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FERTILITY AND WELFARE PARTICIPATION

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Abstract

Despite the attention that the fertility of welfare recipients has received recently, surprisingly little is known about it. This paper answers some basic questions about the phenomenon of welfare births. Among the findings from the March 1987 Current Population Survey are that 13.4 percent of all births are into the 7.3 percent of families receiving Aid to Families with Dependent Children (AFDC) and that (unadjusted) fertility rates of welfare recipients exceed those of other groups. Using data from the National Longitudinal Survey of Youth, I find that nearly 60 percent of women who use AFDC in one or more years of the sample period have at least one "AFDC birth." I do not find prima facie evidence supporting the notions that women use AFDC to begin families earlier and that mothers use AFDC to realize their desires for large families.

Recent welfare reform efforts highlight the strong beliefs of the public and policymakers that U.S. welfare policy (especially the Aid to Families with Dependent Children program, or AFDC) heavily influences the fertility choices of some women. For example, proposals to deny cash benefits to teens are intended to remove the incentive for early out-of-wedlock childbearing as a means of establishing an independent household, while "family cap" proposals, which deny additional benefits to welfare recipients who give birth, seek to remove a perceived financial reward for childbearing.

Given this unprecedented emphasis on the fertility effects of welfare policies, it is unfortunate that there is so little information available on the actual reproductive behavior of welfare recipients. Rank (1989) and Powers (1994) have examined AFDC recipients' fertility rates and found them to be below average. However, the usefulness of both studies is limited by their use of nonrepresentative data sets. Rank's data are limited to Wisconsin's AFDC participants, while Powers uses a group of older women from the age-restricted National Longitudinal Survey of Women. While the characteristics of women with welfare births have been studied in the case of first births to teenage mothers (see An, Haveman, and Wolfe [1993]),[1] many unanswered questions remain. For example, we do not know how important welfare births after the first are; whether the characteristics of those with subsequent births on welfare are similar to those with first births on welfare; or whether AFDC births appear to be intended or wanted.

This paper seeks to provide a richer description of welfare recipients' fertility and the characteristics of welfare recipients with births. I employ two data sets frequently

[1] Hotz, McElroy, and Sanders (1995) also trace various outcomes for teen mothers, many of whom are welfare recipients around the time of birth.

used in the welfare literature, the Census Bureau's March Current Population Survey (CPS) and the Bureau of Labor Statistics' National Longitudinal Survey of Youth (NLSY). The CPS data are useful for their representativeness of the U.S. population, while NLSY's advantages are the abilities to follow an individual's fertility behavior over time and to link particular reproductive choices to prior characteristics and long-run outcomes. Before proceeding to the findings, I describe the data briefly and investigate their representativeness of the U.S. population's fertility.

I. Data Sources

The CPS is a large, representative sample of U.S. households. The March 1988 survey can be used to construct fertility rates for 1987. A variable that reports the number of children less than one year old in each family is summed to arrive at the total number of births.[2] This total, divided by the sum of all women between 15 and 44 years of age, is the overall fertility rate. While rough, these approximations actually match 1987 fertility rates from the U.S. National Center for Health Statistics (NCHS) fairly well (1994). The 1987 CPS fertility rate is 6.32 percent (all reported fertility rates are computed using sample weights), rather than the 6.57 percent reported by the NCHS. Variables in the CPS also make it possible to compute fertility rates for subgroups with particular characteristics such as race, age, family structure, and AFDC recipiency.

The women's subsample of the NLSY follows a group aged 14 to 22 in 1979 and reinterviews them each year through 1993 on a variety of topics, including AFDC use in

[2] This variable is not available in more recent surveys, although it could be constructed.

the previous year (thus, the sample for analysis includes 1978 through 1992). "AFDC births" are those that occur in the same year welfare recipiency is reported. Because the NLSY oversamples poor whites, minorities, and the military, it is not representative of the U.S. population. In principle, this can be compensated for using the sample weights.

