induce more labor supply.

For those PS respondents that were interviewed before their award was established, it may be inappropriate to use the value of zero to represent their award amount. The reason is that some may have had fairly accurate expectations of what the award would be. If so, their work behavior would be in response to the expected award amount. Similarly 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 we used the CRD data to predict award amounts for all of the PS cases (see

Appendix B). To determine whether the labor supply results presented here are sensitive to the use of predicted award amounts, we also used the actual amounts with zero values assigned to those cases that had no award. The coefficient on this "observed" award variable was very similar in magnitude to that for its predicted counterpart. Additionally we experimented with a specification which simply used a dummy variable for whether or not there was an award. In that specification the coefficient on the withholding selectivity term was reduced somewhat, but there was no effect on the other coefficients.

A. Correcting for PS Response and Withholding Selectivity

We considered the relative merits of two strategies to adjust for the differences between the types of NCs in the CRD versus the PS. One would be to develop a new set of weights for the PS cases, intended to produce distributions of selected characteristics in the PS that are quite similar to those in the CRD. The logic of this approach would be to treat the PS sample as if it differed from the CRD because of a stratified sample selection procedure that had been intentionally implemented. New weights would be developed which would effectively raise the percentage of weighted cases for the underrepresented types of PS respondents. This reweighted PS sample could then be used to evaluate withholding and the standard. We decided not to try this method, because we have no experience with it. However, if one were correct about which characteristics should be used to develop the new weights, this procedure might be as effective, and possibly more effective, than the one we used.

Our strategy (which parallels what we did to control for withholding selectivity) was to construct a variable intended to measure the propensity for each NC in the CRD to become a PS respondent. Econometrically speaking, we developed a "lambda" correction term that is intended to control for the influence on labor supply within the PS data set that is attributable to the set of variables that differentiate PS respondents from nonrespondents. To obtain this correction term we first developed a logit equation that used only CRD variables to predict PS respondent status. The resulting equation was then used to produce a "PS response lambda" score for each case in the PS labor supply analysis sample. By including the PS response lambda in the list of independent variables for the labor supply regressions, the coefficients on the other independent variables (such as for the child support reform treatments) should measure the independent effects of those variables as if they had actually been obtained from a random sample of CRD cases. Table 3 defines the predictor variables and Table 4 presents their means and standard deviations.

The first column of Table 5 displays the results of the logit fit for PS Response. Following the same logic as for PS response status, the second column of Table 5 shows how the CRD variables were used to predict which types of NCs were more likely to be assigned immediate withholding by the courts. The coefficients from that logit equation were used to obtain a withholding lambda for use as a control variable in the labor supply estimation equation.

The results for both PS response and CRD withholding status indicate that the noncustodial's income and employment status (whether employed or not) at the time of the court's action behave very similarly

Table 3

Court Record Variable Definitions

CRDW:	Case had immediate withholding.
PRESCH:	Youngest child is less than 6 yrs. old.
KID2:	Total number of children equals 2.
KID3:	Total number of children greater than 2.
CINC:	Custodial's income for the year before petition date.
MCINC:	Missing Custodial income.
NCINC:	Noncustodial's income for the year before petitioning. (Income Ranges for NCINC:) LONCINC:$946-1110 monthly MENCINC:$1111-1645 monthly HINCINC:$1646+
MNCINC:	Missing noncustodial income.
NCEMP:	Noncustodial's employment status (employed = 1).
MEMPLST:	Missing employment status.
NCSELFEM:	Noncustodial is self-employed.
NCTEEN:	Noncustodial parent's age is less than 20.
PATERN:	Case type is paternity.
LENGTH:	Length of marriage, in years.
PILOT:	Pilot county dummy.
MONTH:	Number of mos. since county began withholding.
YR83	1983 was the year before petition date.
YR84:	1984 was the year before petition date.
YR85:	1985 was the year before petition date.
CLAW:	Custodial parent had a lawyer.
NCLAW:	Noncustodial parent had a lawyer.

Table 4

Court Record Variables: Means and Standard Deviations[a]
N = 1521

	Mean	Standard Deviation
PRESCH	0.77	0.42
KID2	0.28	0.45
KID3	0.13	0.34
CINC	599.60	539.70
MCINC	0.28	0.45
MNCINC	0.24	0.43
NCINC	1100.00	1186.00
(NCINC Brackets):		
LONCINC	0.25	0.43
MENCINC	0.25	0.43
HINCINC	0.25	0.44
NCEMP	0.66	0.47
MEMPLST	0.14	0.34
NCSELFEM	0.05	0.22
NCTEEN	0.07	0.26
PATERN	0.36	0.48
LENGTH	7.79	27.76
PILOT	0.48	0.50
MONTH	7.53	10.10
YR83	0.49	0.50
YR84	0.39	0.49
CLAW	0.89	0.31
NCLAW	0.40	0.49

[a]Variables defined in Table 3.

