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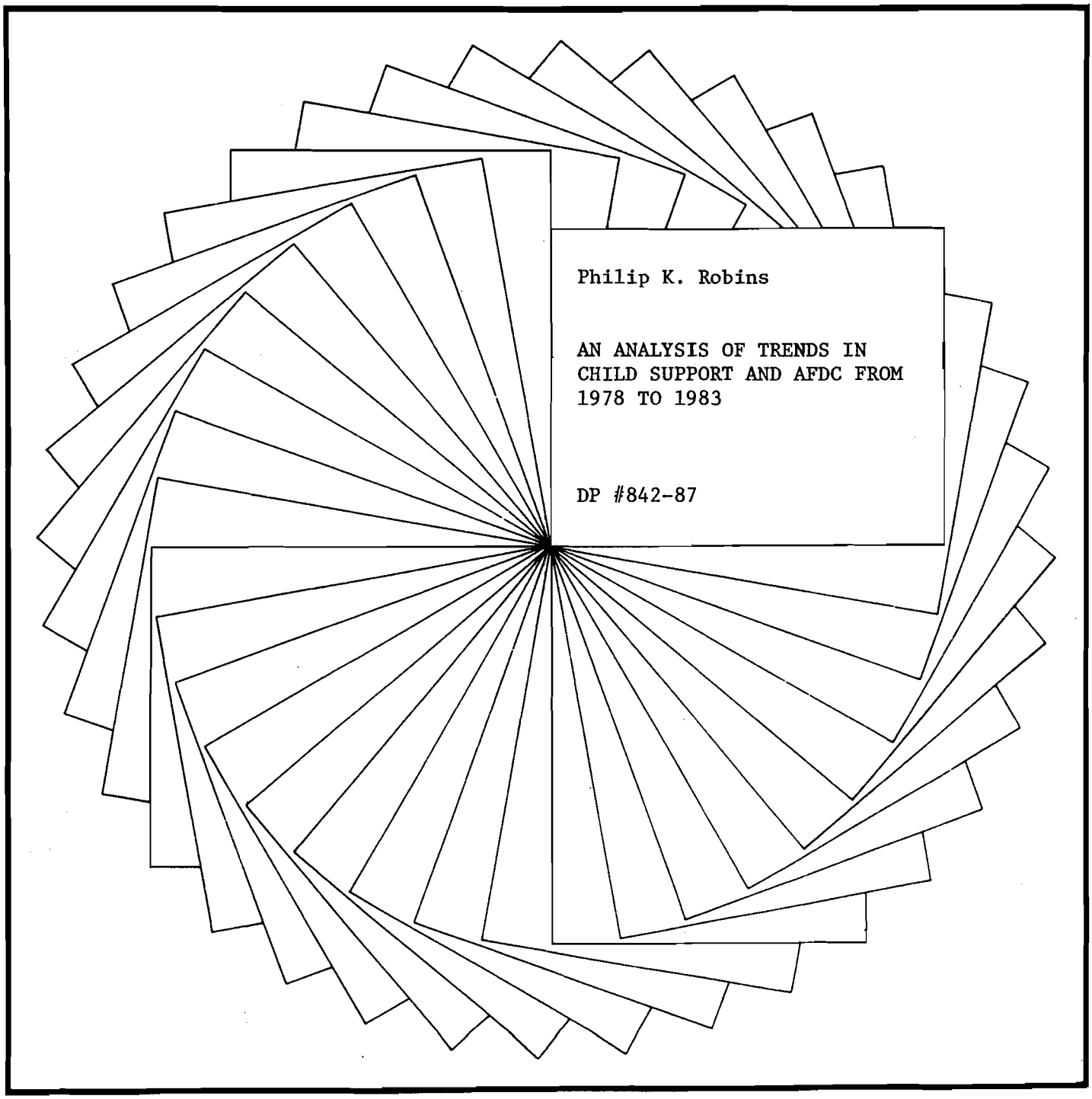

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An Analysis of Trends in Child Support and AFDC from 1978 to 1983

Philip K. Robins
Department of Economics
University of Miami

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Abstract

Data from the 1979, 1982, and 1984 March/April Current Population Survey (CPS) match files are used to analyze trends in AFDC and child support from 1978 to 1983. During this period the proportion of all single-parent families receiving AFDC fell (reversing an earlier two-decade trend) and real child support collections also fell. Analysis of the CPS data reveals that from 1978 to 1981 the decline in the AFDC participation rate can be attributed to an erosion in real AFDC guarantee levels caused by high rates of inflation and to changes in demographic conditions, while from 1981 to 1983 the decline can be attributed entirely to the provision of the Omnibus Budget Reconciliation Act of 1981 that raised effective AFDC tax rates. The analysis also reveals that a sizable reduction in labor supply occurred in response to OBRA, in contrast to earlier studies of this issue. If work effort had not been reduced, the results suggest that OBRA would have caused a much larger decline in the AFDC participation rate than actually occurred.

The analysis also reveals that the decreased child support collections over the 1978-83 period were the result of an erosion of real child support award amounts. This decrease in child support collections led to a small increase in AFDC participation that offset somewhat the downward trend in AFDC participation, but only in the first part of that period: from 1978 to 1981, real child support collections fell by 17 percent, generating an increase in the AFDC participation rate of about one percentage point; from 1981 to 1983, child support collections increased slightly, but had no perceivable effect on the AFDC participation rate. Furthermore, there appears to have been a decrease in the effectiveness

of the Child Support Enforcement program from 1981 to 1983. However, the effectiveness of the program and its influence on the AFDC participation rate could increase significantly in the future, when the landmark 1984 Child Support Amendments to the Social Security Act, authorizing mandatory withholding of wages from parents who are delinquent in paying child support, become fully implemented nationwide.

An Analysis of Trends in Child Support and AFDC from 1978 to 1983

The Aid to Families with Dependent Children (AFDC) program is the major source of public assistance for low-income families in the United States, especially families in which there is only one parent living in the household. Since 1978, there has been a substantial decline in the proportion of families participating in this program.[1] According to data from the Census Bureau's annual Current Population Survey (CPS), 40 percent of all female-headed families participated in AFDC in 1978. In 1983, this proportion fell to 32 percent, a drop of approximately one-fifth.[2] Such a precipitous decline in the participation rate is particularly noteworthy for three reasons. First, the AFDC program had been experiencing steady, and sometimes even rapid, growth during the two decades prior to this period. Second, between 1978 and 1983 unemployment rose considerably in the United States, so if anything such a general worsening of economic conditions would have been expected to contribute to an increase, rather than a decrease, in the participation rate.[3] Third, despite legislative efforts to increase child support enforcement, CPS data indicate there was a decline in real child support collections, which would also tend to contribute to an increasing AFDC participation rate.[4]

There are a variety of possible causes of this decline in the AFDC participation rate. Some are demographic, some are economic, and some result from other (mainly unobservable) factors. Demographic causes reflect distributional changes in such variables as age, race, and family size. For example, recent studies have shown that AFDC program

participation tends to increase with family size and decrease with the age of the family head.[5] Hence, as families get smaller and as the population ages, one would expect participation rates correspondingly to decline.

