An Analysis of Unwed Motherhood

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I. Introduction

In 1960, marriage was a precondition for childbearing in the United States. More than 90% of all births occurred to married couples. Over the past thirty years, there has been a substantial increase in the birth rates of unwed mothers. According to a study, annually there are now more than 500,000 births to United States teenagers and this number grows by 50,000 every four years. Today, teen non-marital childbearing has been described as the nation's most serious social problem (Haveman et al., 1997).

Bronars and Grogger (1999) find that non-marital childbearing reduces the mother's educational attainment, lowers the probability of her eventual marriage, increases the probability of welfare recipiency, and decreases family income. Along with these, they state that in the first three years of a child's life, the probability that the mother works or looks for work is reduced by 11-12%. This number is even larger for African Americans. Haveman et al. (1997) attempts to quantify these losses. If a woman avoids giving birth as an unmarried teen, her expected present value of income is $93,284. If a woman gives birth as an unmarried teen, her expected present value of income is $47,887, for a difference of $45,397. Also, the gain from not giving birth as a teen is far greater for whites ($47,732) than for African Americans ($15,575).

In an attempt to understand the causes of non-marital childbearing, this study examines cross sectional data on non-marital childbearing from 50 U.S. cities for the year 2000. Examination of the data finds that per-capita income, the poverty level and race/ethnicity have a significant effect on the birth rates for unwed mothers while the amount of public assistance income does not.

II. Background

The causes of non-marital births are both economic and sociological. An unwed female between the age of nineteen and twenty may be able to raise her income if she gives birth while unmarried than if she does not give birth (Haveman et al., 1997). However, the income trajectory in the teen mother option shows virtually no growth after the age of twenty. Out-of-wedlock childbearing will be most prevalent when females are in excess supply, when they have sufficient income to support a family on their own, and when the gains to marriage are small because male incomes are low (Willis, 1999; Bronars and Grogger, 1994). Consequently, non-marital childbearing will rise when the nineteen to twenty year-old mothers believe that their income would be enough to enable them to support a child out of marriage and will be most frequent among persons in the lower portions of the income distribution (Haveman et al., 1997; Willis, 1999). Haveman et al. (1997) finds that if all parents with less than a high-school education graduated from high school, the teen non-marital childbearing prevalence would be cut in half. If there is a 25% reduction in the expected income associated with having a non-marital birth, the probability of a teen non-marital childbearing is reduced by 24%.

The less a woman earns, the better pregnancy looks because of the benefits of government support programs. Women who fare less well in the mating market are significantly more likely to choose not to marry the father of their child, while those who fare well are more likely (Rosenzweig, 1999). He also notes when the mothers earn higher welfare income, the likelihood that a woman who has a child will remain single. The higher a woman's endowment given parental earnings, the less likely she is to choose the welfare-fertility alternative to the marriage-fertility. Because lower-

endowment women will be more likely to choose the welfare, raising welfare benefits also increases the average endowment of women receiving welfare. Basically the less wealthy a female is, the more likely she is going to want to have a child outside of marriage.

The AFDC program (Aid to families with Dependent Children) was created by Congress in 1935 as part of the original Social Security Act.[1] This program was the most well known tested cash transfer program for the poor in the United States. It provides funds mostly to single mothers and their children. Most of the papers here argue that welfare benefits play a major role in explaining the variation of birth rates to unwed mothers. Kimenyi and Mbaku (1995) state that transfer payments reduce the cost borne by a mother in having a child, thus those who would otherwise have delayed having children because of their inability to take care of them are less financially constrained due to the availability of welfare benefits.

These benefits would benefit those mothers who do not earn high incomes, and who need assistance. The availability of welfare benefits to a female reduces the gains from being in a male headed household, especially if the male has a low income. This gives the mothers more of an opportunity to be on their own, while being single at the same time. AFDC was especially beneficial for women who are poor. While increases in benefit levels had a small average, but statistically significant effect on the probability of non-marital childbearing for all young women, there was a much larger effect for young women whose parental incomes are less than $10,000 (Rosenzweig 1999).

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[1] TANF, Temporary Assistance for Needy Families was created by the Welfare Reform Law of 1996. TANF became effective July 1, 1997, replacing the welfare program AFDC.

Because of the increase in childbearing, many believed that the AFDC benefits actually hurt unwed mothers.

Kimenyi and Mbaku (1995) argue that the more attractive the welfare benefits, the higher the birth rate to unmarried women is expected to be. As one might assume, the lower the benefits, the less willing a woman is going to want a pregnancy. As welfare benefits become more attractive, females with increasingly lower propensities of establishing their own households join the pool of female heads. But, with these higher benefits, people are induced who are likely to be successful in the labor market into the pool of the poor (Kimenyi and Mbaku 1995; Rosenzweig 1999). Rosenzweig (1999) argues that the increasing number of births occurring to unmarried women (non-marital) in the United States is partly because of AFDC. Rosenzweig estimates that among women with poor parents, a 10% rise in welfare benefits increases a woman's probability of having a non-marital birth by age 22 by 12% and decreases the probability of having no children by age 22 by 2.3%.

