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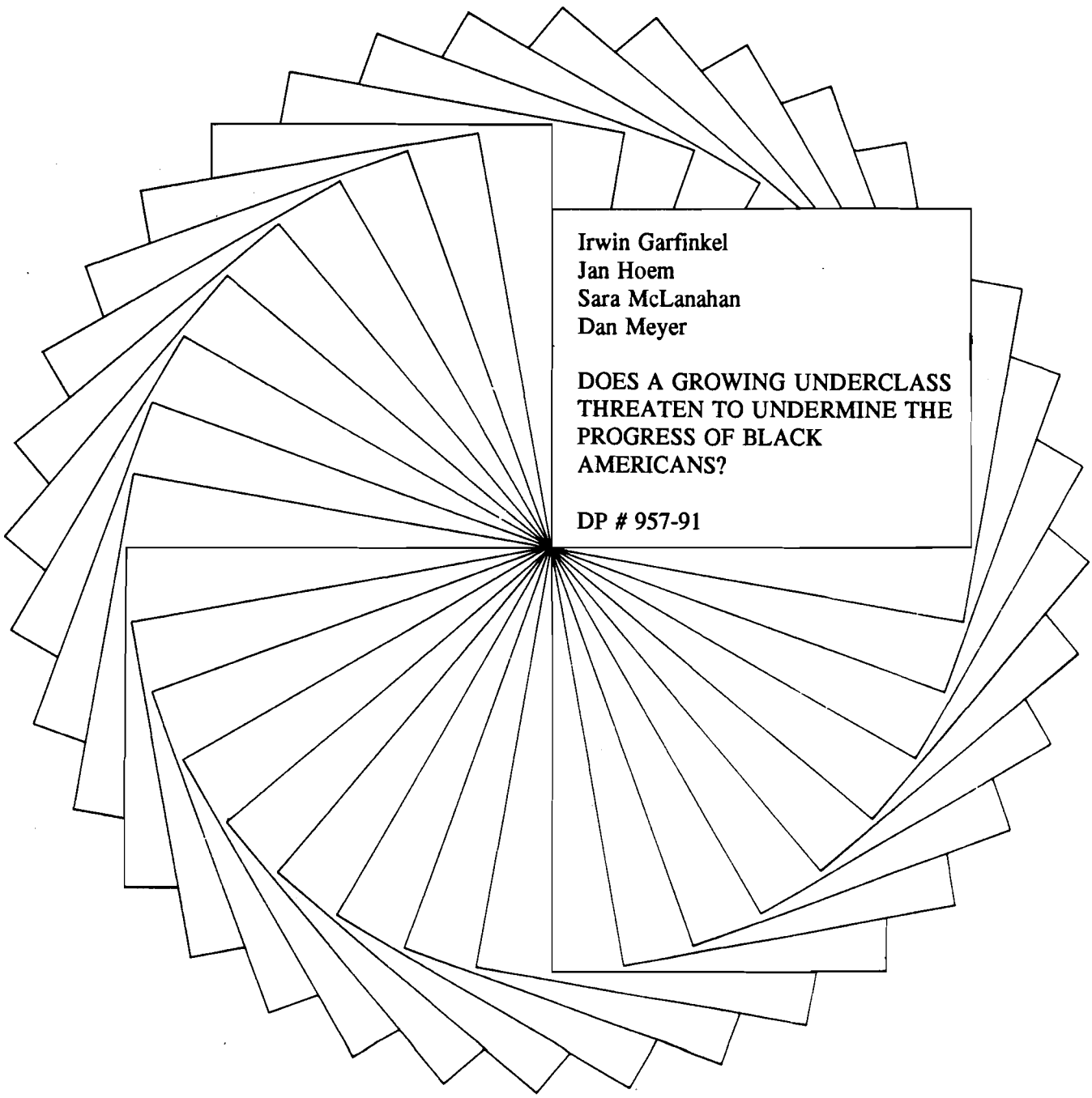

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Does a Growing Underclass Threaten to Undermine the Progress of Black Americans?

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Abstract

In this paper we seek to determine if a black underclass is growing. We define the underclass as a group of people who are weakly attached to the labor force, who come from families in which the head of household is weakly attached to the labor force, and who are isolated from mainstream society. The empirical analysis uses long-term welfare dependence as a proxy for weak attachment to the labor force. This approach reflects a practical concern so that even if some readers quibble with our definition most will still find the central empirical question interesting. The question we address is whether scientific estimates of the magnitude of intergenerational welfare dependence, coupled with plausible estimates of differential fertility rates between welfare-dependent black mothers and all other black mothers, suggest that the proportion of black children growing up in multigenerational welfare-dependent households is increasing. Our results indicate that this is likely, but that the magnitude of increase is not great. The proportion of black mothers who are dependent on welfare for eight or more years may also be growing. The latter is worrisome in and of itself because it signifies a deterioration in the economic status of the poorest part of the black population and also because Myrdal's (1944) theory of cumulation suggests that such growth may feed racial prejudice and ultimately undermine black progress.

Does a Growing Underclass Threaten to Undermine the Progress of Black Americans?

The Civil Rights Movement in the 1950s and 1960s ushered in a new era of progress for black Americans. The economic gains were substantial, and the political and social gains were so great as to appear almost irreversible. Yet recently, black economic progress seems to have stalled and perhaps even slipped backwards. Worse still, an increasing number of analysts fear the emergence of a new, mostly black, "underclass." While the underclass is defined in a variety of ways, for most it implies a distinct group of people who are trapped in a cycle of poverty that persists from generation to generation.[1] If this is true and if a black underclass is indeed growing, there is reason to believe that the political and social progress achieved during the past several decades may be undermined or even overturned.