Economic causes of a declining participation rate reflect changes in general economic conditions, changes in child support collected, and/or changes in the structure of the AFDC program that affect preferences for work and hence eligibility for benefits. As indicated above, over the period 1978-83 economic conditions generally worsened and real child support collections fell, which should have led to an increase in the AFDC participation rate. However, significant inflation occurred in these years with no corresponding increase in nominal AFDC guarantee levels, and several important changes occurred in the structure of the AFDC program that would be expected to lead to a decline in the participation rate. With regard to inflation, over the 1978-83 period the Consumer Price Index (CPI) increased at an average rate of about 8 percent per year (from 1978 to 1981 it increased at the average rate of almost 12 percent per year).[6] Because nominal AFDC guarantee levels changed little over this period, the unprecedented inflation led to a significant decline in real AFDC guarantee levels. Economic theory suggests that declining real AFDC guarantee levels would lead to a declining AFDC participation rate.

In addition to the decline in real AFDC guarantee levels, the Omnibus Budget Reconciliation Act of 1981 (OBRA) raised the official AFDC benefit-reduction rate on earnings from 67 percent to 100 percent.[7] This dramatic increase in the welfare tax rate is purported to have had the effect of removing a significant number of families from the program because of a decrease in the eligibility level of income. In addition,

other eligibility requirements for the program were significantly tightened by OBRA, such as a decrease in allowable deductions for work expenses (mainly child care) and a decrease in allowable assets. These changes would also be expected to reduce the participation rate in the program.

Other causes of the declining AFDC participation rate reflect changing attitudes toward welfare as well as efforts on the part of program administrators to more closely target benefits on the "truly needy." Such targeting could take the form of increased scrutiny of welfare applications and/or greater monitoring of the activities of families currently receiving welfare benefits to prevent (or at least minimize) fraudulent behavior. Because of recent fiscal pressures, welfare officials have been intensifying efforts to spend welfare dollars more efficiently.[8]

The purpose of this paper is to analyze recent trends in the AFDC participation rate and to attempt to determine the role played by demographic, economic, and other factors in explaining these trends over the 1978-83 period. The effectiveness of child support enforcement policies is given special attention, as are the effects of the 1981 OBRA legislation. Generally, the paper's findings are that from 1978 to 1981 the erosion of the real AFDC guarantee level and demographic factors were responsible for the decline in the AFDC participation rate. The AFDC participation decline was offset somewhat by falling real child support collections and a rising unemployment rate. From 1981 to 1983 the tax rate changes caused by OBRA are found to be the primary cause of the decline in the participation rate. OBRA is predicted to have had a large effect on reducing eligibility for welfare benefits, but it is also

predicted to have caused a large number of families to reduce their labor supply in order to retain eligibility for benefits. The net observed effect was a moderate decline in the AFDC participation rate. This finding of a large behavioral impact of OBRA contrasts with the findings of earlier studies on this issue. Over the entire 1978-83 period, child support enforcement policies are predicted to have contributed to an increase, rather than a decrease, in the AFDC participation rate. In fact, the data analyzed in this paper reveal a significant deterioration in the child support situation of American families during this six-year period. Much of this deterioration occurred between 1978 and 1981, when inflation eroded the real value of child support awards.

This paper is organized as follows. The next section discusses in detail the data; then trends in AFDC and child support during the 1978-83 period are reported. A model of AFDC participation is presented and estimated in an attempt to identify the various causes of the trends. The effectiveness of child support enforcement policies is examined over the years 1981-83. The last section summarizes the findings.

DATA

In 1979 the U.S. Bureau of the Census initiated a special supplement to the April CPS in which women 18 years of age and older with children under 21 whose father is absent from the household are asked a series of questions regarding their receipt of child support and alimony. The 1979 supplement was the first nationwide attempt to obtain comprehensive survey information on the child support situation of American families. When first publicized, the statistics generated from the 1979 supplement

were viewed as startling: close to two-thirds of families with an absent parent did not receive any child support at all and more than one half did not have a formal child support award.

Although policymakers were already aware that there was a child support problem in the United States (the federal Child Support Enforcement program had been established four years earlier, in 1975), the CPS statistics helped spur additional legislation during the early 1980s. Several important laws were passed, aimed at improving the child support collection process. In general, child support enforcement policies were seen as a way of reducing welfare costs in addition to their main objective of improving the economic circumstances of single-parent families. The most important piece of legislation was the Child Support Amendments (to the Social Security Act) of 1984, which authorized, among other things, mandatory withholding of wages from absent parents who become delinquent (by one month or more) in making their child support payments. The provisions of the 1984 Amendments are now being implemented throughout the nation.

Partly as a means of monitoring the effects of child support legislation, the Census Bureau, under the auspices of the Office of Child Support Enforcement, continued to administer the April CPS child support supplement on a regular basis, fielding surveys in 1982, 1984, and 1986. There are plans for another survey in 1988. Hence, an important time series is being generated that should prove useful to researchers and policymakers. Each CPS child support supplement has been merged by the Census Bureau with the March CPS of the same year. Thus, in addition to information on child support and alimony, the match files contain a

considerable amount of other economic and demographic information for the families surveyed.

In this paper, recent trends in child support and AFDC are analyzed with data from the 1979, 1982, and 1984 match files.[9] Because the information gathered in these surveys pertains to the calendar year prior to the survey month, the data span the period 1978 through 1983. It is important to note that the 20-year-old age restriction on children in the April supplement implies a 19-year-old or less age restriction for the period covered by the survey. This roughly coincides with the age restriction imposed by the AFDC program, so that for analytic purposes the sample may be viewed as containing those eligible for AFDC benefits.

Problems with the CPS Data

Despite its comprehensive nature, the CPS child support supplement has several drawbacks that limit its overall usefulness for studying child support trends. These limitations are discussed here in order to alert other researchers who may wish to use these data for analytic purposes. The most important drawback is that it does not quite sample the relevant child-support population. As noted by Graham and Beller (1985), instead of sampling the population of women with one or more children under 21 years of age who were members of the household but whose father was not, the survey sampled the population of women 18 years of age and older with children of any age whose father was not a member of the household. Although the survey required that there had to be at least one child under 21 in the household, an error in survey design made it possible that this person could be the grandchild, rather than the child, of the respondent. Hence, the survey includes many older women for whom

child support is irrelevant. This error in survey design leads to an overestimate of the relevant child support population and an underestimate of the extent to which child support is being received by the relevant population.

In addition to erroneously including older women with grown children, the survey excludes currently married women who had never been divorced but who had children prior to their first marriage. This population could be sizable. The exclusion of these women leads to an underestimate of the size of the relevant child support population. And, if the excluded population has a lower child support recipiency rate than the included population (which seems likely), than the CPS data would tend to overestimate the recipiency rate of the relevant target population.