Another drawback was that the AFDC program gave government assistance to unmarried women. The only requirement was the presence of at least one child. Such a structure eliminates incentives for market work. In response, welfare reform in the United States began in the early 1990's in the individual states and led to major 1996 legislation at the national level.

But AFDC benefits were declining even before the TANF legislation was enacted (Moffitt, 1999). Benefits fell because the voting public cared about the basis for eligibility of the transfer, and they looked more favorably on the aged, blind, disabled, and working poor than on non-working, unwed mothers. The increases in the Food

Stamp and Medicaid caseloads in the late 1980's, which were larger in magnitude than that in AFDC, led to an even greater desire than had been the case historically to reduce AFDC spending. Moffitt (1999) shows that the increase in unmarried motherhood was responsible for approximately 50% of the increase in the AFDC caseload in the late 1980's and early 1990's. If voters react more negatively to unmarried mothers than to divorced and separated mothers, then this change in demographic trend could have been a contributor to the welfare reform.

Sociological factors are also an important influence. Kimenyi and Mbaku (1995) state that the transition from rural to urban communities has been accompanied by changes in traditional living arrangements and attitudes about female headship. Urban communities have more relaxed standards regarding female headship. Consequently, states that are more urbanized have higher out-of-wedlock birth rates than states that are less urbanized. If there is only one move for a child between the ages of six and fifteen, the predicted probability of a teen non-marital birth would be reduced 10%. If all children were to grow up in a two-parent household, the model predicted a 25% reduction in the probability of giving birth as an unmarried teen.

Also Haveman et al. (1997) argues that not having both parents present, or whether or not the female had religious affiliation, will also encourage the woman to become pregnant before marriage. Kimenyi and Mbaku (1995) argue that increases in the number of female-headed households of African American mothers are the result of a reduction in the pool of marriageable black males. The reduction has made it increasingly difficult for African American females to get suitable spouses.

Race has a lot to do with the outcomes of unwed motherhood. According to Kimenyi and Mbaku (1999), in 1950 there were only 17.5 out-of-wedlock births to white women. By 1980 it was 110.4/1000 and in 1988 it was 177/1000. For nonwhites, the number of out-of-wedlock births was 179.6/1000 in 1950. In 1980, it was 485.5/1000 and in 1988 it was 539/1000. Willis (1999) states that by 1997, out of wedlock births accounted for 26% of fertility among whites and 69% among African Americans. Haveman (1997) finds that today nearly 75% of births to teenagers are out of wedlock; among non-Hispanic African Americans, 95% of teen births occur out of wedlock.

Willis (1999), Bronars and Grogger (1994), Haveman (1997) and Rosenzweig (1999) all contend that the economic effects of unwed mothers effect the African American population more than the Non-African American population. Bronars and Grogger (1994) note that the effects of unplanned births differ in many cases by race. While most unwed mothers experience short run decreases in labor force participation after unplanned birth, unplanned births for black women had sizable and persistent negative effects. Black women of our early child bearing cohort experienced significant decreases in the probability of eventual marriage or family earning

Bergmann (1997) looks at sociological/economic factors related to non-marital childbearing by making international comparisons. She starts off giving facts about the poverty levels of France and the United States. The United States has almost triple the amount of child poverty, however both countries have a similar proportion of births to unmarried mothers, and minority populations of comparable size. It is interesting to note that the French spend almost 60% more per child for support than the United States does. The United States has barely any support in relation to France. It is also interesting to

note that the French program was enacted in hopes of producing a higher birth rate, whereas the American programs only aim at keeping single parents and their children from homelessness and malnutrition.

Instead of improving the lives of mothers like in France, the central purpose of the American system has been to give help to those who can't survive without it, who are single mothers and their children. These programs do prevent hunger, malnutrition, homelessness, and illness, but they do not keep these families out of poverty. The reason most of the authors of these papers don't like the welfare system, is because in America the low-skill American mother has little incentive to leave welfare for a job.

III. Data and Analysis

To examine non-marital childbearing, I obtained data from the National Center for Health Statistics for the year 2000. The data shows percentage of total births to unmarried women for fifty major US cities. Using per capita income, percentage below the poverty level, race/ethnicity (percentage Asian, percentage African-American, percentage Hispanic), percentage of the population without a high school degree and welfare payments (average monthly welfare payment per recipient), the analysis attempts to account for differences in the percentage of unwed births across cities. Data on per capita income, poverty level, public assistance income, and race/ethnicity was obtained from the U.S. Census Bureau. The dependent variable ([unwed births/total births] *100) had a range of 24.3% to 69%. The three cities with the lowest percentage of unmarried mothers are San Jose and San Francisco California, followed by Honolulu Hawaii. The three cities with the highest percentage are Cleveland, Baltimore, and lastly Detroit,

Michigan. The results in Table 1 indicate that approximately 43 percentage points of all births in these major cities are the result of an unwed pregnancy.

