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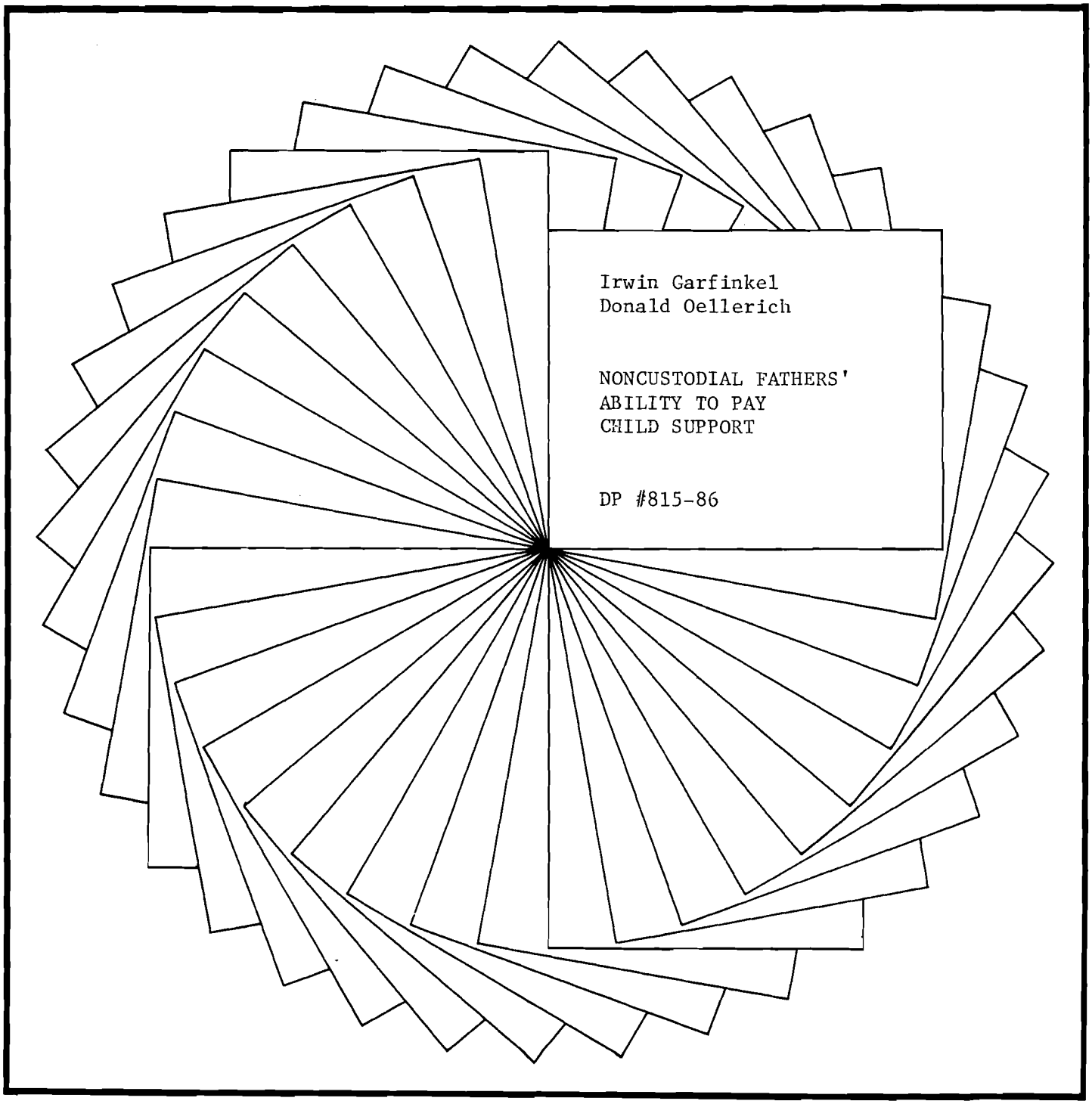

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Noncustodial Fathers' Ability to Pay Child Support

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Abstract

This paper explores the extent to which noncustodial fathers can pay child support by estimating the incomes of noncustodial fathers and coupling these estimates with simulations of alternative normative standards for how much absent parents should be expected to contribute to the costs of rearing their children.

The paper first develops a methodology for estimating the incomes of noncustodial fathers by establishing the relationship between the characteristics of wives and the incomes of their husbands, interpolating the incomes of noncustodial fathers on the basis of the characteristics of the mothers of their children, and adjusting for the fact that nonmarried men have lower incomes than married men. The methodology is tested by comparing estimated incomes with reported incomes of noncustodial parents in a number of data sets.

The estimated incomes are then coupled with three different normative standards for determining child support obligations.

The study indicates that the amount that is currently paid in child support ($6.1 billion in 1981) is far below the amount that should be paid under the various standards--from $22 billion to $30 billion. It would appear that noncustodial fathers can pay a great deal more than they are now contributing in child support.

INTRODUCTION

The ability of noncustodial fathers to pay child support is a critical national issue. By child support, we mean the transfer of income to the custodial parent of a child with a living noncustodial parent. The transfer may be financed by either the noncustodial parent or the government. Nearly one-half of the next generation will be potentially eligible for child support before they reach adulthood.[1] The current private and public child support transfer systems, however, are generally considered to be inadequate.