In this paper we seek to determine if a black underclass is growing.[2] We define the underclass as a group of people who are weakly attached to the labor force, who come from families in which the head of household is weakly attached to the labor force, and who are isolated from mainstream society. The empirical analysis uses long-term welfare dependence as a proxy for weak attachment to the labor force. This approach reflects a practical concern so that even if some readers quibble with our definition most will still find the central empirical question interesting. The question we address is whether scientific estimates of the magnitude of intergenerational welfare dependence, coupled with plausible estimates of differential fertility rates between welfare-dependent black mothers and all other black mothers, suggest that the proportion of black children growing up in multigenerational welfare-dependent households is increasing. Our results indicate that this may be occurring, but that the magnitude of increase is not great. The proportion of black mothers who are dependent on welfare for eight or more years may also be growing. The latter is worrisome in and of itself because it signifies a deterioration in the economic status of the poorest part of the black

population and also because Myrdal's (1944) theory of cumulation suggests that such growth may feed racial prejudice and ultimately undermine black progress.

The first section of the paper explicates our definition of the underclass and argues that intergenerational, long-term welfare dependence is a good proxy for underclass status. The second section presents a simple demographic model for estimating the size of the underclass across generations. The principal components of the model are (1) the degree of long-term, intergenerational welfare dependence and (2) the fertility differential between welfare-dependent and nondependent women. The third section reviews the literature on long-term, intergenerational welfare dependence and provides an estimated range of the magnitude of the intergenerational component. The fourth section reviews the literature on differential fertility and derives plausible estimates of completed fertility for dependent and nondependent women. The fifth section presents the results of our simulations, and the sixth section discusses their import within the context of Myrdal's theory of cumulation.

I. DEFINING THE UNDERCLASS

Our definition of the underclass has three components: weak attachment to the labor force, persistence of weak attachment over time and across generations, and isolation from mainstream society.

Weak Labor Force Attachment

A common thread running through nearly all definitions of the underclass is an emphasis on weak labor force attachment.[3] Persons identified as being in the underclass are generally described as marginally attached to the labor force, and underclass neighborhoods are identified as those with high rates of unemployment and nonemployment. Weak labor force attachment is problematic for

several reasons. Clearly it has costs for the individual who is not employed, since in a market society such as ours, wages are the primary source of income for all nonaged adults. Individuals who are not attached to the labor force, either directly or indirectly, are very likely to be poor or to be involved in some form of criminal activity. Moreover, their chances of gaining access to valued resources and/or power in the future are significantly lower than the chances of those in the legitimate labor force.

Weak attachment to the labor force also has costs for the rest of society, whose members ultimately must pay for high levels of nonemployment either directly through income transfers such as Aid to Families with Dependent Children (AFDC) or indirectly through the crime and social disorganization that accompanies unemployment and a large underground economy. For both of these reasons weak labor force attachment is the central component of our definition of the underclass.

Persistence of Weak Attachment

Weak attachment to the labor force is a necessary but not sufficient condition for being in the underclass. For example, individuals who are temporarily out of work, or ill, or dependent on welfare are usually not viewed as part of the underclass even though they may be living below the poverty line.[4] Rather, it is the persistence of weak attachment that distinguishes the underclass from the poor in general. Persistence may occur either over time, as when a person is unemployed and/or dependent on welfare for a long period, or it may occur across generations, as when a child of a welfare recipient becomes dependent on welfare herself. We argue that persistence across generations is a necessary condition for establishing membership in an underclass.

The emphasis on the persistence of nonemployment among individuals and across generations highlights the fact that the underclass does not simply signify a particular structural position or group at the bottom of the income distribution. Rather, it means that certain individuals and their offspring occupy this position over a long period of time. Thus the problem is not merely inequality--the fact

that some locations or statuses in society carry with them fewer rewards than others--but an absence of social mobility--the fact that some persons do not have the chance to improve their situation.

Social and Spatial Isolation

A final characteristic essential to our definition and common to most discussions of the underclass is that members of the underclass are isolated from mainstream society. Isolation, be it in urban ghettos or rural areas of the South, is of concern because it reduces knowledge of opportunities for improving one's life chances. This reduced knowledge of opportunities then becomes the mechanism by which weak labor force attachment persists over time and across generations. In addition to restricting access to information, social isolation may contribute to the formation of a "culture of poverty," which may further undermine social mobility.

Single Mothers and Welfare Dependence

The ideal empirical analysis of the growth of the underclass would focus on the labor force attachment of men, since there is no disagreement about whether or not adult men are expected to work. Unfortunately, there is no research on the persistence of nonemployment among men, nor on the intergenerational transmission of nonemployment from fathers to sons. In contrast, there is a growing literature on the persistence and intergenerational transmission of welfare dependence from mothers to daughters. Thus, our empirical analysis focuses on the latter. We believe this is justifiable on several grounds.[5]

First, prolonged mother-daughter intergenerational welfare dependence meets all three criteria of our definition of an underclass. During the months they receive welfare, less than 10 percent of AFDC mothers report having any earnings. Thus, welfare receipt is a good indicator of weak attachment to the labor force. Similarly, prolonged welfare use and intergenerational welfare

dependence are good indicators of the persistence of weak attachment. Finally, prolonged welfare dependence is a good indicator of social isolation. We know, for example, that a large proportion of black, long-term welfare recipients live in spatially isolated, urban ghettos. Moreover, because they serve only the poor, welfare programs are stigmatizing and create additional barriers between beneficiaries and the rest of society.[6]

Aside from meeting the criteria of being in the underclass themselves, welfare mothers may also serve as proxies for underclass men. For every welfare mother, there is potentially a nonworking father who is part of the underclass. For critics of the welfare system such as Murray (1984), the AFDC mother and the system that supports her are a cause of male underemployment. According to these critics, providing income to single mothers encourages male irresponsibility. In stark contrast, Wilson (1987) and his colleagues argue that the welfare mother is an indicator of a failing economic system in which men with few skills can no longer support their families. Unemployment and low-paying jobs lead to family dissolution and nonmarriage, which give rise to single motherhood.[7]

II. THE REPRODUCTION OF LONG-TERM WELFARE DEPENDENCE: SOME SIMPLE MATHEMATICS

For a first approximation to an answer to the question of whether intergenerational welfare dependence in the United States is increasing or on the wane, consider a fictitious world in which calendar time is unimportant and interest focuses on the behavior of the members of each generation of women. In such a world, let k be an index for generation number and let generation 1 (corresponding to $k=1$) be a group of women for whom we have a fair amount of information (from survey research) on welfare use. Let the offspring of these women be generation 2 (corresponding to $k=2$). It is sometimes useful to refer to the members of $k=2$ as "daughters" and to the members of

k=1 as "mothers." To investigate the reproduction of welfare dependence, we also need data on the welfare behavior of the "grandmother" generation (k=0).