Again, how closely the NCHS fertility rate can be replicated gives some indication of the generality of findings from the NLSY. Due to the age truncation, the NLSY is not a representative sample of U.S. women in any one year. However, it is feasible to compute fertility rates for five-year age cohorts in various years. Overall, the NLSY data and sampling weights seem to do a reasonable job of replicating the U.S. population. In four out of five cases, the difference between the NLSY fertility rate and the official rate is one percentage point or less.

II. Findings

Cross-Sectional Evidence on Welfare Recipients' Fertility

Of the women in the CPS sample, 7.3 percent are AFDC recipients,[3] while 13.4 percent of all births are "AFDC births." In contrast to a CPS fertility rate of 6.32 percent for all women aged 15 to 44, the fertility rate of women in families that receive AFDC is 14.71 percent. However, this large difference in fertility rates is somewhat misleading. For all practical purposes, women without children are ineligible for AFDC, but women who already have children constitute a select group, with birth rates substantially above the average. To reduce this source of variation, women without children are omitted from

[3] Women residing in families reporting AFDC income are assumed to be AFDC recipients.

the sample. I also exclude women who are not either unmarried household heads or spouses of household heads. This prevents births from being inadvertently attributed to siblings or other household members who are not the mother, which would confound the age-cohort-specific fertility rates required below. These refinements shrink the difference in fertility rates dramatically: The fertility rate for all the included women is 11.65 percent, while that of AFDC recipients is 15.03 percent.

The first row of table 1 presents the differences between the fertility rates of recipients and all (sample) women, married women, and nonrecipient female household heads, respectively. The recipients' fertility rate exceeds that of all three groups. It is well known that AFDC recipients have quite different characteristics than women in other types of families. Young women, women with large numbers of children, African-American women, and women with low educational attainment are disproportionately represented in the AFDC population. Since fertility rates vary with these characteristics, it may be that the differences are generated by the differential composition of the welfare and comparison groups. This issue can be addressed in a simple way by recomputing fertility rates for the welfare group under the assumption that the distribution of their characteristics is the same as that of the comparison group.

The second through fifth rows of table 1 show the estimated differences in fertility rates resulting from this procedure. I adjust for age differences using three age groups (15-19, 20-29, and 30-44); for racial differences (black and other); and for family size differences (one, two, and three or more children).[4] After adjusting for all these factors,

[4] Although differences in other characteristics (e.g., education) could be examined, it is inadvisable to go any further in exploring compositional differences by this method, due to small cell sizes.

recipients' fertility rate is estimated to be 1.35 percentage points below the average and 2.31 percentage points lower than that of married women. Even after adjustment, recipients' fertility rates are nearly double those of nonrecipient female household heads.

Interpreting the relative fertility of welfare recipients is not straightforward. Many would argue that married women are not a good comparison group, because wives have self-selected into this group primarily for the purpose of having children. If one believes that welfare mothers' socioeconomic circumstances make it undesirable for them to bear more children, one is not reassured to find that welfare mothers' fertility rates seem reasonable relative to married women's. An alternative comparison group with a similar family structure is nonrecipient female heads of households. However, it is likely that this group's very low fertility rates are in large part due to the endogeneity of AFDC participation with fertility status: that is, female heads who find themselves pregnant or with a new birth will tend to enroll in AFDC.

Longitudinal Evidence on Welfare Recipients' Fertility

After excluding from the NLSY observations with incomplete histories of fertility and AFDC participation, I have a sample of 3,842 women for whom 5,704 births are recorded between 1978 and 1992. Population weighted, 12.3 percent of births occurring during this period can be characterized as AFDC births.[5] While relatively few sample members have an AFDC birth, nearly 60 percent of women with *any* reported AFDC participation have at least one AFDC birth.