At present, noncustodial fathers transfer approximately $6 billion in private child support to the custodial mothers of their children. Yet only 60 percent of noncustodial fathers have a legal obligation to pay child support. Furthermore, those with legal obligations should have paid nearly $9.4 billion rather than only $6.1 billion. Only half of those with a legal obligation paid the full amount, and nealy one-third paid nothing.[2]

About one of every three children eligible for child support is poor and on welfare.[3] Public transfers in welfare programs--Aid to Families with Dependent Children, Food Stamps, Medicaid, Public Housing, and a host of smaller programs--dwarf private child support transfers. The ratio is about 4 to 1.[4]

In response to this state of affairs, Congress has enacted a series of increasingly strong federal laws to strengthen private child support enforcement. The earliest laws, beginning in 1950, were aimed only at noncustodial fathers of children receiving AFDC. But for over a decade now Congress has gradually extended these laws to cover all children

potentially eligible for child support, irrespective of the income of their families.[5] In 1984 Congress unanimously passed the strongest legislation to date. It requires states to (1) withhold child support obligations from wages for child support obligors that incur a delinquency equal to one month's payment and (2) appoint blue ribbon commissions to devise statewide standards for establishing how much child support noncustodial parents should pay.

Can strengthening public child support enforcement of private child support transfers substantially reduce poverty, or welfare costs, or welfare dependence? In large part, the answers to these questions depend upon noncustodial parents' ability to pay child support.

Social scientists, qua scientists, cannot determine how much child support noncustodial parents can afford to pay. For how much a noncustodial parent can afford to pay has a normative as well as an actual component. The actual component is how much income do noncustodial parents have. The normative component is how much of a given income should be shared with nonresidential children. Though social scientists cannot resolve the issue of noncustodial fathers' ability to pay child support, they can contribute to an intelligent discussion of the issue in two ways: (1) by estimating the incomes of noncustodial parents, and (2) by coupling these estimates with simulations of alternative normative standards to depict the consequences of employing these standards on estimates of ability to pay child support. This paper does both.

No data sources provide income data for a representative sample of noncustodial fathers. The Census and Current Population Survey (CPS) provide data on the incomes of divorced and separated men. But only a

subset of these men are fathers. More important, remarried and never-married noncustodial fathers cannot be identified by either of these sources. The incomes of divorced and separated fathers are likely to be lower than the incomes of remarried fathers and higher than those of never-married fathers because men with higher income are more likely to be attractive mates and therefore are more likely to marry.[6] There are several other data sets with subsamples of noncustodial fathers. In all cases, as we show below, however, the subsamples are unrepresentative of the universe of all noncustodial fathers, and income estimates derived from them are therefore subject to selection bias.

In this paper, we develop a methodology for deriving the first income distribution estimates of a nationally representative sample of noncustodial fathers.[7] The methodology includes a straightforward adjustment for selectivity bias which is an alternative to the conventional method developed by Heckman.[8] We then replicate the methodology to obtain income estimates for subsamples of noncustodial fathers in several alternative data sets and compare the estimates to reported income in each data set. Finally, we couple the estimated incomes with three different normative standards for determining child support obligations.

The following section describes our methods and data. The third section presents the income estimation and replication results. The fourth section describes the normative standards simulated and presents the results of the simulations. The paper ends with a brief summary and conclusion.

II. METHODS AND DATA

To develop our estimates of noncustodial fathers' income, we assume assortive mating and that the relationship of wives' characteristics to husbands' income is similar to that of the custodial mothers' characteritics to the noncustodial fathers' income. If like tends to mate with like, the women's demographic characteristics should be a good proxy for the men's. We regress the characteristics of wives on their husbands' income. We then use the estimated coefficients from this regression to predict the incomes of noncustodial fathers based on the characteristics of the custodial mothers. The resulting estimates, however, are subject to selectivity bias insofar as noncustodial fathers are a select subsample of all fathers. As a consequence we adjust our estimates to take account of the fact that divorced, separated, and never-married men have lower incomes than married men of the same characteristics. We reduce the estimated incomes by the ratio of divorced or separated or never-married men's income to married men's income, controlling for the men's demographic characteristics. This simple straightforward procedure is our alternative to the conventional selectivity bias adjustment procedure.

In addition, we tried a more conventional approach originally suggested by Heckman, but it did not work. The results were not significant and the sign of the coefficient for the selection was wrong (i.e., negative). These results lead us to believe that we were possibly violating the assumptions of the procedure. It has been demonstrated that the two-step procedure is not robust in regard to minor departures from normality.[9]

In order to test the reliability of the approach adopted here, the predictions are replicated for three different subsamples of noncustodial fathers--two from different data sets--which have three different sources of reported fathers' income. The replications are then compared to the reported noncustodial fathers' income.

The major data set, used for both the income estimation and for one replication, is the 1979 Current Population Survey--Child Support Supplement. The CPS-CSS is a match file containing the records of 3,547 women who were potentially eligible to receive child support in that they had children under 21 years of age whose father was living away from home. These women were interviewed in both March, when the annual demographic and income survey was administered; and in April, when the first child support supplementary questionnaire was administered. The child support supplement contains numerous questions on child support, including, most importantly, the amounts of child support both legally owed and actually paid and the custodial parent's report of the income and marital status of the absent father. As such, the CPS-CSS is the best data set for obtaining nationally representative estimates of (1) the population of children living with mothers potentially eligible for child support; (2) how much child support the mothers are legally entitled to, and how much they actually receive; and (3) the incomes of noncustodial fathers.