Define $p_k(w)$ as the fraction of women in generation k who are long-term dependent on welfare, and let $R_k(w)$ be the mean number of female offspring born to these women. Correspondingly, $p_k(\bar{w}) = 1-p_k(w)$ is the fraction of women in generation k that are not long-term dependent on welfare, and $R_k(\bar{w})$ is the mean number of female offspring born to these women. (From this point on, we use the words "dependent" and "welfare dependent" to refer to women who are ever on welfare for eight years or more. For simplicity, we disregard mortality in each generation.)

Let $q_{k,k+1}(w,w)$ represent intergenerational transference, i.e., the fraction of the daughters (generation k + 1) of welfare-dependent women (in generation k) who become dependent on welfare. The corresponding symbol $q_{k,k+1}(\bar{w},w)$ represents the fraction of the daughters (generation k + 1) of nondependent women (generation k) who become dependent. Finally, let the symbols $q_{k,k+1}(w,\bar{w})$ and $q_{k,k+1}(\bar{w},\bar{w})$ represent the fraction of the daughters of women who were/were not dependent and who do not become dependent.[8] Of course, $q_{k,k+1}(w,w) + q_{k,k+1}(w,\bar{w}) = 1$, and $q_{k,k+1}(\bar{w},w) + q_{k,k+1}(\bar{w},\bar{w}) = 1$. If there is an element of transference of long-term welfare dependence, then $q_{k,k+1}(w,w) > q_{k,k+1}(\bar{w},w)$.

If we select a woman in generation k at random and do not know whether she will be dependent on welfare, her expected number of female offspring will be

$$p_k(w)R_k(w) + p_k(\bar{w})R_k(\bar{w}).$$

Of these female offspring, the number who become dependent is

$$p_k(w)R_k(w)q_{k,k+1}(w,w) + p_k(\bar{w})R_k(\bar{w})q_{k,k+1}(\bar{w},w).$$

Therefore, the fraction of welfare-dependent women in the next generation is

$$(1) \quad p_{k+1}(w) = \frac{p_k(w)R_k(w)q_{k,k+1}(w,w) + p_k(\bar{w})R_k(\bar{w})q_{k,k+1}(\bar{w},w)}{p_k(w)R_k(w) + p_k(\bar{w})R_k(\bar{w})} .$$

For daughters in generation 2, the proportion who become dependent is

$$(2) \quad p_2(w) = \frac{p_1(w)R_1(w)q_{12}(w,w) + p_1(\bar{w})R_1(\bar{w})q_{12}(\bar{w},w)}{p_1(w)R_1(w) + p_1(\bar{w})R_1(\bar{w})} .$$

These formulas provide some insight into the way that welfare dependence reproduces itself from one generation to the next, for they decompose the welfare-dependent fraction in one generation into its contributions from (1) the corresponding fractions in the previous generation, (2) the childbearing behavior of the previous generation, and (3) the degree of welfare transference between the two generations.

The formulas have limited usefulness for the calculation of the welfare fraction in a generation from data concerning the previous generation, since the value of $p_{k+1}(w)$ is likely to be available (from official statistics or panel data) before one knows the welfare-transference fractions $q_{k,k+1}(w,w)$ and $q_{k,k+1}(\bar{w},w)$. However, the form of formula (2) turns out to be useful for predicting the value of $p_2(w)$ if one is willing to make some (perhaps quite heroic) assumptions about the relationship between the behavior of women in generation 1 and that of women in generation 0.

Suppose, for instance, that one assumes a certain behavioral "stationarity," in the sense that the ratio of $R_1(\bar{w})$ to $R_1(w)$ is taken to have the same value as the ratio of $R_0(\bar{w})$ to $R_0(w)$, and also that $q_{12}(w,w)$ and $q_{12}(\bar{w},w)$ are taken to have the same values as $q_{01}(w,w)$ and $q_{01}(\bar{w},w)$, respectively. Thus, the relative fertility outcome is taken to be the same in generations 0 and 1, and so are the two welfare-transference fractions of the two generations. Then the formula

$$(3) \qquad \tilde{p}_2(w) = \frac{p_1(w)R_0(w)q_{01}(w,w) + p_1(\bar{w})R_0(\bar{w})q_{01}(\bar{w},w)}{p_1(w)R_0(w) + p_1(\bar{w})R_0(\bar{w})}$$

can be used to provide a prediction for $p_2(w)$.

So far, we have had in mind a closed subpopulation in the United States, such as the population of black citizens. However, equation (3) provides too broad a definition of the underclass. We have argued that an essential element of the definition of the underclass is that dependency persists across generations. The basic formula (3) can be adapted to reflect this definition of the underclass, in which only dependent women who are also daughters of dependent women are included.