As Graham and Beller point out, it is possible to adjust the CPS data to partially correct the first problem described above, but there is no way of adjusting the sample to correct for the second problem. It is also not clear that the Census Bureau should necessarily correct these errors in subsequent surveys because doing so would represent a departure from the existing methodology and would lead to an inconsistent data series over time. Based on some reasonable criteria for adjustment, Graham and Beller estimate that the bias produced by the first design error is fairly small, resulting in about a 2 percent underestimate of child support recipiency rates for the relevant population. It is not known what the biases are for the second problem. Nonetheless, analysts should be aware of these problems and should attempt to adjust the samples when using these data for research purposes.

There is another problem with the CPS supplement (apparently not recognized before) that also leads to an incorrectly sampled population.

At the beginning of the survey, respondents are asked to report their current marital status as of the survey month (April). Elsewhere in the survey, these women are asked about child support and alimony received during the previous calendar year. There are a significant number of women who were married during the entire previous year even though they report themselves as divorced or separated as of the survey month. This is, of course, because their divorce or separation occurred after January of the current year. There are also many families who were divorced or separated during the previous calendar year. Tabulations from the data reveal that about 4 percent of the respondents are in the former category while almost 15 percent are in the latter category. Including these groups in an analysis sample without making appropriate adjustments would lead to a significant overestimate of the child support population and an underestimate of child support recipiency rates. However, sufficient information is available in the survey to correct for this problem.[10]

Selection of the Analysis Sample

Despite their limitations, the April CPS supplement still represents the most important source of information on nationwide child support trends. In order to develop a relevant sample for analysis, I have taken the basic CPS match files for 1978, 1981, and 1983 and, based on responses to certain questions in the survey, I have excluded a group of women who are not likely to be part of the appropriate child support population. Among women aged 18 and older who were either never married, divorced, or separated as of the survey date, where at least one child under the age of 21 was living in the household, and where at least one

of the respondent's children was living in the household, I imposed the following additional restrictions on the sample:

1. The woman had to be divorced or separated less than 18 years prior to the survey date but more than 3 months prior to the survey date,
2. The absent parent had to be alive,
3. The woman had to be under the age of 55, and
4. The woman had to have been married less than 25 years.

These restrictions are intended partially to correct for the various problems described above. Divorced and separated women married during part of the survey year are included in the sample because they are in the relevant population for part of the year. (As will be noted in the empirical analysis below, an adjustment is made for these families.) Widows are excluded from the analysis sample because there are so few of them to generate meaningful results.

TRENDS IN THE DATA

Based on the adjusted CPS sample, Table 1 presents trends in child support and AFDC recipiency from 1978 to 1983.[11] For the child support trends, there are three populations of interest: the total population, the population due child support, and the population receiving child support. As the figures indicate, for the total population there is virtually no change in award and recipiency rates over the six-year period.[12] However, for the population due child support, there is a noticeable increase in both the recipiency rate and the collection rate.[13] However, among those due child support, award amounts were considerably lower in real terms in 1981 compared to 1978, and also declined

Table 1

Trends in Child Support and AFDC for All Families with an Absent Parent, 1978-1983[a]

	1978	1981	1983
Child Support			
Overall Potential Population			
Award Rate	.50	.51	.49
Recipiency Rate	.36	.36	.37
Sample Size	3,121	3,737	3,683
Population Due Child Support			
Recipiency Rate	.72	.71	.75
Collection Rate	.61	.60	.64
Mean Award	$3,072	$2,647	$2,443
Mean Payment	$2,018	$1,637	$1,672
Sample Size	1,571	1,904	1,819
Population Receiving Child Support			
Collection Rate	.84	.85	.86
Proportion Reporting Irregular Payments	.25	.24	.27
Mean Payment	$2,793	$2,303	$2,240
Sample Size	1,135	1,354	1,358
AFDC			
Overall Potential Population			
Participation Rate			
From March CPS	.30	.27	.25
From April CPS	---	.24	.23
Sample Size	3,121	3,737	3,683
Selected States[b]			
Participation Rate			
From March CPS	.33	.31	.29
From April CPS	---	.27	.26
Mean Effective Tax Rate on Earnings	.29[c]	.25	.45[d,e]
Mean Effective Tax Rate on Nonwage Income	.85[c]	.73	1.00[d]
Mean Guarantee Level	$5,625[c]	$4,487	$4,389[d]
Sample Size	869	1,010	1,023

[a]Based on data from March/April CPS match files. All amounts are in 1983 dollars.
[b]For 10 states having data for all three years. See text note 15 for list of states.
[c]Tax rates and guarantee levels are for 1979.
[d]Tax rates and guarantee levels are for 1982.
[e]Tax rate is after 4 months on program with earnings.

somewhat between 1981 and 1983. The decline in real award amounts from 1978 to 1981 was due entirely to a high rate of inflation (nominal awards increased over the period). For those receiving child support, payment amounts exhibited much the same pattern. Additionally, there is a slight increase in the proportion of families reporting irregular payments between 1981 and 1983. In general, the figures indicate a significant deterioration in the real child support situation of American families over this period, caused primarily by a high rate of inflation and a lack of adjustment in nominal child support awards in response to this inflation.

The CPS match files have two sources of information concerning AFDC participation. In the income section of the March questionnaire, families are asked if they received any AFDC income. In the 1982 and 1984 April child support supplements, the respondents are asked the same question. Trends in both of these figures are reported in Table 1. As can be seen, the supplement reveals somewhat fewer AFDC recipients, but both surveys indicate a declining participation rate over time.

In the empirical analysis of the next section, in order to identify economic causes of the AFDC trends, estimates of AFDC program parameters are required. Three parameters are relevant: the effective benefit-reduction rate on earnings, the effective benefit-reduction rate on non-wage income, and the effective real guarantee level.[14] To my knowledge, the only published study that has estimates of these program parameters for years close to those analyzed in this paper is Fraker, Moffitt, and Wolf (1985). However, complete data for all three years are available for only ten states.[15] Table 1 presents trends in the three program parameters for these ten states.[16] Between 1978 and 1981, there was a 20

percent decline in the real guarantee level. This was offset somewhat by the fall in both the earnings and nonwage benefit-reduction rates. As later analysis will indicate, these changes in AFDC program parameters contributed to the two-percentage-point decline in the AFDC participation rate during this period. Between 1981 and 1983, there was a decided decrease in generosity of the program, reflecting the provisions of OBRA. The effective benefit-reduction rate on earnings almost doubled (probably because of the elimination of the "thirty and one-third" rule--which permitted recipients to keep the first $30 and one-third of remaining earnings without program tax--after four months of earnings and the standardization of work-related expenses), the effective benefit-reduction rate on nonwage income rose by a third, to 100 percent, and the effective real guarantee level fell by almost $100. Despite such a sizable decrease in the generosity of the program, the participation rate fell by only two percentage points, equaling the decline that occurred from 1978 to 1981.