The major weakness of the CPS-CSS, is that four-fifths of the noncustodial mothers either were not asked or did not respond to the questions about the noncustodial fathers' income and marital status.[10] Consequently, the sample of respondents is a highly select one. In

extrapolating from the relationships within this select population to the entire population of noncustodial parents, it is unclear how big the selectivity bias would be. In view of the fact that the conventional method for adjusting for such selectivity bias is not robust, we do not use these reported data to develop our estimates of noncustodial fathers' income. Instead, we choose the approach described above, which relies upon the relationship of wives' characteristics to husbands' income. We do use the reported data on noncustodial fathers' income in the CPS-CSS as one check against our prediction methodology.

An additional data source, the 1976 U.S. Survey of Income and Education (SIE), is used to estimate the marital status adjustment. The uniqueness of this data source and the reason we use it here is that it permits the identification of men who were previously married and had children under 18 at the time of their separation or divorce. This nationally representative sample of divorced or separated noncustodial fathers is combined with a sample of presently married men with children under 18 and never-married men. The weakness of this data is that noncustodial fathers of children born out of wedlock were not interviewed, and the divorced and separated noncustodial fathers are self-identified, substantially underreported, and, therefore, most likely a select group of all noncustodial fathers.[11]

To further check on the reliability of our estimates, we replicate and compare them to reports of noncustodial fathers' income in two other select subsamples of fathers in two other data sets. The first additional data set we use is the Michigan Panel Study of Income Dynamics (PSID). The PSID is a longitudinal study that began in 1968 with a

representative sample of American families and an oversample of low-income and black families. In all, 4,802 families were interviewed in 1968. In each subsequent year, the PSID attempted to interview all family heads (or surrogates) plus all members of the original family who left the family. In 1980, the thirteenth wave of the study and the last included in our analysis, there were 6,553 families interviewed. Our sample consists of the 700 married couples who experienced a divorce or separation during the 13 years of the study and who had children at the time of the marital split. Of the 700 cases selected, in 343 the father became a nonrespondent after the marital split, in 216 cases the mother became a nonrespondent, and in 141 cases both the mother and father were respondents after the split.

The principal advantage of the PSID is that it contains (1) current income on about one-half of the divorced and separated fathers who were both part of the first wave sample in 1967 and the last wave sample in our data in 1980 and (2) predivorce income data on the other half, who were not retained in the last wave of the sample. The principal limitations of the PSID are that (1) it has no data on the incomes of fathers of out-of-wedlock births nor mothers who divorced prior to the beginning of the survey; (2) the sample of divorced and separated mothers potentially eligible for child support is small; and (3) there has been such large attrition in the overall sample between the first and last waves that the representatives of remaining small subsamples such as those eligible for child support is questionable.

The second data set is the Wisconsin Absent Parent Income Study (WAPS). WAPS was commissioned by the federal Office of Child Support

Enforcement for the express purpose of determining the ability of noncustodial fathers of welfare children to pay child support. It is a random sample of 2,021 AFDC cases with mothers potentially eligible for child support in Wisconsin as of September 1980. In some cases there was more than one noncustodial father. In all, 2,259 noncustodial fathers were identified.[12] Child support enforcement records of these cases were consulted to obtain the social security numbers of noncustodial fathers. These social security numbers were then used to obtain the noncustodial fathers' income as reported in state and federal income tax returns. The advantages and disadvantages of this data set are obvious. It is the only data set with income tax return data on the incomes of the noncustodial fathers. Unfortunately it is limited to Wisconsin and to noncustodial fathers of AFDC children. Moreover, social security numbers were obtained for only 1,468 of the 2,259 noncustodial fathers and tax returns were obtained for only 821 of these noncustodial fathers.

III. INCOME ESTIMATION AND REPLICATION RESULTS

This section is divided into two parts. In the first part we describe in some detail both the intermediate and final products in estimating the incomes of noncustodial fathers based on the relationship of a wife's characteristics to her husband's income. In the second part these estimates are replicated and compared to the reported fathers' income for subsamples of absent fathers in the CPS-CSS, the PSID, and WAPS data.

A. Income Estimation: Wife's Characteristics/Husband's Income

Our sample for estimating the wife's characteristics/husband's income regression consists of all married couples with children under age 18

from the 1979 CPS (n = 12,164). Separate regressions for nonwhites and whites are estimated. The dependent variable is the log of the husband's income from all sources except welfare. The independent variables include the characteristics of the woman: age, education, number of children, and geographic location. In addition, because the dependent variable is the log of income, those with zero incomes were assigned a value of $50 rather than excluding them from the regression, and a dummy variable was created for them.

The results of the wife's characteristics/husband's income regression are presented in Table 1. Wives' characteristics are good predictors of husbands' income. All but a few of the coefficients are highly significant. The R^2 is artificially high because of the inclusion of the income dummy for those with zero or negative income. In a regression without the income dummy, the R^2 was equal to only .15. Although a lot of variation is unexplained, this is also true in microdata wage rate equations. What the combination of the highly significant individual coefficients and low aggregate R^2 suggests is that on average we can predict a husband's income on the basis of his wife's characteristics fairly well, but in each case there will be a large standard error.

The coefficients in Table 1 can be used to obtain a point estimate of noncustodial fathers' income for each custodial mother in our sample of mothers potentially eligible for child support. In view of the fact that married males earn more than divorced, separated, and never-married males, however, this point estimate will be too high.