The total population in any generation can now be divided into three groups: nondependent women ($\bar{w}$), dependent women whose mothers were dependent (W), and dependent women whose mothers were not dependent ($\hat{w}$). Note that we now need estimates of completed fertility for three groups: $R_k(\bar{w})$, $R_k(W)$, and $R_k(\hat{w})$, and we need to divide the total population into three fractions: $p_k(\bar{w})$, $p_k(W)$, and $p_k(\hat{w})$. There are, however, only six intergenerational reproduction rates: $q_{k,k+1}(\bar{w},\hat{w})$, $q_{k,k+1}(\bar{w},\bar{w})$, $q_{k,k+1}(W,W)$, $q_{k,k+1}(W,\bar{w})$, $q_{k,k+1}(\hat{w},W)$, and $q_{k,k+1}(\hat{w},\bar{w})$, rather than nine, since $q_{k,k+1}(\bar{w},W)$, $q_{k,k+1}(W,\hat{w})$, and $q_{k,k+1}(\hat{w},\hat{w})$ are by definition zero. Now the basic equations become

$$(4a) \quad \tilde{p}_{k+1}(W) = \frac{p_k(W)R_k(W)q_{k,k+1}(W,W) + p_k(\hat{w})R_k(\hat{w})q_{k,k+1}(\hat{w},W)}{p_k(W)R_k(W) + p_k(\hat{w})R_k(\hat{w}) + p_k(\bar{w})R_k(\bar{w})}$$

and

$$(4b) \quad \tilde{p}_{k+1}(\hat{w}) = \frac{p_k(\bar{w})R_k(\bar{w})q_{k,k+1}(\bar{w},\hat{w})}{p_k(W)R_k(W) + p_k(\hat{w})R_k(\hat{w}) + p_k(\bar{w})R_k(\bar{w})} .$$

We want to underline again that the above account is only a first approximation to a satisfactory analysis of welfare reproduction. Like all models, it violates reality; but in this case, the grossness of the simplifications are unusually painful to its instigators and surely to others as well. For example, the model ignores the possibility that birth order may be important to intergenerational welfare transmission. Perhaps more important, in real life, generations do not come so neatly separated. Rather, they overlap and diffuse into each other. Even if we focus on a single (say five-year) birth cohort of respondents and make it our "generation 1," the corresponding "generation 0" will come from a wide range of cohorts of grandmothers, and the daughters of generation 1 will be born over more than twenty-five later years. Over this range of cohorts of grandmothers and over the long childbearing period of generation 1, there will be secular changes in childbearing and welfare participation behavior, and welfare programs will undergo extensive revisions in terms of eligibility, coverage, and benefits. The simple parameters we estimate will pick up only some of this complex reality and will not truthfully represent behavior in any one ideotype sequence of three generations 0, 1, and 2. The assumption that fertility and transference remains constant over generations is particularly crude, but in the absence of better information is the best that can be done.[9]

Our approach loses the important over-time dynamics of welfare dependence and ignores the possibility that women in the underclass may have children at earlier ages or closer together, making the implicit assumption of equal-length generations troubling. To capture such features, one must

have life-course data for interconnected generations, and one must carry out event history analyses of the kind that Bane and Ellwood have initiated for the welfare dynamics of a single "generation 1" (Bane and Ellwood, 1983; Ellwood, 1986). For the investigation of welfare reproduction, however, such analyses must involve several generations, and these kinds of data simply are not available at the moment, except in bits and pieces such as those we make use of here. While we wait for the possible appearance of a different source of data, one must be content with our simplified analysis. If nothing else, at least it captures intergenerational trends of welfare reproduction in current generations, as reflected in the data sets from which we have culled our various parameter estimates.

III. INTERGENERATIONAL LONG-TERM WELFARE REPRODUCTION

In the previous section, we developed a model for estimating the reproduction of long-term welfare dependence. According to this model, the extent of welfare dependence in the next generation depends upon the fertility rates of dependent and nondependent women and upon the proportions of offspring in both groups who become dependent themselves. In this section we focus on the intergenerational transference of welfare dependence. The following section deals with fertility rates.

No data set or study provides sufficiently detailed family and welfare histories for two generations to directly estimate intergenerational welfare dependence. Thus, to piece together estimates of intergenerational welfare dependence we rely on estimates of (1) the proportions of daughters (of dependent and nondependent mothers) who go on welfare themselves for at least a year, and (2) the proportion of the latter who remain dependent for eight or more years. To use these estimates we must assume that the probability of remaining dependent on welfare for eight or more years is independent of the intergenerational transference of welfare dependence. This is a

conservative assumption insofar as the intergenerational transference of long-term dependence is probably greater than the intergenerational transference of welfare use per se.

Several different studies have examined intergenerational welfare use. Duncan, Hill, and Hoffman (1988) used data from the Panel Study of Income Dynamics (PSID) to examine welfare use among daughters and parents. They used two three-year windows to measure welfare use: daughters' use was measured between ages 21 and 23, and parents' use was measured when daughters were 13 to 15. Daughters (parents) who received welfare all three years were classified as highly dependent, whereas daughters (parents) who received welfare for only one or two of the three years were classified as moderately dependent. These researchers found that 3 percent of the daughters of nonwelfare parents were classified as highly dependent, whereas 20 percent of the daughters of highly dependent parents were classified as highly dependent. They also found that 36 to 38 percent of the daughters of women who received welfare became welfare recipients themselves.

A major problem with this approach is that it seriously undercounts the number of individuals who ever receive welfare. The undercount occurs for both generations: some daughters (parents) who were classified as nondependent during the three-year window will receive (or have received) welfare at some other point. Similarly, some daughters (parents) classified as moderately dependent will be at the end (or beginning) of an eight-year spell. Gottschalk (1989) provides a simple simulation example to demonstrate that even if intergenerational transference was perfect, that is, daughters mirrored their parents' welfare use, using a three-year window could yield estimates similar to those presented by Duncan and his colleagues.

A more appropriate analysis of the data would focus on the risk of becoming a welfare recipient at different ages. At least two studies provide estimates of this kind. McLanahan (1988) used the PSID data to estimate logit models in which the dependent variable was going on welfare in year t (conditional on not receiving welfare in t-1), and the independent variables included parent's

welfare use during daughter's adolescence (ages 12 through 16). She recently updated her results and extended them to look at daughters up to age 30. The new results show that 63 percent of the daughters of dependent black women (those who received welfare all five years when their daughters were aged 12 to 16) can be expected to receive welfare themselves by age 29, as compared with only 30 percent of the daughters of nondependent black women.