If the "problem" of welfare births were entirely due to mothers entering the AFDC system with their first birth, this would provide some prima facie evidence against the

[5] Unless otherwise noted, all percentages are population weighted.

notion that AFDC provides fertility incentives beyond the first child. Because AFDC recipiency information is not available before 1978 (so that first births cannot be identified as AFDC births for some women), 384 observations reporting a birth prior to 1978 are eliminated. The data reveal that AFDC births are just as frequently second or later births. There are 319 first births associated with AFDC receipt, 303 second AFDC births, and 260 third- or higher-order births. Many of these subsequent AFDC births follow a first AFDC birth: Of women whose first birth is associated with welfare, 40.2 percent follow up with a *second* welfare birth. (The probability of any subsequent AFDC birth is 42.7 percent.)

What are the characteristics of those with AFDC births? Table 2 presents the characteristics of mothers (those with at least one birth between 1978 and 1992) in the NLSY according to birth and AFDC status. Of these mothers, 1,630 never used AFDC; 290 report AFDC use but do not report a birth in any year of AFDC receipt; 321 report a first birth in a year of AFDC receipt (a "first AFDC birth"); and 213 report a second or higher birth in a year of AFDC receipt which is *not* preceded by a first AFDC birth (a "subsequent AFDC birth").[6]

Nonrecipients' characteristics differ significantly from those of all three types of recipients in well-known ways. Briefly, AFDC recipients tend to be younger, are disproportionately black, come from larger families, and are more likely than nonrecipients to remain unmarried.[7] Fertility patterns also differ. In all cases, recipients'

[6] The group of 216 mothers with a first AFDC birth and two or more births by 1992 is discussed below.

[7] All differences reported here and below are significant beyond the 95 percent level of confidence.

final (1992) family sizes are larger, and they begin their families from 3.7 to 4.2 years earlier in life than nonrecipients. The fraction of in-wedlock births is significantly lower for all recipient groups. While 82 percent of births to those never participating in AFDC are in wedlock, more than half of all births to AFDC recipients are out of wedlock.

There are also substantial differences among AFDC recipients. The greatest differences are typically between those with no AFDC birth and those with a first AFDC birth. The latter group is significantly younger, disproportionately black, less likely ever to marry, more fertile, and reports AFDC receipt in 3.3 additional years. Somewhat surprisingly (if one believes women might use AFDC to initiate childbearing earlier), the age at first birth is *not* significantly different across these groups. However, the pace of subsequent births for those with a first AFDC birth is accelerated by 4 to 6 months. The marital patterns of the two groups are also very different. The fraction of in-wedlock births to women with a first AFDC birth is not even 20 percent, versus 50 percent for recipients without an AFDC birth. This and the fact that nearly half of the first AFDC birth group have never married by 1992 (while 77 percent of those with AFDC use but no AFDC birth have been married) are consistent with the findings of Bennet, Bloom, and Miller (1993) that having an out-of-wedlock birth (such as a first AFDC birth) greatly reduces future marriage chances.

Finally, it is interesting to compare women with a first welfare birth and those with any welfare birth. Since these groups should share characteristics that are associated with AFDC fertility in general, differences between them may reveal ways in which women with a first AFDC birth are unusual. Some of the apparent differences between

the two groups come from the fact that those with subsequent AFDC births are a select group with two or more children. Therefore, column 4 presents the findings when the first AFDC birth group is restricted to those with two or more children by 1992. In this case, the first and subsequent AFDC birth groups share similar age, racial, and family background characteristics. There is also no significant difference in the mother's age at first birth (although first and second children of those with a subsequent AFDC birth tend to be closer in age). However, those with a first welfare birth do appear slightly more welfare dependent; they report an average additional one-half year of AFDC receipt. Nearly 50 percent of all births to those with a subsequent AFDC birth are AFDC births, while the fraction for those with a first AFDC birth is even larger (73 percent). Those with a first AFDC birth are less likely ever to marry, and a significantly lower proportion of all their children are born in wedlock.