Looking at regression results shown in Table 2, per capita income has a negative and statistically significant effect on unwed motherhood. Lower levels of income raise the chance of an unwed birth. However, the effect is miniscule. A $1000 increase in per capita income statewide will reduce the percentage of births to unmarried women by about 0.006. The High School variable is only significant when African Americans and Asians are left out of the regression suggesting an interaction between high school graduation rates. Percentage of the population in poverty shows has a highly significant positive effect on the percentage of unwed births. A one percentage point increase in the poverty rate will raise the rate of unwed motherhood by 1.1 to 1.7 percentage points.

For African Americans, Asians, and Hispanics, the results show that there is a significant relationship with unwed pregnancy. A one percentage point increase in the percentage of the population that is African American will raise the rate of unwed motherhood by about .25 percentage points. The effect is significant but much weaker than the effect of the poverty rate described above. The effects of increases in the relative size of the Asian and Hispanic population move in the opposite direction. An increase of one percentage point in the Asian population reduces the rate of unwed motherhood by about .18 percentage points. An effect of a similar sign and magnitude appears for Hispanics. This suggests that projected increases in the relative size of the Asian and Hispanic populations may cause a modest reduction in the rate of unwed motherhood.

Surprisingly, public assistance income is not significant. Differences in the average monthly welfare payment per recipient have no effect on the rate of unwed

births. This may be the result of the shift in incentives brought on by the restructuring of welfare payments in the wake of the TANF legislation. In any event, it contrasts directly with earlier papers (Kimenyi and Makbu, 1995; Rosenzweig, 1999) that show higher AFDC payments cause an increase in the rate of unwed motherhood.

IV. Conclusion

This study shows that the percentage of the population under the poverty level has a positive and statistically significant effect on unwed motherhood. This effect is consistent with Rosenzweig (1997) and others who argue that the less wealthy a female is, the more likely she is going to want to have a child outside of marriage. In addition, we find no relation between the average monthly welfare payment per recipient and the rate of unwed births. This may be the result of the shift in incentives caused by the TANF legislation. In any event, it contrasts directly with earlier papers (Kimenyi and Makbu, 1995; Rosenzweig, 1999) that show higher AFDC payments cause an increase in the rate of unwed motherhood.

We find that race and ethnicity exert a modest effect on the rate of unwed motherhood. A one percentage point increase in the Hispanic population or the Asian population will reduce the rate of unwed births by about 0.17 percentage points, while the same one percentage point increase in the African American population will increase the rate of unwed births by about 0.24 percentage points. All of this is of great concern because non-marital childbearing reduces the mothers educational attainment, lowers the probability of her eventual marriage, increases the welfare recipiency, and decreases family income.

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Table 1 Means and Standard Deviations

Variable	Mean	Standard Deviation	Minimum	Maximum
% Unwed	43.4	12.5	24.3	69
Per Capita Income	20.90	4.14	14.29	34.55
% Without High School Degree	13.1	4.3	5.4	25.3
% Under Poverty Level	17.4	5.5	6.5	28.5
% African American	24.1	19.8	1.5	81.2
% Asian	6.5	9.4	.6	55.3
% Hispanic	19.5	17.8	1.3	76.6
Public Assistance Income (Monthly)	3.003	1.022	1.480	5.259

Table 2. Regression results for births to unmarried women

Variable	(1)	(2)	(3)	(4)
Constant	0.341***	0.357***	0.288***	0.277***
	(0.067)	(0.067)	(0.074)	(0.071)
Per Capita Income	-.00627***	-.00736***	-0.00508**	-0.00432*
	(0.00221)	(0.00196)	(0.00245)	(0.00237)
High School	0.153	0.224	0.393**	0.295*
	(0.171)	(0.167)	(0.186)	(0.184)
% Poverty	1.023***	0.982***	1.735***	1.661***
	(0.244)	(0.221)	(0.172)	(0.168)
% African American	0.227***	0.255***		
	(0.068)	(0.064)		
% Asian	-0.186*			-0.239**
	(0.098)			(0.107)
% Hispanic	-0.174***	-0.158***	-0.331***	-0.330***
	(0.060)	(0.061)	(0.044)	(0.042)
Public Assistance Income	0.00604		-0.01198	.0001074
	(0.00890)		(0.00841)	(0.00970)
	n = 50	n = 50	n = 50	n = 50
	R^2 = 0.8965	R^2 = 0.8873	R^2 = 0.8537	R^2 = 0.8689
	F = 51.97	F = 69.29	F = 51.34	F = 47.51
	Pr > F = .0001	Pr > F = .0001	Pr > F = .0001	Pr > F = .0001

Dependent variable: (constant) % of births to unmarried women in 50 US cities.
Standard errors in parentheses. *** = significant at 0.01, ** = significant at 0.05,
* = significant at 0.1.
Per Capita Income: Average income obtained by dividing aggregate income by total
population of an area (in thousands of 1999 dollars).
High School: Percentage of population without a high school degree.
% Poverty: Percentage of population under poverty level.
% African American: Percentage of population that is African American.
% Asian: Percentage of population that is Asian.
% Hispanic: Percentage of population that is Hispanic.
Public Assistance Income: Average amount of monthly welfare per recipient (in
thousands of 1999 dollars).