Gottschalk (1989) used the National Longitudinal Survey-Youth Cohort to compare daughters of welfare recipients with nonrecipients with respect to the length of time until their first birth and the length of time between first birth and welfare receipt. He found that daughters of AFDC recipients have their first children substantially earlier than daughters of nonrecipients and that the former are more likely to become welfare recipients themselves. For blacks, 39 percent of the daughters of recipients who have a child become recipients themselves during the first year of eligibility, compared with only 14 percent of the daughters of nonrecipients. By the time their child is six years old, 90.7 percent of the daughters of black recipients have received welfare, compared with only 38.3 percent of the daughters of black nonrecipients. Putting these numbers together with the probability of having a child (.804 for the daughters of recipients and .514 for the daughters of nonrecipients), we estimate that 72.9 percent of the daughters of recipients become recipients themselves, as compared with only 19.7 percent of the daughters of nonrecipients.

These various estimates of intergenerational transference use can be summarized as follows. Duncan et al. estimate that 36 to 38 percent of the daughters of welfare recipients will receive welfare themselves. We believe this is a lower bound on intergenerational transference among blacks because of the undercount of welfare receipt inherent in their model and because their estimate is based on whites as well as blacks. Estimates for blacks based on a more sophisticated methodology show a much higher transference. McLanahan estimates that 63 percent of the daughters of dependent black women will become recipients by age 29, and Gottschalk estimates that 73 percent of the daughters of

women who received welfare will become recipients by the time their child is seven years old. Correspondingly, the estimates for daughters of nonrecipients range from 9 percent (Duncan) to 20 percent (Gottschalk) to 30 percent (McLanahan).

These figures only show the percentage of daughters who received welfare as opposed to the percentage who became long-term dependent. For estimates of the latter, we rely on research by David Ellwood (1986), who found that about 32 percent of black women who go on welfare are dependent for ten or more years, as compared with 20 percent of nonblacks. Among women who go on welfare before age 30, about 28.6 percent will be long-term dependent, as compared with 15.4 percent of women over age 30. Ideally, we would like to know the likelihood of long-term dependence for young black women, since all of the estimates described above measure daughters' welfare use at young ages. Unfortunately, Ellwood's results are not disaggregated by both race and age. However, if we assume that age and race are independent, then we may get two estimates of the proportion of young black women recipients who are destined to become long-term users. First, since blacks are 1.592 times as likely as nonblacks to become long-term users (from 32.0/20.1), and since 28.6 percent of young women become long-term users, then one rate for young black women is 1.592 x .286, or 45.5 percent. A second approach starts with young women being 1.857 times as likely as older women to become long-term users (from 28.6/15.4), and since 32.0 percent of black recipients are long-term users, then a second rate for young black women is 1.857 x .320, or 59.4 percent.

To obtain a range of plausible estimates, we select three different rates of intergenerational transference for our simulations. For a low estimate, we take Duncan's estimate of daughters' welfare use and multiply it by the low estimate of long-term use obtained from Ellwood. For a high estimate, we take Gottschalk's estimate and multiply it by the high estimate obtained from Ellwood of long-term use. Finally, for a middle-range estimate, we multiply McLanahan's figures by the average

of the high and low estimates taken from Ellwood. We do not know if the welfare-using mothers in these calculations were first-generation long-term users or part of the underclass themselves (second- or more generation). Therefore for our base estimates we use the same rates of transference for both first-generation long-term dependent women and second-generation long-term dependent women, and we test the sensitivity of our results to this assumption.

IV. FERTILITY OF DEPENDENT AND NONDEPENDENT WOMEN

Many Americans believe that women on welfare have more children than other women.[10] Some claim that welfare induces unmarried women to have children, since more children mean higher welfare income. Others argue that the presence of welfare enables unmarried women to have (and keep) children by providing some measure of income support. Still others assert that although welfare may not cause large families, the financial difficulties of providing for a large family, especially a large single-parent family, may cause many large families to turn to welfare for assistance. The question we seek to answer here is not the direction of causation (whether welfare causes large families or whether large families cause high welfare use). Rather we simply want to know if families who receive welfare for an extended period of time have more children than other families.

We do know that there is variety in family size and that family size is systematically related to other variables. For example, the total number of children ever born to women who were between 40 and 44 in 1987 varies by race. For whites, the average is 2.166, for blacks it is 2.634, and for Hispanics it is 2.859 (U.S. Bureau of the Census, 1988, Table 1, p. 12). Marital status is also important, with ever-married women tending to have more children than never-married women (2.329, compared with 0.677, respectively, for women aged 40 to 44). Finally, the total number of children is lower for women with higher levels of education; women aged 35 to 44 in 1987 with less

than a high school education had given birth to 2.919 children over the course of their lives, whereas women with one or more years of college had given birth to 1.766 children.

A substantial amount of empirical work has examined the determinants of fertility, but relatively few studies have looked explicitly at the role of welfare. Early studies compared fertility rates (usually out-of-wedlock births) with AFDC variables, using states or metropolitan areas as the unit of analysis. Only a few of these studies found a consistent, statistically significant link between welfare and fertility.[11] More recently, researchers have used micro-data to examine the relationship between welfare variables and the probability of giving birth outside of marriage. Neither Moore and Caldwell (1977) nor Ellwood and Bane (1985) found a relationship between AFDC benefits (or the AFDC acceptance rate) and out-of-wedlock childbearing. In contrast, Plotnick (1989) found a significant positive relationship between the maximum welfare grant and the probability of experiencing a nonmarital birth for whites. Although no such relationship existed for blacks, there was a negative relationship between an index of welfare eligibility stringency and the likelihood of experiencing a nonmarital birth.