The figures in Table 1 include currently married or remarried women. Because the children of remarried women usually have financial support from the stepfather, very few of these children are in poverty and only 4 percent receive AFDC (or AFDC-UP). Hence, one could argue that the relevant child support population for policy purposes limited to children in single-parent families. Table 2 presents trends in child support and AFDC for the CPS subsample that excludes remarried women (roughly 28 percent of the total sample). As this table indicates, the trends for single-parent families are very similar to the trends for all families. In general, women in single-parent families have slightly lower award and recipiency rates and slightly higher award and recipiency amounts than

Table 2

Trends in Child Support and AFDC Among Single-Parent Families, 1978-1983[a]

	1978	1981	1983
Child Support			
Overall Population			
Award Rate	.46	.47	.45
Recipiency Rate	.35	.35	.35
Sample Size	2,185	2,659	2,705
Population Due Child Support			
Recipiency Rate	.75	.74	.77
Collection Rate	.64	.63	.68
Mean Award	$3,127	$2,676	$2,512
Mean Payment	$2,176	$1,754	$1,804
Sample Size	1,010	1,253	1,224
Population Receiving Child Support			
Collection Rate	.85	.85	.88
Proportion Reporting Irregular Payments	.24	.24	.25
Mean Payment	$2,910	$2,358	$2,347
Sample Size	755	932	941
AFDC			
Overall Population			
Participation Rate			
From March CPS	.40	.35	.32
From April CPS	---	.32	.29
Sample Size	2,185	2,659	2,705
Selected States[b]			
Participation Rate			
From March CPS	.42	.39	.37
From April CPS	---	.35	.33
Mean Effective Tax Rate on Earnings	.29[c]	.26	.45[d,e]
Mean Effective Tax Rate on Nonwage Income	.86[c]	.73	1.00[d]
Mean Guarantee Level	$5,656[c]	$4,537	$4,427[d]
Sample Size	628	750	744

[a]Based on data from March/April CPS match files. All amounts are in 1983 dollars.
[b]For 10 states having data for all three years. See text note 15 for list of states.
[c]Tax rates and guarantee levels are for 1979.
[d]Tax rates and guarantee levels are for 1982.
[e]Tax rate is after 4 months on program with earnings.

the population that includes remarried women. Hence, remarried women are slightly more likely to receive child support than single women, but the amount they receive is, on average, less.

The information in Tables 1 and 2 suggest that much of the decline in the AFDC participation rate between 1978 and 1981 is probably due to economic factors, because real AFDC guarantee levels fell during this period. However, declining AFDC benefit reduction rates and falling real child support payments probably offset to some degree the effect of the falling guarantee level. During the 1981-83 period, economic factors also probably played an important role. Because of OBRA, AFDC program generosity decreased substantially, and it is likely that a good portion of the decline in the participation rate over this period is attributable to OBRA. Child support collections increased only slightly; hence they probably did not play a major role in the observed decline in the AFDC participation rate over the period.

In the next section, a more formal analysis of the decline in the AFDC participation rate is presented. An AFDC participation model is developed that sorts out the economic and demographic causes of AFDC participation. The model identifies the portion of the economic causes that is attributable to changes in the AFDC break-even level as well as the portion due to adjustments in labor supply resulting from the break-even level changes. Estimating the model over time also enables identification of unobserved factors influencing participation.

A MODEL EXPLAINING TRENDS IN THE AFDC PARTICIPATION RATE

Specification

To explain trends in the AFDC participation rate over time, a model is specified based on the principle of utility maximization. This model has been used elsewhere (Robins, 1986) and is only briefly discussed here. A family is assumed to participate in AFDC if participation increases its utility. Consider a family that is hypothesized to maximize a monotonic, strictly quasi-concave utility function $U(H_T,Y_T)$, where H is hours of work, Y is expenditures on market goods, and T is time. It is assumed that $U_H<0$, $U_{HH}<0$, $U_Y>0$, $U_{YY}>0$, and $U_{HY}<0$ (for simplicity, T subscripts are ignored in the remainder of this discussion, but time is accounted for in the empirical analysis). The budget constraint for the family is $Y=WH+N+PB$, where W is the (before-tax) wage rate, N is (before-tax) nonwage income other than AFDC, P is a binary (0,1) variable indicating whether or not the family receives AFDC benefits, and B is the level of AFDC benefits. The AFDC benefit formula (following Fraker, Moffitt, and Wolf, 1985) is given by $B=G-rN-tWH$, where G is the effective guarantee level (benefit when all other sources of income are zero), r is the effective (or implicit) tax rate on nonwage income, and t is the effective tax rate on earnings.[17] Using the AFDC benefit formula, the budget constraint can be rewritten as $Y=WH(1-tP)+N(1-rP)+PG$.

Maximization of the utility function subject to the budget constraint yields a set of behavioral equations determining Y, H, and the marginal utility of income as functions of W, P, r, t, N, and G. Substituting these solution equations into the direct utility function yields the indirect utility function $V=V(w,n)$, where w is the net (of taxes) wage

rate and n is net nonwage income. For non-AFDC participants (ignoring positive taxes), w=W and n=N, while for AFDC participants, w=W(1-t) and n=G+(1-r)N.

The indirect utility function is used to identify the causes of changes in the AFDC participation rate over time. It is assumed that a family participates in AFDC if utility is higher under AFDC; that is, if $\Delta V=V(W(1-t),G+(1-r)N) - V(W,N) >0$. Taking a second-order Taylor series expansion of ΔV around the non-AFDC equilibrium position yields the following participation equation:

$$(1)\ \Delta V = V_n\Delta n + V_w\Delta w + 1/2V_{nn}\Delta n^2 + 1/2V_{ww}\Delta w^2 + V_{nw}\Delta n\Delta w + \text{remainder},$$

where $\Delta w=-Wt$ is the change in the net wage rate over time and $\Delta n=G-rN$ is the change in net nonwage income over time. Assuming an upward-sloping labor supply function, the theoretical model suggests that $V_n>0$, $V_w>0$, $V_{nn}>0$, $V_{ww}>0$, and $V_{nw}<0$.

It can be shown (see Robins, 1986) that the first two terms on the right-hand side of equation (1) identify changes in the AFDC participation rate over time that are due to changes in the break-even level of the program, in the absence of any labor supply responses to the break-even level changes. These may be termed mechanical causes of participation (see Ashenfelter, 1983). The latter three terms identify changes in AFDC participation that are due to reductions in labor supply that make an otherwise ineligible family eligible for benefits. These may be termed behavioral causes. OBRA had a substantial effect on both w and n, as well as on the AFDC break-even level, so both of these sources of program participation (mechanical and behavioral) are likely to be large empirically, even though their net effect may be small.[18] It can

also be shown that increases in child support will unambiguously decrease the probability of participating in AFDC.