The first panel in Table 2 presents the regression results for the marital status adjustment regression using the sample of men from the

Table 1

Step 1 Income Regression

Dependent Variable: Log of Annual Income of Husband	Whites	Nonwhites
Explanatory Variables		
Age	.0621 (.0006)	.08476 (.01829)
Age^2	-.0008707 (.0000808)	-.00111 (.00022)
Age*Education	.00116 (.00015)	.00563 (.00038)
Education < 9	-.1799 (.0438)	-.09772 (.1147)
Education 9-11	-.08367 (.0236)	-.12788 (.0647)
Education > 12	.10191 (.02285)	.16861 (.0669)
Non-central city	.09671 (.01961)	.05817 (.05162)
Non-SMSA	-.22725 (.0159)	-.16827 (.0592)
2 Children	.05064 (.01693)	.03103 (.05175)
3+ Children	.06684 (.01943)	-.04254 (.05567)
Northeast region	-.01481 (.0201)	-.17811 (.0705)
South region	-.03063 (.01846)	-.20191 (.06094)
West region	-.00087 (.0212)	-.00297 (.07271)
Income dummy	-5.5793 (.06811)	-5.533261 (.1444)
Intercept	8.04844	7.71464

Table 1, continued

Dependent Variable: Log of Annual Income of Husband	Whites	Nonwhites
R^2	.4362	.5759
F test	605.83	116.41
Number of observations	10,590	1,214
Mean squared error	.54216	.54369
Mean of Dependent Variables	9.543	9.212

Note: Standard errors are in parentheses.

SIE. Notice that the pattern of the coefficients for the male characteristics of age and education are similar to the pattern of the wives' characteristics in Table 1. (The R^2, not surprisingly, is higher in this regression than the last.) Most important, note that the marital status coefficients are highly significant and large, even after controlling for other male characteristics. These coefficients imply that holding demographic characteristics constant, divorced and separated white males have only about three-quarters the income of married white males. Never-married white males have incomes that are only 50 percent of those of married men.

The coefficients in Table 1 were used to predict the father's income for each mother in the 1979 CPS-CSS sample. The relevant coefficients in Table 2 were used to adjust these predictions by the marital status of the father. For the marital status correction, if the mother is separated, it is reasonable to assume the father is as well. Such an assumption will lead to an underestimate of noncustodial fathers' income resulting from bigamy and/or misreporting, but the error should be small. How to determine the marital status of the noncustodial fathers when the mothers are divorced, remarried, or never-married is slightly more problematic. For the divorced and remarried, we obtained an estimate of the probability that a male with the characteristics of the mother would be remarried. We then used the probability to weight the adjustment for these two groups. For the never-married, we assumed that the males were also never married. Because some fathers of the children of never-married mothers are married, this will clearly lead to an underestimate of the incomes of the noncustodial fathers of children of never-married

Table 2

Marital Status and AFDC Status Regressions

Dependent Variable: Log of Annual Income of Man	Marital Status		AFDC Status	
	White	Nonwhite	White	Nonwhite
	(1976 SIE)		(1979 CPS-CSS)	
Explanatory Variables				
Age	.07972	.04872	.02619	-.0632
	(.00308)	(.01041)	(.0208)	(.07441)
Age^2	-.0009982	-.0006179	-.00034476	.000459
	(.0000312)	(.000115)	(.000222)	(.000659)
Age*Education	.00148	.00112	.00101	.00259
	(.00009)	(.000314)	(.000595)	(.00265)
Education < 9	-.10232	.02918	-.32782	1.06146
	(.02951)	(.1000)	(.18151)	(1.0534)
Education 9-11	-.15142	-.10701	-.11419	.32022
	(.01917)	(.06295)	(.08927)	(.34252)
Education > 12	-.05271	.11863	.08559	.09431
	(.01645)	(.06583)	(.08485)	(.39639)
Non-central city	-.16936	-.23008	.06346	-.14493
	(.01665)	(.0800)	(.07574)	(.27316)
Non-SMSA	-.03644	.10943	-.06212	-.33731
	(.01722)	(.06341)	(.06212)	(.32569)
2 Children	--	--	.01231	-.11549
			(.06294)	(.25498)
3+ Children	--	--	.06232	.18084
			(.07393)	(.2925)
Northeast region	--	--	-.02421	.35425
			(.08485)	(.37441)
South region	--	--	.03443	-.3532
			(.07147)	(.2839)

(table continues)

Table 2, continued

Dependent Variable: Log of Annual Income of Man				
	Marital Status		AFDC Status	
	White	Nonwhite	White	Nonwhite
	(1976 SIE)		(1979 CPS-CSS)	
Explanatory Variables				
West region	--	--	.01854	.5486
			(.07681)	(.30954)
Income dummy	-4.70438	-3.92412	--	--
	(.03961)	(.09033)		
Divorced	-.26646	-.37883	--	--
	(.03146)	(.0997)		
Separated	-.23966	-.51656	--	--
	(.06915)	(.1182)		
Never married	-.68797	-.91063	--	--
	(.01606)	(.06175)		
AFDC recipient	--	--	-.43357	-.44746
			(.08537)	(.28329)
Intercept	7.3776	7.78489	8.69303	10.00843
R^2	.5720	.7486	.1779	.2973
F test	2,216.38	350.38	9.169	1.299
Number of observations	21,570	1,544	608	58
Mean of dependent variable	9.516	9.2119	9.581	9.385

Note: Standard errors are in parentheses.

mothers. This underestimate is almost certainly more important than the first and may be quantitatively important enough to warrant future sensitivity tests and further refinement of the methodology.