The most recent study on this issue came to a startling conclusion. After examining the fertility of women receiving welfare in Wisconsin and comparing this with the fertility of nonwelfare women, Rank (1989) concluded that welfare recipients actually have lower fertility rates (45.8 births to 1000 women aged 18 to 44) than the rest of the population (71.1 births). Rank's estimates are not sufficient for our purposes, however, since he includes childless women in his sample of welfare recipients. Presumably, women who are receiving welfare (Medicaid) because of health problems have lower than average fertility, and this would create a downward bias in the estimates of welfare mothers' fertility.

To obtain our own estimates of the completed fertility of dependent and nondependent women, we used a sample of black women aged 35 to 44 taken from the National Survey of Families

and Households. This sample gives us fairly reliable information on completed fertility as well as on welfare use in the past six to seven years.[12] We classified women who received welfare in every year in which they were eligible as welfare dependent.[13]

Although the total sample is 312, only 22 of these women were classified as dependent, so we ran a single regression with number of children as the dependent variable and a dummy variable for welfare dependence as the independent variable. The results were as follows: 2.49 children for nondependent women, and 4.54 children for dependent women.

As noted above, our approach yields fertility by age 35 to 44 as opposed to completed fertility. Our simulation is of the number of children that young black women will have; what we have calculated is the number of children of black women aged 35 to 44. One way to estimate the number of children young women will have is to ask them about their birth expectations; however, it is not clear that expectations translate into reality. Another approach would be to take our estimates and adjust them for long-term trends in fertility. Unfortunately, this is not easy either. A straight-line extrapolation of recent trends would be very sensitive to the time period used. Although completed family size has declined dramatically since 1970 (total children ever born to nonwhite women by the time they were between 40 and 44 years old was 2.795 in 1987, compared with 3.688 in 1970), it increased rapidly in the two decades before 1970 (moving from 2.476 in 1950 to 2.866 in 1960 to the 3.688 in 1970). Therefore it is unclear whether in the long run we should expect continued decreases in births, based on the trend from 1970 to 1987, or whether we should expect an eventual plateau or even an increase, based on the trend from 1950 to 1970. Fortunately in our model it does not matter if overall fertility is increasing or decreasing, since for our purposes it is only the ratio of welfare women's births to nonwelfare women's births that matters. For our simulation, then, we use 4.54 and 2.49 (although we could just as easily have used 1.823 [from 4.54/2.49] and 1.0). Again, we do not know if the long-term dependent women whose fertility we

observe are first-generation or second-generation, so we use the same estimate for both groups, and we again test the sensitivity of our results to this assumption.

V. ESTIMATES OF THE GROWTH OF THE UNDERCLASS

To ascertain whether the underclass is growing, in addition to estimates of intergenerational transmission of long-term welfare dependence and estimates of fertility rates, it is necessary to have baseline estimates of the size of the long-term welfare-dependent and underclass populations in the first generation. We derive crude estimates of these figures from the National Survey of Families and Households. Women aged 22 to 34 who reported receiving welfare for all of the years that they could have reported receipt (a minimum of three and a maximum of seven years) are assumed to be long-term dependent on welfare. They comprise 13.6 percent of all black women in this age range. Of the long-term dependent mothers, 29 percent reported that they received welfare throughout their own childhood, 44 percent reported that they received welfare during most of their childhood, and 60 percent reported that they received welfare during some of their childhood. Because of both a lack of knowledge about their family's income sources and the stigma associated with welfare, we expect the mothers to underreport welfare receipt during their childhood. For our baseline estimate of intergenerational long-term welfare dependence, therefore, we assume that 50 percent of the women who are long-term dependent grew up in long-term dependent families, which yields an estimate of 6.8 percent of the first generation of black families as being in the underclass. (The long-run size of the underclass predicted by the model is not affected much by the estimate of the initial or baseline proportion.)

Table 1 shows the proportion of adult black women estimated to be in the underclass in subsequent generations under three different assumptions. Each column reports results from a

different simulation. The simulations are carried out for seven generations in order to allow the reader to see the long-run size of the underclass predicted by the model.

The first eight rows show the base assumptions: the proportion of women in each status (.136 dependent on welfare and .068 percent who were second-generation dependent, i.e., members of the underclass in generation 1); the total number of children for women in each status (4.54 for women in the underclass and first-generation welfare-dependent women, and 2.49 for nondependent women); and the degree of intergenerational welfare use for each status (estimates range from .164 to .433 for welfare mothers to welfare daughters and from .041 to .157 for nonwelfare mothers to welfare daughters). The columns use the same estimates of completed fertility and the proportion of women who are welfare dependent; they differ in their estimates of the intergenerational transference of welfare use, ranging from the low estimate in column 1 to the high estimate in column 3.

Estimates of the size of the underclass are all fairly small: only in the worst-case assumption does it reach 15 percent. In view of the restrictiveness of our definition, perhaps this is not surprising. Yet, this result is not entirely empty. Our model yields much higher estimates of the underclass if we use large enough estimates which we deem to be unrealistic. For example, increasing the estimated rate of transference of the underclass by 150 percent increases the proportion of the underclass predicted by the model in the seventh generation to nearly 30 percent. Similarly, doubling the fertility differential between the underclass and the rest of the black population results in a prediction that by the seventh generation the underclass would constitute 25 percent of the black population.