Equation (1) forms the basis of the empirical model to be estimated. Assuming the remainder term in (1) is a randomly distributed normal variable with mean zero and variance one yields a probit model of AFDC program participation. The model is expanded to allow demographic variables and time to affect participation. The specific demographic variables included are described in Table 3.[19] The effects of time are captured by a dummy variable for each year in the sample (1978, 1981, 1983).[20]

Estimation of the model requires estimates of w and n, which in turn requires estimates of W, N, G, r, and t. Estimates of W and N are taken from the CPS. Because wage rates are not observed for nonworking women, a predicted wage is used based on a wage equation.[21] N is taken directly from the CPS and includes child support as well as other nonwage income. G, r, and t are taken from Fraker, Moffitt, and Wolf (1985).[22] Because estimates of G, r, and t are not available over time for every state, only states which have values for the three variables in a particular year are included. This yields an estimation sample having a different set of states in each year. For the sample that includes remarried women, the estimation sample size is 6,503 (out of a possible 10,541 women).[23] For the sample that excludes remarried women, the estimation sample size is 4,692 (out of a possible 7,549 women). Means of all the explanatory variables in the model are given in Tables 3 and 4.

As indicated earlier, there are two sources of estimates of AFDC participation in the CPS match files. One is from the income section of the

Table 3

Estimates of AFDC Participation Model:
All Families with an Absent Parent

Variable	Mean	Coefficient	Standard Error
Demographic			
1 = Northeast	.198	.426***	.064
1 = Northcentral	.273	.379***	.062
1 = West	.194	.209***	.071
1 = Black	.274	.477***	.048
1 = Hispanic	.079	.047	.073
Years of Schooling	11.746	-.146***	.009
1 = Divorced	.338	-.210***	.058
1 = Separated	.159	.048	.063
1 = Married or Remarried	.278	-.996***	.068
1 = Father Present Part of Year	.115	-.295***	.064
Number of Children	1.760	.150***	.021
Age	32.632	-.032***	.003
Economic: Mechanical[a]			
Δw	-1.681	.085	.084
Δn ($\times 10^3$)	2.025	.057***	.018
Economic: Behavioral[b]			
$(\Delta w)^2$	3.587	.016	.016
$(\Delta n)^2$ ($\times 10^6$)	19.729	.0010***	.0002
$\Delta n \Delta w$ ($\times 10^3$)	-3.523	-.013	.009
Time			
1 = 1978	.410	1.642***	.148
1 = 1981	.420	1.672***	.148
1 = 1983	.170	1.631***	.152
Sample Statistics			
Log Likelihood	-2,922		
Sample Size	6,503		
1978	2,692		
1981	2,722		
1983	1,089		

***Significant at 1% level.
[a]Refers to program rule changes; see text for full explanation.
[b]Refers to change in work effort as a result of rule changes; see text.

Table 4

Estimates of AFDC Participation Model:
Single-Parent Families

Variable	Mean	Coefficient	Standard Error
Demographic			
1 = Northeast	.225	.430***	.070
1 = Northcentral	.263	.407***	.069
1 = West	.184	.262***	.079
1 = Black	.353	.500***	.050
1 = Hispanic	.089	-.020	.079
Years of Schooling	11.658	-.137***	.010
1 = Divorced	.468	-.187***	.059
1 = Separated	.221	.074	.064
1 = Father Present Part of Year	.140	-.358***	.067
Number of Children	1.808	.146***	.023
Age	32.027	-.033***	.003
Economic: Mechanical[a]			
Δw	-1.679	.112	.092
Δn ($\times 10^3$)	2.287	.071***	.020
Economic: Behavioral[b]			
$(\Delta w)^2$	3.596	.016	.018
$(\Delta n)^2$ ($\times 10^6$)	18.332	.0014***	.0002
$\Delta n \Delta w$ ($\times 10^3$)	-4.023	-.012	.010
Time			
1 = 1978	.410	1.527***	.162
1 = 1981	.420	1.545***	.155
1 = 1983	.170	1.501***	.170
Sample Statistics			
Log Likelihood	-2,492		
Sample Size	4,692		
1978	1,923		
1981	1,972		
1983	797		

***Significant at 1% level.
[a]Refers to program rule changes; see text for full explanation.
[b]Refers to change in work effort as a result of rule changes; see text.

March survey and the other is from the April supplement. Because the April supplement measure of AFDC participation is not available for 1978, the March definition is used in the empirical analysis. Using the same measure of participation across time will enable identification of unobserved causes of changes in participation over time.[24]

Results

The results of estimating the model are presented in Tables 3 for all families with an absent parent and in Table 4 for single-parent families only. The results are very similar for the two groups, so only the results for the entire sample, Table 3, will be discussed.

With respect to the demographic variables, the results are consistent with earlier studies in indicating that participation decreases with age and education of the mother and is higher for blacks relative to Hispanics and whites. Remarried women are the least likely to participate in AFDC, followed by divorced women. Separated women and never-married women (the omitted category in Tables 3 and 4) are equally likely to participate in AFDC. Participation increases with the number of children and is highest in the Northeast and lowest in the South. Participation is also lower in families where the father was present in the household for part of the year.

All of the economic variables (mechanical and behavioral) are of the expected sign and two are statistically significant at the one percent level or lower. The results indicate that both mechanical and behavioral effects are important determinants of participation.[25] None of the time dummies are significantly different from one another. The time dummies

indicate a slight upward drift in participation from 1978 to 1981 and a slight downward drift in participation from 1981 to 1983, due to unexplained factors. The upward drift from 1978 to 1981 may be reflecting the increasing unemployment rate while from 1981 to 1983 the downward drift may be reflecting efforts to reduce fraud or the tightening of eligibility standards as a result of OBRA that are not captured by the included variables.

What do these results imply concerning the causes of changes in the AFDC participation rate over time? To investigate this issue, the model is used to predict responses to actual changes in demographic and economic variables. The predictions are generated in the following way. First, the analysis is restricted to the ten states that had values for all the economic variables in each year (see note 15), to maintain a fixed geographic sample over time. These ten states experienced a somewhat smaller reduction in AFDC participation over the period than the entire sample, but their average participation rate tended to be higher. Second, the estimated equation is used to predict the participation rate in the base year of the calculations using mean values of the variables in the base year. The constant term in the model is adjusted to ensure that the predicted participation rate in the base year is equal to the observed participation rate.[26] Third, changes in the participation rate over time are analyzed by varying, in turn, actual values of the demographic, economic-mechanical, and economic-behavioral variables (sample means in the relevant periods are used). The residual difference between the predicted participation rate in the final year and the observed participation rate in the final year can be attributed to unexplained factors (reflecting excluded variables).[27]

This exercise is performed for the entire 1978-83 period, as well as for the subperiods 1978-81 and 1981-83. Only single-parent families are used in the analysis. The results are presented in Table 5. From 1978 to 1983, the results indicate that demographic and economic factors are responsible for the entire decline in the participation rate and that economic factors were the most important. In fact, demographic and economic factors more than explain the decline. Omitted variables, probably reflecting the worsening economic conditions from 1978 to 1981, caused an increase in the participation rate by about one percentage point.