Table 5

Logit Equations, Estimated from Court Records to Predict Parent Survey Response and Immediate Withholding Status[a]

	PS Respondent? 1 = Yes	Assigned Withholding? 1 = Yes
Intercept	0.67	-0.88
PRESCH	-0.57*	0.21
KID2	-0.01	0.24
KID3	-0.28	0.18
CINC	-0.01*	-0.01*
MCINC	-0.37*	0.12
LONCINC	0.22	0.34*
MENCINC	0.51*	0.54*
HINCINC	0.51*	0.65*
MNCINC	-0.36*	-0.49*
NCEMP	0.40*	1.54*
MEMPLST	0.44*	0.76*
NCSELFEM	0.04	-1.23*
NCTEEN	-0.03*	-0.02
PATERN	-0.18	-0.26
PILOT	0.18	0.69*
LENGTH	0.00	0.00
MONTH	0.00	0.00
YR83	0.00	-0.90*
YR84	0.11	-0.42*
NCLAW	0.29*	0.03
CLAW	0.05	0.09
Cases predicted correctly	897	1138

[a]Withholding status in the Court Record data. Variables defined in Table 3.

*Significant at 0.05 level.

as predictors. Those with missing or low income were less likely to be interviewed or to be assigned withholding. Also those whose employment status was not determined in the CRD were more likely to be in the PS and to have child support withheld immediately. There was no apparent effect of self-employment on PS response. But, by definition of the withholding rules, those who were self-employed were found to be very unlikely to get immediate withholding. (Recall that the PS analysis sample does not include NCs who were self-employed throughout 1986.) These similarities are noted to raise the issue of the extent to which the CRD can provide independent correction variables for both PS response and withholding selectivity.

Yet there are differences in the coefficients for variables other than self-employment, such as for the dummy variable indicating missing values for the custodial parent's income, whether the noncustodial was teen-aged, or had preschool children, and whether "he" had a lawyer. Additionally because withholding was implemented gradually, the variables indicating cohort subgroup are highly significant for that status, but not for PS response. Finally, note that the CRD equation for withholding status fits better, in that it predicted 75 percent of the NCs' actual status correctly, compared to 58 percent for PS response.

IV. 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 6 provides abbreviations and definitions for all of the independent variables that were used to analyze the sources of variation in annual work hours for NC parents during 1986. As indicated in Table 7, the average annual hours for the 628 PS analysis sample members was 2018.

The ordinary least squares regression estimates were specified in double-log form, which refers to the use of the natural log transformation of the hours, wage, and award amount variables. In addition to the fact that taking logs reduces the influence of outliers in the data, 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, to control for the expected reduction in work hours associated with income from sources other than own employment. Additionally there is a need to control for nonfinancial influences on labor supply. Because we used a number of sociodemographic variables to predict our wage rate measure (see Table A.1) the list of additional labor supply predictors is short. Two dummy variables are included to control for the effect of health limitations, and there are two more to account for the potential constraining effect of child care responsibilities: a dummy indicating the respondent was residing with preschool children, and another indicating that the respondent had physical custody of his or her children during most of 1986. Finally, we used two dummy variables to indicate the potential effect of time since court date on labor supply.

Table 6

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 (see Appendix A).
LNAWD:	Predicted natural log of award amount, from CRD (see Appendix B).
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 PS.

Table 7

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 6.

[b]Antilog is 2018 hours.

Relative to the members of Cohort 4 who had court dates about three years prior to their PS interview about work hours in 1986, the dummy variables for Cohort 5 and 6 should indicate the potentially depressing effect on work hours of their more recent divorce or paternity situations.

A. Treatment Variables and Selectivity Correctors

Although both the CRD and the PS provide variables to indicate which NCs have child support orders that are supposed to change as a percentage of gross income, the PS respondent's report is a much more reliable indicator. There appears to be confusion in the way that the courts provide information about the percentage standard, such that it is difficult to tell whether child support payments are actually supposed to change as gross income fluctuates, or whether a fixed child support order is determined as a percentage of gross income at the time of the court award. PS respondents were asked whether their support orders are supposed to change as a percentage of income with changes in their income, and 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 as a measure of withholding. Abbreviated as PILCO, this variable simply 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.

As discussed in Section III, the list of independent variables in Table 6 includes the two lambda variables we constructed to control for selectivity with respect to the court's withholding assignments and PS response bias. 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 that was discussed earlier.) Given this evidence for

collinearity between the PS response and withholding selectivity correctors, we decided not to rely on estimates that use both correctors in the same labor supply equation. Hence the assumption is that either the PS lambda or the withholding lambda corrects sufficiently for selectivity into both the PS sample and the withholding treatment group.[3]

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 underlies the withholding lambda seemed more appropriate for the versions which used the immediate withholding indicator from either the CRD or PS.