Table 3 presents the resulting estimates of the mean income of noncustodial fathers by the race and marital status of the custodial mothers. The average income in 1983 dollars equalled $19,346. The average income of all males age 25-64 in 1983 was $22,482.[13] In short, noncustodial fathers have somewhat less, but not a whole lot less income than prime-working-age males.

Differences in incomes by the racial and marital status of the mother are dramatic. Not surprisingly, the incomes of fathers of nonwhite children are only half that of the white fathers. But the differences within racial groups between the never-married and the remarried are even more dramatic. Among whites the ratio is nearly 3 to 1, while among blacks the ratio is greater than 3 to 1.

B. Replication and Comparison for Select Subsamples

To assess the reliability of the income estimates from the wife's characteristics/husband's income methodology as implemented with the CPS-CSS, we use the coefficients estimated from the CPS-CSS data to predict the incomes of noncustodial fathers not only in the CPS-CSS but also in both the PSID and WAPS data. We then compare the predicted incomes with the actual incomes as reported in each of the three data sets.

For our replications, which utilize the WAPS data, we need to make an additional selection adjustment related to the AFDC status of the custodial family. A sample of noncustodial fathers of AFDC children is a

Table 3

Mean Income of Noncustodial Parents in 1983 Dollars
(By marital status of custodial parent and race)

Marital Status of Custodial Parent	Race		All
	White	Nonwhite	
Never married	$ 9,952	$ 6,285	$ 7,775
Separated	17,747	10,551	14,712
Divorced	24,760	17,824	23,600
Widowed	21,533	20,188	21,261
Remarried	25,379	21,257	25,006
All	22,533	11,285	19,346

select sample of all noncustodial fathers with respect to both income and the payment of child support. The less income the father has, the less he will pay in child support. The less child support a family receives, the more likely they are to be on welfare. Table 2 contains the regression results for the AFDC adjustment estimated using the subsample of the CPS-CSS that responded to the noncustodial-father's income question. The dependent variable is the log of the mother's estimate of the father's income. The explanatory variables are our standard set of mother's characteristics. We included a dummy variable for the mother's AFDC status. The coefficients and their standard errors (in parentheses) for whites and nonwhites respectively are .43 (.09) and .45 (.28). Although the standard error for nonwhites is much larger, the coefficients for both groups are nearly identical. The small sample size for nonwhites (n = 58) suggests one reason for the weaker relationship. These results strongly suggest that for whites at least, the AFDC status of the custodial family is strongly related to the income of the noncustodial parent. Consequently, we used the coefficients to adjust the estimated incomes of noncustodial fathers for divorced and separated AFDC families for both races.

Table 4 presents the actual and predicted incomes and the percentage differences between them for the three subsamples of noncustodial fathers in the CPS-CSS, the PSID, and the WAPS. The results are disaggregated by race. In five of the six comparison, predicted income is less than reported income. And in the one case in which predicted income exceeds reported income--CPS-CSS whites--the difference is only 2 percent. These

Table 4

Replication of Noncustodial Father Income Estimates
(1983 Dollars)

Sample	Reported Income	Predicted Income	Percentage Difference $\left(\frac{\text{Col. 2 - Col. 1}}{\text{Col. 1}}\right)$
CPS-CSS: Custodial reports of noncustodian's income			
Whites	$24,822	$25,352	+2.1
Nonwhites	21,375	17,060	-20.2
PSID: Divorced and separated noncustodians			
Whites	20,653	20,427	-1.1
Nonwhites	13,318	12,217	-8.3
WAPS: Income tax returns for noncustodians of AFDC children			
Whites	13,895	12,345	-11.2
Nonwhites	11,736	8,828	-24.8

results strongly suggest that we are not overestimating noncustodial fathers' income.

The results for nonwhites suggest that we may be underestimating their incomes. If so, the most likely explanation is that we are overcorrecting for the AFDC selection bias in the nonwhite sample. Recall that the coefficient for nonwhites in our adjustment equation was less than twice its standard error. On the other hand, the sample size was only 58 and the magnitude of the coefficient was almost identical to the magnitude of the white coefficient, which was highly significant.

An alternative explanation for the discrepancy between the predicted and reported income estimates for nonwhites is that the reported estimates are too high because of selection bias. The reported incomes in all the subsamples should be too high owing to income-related selectivity bias. In the CPS-CSS, women are more likely to know the incomes of noncustodial fathers, the more regular and stable the noncustodial father and his income. In the PSID, the more stable the noncustodial father, the more likely he is not to have dropped from the sample. Finally, in the WAPS, the more stable the noncustodial father, the more likely his whereabouts and social security number would be known and the more likely he filed an income tax return. It seems plausible that the selection bias is stronger for nonwhites than for whites and strongest for nonwhite fathers of AFDC children with respect to filing income tax returns.

In our judgment, the major source of the discrepancy between the reported and predicted incomes for nonwhites is selectivity bias in the former, and therefore the predicted incomes for nonwhites are more reliable than the reported income. Interpreted in this fashion, the

replications provide strong evidence for the reliability of the wife's characteristics/husband's income methodology. At worst, the replications provide strong evidence that the methodology is reliable for whites and underestimates the incomes of blacks.