The net contribution of economic factors is composed of two parts, a mechanical effect (caused by a changing AFDC break-even level) and a behavioral effect (caused by a labor supply response). Both effects are estimated to be quite important individually, but they are offsetting. During the period, the model predicts that there was a significant reduction in labor supply that partially offset the effect of the reduced break-even level. The predictions indicate that the reduced break-even level would have decreased participation by seven percentage points, but the reduced labor supply would have raised it by three percentage points.

The sources of the decline in the participation rate in the two subperiods are estimated to be quite different. From 1978 to 1981, both demographic and economic factors contributed to the decline in the participation rate, but these were offset somewhat by unexplained factors (probably the increased unemployment rate) that increased the participation rate. It is interesting that from 1978 to 1981, the economic factors causing a decline in participation were due entirely to a labor supply increase caused by the falling AFDC guarantee level and the

Table 5

Sources of Changes in the AFDC Participation Rate
Among Single-Parent Families in Ten States, 1978-1983[a]

	1978-1983	1978-1981	1981-1983
AFDC Participation Rate in First Year	.42	.42	.39
AFDC Participation Rate in Last Year	.37	.39	.37
Change in AFDC Participation Rate over Period	-.05	-.03	-.02
Portion of Change Due to			
Demographic Factors	-.02	-.03	0
Economic Factors	-.04	-.02	-.01
Mechanical	-.07	0	-.06
Behavioral	+.03	-.02	+.05
Unexplained Factors	+.01	+.02	-.01

[a]See note 15 for list of states.

falling AFDC benefit-reduction rates. Apparently these changes resulted in no significant break-even level changes and hence generated no mechanical effects on participation.

From 1981 to 1983, economic factors explain the entire decline in the AFDC participation rate. This seems reasonable in light of the large changes in effective tax rates resulting from OBRA. Generally speaking, the results suggest a considerable labor supply response to OBRA that tempered a substantial decline in the program's break-even level.[28]

It is also possible to use the model to determine the effects of changes in child support on AFDC participation rate trends from 1978 to 1983. For the ten states analyzed (results not shown on table), average real child support collection amounts fell by about 17 percent, from $1,102 in 1978 to $915 in 1983. Decreased child support collections generate mechanical and behavioral effects that operate in the same direction to increase the AFDC participation rate.[29]

The results imply that the decreased child support collections tempered the AFDC participation rate decline from 1978 to 1983. The model implies that in the absence of the decreased child support collections, the AFDC participation rate would have been one percentage point lower than that actually observed. This effect is predicted to have taken place between 1978 and 1981, when average real child support collections fell by 23 percent (from $1,102 to $844). The slight increase in real child support collections from 1981 to 1983 (from $844 to $915) had virtually no effect on the AFDC participation rate. Hence, the CPS data suggest that the worsening real child support situation from 1978 to 1983 reduced somewhat the rate of decline of the AFDC participation rate over this period.

THE EFFECTIVENESS OF CHILD SUPPORT ENFORCEMENT POLICIES FROM 1981 TO 1983

Although increased child support collections are estimated to have played no role in explaining the decline in the AFDC participation rate from 1981 to 1983, it does not necessarily follow that child support enforcement is an ineffective policy tool. In Robins (1986), data from the 1982 CPS match files were used to analyze the impact of the Child Support Enforcement program on various child support outcomes. It was found that the program had a significant effect on child support collections in 1981. In this section, that analysis is updated to include estimates of the effect of the program in 1983, using the 1984 CPS match file.

The 1984 CPS match file repeated a series of questions given in the 1982 file (but not in the 1979 file) regarding individual use of the Child Support Enforcement program. The questions in the 1982 survey were asked of both AFDC and non-AFDC families. However, apparently because the responses by AFDC families were viewed as unreliable, the questions were only repeated for non-AFDC families in the 1984 survey.[30] Hence, it is only possible to use the CPS data to compare the effectiveness of the program over time for non-AFDC families.

To estimate the effectiveness of the Child Support Enforcement program in 1981 and 1983, three outcome variables are analyzed: the amount of child support received, the amount of child support due, and the child support collection rate. For amounts received and amounts due, a single-limit tobit model is estimated to take account of the fact that many families report zero amounts for these variables. For the collection rate, a two-limit tobit model is estimated to take account of the fact that many families have values of zero and one for this variable.[31]

The models include a vector of exogenous explanatory variables plus a dummy variable denoting whether the family reported receiving help from the Office of Child Support Enforcement.[32] The sample includes both single-parent families and families in which the mother has (re)married.

Table 6 presents sample means for the key variables in the analysis. AFDC families report greater use of the Child Support Enforcement program than non-AFDC families.[33] However, non-AFDC families have significantly higher award and collection rates. Overall, the figures indicate an improvement in the collection rate from 1981 to 1983 for non-AFDC families, but a decline in the real amount due and collected.

The estimated effects of the program for 1981 and 1983 are presented in Table 7. In addition to the tobit coefficients, average effects of the program over the entire sample are also presented.[34] The results indicate that the Child Support Enforcement program had a significant effect on the amount of child support received in 1981 and 1983, but not on the amount of child support due. For those that received help from the child support agency, collections in 1981 rose by almost 120 percent for AFDC families and by about 50 percent for non-AFDC families.[35]

Although estimates over time are only available for non-AFDC families, there does not appear to be any increase in the effectiveness of the program from 1981 to 1983. In fact, in 1983 the estimated effects of the program are uniformly lower than in 1981 (both in absolute and percentage terms) for all three outcome variables. Hence, the overall increase in the child support collection rate for non-AFDC families reported in Table 6 does not appear to be the result of the Child Support Enforcement program.

Table 6

Sample Means for Analysis of the Effects of the Child Support Enforcement Program (Amounts in 1983 dollars)

	AFDC: 1981 (N=891)	Non-AFDC: 1981 (N=2,846)	Non-AFDC: 1983 (N=2,848)
1 = Contacted Child Support Agency	.40	.20	.19
1 = Received Help from Child Support Agency	.22	.10	.11
1 = Due Child Support	.34	.56	.54
Amount Due[a]	$2,153	$2,741	$2,548
1 = Received Child Support	.19	.42	.42
Amount Received[b]	$1,680	$2,390	$2,321
Collection Rate[a]	.46	.63	.65
1 = Collected Nothing[a]	.47	.26	.22
1 = Collected Full Amount[a]	.35	.47	.50

[a]Among those due child support.
[b]Among those receiving child support.

Table 7

Estimated Effects of Child Support Enforcement Program
(Asymptotic standard errors in parentheses)

Child Support Outcome	AFDC: 1981		Non-AFDC: 1981		Non-AFDC: 1983	
	Tobit Coefficient	Average Effect	Tobit Coefficient	Average Effect	Tobit Coefficient	Average Effect
Amount Received[a]	1,561.4** (643.5)	233.0	1,174.2*** (427.5)	426.4	778.9* (425.3)	288.8
Amount of Obligation[a]	784.2 (704.0)	209.9	275.3 (507.8)	131.1	-79.9 (386.9)	-39.3
Collection Rate[b]	3.65*** (.88)	.21	1.21*** (.24)	.20	.79*** (.26)	.13

*Significant at 10% level.
**Significant at 5% level.
***Significant at 1% level.
[a]Single-limit tobit estimates.
[b]Two-limit tobit coefficients.