Family-Size Ideals of Welfare Recipients

We have seen that recipients, particularly those with an AFDC birth, tend to have relatively large numbers of births over the sample period. Is there any prima facie evidence that these large families are wanted and, if so, whether women who desire large families use AFDC to attain this goal? The NLSY contains information about respondents' fertility desires that can be applied to this question. The survey asks "What is the ideal number of children?" twice, in 1979 and 1982. If recipients intend to have large families, one would expect them to report higher ideal family sizes than nonrecipients do. Also, among recipients, those with an AFDC birth have the largest numbers of births over the sample period. If it is true that some women are participating

in AFDC to achieve fertility goals, one might expect those who actually *give birth* on AFDC to desire more children than do other recipients.

The ideal number of children reported in 1979 is particularly useful information, since the overwhelming majority of women in the sample have not yet had their first birth or participated in welfare by 1979. Presumably, these beliefs are not endogenous with actual birth and participation experience. Recipients all report higher desired numbers of children than do nonrecipients, suggesting that to some extent their larger families are wanted. However, there is no difference in fertility desires between the different types of welfare recipients, which is consistent with the view that women do not use AFDC as a vehicle for realizing their desires for large numbers of children. It is also interesting to note that fertility desires fall precipitously from 1979 to 1982 for all groups, but particularly for those with a first welfare birth; this may suggest regret, after the fact, for the birth.[8]

III. Conclusions

This paper's empirical findings may shed light on several policy-relevant questions, which I now consider in turn.

How prevalent is welfare fertility? According to data from the March 1988 CPS, 13.37 percent of all births in 1987 were to women in families receiving AFDC. The fertility rate of welfare mothers was found to be higher than in previous, less general, studies. However, after adjustments for compositional differences, the rate was found to

[8] Preliminary evidence from my research (not reported) suggests there is a large decline in reported fertility desires and plans after a first birth.

be below the average for all women with children. It also appears that many welfare recipients have experienced an AFDC birth. The NLSY data indicate that nearly 60 percent of the women who used AFDC in any year between 1978 and 1992 had at least one welfare birth.

How do recipients with births differ from other recipients? Women with AFDC births had longer welfare spells and more children than other recipients, and over half their children were born into AFDC. Recipients with an AFDC birth were much less likely ever to marry than were other recipients. Consistent with this finding, only 20 to 30 percent of all births to women with any AFDC birth were in wedlock, as opposed to 50 percent for recipients with no AFDC birth. The ages at first birth of women who used AFDC but never had a welfare birth and women whose first birth was an AFDC birth were not significantly different. Thus I did not find prima facie evidence that recipients use AFDC as a means to begin families earlier than they otherwise would.[9]

Is the "problem" of welfare fertility primarily a first-births issue? One of the unexpected findings of this analysis was the importance of subsequent AFDC births. More than half of the AFDC births in the NLSY sample period are second- or higher-order births. While it is true that over 40 percent of women with a first AFDC birth have an additional AFDC birth, there is a substantial group of women whose initial AFDC birth is a second- or higher-order birth (the latter group is two-thirds the size of the group with a first AFDC birth).

[9] It is plausible that this would not be true if other factors were held constant. The evidence from the literature on AFDC and teen motherhood is mixed.

Are AFDC recipients' births wanted? Recipients have a larger number of children than nonrecipients, but their reported desires (mostly prebirth) confirm that they also desire larger families, which suggests that to some extent these births are wanted. However, there is no difference in fertility desires within the recipient group, indicating that higher desired family size is a characteristic more closely associated with welfare receipt than with welfare fertility per se.

References

An, C., R. Haveman, and B. Wolfe, "Teen Out-of-Wedlock Births and Welfare Receipt: The Role of Childhood Events and Economic Circumstances," *Review of Economics and Statistics,* vol. 75 no. 2 (1993), pp. 195-208.

Bennet, N.G., D.E. Bloom, and C.K. Miller, "The Influence of Nonmarital Childbearing on the Formation of First Marriages," NBER Working Paper No. 4564 (December 1993).