C. Summary

We used custodial mothers' characteristics to predict the incomes of noncustodial fathers. We then adjusted the estimates for selectivity baises associated with the marital and AFDC status of the custodial mothers. We found that the incomes of noncustodial fathers are somewhat but not substantially below the average income for prime working-age males: $19,346 vs. $22,482.

To test the reliability of the methodology, we used the coefficients estimated with the CPS-CSS data to predict incomes for three select subsamples in the CPS-CSS, the PSID, and the WAPS data for which noncustodial fathers' income data were available. Depending upon how the nontrivial differences between the reported and predicted incomes for nonwhites is interpreted, the comparisons suggest either that the wife's characteristics/husband's income methodology is reliable in general or is reliable for whites and underpredicts for nonwhites.

IV. SIMULATION OF ABILITY TO PAY CHILD SUPPORT

Our estimates of noncustodial fathers' income indicate that their average income in 1983 was equal to about $19,000. We suspect that to most people this would suggest a substantial ability to pay child support. But as noted in the Introduction, ability to pay depends upon

both income and a normative standard which specifies how much of a given income should be devoted to child support. For example, should the child support obligation of the noncustodial parent depend upon the income of the custodial parent or whether the noncustodial parent has started a new family? Should a portion of the noncustodial parent's income be set aside for his own needs before any obligation is assessed?

In the first part of this section, we describe two radically different child support standards, and a third one which shares some of the characterisics of the other two. All three are prototyical and have official or semi-official status in different jurisdictions in the country. Each standard is akin to a tax schedule. In the second part of this section, we simulate the amount of revenue raised by applying the standards. We thereby derive three different estimates of ability to pay child support which correspond to different sets of normative judgments about how much of their incomes noncustodial parents should share with their children. These estimates are then compared to the amounts ordered and paid under our current child support system.

A. The Standards

In most states local courts are given nearly complete discretion in determining child support obligations.[14] In a few states, the courts or agencies associated with them developed normative standards. More recently, a few state legislatures have enacted normative standards. We choose three standards from Delaware, New York, and Wisconsin that have official or quasi-official status and have received a good deal of national attention.[15] The first two take account of the incomes and

marital status of both parents, have marginal tax rates that vary with income from zero to 90 percent and 100 percent, and are therefore quite complex. The Wisconsin standard depends only upon the income of the noncustodial parent and has a constant marginal tax rate with respect to income. Because of its simplicity, we begin with the Wisconsin standard.

1. The Wisconsin Standard. Under the Wisconsin standard, the obligation of the noncustodial parent is equal to 17 percent of his or her gross income for one child. The percentages for 2, 3, 4, and 5 or more children respectively are equal to 25 percent, 29 percent, 31 percent, and 34 percent.

2. The New York Standard. In contrast to the Wisconsin standard, the New York standard considers the custodial parent's income, contains personal exemptions for the noncustodial father and new dependents, uses net rather than gross income, and employs a very high marginal tax rate on nonexempt income. Under the New York standard, federal and state income taxes, FICA taxes, and some work-related expenses are subtracted from gross income. (Owing to data unavailability, our simulations ignore the latter.) From the resulting net income figure, exemptions for the noncustodial parent and each new dependent, equal to the Bureau of Labor Statistics (BLS) lower-level living standard, are subtracted to arrive at the amount of income available for child support. If the income of the custodial parent's family is below the BLS lower-level living standard, the basic child support obligation equals 90 percent of the income available for child support. Once the income of the custodial family equals or exceeds the BLS standard, the noncustodial parent's income available for child support is divided evenly between all the dependents (including himself) for which he has legal responsibility.

3. The Delaware Standard. The Delaware standard is similar to the New York standard in that there is a range of income taxed at a zero rate, a very high marginal tax rate (100 percent) on income in excess of that amount up to an income level sufficient to pay a minimum given level of the children's needs, and then a lower tax rate on income in excess of that amount. The Delaware standard differs in that the initial exemption is for the noncustodial parent alone; it does not depend upon whether there are new dependents or not. Furthermore, the tax rate on income in excess of that required to pay the minimum child support level is equal to a maximum of 15 percent for one child and 10 percent for each additional dependent child. If the noncustodial father has new dependents, the rate is applied to income that exceeds an exemption for these additional dependents.

B. Simulation Methodology

The simulation of the Wisconsin standard is straightforward. The estimate of the noncustodial father's income is multiplied by the percentage appropriate for the number of children owed support.

The simulation of the New York and Delaware standards requires three additional pieces of information. The first is the number of new dependents of the noncustodial father. We estimate the number of new dependents using a method similar in form to our income estimation procedure. Using logit regression we estimate the probability of zero to four or more new dependents for divorced and remarried noncustodial fathers. The sample used to estimate these regressions is the 1976 SIE subsample of self-identified noncustodial fathers who were either divorced or

remarried. The dependent variable is the number of new dependents, and the explanatory variables are the demographic characteristics of the men. We then combined the estimated parameters with the characteristics of the custodial mothers to impute the probability of each discrete number of new dependents. These probabilities are then incorporated into the simulation of normative standards.[16]

The second additional piece of information is net income estimates. To produce these income estimates we simulate federal and FICA taxes. We incorporate the number of new dependents in our tax simulations for calculating personal exemptions.