SUMMARY AND CONCLUSIONS

This study has used data from the 1979, 1982, and 1984 CPS match files to analyze trends in AFDC and child support from 1978 to 1983. During this period, the AFDC participation rate fell and real child support collections also fell. Analysis of the data reveals that from 1978 to 1981 the decline in the AFDC participation rate can be attributed to an erosion in real AFDC guarantee levels caused by high rates of inflation and to changes in demographic conditions, while from 1981 to 1983 the decline can be attributed entirely to the provision of OBRA that raised effective AFDC tax rates. The analysis also reveals that a sizable reduction in labor supply occurred in response to OBRA, in contrast to findings from earlier studies of the response to OBRA. In the absence of the labor supply response, the results suggest that OBRA would have produced a much larger decline in the AFDC participation rate than actually occurred.

The analysis also indicates that the decreased child support collections over the 1978-83 period were the result of an erosion of real child support award amounts and cushioned somewhat the downward trend in the AFDC participation rate. From 1978 to 1981, real child support collections fell by 17 percent, generating an increase in the AFDC participation rate of about one percentage point. From 1981 to 1983, child support collections increased slightly but had no perceivable effect on the AFDC participation rate. Furthermore, there appears to have been a decrease in the effectiveness of the Child Support Enforcement program from 1981 to 1983. However, it should be pointed out that the

effectiveness of the program and its influence on the AFDC participation rate may increase significantly in the future, when the 1984 Child Support Amendments, authorizing mandatory withholding of wages from parents who are delinquent in paying child support, become fully implemented nationwide. It will be of great interest to update the analysis in this paper when later CPS data are available.

Appendix

Wage Equation Estimates - CPS
(Standard Errors in Parentheses)

Variable	Probit on Whether a Wage Is Observed		Log Wage Equation	
1 = Family Head	.14***	(.04)	--	
1 = Northeast	-.27***	(.04)	.03	(.02)
1 = Northcentral	-.12***	(.04)	.02	(.02)
1 = West	-.09**	(.04)	.05***	(.02)
1 = SMSA	.04	(.03)	.11***	(.02)
1 = Central City	-.11***	(.04)	-.01	(.02)
1 = Large SMSA	-.21***	(.04)	.12***	(.02)
1 = Black	-.22***	(.04)	-.03	(.02)
1 = Spanish	-.18***	(.05)	.06**	(.03)
Education	.07***	(.008)	.06***	(.005)
Experience (Age-Education-5)	.04***	(.005)	.03***	(.003)
$(\text{Experience})^2$	-.0008***	(.0001)	-.0004***	(.0001)
1 = High School Diploma	.38***	(.04)	-.02	(.03)
1 = Homeowner	.14***	(.03)	--	
Nonwage Income ($000)	-.01***	(.003)	--	
1 = Divorced	.38***	(.04)	--	
1 = Separated	.04	(.04)	--	
1 = Married	-.04	(.05)	--	
1 = Widow	-.20	(.16)	--	
1 = 1978	-.90***	(.03)	.67***	(.09)
1 = 1981	-.99***	(.03)	.61***	(.09)
1 = 1983	-1.00***	(.03)	.61***	(.10)
LAMBDA	--		-.26***	(.06)
Log Likelihood	-6,517		---	
R^2	---		.14	
N	11,513		7,730	

**Significant at 5% level.
***Significant at 1% level.

Notes

[1]It is important at the outset to differentiate various definitions of the AFDC participation rate used in the literature. Ruggles and Michel (1987), for example, define the AFDC participation rate as the proportion of all eligible families that participate in the program, where eligible families include those that are both categorically eligible (meeting requirements concerning children, assets, and unearned income) and earnings eligible. Other authors (such as Fraker and Moffitt, 1985) define the participation rate as the proportion of categorically eligible families that participate in the program. The definition of the participation rate used in this paper is the proportion participating among all families in which the mother is at least 18 years of age, children under the age of 20 are present in the household, and the father is absent from the household. Although current AFDC rules deny eligibility to children over age 19, children up to age 21 were eligible prior to 1981. A more precise discussion of the sample used is given below.

[2]The data used to derive these figures are from the March/April CPS match files created by the Census Bureau for use in tracking child support trends. The CPS match files are the basic data set used in this paper. I use reported AFDC in the CPS (available in two different places in the match files) to measure participation. Although the CPS is known to underreport AFDC participation, if the factors determining underreporting don't change over time, the reported trends in the CPS should accurately reflect real trends. In a recent paper examining AFDC trends over a longer period of time and using the AFDC Characteristics Survey

rather than the CPS to measure the size of the participating population (the CPS is used to measure the size of the total population, however), Moffitt (1986) estimates a somewhat larger decline in the participation rate (as it is defined here) over the 1978-83 period. His data indicate about a 25 percent drop in the participation rate among all female-headed families between 1979 and 1982, from 47.7 percent to 35.1 percent. However, an error in estimating the size of the female-headed population in the CPS prior to 1981, documented by Ruggles and Michel (1987), would appear to affect the denominator of Moffitt's earlier calculations and probably makes his estimate of the decline in the participation rate over the 1979-82 period too large. Correcting for the CPS coding error, Ruggles and Michel (1987) find no decline in the participation rate among eligibles over this period. The CPS coding error should have no bearing on the estimated participation rate used in this paper because the base population is all women 18 years of age and older having children whose father is absent from the household. Hence, although recent evidence suggests that there has not been a decline in the participation rate among eligible families during the 1978-83 period, there does appear to have been a decline in the participation rate among all female-headed families.

[3]The unemployment rate of women who maintain families averaged 10.1 percent during the period 1978-83, reaching a postwar peak of 12.2 percent in 1983. From 1967 to 1977, the unemployment rate of this group averaged 7 percent. See Economic Report of the President (Washington, D.C.: GPO, 1986).

[4]See U.S. Department of Health and Human Services (1983) for a discussion of various child support legislation enacted during the

1978-83 period. In 1984, important amendments to the Social Security Act were passed (the 1984 Child Support Amendments) that are expected to have a significant impact on AFDC participation. Data are not yet available to assess the effects of this most recent legislation.

[5]See, for example, Robins (1986), Moffitt (1983, 1986), and Blank (1986).

[6]These inflation rates are geometric means of changes in the CPI over this period. See Economic Report of the President, 1987.

[7]Under current law, the 100 percent benefit-reduction rate is applicable after four months on the programs with earnings. During the first four months of earnings, the 67 percent benefit reduction rate applies.

[8]See Wolf and Greenberg (1986) for an analysis of recent efforts to reduce fraud in welfare programs.

[9]The 1986 match file was not available when this study was undertaken.

[10]Another problem with the survey is that only women are sampled. Men who head single-parent households and who might be due child support are excluded. This group is not likely to be a large portion of the total child support population.