B. Labor Supply Results

Table 8 provides three versions of our preliminary results for PS labor supply estimation, corresponding to the separate use of the three different 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 uses the PS response to the question about whether the NC was subject to immediate withholding.

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 0.06 percent.

Table 8

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 6.

*Significant at 0.05 level.

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. Alternatively it could result from a failure to correct for selectivity problems properly.

Similarly, the strong negative effect of a more recent court date (COH6) was not anticipated. Those whose case had been decided (or who were interviewed prior to their court date) 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.

C. Impacts of Immediate Withholding

Reading from left to right, Table 8 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 impact is that there is none. Model 2 produced a coefficient for the CRD 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 finding would be 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.

On the other hand, 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. Assuming that withholding selectivity is the most serious selectivity problem, recall that the prediction equation for withholding correctly predicted this status for 75 percent of the CRD cases. Hence, provided that there is a 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 0.10 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.

V. 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.

In 1987 the Institute for Research on Poverty conducted an interview of a random sample of the parents from the court record cases and obtained information about noncustodial parents' employment behavior during 1986. That information was used to develop multivariate labor supply models that include three dummy variables to measure the respondent's status with respect to immediate income withholding: that the NC's court case was decided in one of the pilot counties; according to the court record, the NC was assigned immediate withholding; and that the respondent to the parent survey said that support payments were being routinely deducted by the employer. Because the court record and parent survey dummies indicate which individual NCs experienced withholding, these variables are more likely to represent the actual treatment effects of withholding. However, immediate withholding may be assigned to NCs who would work more hours in the absence of that reform, and it is problematic to correct for the potential bias from this selective assignment process. Hence the pilot county dummy was also used to test whether the more extensive application of withholding in the pilot counties resulted in more work hours.

According to labor supply theory, the increased support payments that withholding is intended to achieve should lead NCs to increase their work hours to minimize the corresponding reduction in their take-home pay. From a policy perspective there is a concern that NCs may instead become disgruntled by withholding and reduce their work hours.

Because the parent survey interviewed only about half of the court record sample we used information about the characteristics of the respondents from the court record data to develop a variable that was intended to correct for the differences between our analysis sample and

the entire court record sample. This same approach was used to predict which NCs would be assigned immediate withholding to correct for selectivity with respect to normal work hours. It is difficult to know whether these corrections are sufficient to overcome the potential bias from nonresponse and withholding selectivity.

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

At a minimum, these results indicate that withholding has not induced reductions in noncustodial parents' work effort. Assuming that our corrections for sample and withholding assignment selectivity have 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 than provided by this study.

Appendix A: Wage Rate Prediction

Table A.1 defines the variables from the PS that were used to predict wages for the 37 NCs who responded to the interview but for whom data on wage rates could not be obtained. The means and standard deviations for the predictors are in Table A.2. The first column of Table A.3 presents the equation used to predict status as a wage reporter; the second column shows the wage prediction equation, including the coefficient for the lambda variable derived from the first equation.

Table A.1

Definitions for PS Variables for Wage Rate Prediction

Predictors of NC's Wage Reporting Status (N = 663; 1 = reported wages)	
Education	
LTHS:	Less than high school.
HISCH:	High school completed.
SOMECOL:	Some college education.
COLDEG:	College degree.
GRADSCH:	(Omitted category) graduate or professional school.
Age:	of NC, in years.
Family Characteristics	
PRESCH:	Preschool children dummy.
FAMSIZE:	Family size.
Marital Status[a]	
NEVMAR:	Never married dummy.
MAR:	Married dummy.
DIV:	Divorced dummy.
SEP:	(Omitted category, separated.)
Wage Prediction Variables (N = 628)	
Education	
LTHS:	Less than high school.
HISCH:	High school completed.
SOMECOL:	Some college education.
COLDEG:	College degree.
GRADSCH:	(Omitted category) graduate or professional school.
Male:	Dummy.
White:	Dummy.
Age:	Of NC, in years.
AGE SQ of NC, in years	Squared age.
WIS SMSA:	Dummy for SMSA residence.

[a]This variable performed better than a dummy indicating paternity cases.

Table A.2

Means and Standard Deviations for Wage Rate Predictors

	Mean	Standard Deviation
Wage Reported? (1 = reported wage data)	0.94	0.21
LNWAGE	2.18	0.27
Wage Data Predictors, N = 663		
LTHS	0.14	0.34
HISCH	0.44	0.50
SOMECOL	0.31	0.46
COLDEG	0.08	0.28
AGE	32.98	8.02
PRESCH	0.16	0.37
FAMSIZE	2.49	1.33
NEVMAR	0.17	0.38
MARD	0.23	0.42
DIV	0.57	0.50
Wage Prediction Equation, N = 628		
WHITE	0.96	0.20
MALE	0.97	0.17
LTHS	0.13	0.34
HISCH	0.44	0.50
SOMECOL	0.30	0.46
COLDEG	0.09	0.29
AGE	32.46	7.80
AGESQ	1114.10	552.06
WIS SMSA	0.67	0.47
LAMBDA[a]	0.09	0.08

[a](Heckman) correction term, derived from Wage Reporting Status prediction equation.