Finally, because of the nonlinearity of the New York and Delaware child support schedules, we need estimates of the distribution of income rather than solely the point estimate. Not all of these absent spouses have the same income but rather they make up a distribution of income which we are summarizing by the point estimate. Using the point estimate will underestimate noncustodial fathers' ability to pay child support for standards like New York and Delaware, which incorporate exemptions.[17] To further define these distributions we use the mean square error of the Step 1 regression as an estimate of the variance. We can now define our distributions of income by two parameters: the mean estimated by the point estimate and the variance. In addition, we assume that income is distributed log normal. The distributions allow us to simulate a non-linear normative standard which incorporates an income exemption or set-aside. The formulas used for the simulations are reproduced in Appendix A.

C. Noncustodial Fathers' Ability to Pay Child Support

Table 5 presents five estimates of ability to pay child support, which correspond to the following five standards: (1) the Wisconsin standard, (2) the New York standard, (3) the Delaware standard, (4) the standard implicit in current child support orders, and (5) the standard implicit in current payments. What is most striking is that the difference between what is currently owed and paid in the United States as a whole is dwarfed by the difference between either of these numbers and the three estimates of ability to pay that correspond to application of the Delaware, New York, and Wisconsin standards. Unless these standards are highly unrepresentative of the range of current American norms with regard to how much of their income noncustodial parents should share with their children, Table 5 clearly indicates that noncustodial fathers can afford to pay substantially more child support. Indeed, the estimate for the Wisconsin standard, which is between those for the Delaware and New York standards, suggests that noncustodial fathers can afford to pay almost three times their current legal obligations and more than four times what they are actually paying!

V. SUMMARY AND CONCLUSION

This paper addresses a question of great current national interest: Can noncustodial fathers pay substantially more child support? Assuming our methodology is correct, the answer is clearly yes. Our middle range estimate is that noncustodial fathers can pay almost three times their current legal obligations and more than four times what they are actually paying.

Table 5

Estimates of Ability to Pay Child Support
(1983 Dollars)

Standards	Total Revenue (Billion $)	Percentage with Zero Obligation
Wisconsin	$27.2	0.0%
New York	30.0	45.3
Delaware	22.0	23.1
Current orders	9.4	40.4
Current payments	6.1	54.5[a]

[a]This includes 40.4 percent without orders and 14.1 percent who received nothing of the ordered amount.

The three replications provide pretty good evidence that our estimates of noncustodial income are reliable. We can make no such claim about the representativeness of the norms embodied in the three standards we chose to simulate. Although we doubt that future work on simulating alternative standards will overturn our central conclusion, more work on this is clearly warranted. The central conclusion of this paper is unlikely to be reversed unless it can be shown that on average Americans believe noncustodial fathers should share much less of their income with their children than is implied in the Delaware, New York, and Wisconsin standards.

Future research should also address several other questions. First, what are the causes of the discrepancy between what is paid and ability to pay? An investigation of this question could begin by simply apportioning the gap to various factors such as the failure of child support orders to change with changing circumstances, the failure to obtain orders in all cases, and the failure to enforce orders. Such an apportionment would be of help to policymakers in that it would help in estimating the maximum potential benefits from reforming various aspects of the current child support system. Second, what are the costs (both economic and noneconomic) of various reforms of the child support system? Finally, how much can an improved child support system reduce the poverty and welfare dependence of single-mother families? Congress and the Reagan administration were clearly motivated by the belief that improvements in child support will reduce poverty and welfare dependence. How big will these effects be?

Notes

[1]Larry L. Bumpass, "Children and Marital Disruption: A Replication and An Update," Demography 21 (February 1984): 71-82.

[2]U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-23, No. 124, 1983, "Child Support and Alimony: 1981 (Advance Report)."

[3]For the proportion poor see U.S. Department of Commerce, Bureau of Census, 1983. For the proportion of eligible children on welfare see Donald T. Oellerich, The Effects of Potential Child Support Transfers on Wisconsin AFDC Costs, Caseloads and Recipient Well-Being, Special Report #35, Institute for Research on Poverty, University of Wisconsin, Madison, 1984.

[4]See Irwin Garfinkel and Sara McLanahan, Single Mothers and Public Policy: A New American Dilemma (Washington, D.C.: The Urban Institute, forthcoming), Chapter 4, Table 4-1.

[5]U.S. Department of Health and Human Services, Office of Child Support Enforcement, Child Support Enforcement 8th Annual Report to Congress (Washington, D.C.: GPO, 1983), Appendix A, pp. 103-110.

[6]See Gary Becker, A Treatise on the Families (Cambridge, Mass.: Harvard University Press, 1981).

[7]We do not develop estimates of the incomes of noncustodial mothers, who represent less than 10 percent of all noncustodial parents. See Paul C. Glick, "Children of Divorced Parents in Demographic Perspective," Journal of Social Issues, 35 (1979): 171, Table 1. Only 8.5 percent of children living with one (nonwidowed) parent, live with their father.

[8]James Heckman, "Sample Selection Bias as a Specification Error," Econometrica, 47 (1979): 1.

[9]See Arthur S. Goldberger, "Abnormal Selection Bias," in Studies in Econometrics, Time Series, and Multivariate Statistics (New York: Academic Press, Inc., 1983). For the empirical results in this case see Oellerich, pp. 50-63.

[10]Only those who had been married and had child support awards were asked about noncustodial father's income and marital status. Only about half of those asked, responded. Due to the low response rate, the Census Bureau dropped the income questions. A preferable alternative would have been to improve and expand the section on noncustodial parent status. For example, if the custodial parent did not know the current income of the noncustodial parent, then income, education, and employment status from a previous period could be elicited.