Whether the underclass is growing or shrinking, however, varies greatly, depending on the assumptions made. The low-range estimate of intergenerational transference (column 1) shows an underclass that is shrinking. Estimates in columns 2 and 3 are probably closer to the truth, since they use a better estimation method with a longer observational period and are based on blacks'

TABLE 1

Simulation Estimates of the Proportion of Adult Black Women in the Underclass over Generations

	Low-Range Estimates (1)	Medium-Range Estimates (2)	High-Range Estimates (3)
Assumptions			
Proportion in underclass (generation 1)[a]	.068	.068	.068
Proportion who are first-generation welfare-dependent (generation 1)[a]	.068	.068	.068
Fertility of underclass women (generation 1)[b]	4.54	4.54	4.54
Fertility of first-generation welfare-dependent women (generation 1)[b]	4.54	4.54	4.54
Fertility not on welfare (generation 1)[b]	2.49	2.49	2.49
Transference, underclass mother to welfare daughter[c]	.164	.330	.433
Transference, first-generation dependent mother to welfare daughter[c]	.164	.330	.433
Transference, nonwelfare mother to welfare daughter[d]	.041	.157	.117
Generation 1	0.068	0.068	0.068
Generation 2	0.036	0.073	0.096
Generation 3	0.019	0.102	0.128
Generation 4	0.016	0.108	0.142
Generation 5	0.015	0.110	0.147
Generation 6	0.015	0.110	0.150
Generation 7	0.015	0.110	0.151

[a]Estimate from the NSFH: women 22 to 34 receiving welfare for every year in which they were eligible (minimum of three years, maximum of seven), divided equally into those who are first-generation dependent and those who are second-generation (or more) (the underclass).

[b]Estimate from the NSFH: total number of children born to black women aged 35 to 44.

[c]Estimates from Duncan et al. (1988), McLanahan (1988), and Gottschalk (1989), adjusted to reflect long-term welfare use of daughters. Estimates are of the proportion of daughters whose mothers were dependent who become dependent.

[d]Estimates from Duncan et al. (1988), McLanahan (1988), and Gottschalk (1989), adjusted to reflect long-term welfare use of daughters. Estimates are of the proportion of daughters whose mothers were nondependent who become dependent.

transference only. These two columns show an underclass that is growing. When the moderate transference assumptions are used (column 2), the underclass grows by about 50 percent by generation four. When the highest estimates of transference are used, the underclass doubles by generation five.

Our own interpretation of these results is that the underclass may be growing, but it is not growing dramatically. While both the second and third columns suggest a growing underclass, the growth, while large in percentage terms (50-100 percent), is still modest in absolute terms--no more than eight percentage points. Finally, even the worst results level off within a few generations at a relatively low level.

In Table 2 we start with the worst-case assumptions about transference (column 3 from Table 1) and show the sensitivity of the results to different assumptions about fertility and transference. The first column (marked (3)) repeats the results from the third column of Table 1. The next five columns vary the fertility and transference estimates. Column (4) reports results based on the assumption that long-term dependent women have the same fertility as nondependent women. This dramatically reduces the rate of growth of the underclass. Column (5) shows that if dependent women have the same transference rates as nondependent women, the underclass will shrink, even in the presence of huge fertility differentials. Columns (6), (7), and (8) show the sensitivity of our results to variations in the assumptions we make about the fertility and transference rates of first-generation welfare-dependent women and second- (or more) generation dependent women (underclass women). In column (6) we increase the fertility rate for the underclass by 10 percent and decrease it by 10 percent for the first-generation welfare-dependent women. This change has very little effect on our estimates of the size or growth of the underclass. Column (7) increases the rate of transference from underclass women by 10 percent and decreases it for first-generation dependent women by 10 percent, again without large effects. Column (8) changes both the fertility and transference rates, and

TABLE 2

Proportion of Adult Black Women in the Underclass over Generations: Sensitivity of Simulation Estimates to Different Assumptions

	High-Range Estimates (3)	Dependent Women Have Same Fertility as Nondependent Women (4)	Dependent Women Have Same Transference as Nondependent Women (5)	Underclass Women Have Higher Fertility than First-Generation Dependent Women (6)	Underclass Women Have Higher Transference than First-Generation Dependent Women (7)	Underclass Women Have Higher Fertility and Transference than First-Generation Dependent Women (8)
Assumptions						
Proportion in underclass (generation 1)[a]	.068	.068	.068	.068	.068	.068
Proportion who are first-generation welfare-dependent (generation 1)[a]	.068	.068	.068	.068	.068	.068
Fertility of underclass women (generation 1)[b]	4.54	2.49	4.54	4.99	4.54	4.99
Fertility of first-generation welfare-dependent women (generation 1)[b]	4.54	2.49	4.54	4.09	4.54	4.09
Fertility of women not long-term welfare-dependent (generation 1)[b]	2.49	2.49	2.49	2.49	2.49	2.49
Transference, underclass mother to welfare daughter[c]	.433	.433	.117	.433	.477	.477
Transference, first-generation dependent mother to welfare daughter[c]	.433	.433	.117	.433	.390	.390
Transference, nonwelfare mother to welfare daughter[d]	.117	.117	.117	.117	.117	.117
Generation 1	0.068	0.068	0.068	0.068	0.068	0.068
Generation 2	0.096	0.059	0.026	0.096	0.096	0.097
Generation 3	0.128	0.069	0.023	0.128	0.128	0.131
Generation 4	0.142	0.073	0.023	0.144	0.145	0.150
Generation 5	0.147	0.074	0.023	0.151	0.154	0.161
Generation 6	0.150	0.074	0.023	0.154	0.158	0.167
Generation 7	0.151	0.074	0.023	0.156	0.160	0.170

[a]Estimate from the NSFH: women 22 to 34 receiving welfare for every year in which they were eligible (minimum of three years, maximum of seven), divided equally into those who are first-generation dependent and those who are second-generation (or more) (the underclass).

[b]Estimate from the NSFH: total number of children born to black women aged 35 to 44.

[c]Estimates from Duncan et al. (1988), McLanahan (1988), and Gottschalk (1989), adjusted to reflect long-term welfare use of daughters. Estimates are of the proportion of daughters whose mothers were dependent who become dependent.

[d]Estimates from Duncan et al. (1988), McLanahan (1988), and Gottschalk (1989), adjusted to reflect long-term welfare use of daughters. Estimates are of the proportion of daughters whose mothers were nondependent who become dependent.

results in slightly higher estimates of the size of the underclass, .170 compared to .151 by generation seven.