Table A.3

Probit Equation for Wage Reporting Status; OLS Prediction of LnWage

	Probit, N=663 1 = Reported Wages	OLS, Predicting LNWAGE, N = 626
INTERCEPT	1.84	0.87
NEVMAR	0.35	
DIV	0.50	
MAR	0.66*	
PRESCH	0.03	
FAMSIZE	0.00	
LTHS	0.71	-1.03
HIGHSCH	0.25	-0.84
SOMECOL	0.45	-0.87
COLDEG	1.09*	-0.63
AGE	-0.03*	0.07
(Cases Predicted Correctly)	(613)	
WHITE		0.12
MALE		0.34*
AGESQ		-0.01
WIS SMSA		0.07
LAMBDA		-1.16*

*Significant at 0.05 level.

Appendix B: Predicting Award Amounts

The rationale for predicting award amounts is the same as that for predicting wages, in that the actual observations on both awards and wages are from a censored sample. First, CRD variables (including NC income) were used to predict whether or not the NC had an award. The resulting equation was used to derive a variable to indicate the propensity for each type of NC case to receive an award. This new variable was then used along with the CRD variables in a second equation to predict award amounts based on the subset of CRD cases for which awards are known in the CRD. Finally that equation was used to predict award amounts for all cases in the PS analysis sample. Table B.1 displays the award status and award amount prediction equations.

Table B.1

Probit Equation for Award Status; OLS Prediction of LNAWD (CRD Sample)[a]

	Probit on, Award? Yes = 1 N = 1521	OLS Prediction for Ln Award Amount N = 1161
Intercept	-0.19	5.73*
PRESCH	0.29*	-0.30*
KID2	0.10	0.21*
KID3	-0.07	0.40*
CINC	-0.01*	0.00
MCINC	-0.01	0.00
NCINC	0.01*	0.01*
MNCINC	-0.58*	0.42*
NCEMP	0.91*	-0.13
MEMPLST	0.34*	-0.08
NCSELFEM	0.24	-0.43*
NCTEEN	0.17	-0.25**
PATERN	-0.29*	-0.27*
PILOT	-0.05	0.06
LENGTH	-0.01	0.01
MONTH	0.00	0.00
YR83	-0.02	0.00
YR84	0.05	-0.04
NCLAW	-0.02	0.01
CLAW	0.26*	0.02
LAMBDA	--	-1.87*
Cases Predicted Correctly	1199	--

[a]Variables defined in Table 3.
*Significant at 0.05 level.
**Significant at 0.10 level.

Notes

[1]The Institute's data base on the reforms includes Department of Revenue income data on survey respondents for whom we could match records for up to three years prior to the reform's implementation. We plan to explore the use of these DOR data as a proxy variable to control for "normal" labor supply behavior in the absence of the child support reform treatments. This is problematic because we cannot match records for more than about 65 percent of our analysis cases. To the extent that withholding is assigned more often to workers with more stable earnings, if the method used here to account for the potential of bias from that assignment process is sufficient, it may also serve as an effective control variable for pretreatment differences in hours worked.

[2]Noncustodial income is defined as reported to the Department of Revenue tax file for the 65 percent of cases for whom we could match records via their social security numbers, as recorded by the courts in the CRD for another 18 percent, and as "missing" for the remaining cases.

[3]We also used the CRD to predict a categorical dependent variable based on the cross-classification of PS response and withholding status. The intent was to develop a single correction term to capture the jointness between PS response and withholding status. However our multinomial logit "fits" for this dependent variable were not very good.

References

Garfinkel, Irwin, et al. 1988. "Evaluation Design for the Wisconsin Child Support Assurance Demonstration." Institute for Research on Poverty, University of Wisconsin-Madison, June.

Garfinkel, Irwin, and Marieka Klawitter. 1989. "The Effect of Routine Income Withholding on Child Support Collections." Institute for Research on Poverty Discussion Paper no. 891-89. University of Wisconsin-Madison, August.

Institute for Research on Poverty. 1988. "Cross Tabulations from the Child Support Parent Survey." Report to the Wisconsin Department of Health and Social Services, from the Child Support Evaluation Team. University of Wisconsin-Madison, October.

McMahon, Margaret. 1989. "Wisconsin Child Support Reform and Noncustodial Parent's Labor Supply." M.S. Thesis, Department of Consumer Science, University of Wisconsin-Madison.