[11]Although there is no direct evidence of underreporting in the 1976 SIE, Cherlin et al. found that ever-married men asked similar questions in the June 1980 CPS substantially underreported noncustodial children when compared to the custodial-parent reports in the 1979 CPS-CSS. See Andrew Cherlin, Joanne Griffith, and James McCarthy, "A Note on Maritally-Disrupted Men's Reports of Child Support in the June 1980 Current Population Survey," Demography, 20, No. 3 (August 1983): 385-389.

[12]For more detail on the sample see T. McDonald, J. Morgan, and I. Garfinkel, "Wisconsin Study of Absent Fathers' Ability to Pay More Child Support," Special Report #34, Institute for Research on Poverty, University of Wisconsin, Madison, 1983.

[13]U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Consumer Income Series P-60, No. 146, 1983, "Money Income of Households, Families, and Persons in the United States," p. 146.

[14]See Harry Krause, Child Support in America (Charlottesville, Va.: The Michie Company, 1981).

[15]The Delaware standard was developed by the judiciary and now is used routinely throughout the state. The New York standard was developed by the Community Council of Greater New York under contract with the U.S. Office of Child Support Enforcement. The federal office circulated the standard to all states. Despite this new endorsement, the New York standard does not seem to have caught on and is largely ignored in New York. Currently, judges in Wisconsin may use but are not required to use the standard in establishing child support obligations. According to 1985 state legislation, the Wisconsin standard will become the presumptive child support obligation as of July 1987. That is, judges will be required to justify in writing any departures from that standard. Michigan courts have a similar percentage-of-income standard, except that the income base is net rather than gross income and the tax rates are somewhat higher. The Michigan standard was developed over a decade ago by the Friend of the Court, a state agency with responsibility for family court matters including child support.

[16]For more detail on this estimation and the regression results see Oellerich, pp. 97-107.

[17]Consider the following simple example. Suppose we say an absent father's ability to pay child support is equal to 20 percent of his income in excess of $3,000. Suppose further that we have three absent fathers whose predicted mean income is $10,000, but whose individual incomes are $0, $10,000, and $20,000 respectively. If we assign each the mean, we will estimate that the three together can pay .2 (10,000 - 3,000) = $1,400 x 3 = $4,200. If we allow for variance around the mean, the first can pay nothing, the second can pay $1,400 and the third can pay $3,400, for a total of $4,800. This problem arises whenever the normative standard used for ability to pay is a nonlinear schedule.

Appendix A

Aggregate child support revenue generated by the Wisconsin standard equals

$$ACS = \sum_{i=1}^{N} [e\ (Y_i + \log(TR_i) + \sigma^2/2)]$$

where ACS is aggregate child support;

Y_i is the expected value of log income for the ith observation;

TR_i is the tax rate appropriate for the number of eligible children for the ith observation.

Aggregate child support revenue generated by the New York standard is defined as

$$ACS = \sum_{i=1}^{N} \sum_{J=1}^{5} P(ND_i = J) * \{[P(EX1_{ij} < Y_{ij} < N_i) *$$

$$e(E(Y_{ij} \mid EX1_{ij} < Y_{ij} < N_i) + \log(1 - e(EX1_{ij} - E(Y_{ij} \mid \ldots)))$$

$$+ \hat{\sigma}^2/2 + \log(TR1))] + P(Y_{ij}\ N_i) * [N_i + e(E(Y_{ij} \mid Y_{ij}\ N_i) + \sigma^2/2$$

$$+ \log(1 - e(EX2_{ij} - E(Y_{ij} \mid \ldots) + \log(TR2)]$$

where i is the ith observation and j is the jth number of dependents;

ND is the number of dependents where 1 dependent is a single noncustodian;

$EX1_{ij}$ is the personal and new-dependent exemption;

Y_{ij} is the net log income of the noncustodian;

$\hat{\sigma}^2$ is the variance of income estimated by the mean squared error of the regression reported in Table 1;

N_i is the standard of unmet need of the custodial family;

TR1 is the 90 percent marginal tax rate;

$EX2_{ij}$ is the combination of the exemption for the noncustodial family and the custodial family's unmet needs;

TR2 is the marginal tax rate on excess available income and is defined by the ratio of eligible children to the total of eligible children plus new dependents plus the noncustodian.

Aggregate child support revenue generated by the Delaware standard is defined as

$$ACS = \sum_{L=1}^{N} \sum_{J=1}^{5} P(ND_i = J) * [P(EX1_i < Y_{ij} < N_i) *$$

$$e(E(Y_{ij} \mid EX1_i < Y_{ij} < N_i) + \log(1 - e(EX1_i - E(Y_{ij} \mid \ldots))) + 2\delta/2]$$

$$+ (N_i * P(N_i < Y_{ij} < EX2_{ij})) + P(Y_{ij} < EX2_{ij}) *$$

$$e(E(Y_{ij} \mid Y_{ij} < EX2_{ij}) + \log(1 - e(EX2_{ij} - E(Y_{ij} \mid \ldots)) + \sigma^2/2$$

$$+ \log(TR)]$$

where ACS, i, j, Y_{ij}, ND_i and WT_i are defined as before;

$EX1_i$ is the personal exemption for the noncustodian;

N_i is the noncustodian's share of the children's needs;

$EX2_{ij}$ is the combined needs of the custodial family;

(N_i) is the exemption for the noncustodian's new dependents;

TR is the tax rate equal to 15 percent for the first child and 10 percent for each additional child.