Hotz, V.J., S.W. McElroy, and S.G. Sanders, "The Costs and Consequences of Teenage Childbearing for Mothers," mimeo, University of Chicago (March 1995).

National Center for Health Statistics, *Vital Statistics of the U.S.*, as summarized in *Statistical Abstract of the U.S.* (1994).

Powers, E.T., " The Impact of AFDC on Birth Decisions and Program Participation," Federal Reserve Bank of Cleveland Working Paper No. 9408 (June 1994).

Rank, M.R. "Fertility among Women on Welfare: Incidence and Determinants," *American Sociological Review*, vol. 54 (April 1989), pp. 296-304.

Table 1: Differences in Actual and Characteristic-Adjusted Fertility Rates for AFDC Recipients and All Women, Married Women, and Nonrecipient Female Heads, 1987

	Fertility rate of recipients minus fertility rate of all women	Fertility rate of recipients minus fertility rate of married women	Fertility rate of recipients minus fertility rate of nonrecipient female heads
Actual[a]	3.38	2.56	10.55
Recipients' Fertility Rate Computed Holding Constant:			
Age	-0.03	-1.12	6.61
Age and race	-0.11	-1.22	6.60
Age, race, and number of children	-1.35	-2.31	3.91

Note: [a]Actual fertility rates are 11.65 percent for all women; 15.03 percent for welfare recipients; 12.47 percent for married women; and 4.49 percent for nonrecipient female heads.

Source: Author's computations from the March 1988 CPS.

Table 2: Characteristics of Mothers, by Birth and AFDC Use, 1978-1992

Variable	No AFDC use	AFDC use, no AFDC birth	First birth AFDC birth	First birth AFDC birth (restricted)[a]	Second or higher birth AFDC birth
Number of observations	1,630	290	321	236	213
Mother's age, 1979	17.69 (2.20)	17.16 (2.01)	16.84 (1.92)	16.86 (1.92)	16.98 (2.25)
Fraction black	0.18 (0.38)	0.44 (0.50)	0.56 (0.50)	0.58 (0.49)	0.51 (0.50)
Fraction never married by 1992	0.06 (0.24)	0.23 (0.42)	0.48 (0.50)	0.45 (0.50)	0.33 (0.47)
Number of mother's siblings	3.60 (2.44)	4.55 (3.02)	4.79 (2.95)	4.92 (3.09)	4.81 (2.96)
Number of years of AFDC use reported	0	2.49 (2.03)	5.83 (3.63)	6.14 (3.66)	5.58 (3.16)
Number of births by 1992	1.90 (0.84)	2.04 (1.09)	2.30 (1.11)	2.74 (0.95)	3.01 (1.12)
Age at first birth	23.81 (3.93)	20.14 (3.40)	20.11 (2.95)	19.70 (2.45)	19.58 (3.08)
Number of years from first to second birth[b]	3.30 (2.03)	3.97 (2.80)	3.62 (2.49)	3.62 (2.49)	3.07 (2.08)
Number of years from second to third birth[c]	3.09 (1.93)	3.5 (2.51)	3.02 (2.00)	3.02 (2.00)	3.08 (2.09)
AFDC births as fraction of all births	0	0	0.80 (0.27)	0.73 (0.28)	.49 (0.16)
In-wedlock births as fraction of all births	0.82 (0.35)	0.50 (0.44)	0.18 (0.31)	0.22 (0.32)	0.31 (0.38)
Ideal number of children, 1979	2.90 (1.22)	3.14 (1.43)	3.31 (1.64)	3.32 (1.60)	3.19 (1.77)
Ideal number of children, 1982	2.65 (1.07)	2.73 (1.15)	2.80 (1.25)	2.81 (1.26)	2.79 (1.22)

Notes: [a]Includes only observations with two or more births by 1992.
[b]Excludes observations without a second birth.
[c]Excludes observations without a third birth.
Source: Author's calculations from the NLSY.