[11]From an original sample size of 11,513 (for all three years combined), the exclusions reduce the sample by 8.4 percent, to 10,541. Sample sizes for each year are given in Table 1.

[12]The recipiency rate is the fraction of the population that reported receiving at least some child support in the calendar year prior to the survey month. The award rate is the fraction of the population that was due some child support in the calendar year prior to the survey. The CPS supplement distinguishes those awarded child support from those due child

support because it is possible for a woman to have had an award in the past but not be due any support in the year prior to the survey (because, perhaps, of a stipulation in the divorce agreement). I use the term "award" in Table 1 to represent those actually due child support in the prior calendar year. Without adjusting the sample for the problems described earlier, there are a significant number of women who report having an award but who were not due child support in the previous year. These women are virtually eliminated from the sample once it is adjusted. It should also be noted that because of my adjustments to the sample, the award and recipiency rates in Table 1 are slightly higher than the figures published by the Census Bureau for the same years (see U.S. Department of Commerce, 1985), but the trends are similar.

[13]The collection rate is the proportion of amount due that is actually paid.

[14]Effective program parameters are to be distinguished from official program parameters. Prior to 1981, the official benefit reduction rate on earnings was 67 percent. As indicated earlier, OBRA raised it to 100 percent, after four months on the program with earnings. Except in a few states, the official benefit-reduction rate on nonwage income has always been 100 percent.

[15]These states are Connecticut, Pennsylvania, Indiana, Michigan, Wisconsin, Minnesota, Louisiana, Oklahoma, Washington, and California. Approximately 40 percent of the total nationwide AFDC caseload resides in these ten states (see Social Security Bulletin, January 1984).

[16]Each woman is assigned the relevant program parameter for her state. The effective guarantee level varies not only across states but with family size as well. The exact formulas used to calculate effective

guarantee levels are given in an unpublished appendix to the Fraker, Moffitt, and Wolf study. Because effective program parameters are not available for 1978 or 1983, I use the 1979 estimates for 1978 and the 1982 estimates for 1983.

[17]This formulation assumes it is effective, rather than official tax rates that guide behavior.

[18]OBRA made Δw more negative, which would tend to discourage participation, but it made Δw^2 larger, which would tend to encourage participation. OBRA also slightly reduced Δn and Δn^2, which would tend to discourage participation. The net effect of all these changes will depend on the magnitude of the parameters of the indirect utility function, but is certain to discourage participation somewhat. It can be shown that the second-order terms indicate the degree of curvature of the indifference curves. If the second-order terms are unimportant, then the indifference curves will approximate right angles and only income effects will occur as a result of the break-even level changes. Another way of saying this is that if the compensated substitution effect at the break-even level is zero, the indifference curves will be right angles and there will only be positive labor supply responses to changes in the break-even level. If there are no negative labor supply responses to OBRA, then a sizable decrease in participation should be observed. The fact that a sizable decrease was not observed (at least by 1983) suggests a significant labor supply response occurred to offset the effects of the reduced break-even level.

[19]One demographic variable worth noting is the dummy variable indicating whether the father is present in the household for part of the survey year. This variable is intended to capture the effects of a

divorce occurring during the survey year. The expected effect of this variable on participation is negative.

[20]An alternative would be to estimate a separate equation for each year. This was done and a likelihood ratio test indicated that the samples could be merged.

[21]The wage equation is corrected for selectivity bias using the two-step Heckman (1979) technique. The results are presented in the Appendix. The estimated standard errors have been corrected for the effects of heteroskedasticity.

[22]Families eligible for AFDC are also eligible for food stamps, which has its own guarantee level and tax rate. Theoretically, the availability of food stamps makes AFDC a more attractive option relative to the option of no program at all (see Fraker and Moffitt, 1985), and most families that receive AFDC also receive food stamps in practice. In addition, families on AFDC are also eligible for Medicaid, which further complicates the participation decision. It is not clear how a more complete specification of the program participation decision that incorporates both food stamps and Medicaid would affect the estimated parameters of the AFDC participation equation. Fraker and Moffitt (1985) find that the food stamp guarantee level has a positive effect on AFDC participation and omission of this variable from the AFDC participation equation appears to reduce by about 10 percent the size of the coefficient of the AFDC guarantee level (other variables are omitted also, however, qualifying this conclusion). Because their specification of the AFDC participation equation differs substantially from the one presented here, it is difficult to draw implications from their findings.

[23]Later, when the results of the model are used to sort out the various causes of participation changes over time, a fixed sample of states is used.

[24]The model was also estimated using the April definition of AFDC for 1981 and 1983 and the March definition for 1978 and the coefficients are very close to those reported in the text (except for the effects of the time dummies, which show an abrupt shift in 1981, reflecting the measurement differences between 1981 and 1983).

[25]The first- and second-order terms can be used to estimate labor supply substitution and income elasticities (see Robins, 1986). For these results, the implied substitution and income elasticities are somewhat larger than conventional estimates for this group (about 1.9 for the substitution elasticity and -.8 for the total income elasticity, evaluated at the sample means).

[26]In practice, this requires very little change in the estimated constant term because the model predicts actual participation in each year quite accurately.

[27]The result are generally insensitive to the order in which the values of the variables are changed.

[28]These findings contrast with earlier findings of Hutchens (1984) and Feaster, Gottschalk, and Jakubson (1984), where only a small behavioral response to OBRA is estimated. It should be pointed out that my estimate of a large behavioral response to OBRA depends crucially on the tax rates and guarantee levels used in estimation. As indicated earlier, the Fraker, Moffitt, and Wolf (1985) estimates of effective tax rates and guarantee levels are used in this study. If the true tax rates and

guarantee levels facing the families are different from the ones used in estimation, than my estimates of the labor supply response to OBRA would be biased. One important source of potential error is the assumed tax rate on earnings under OBRA. I use the higher tax rates applicable after four months of earnings under the assumption that work decisions are based on such longer-run tax rates.

[29]Decreased child support collections increase Δn and Δn^2, both of which tend to increase participation.

[30]AFDC families are required to assign their child support rights to the child support agency, which in turn pursues collection. Hence, it is quite possible that many AFDC families are unaware of efforts made on their behalf by the child support agency. As will be seen below, however, a significant number of AFDC families in the CPS data report contact with the child support agency.

[31]A few families reported receiving more child support than they were due. These families were assigned a value of one for the collection rate.

[32]See Robins (1986) for a description of the variables in the model. It may be noted that the specification includes two selectivity correction terms; one for selection into the AFDC program and the other for selection into the Child Support Enforcement program.

[33]Recall that many families may be unaware they are receiving program services and hence, use of the program by AFDC families may be underestimated.

[34]The average effects have the same interpretation as least squares coefficients, while the tobit coefficients represent the effects for families not at the limits of the outcome variables.

[35]The percentage effects are calculated by dividing the tobit coefficients in Table 7 by the mean amount received by families prior to receiving help from the child support agency, that is b/(y-bD), where b is the tobit coefficient, y is the mean amount received by recipients, and D is the fraction of families receiving help from the child support agency.

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