Table 3 provides estimates of the proportion of adult black women that are long-term dependent on welfare, using equation (3). These estimates differ from Table 1, in which we examined dependence across generations, a necessary condition for being in the underclass. Again the first panel shows the basic assumptions, and the columns mirror the columns in Table 1. The results in Table 3 are also sensitive to the assumptions made, with the two highest estimates for intergenerational transference (columns 2 and 3) showing a growing dependent population (reaching more than 20 percent of the black population by generation 3) and the lowest estimate showing a shrinking dependent population.

The results in Table 3 differ from those in Table 1 in that the proportions are much higher. This is because the proportion of black women who spend eight or more years on welfare is higher than the proportion who do so and produce dependent daughters as well. The results are similar, however, in that the two columns (2 and 3) that use the preferred estimates of transference predict that the long-term dependent population is growing and that the underclass is growing.

VI. SUMMARY AND CONCLUSIONS

Our empirical results suggest that the fraction of adult black women who may constitute an underclass is small--less than 7 percent in generation 1. They also suggest that this group, while likely to be growing significantly in percentage terms, is not growing dramatically in absolute terms. On the other hand, the proportion of black women who experience long-term welfare dependence is twice as large, and it too is likely to be growing.

Even if these estimates did not show a growing underclass, the high proportion of black children who experience prolonged welfare dependence would still be of great concern. Prolonged

TABLE 3

Simulation Estimates of the Proportion of Adult Black Women Long-Term Dependent on Welfare over Generations

	Low-Range Estimates (1)	Medium-Range Estimates (2)	High-Range Estimates (3)
Assumptions			
Proportion receiving long-term welfare (generation 1)[a]	.136	.136	.136
Fertility of welfare women (generation 1)[b]	4.54	4.54	4.54
Fertility not on welfare (generation 1)[b]	2.49	2.49	2.49
Transference, welfare mother to welfare daughter[c]	.164	.330	.433
Transference, nonwelfare mother to welfare daughter[d]	.041	.157	.117
Results: Proportion Long-Term Dependent on Welfare			
Generation 1	0.136	0.136	0.136
Generation 2	0.068	0.196	0.187
Generation 3	0.055	0.211	0.210
Generation 4	0.053	0.214	0.220
Generation 5	0.052	0.215	0.225
Generation 6	0.052	0.215	0.226
Generation 7	0.052	0.215	0.227

[a]Estimate from the NSFH: women 22 to 34 receiving welfare for every year in which they were eligible (minimum of three years, maximum of seven).

[b]Estimate from the NSFH: total number of children born to black women aged 35 to 44.

[c]Estimates from Duncan et al. (1988), McLanahan (1988), and Gottschalk (1989), adjusted to reflect long-term welfare use of daughters. Estimates are of the proportion of daughters whose mothers were dependent who become dependent.

[d]Estimates from Duncan et al. (1988), McLanahan (1988), and Gottschalk (1989), adjusted to reflect long-term welfare use of daughters. Estimates are of the proportion of daughters whose mothers were nondependent who become dependent.

welfare dependence means prolonged poverty. That prolonged welfare dependence may be growing is also of concern because of its potential adverse effects on racial prejudice, which in turn could lead to further reductions in black living standards. In An American Dilemma (1944), Myrdal describes this process of cumulative change as follows:

> If . . . the Negro plane of living should be lowered, this will--other things being equal--in its turn increase white prejudice. Such an increase in white prejudice has the effect of pressing down still further the Negro plane of living, which again will increase prejudice, and so on, by mutual interaction between the two variables, ad infinitum. A cumulative process is thus set in motion which can have final effects quite out of proportion to the magnitude of the original push. (P. 106)

Thus although our estimates may provide some comfort with respect to concerns about an exploding black underclass, in the broader context of the prognosis for future black progress, they provide grounds for concern.

Notes

[1]The underclass has been defined in a variety of ways. For example, Auletta (1982) defines the underclass as a group of people who suffer from "behavioral as well as income deficiencies" and who "operate outside the mainstream of commonly accepted values." He includes street criminals, hustlers and drug addicts, welfare mothers, and the chronically mentally ill in his definition. Sawhill (1988) and her colleagues define the underclass as "people who live in neighborhoods where welfare dependency, female-headed families, male joblessness, and dropping out of high school are all common occurrences," whereas Jargowsky and Bane (1990) include poor people living in census tracts where poverty rates are 40 percent or higher. Finally, W. J. Wilson (1987) and his colleagues speak of the underclass as poor people, mostly black, living in urban ghettos in the North Central and North Eastern regions of the country, who are "outside the mainstream of the American occupational system."

[2]Other researchers have addressed the same question using different definitions and indices of the underclass than the ones we propose below. Not surprisingly, whether or not one finds that the underclass is growing depends on the definition and indices used. See Jencks (1991), Danziger and Gottschalk (1987), Jargowsky and Bane (1990), Ricketts and Mincy (1990), and Hughes (1990).

[3]See McLanahan and Garfinkel (1989) for a more detailed discussion of this point.

[4]Disabled workers, widows, and married homemakers are not members of the underclass if they are indirectly attached to the labor force either through their personal work history or through the current or past employment history of their spouse. In the case of disabled workers and widows, the primary source of household income comes from social insurance, which is linked to the past work history of the individual and the individual's spouse, respectively. In the case of married homemakers, the primary source of income is their partner's current earnings.

[5]One problem we see with using long-term intergenerational welfare dependence as our proxy for underclass status is that AFDC receipt must end when the youngest child in the home turns 18, and thus most women will go through a period of their lives when they are not dependent on AFDC. There is little research on the income packaging strategies of women who have received AFDC for long periods of time after their youngest child leaves home or turns 18. One possibility is that they begin receiving another type of means-tested transfer, perhaps SSI or general assistance, and thus their dependence on means-tested transfers continues.

[6] Some would argue that welfare mothers are engaged in household production and therefore cannot be considered part of the underclass. Certainly raising children is a valued activity that contributes to the public good by producing the next generation of workers. There are two problems with this argument, however. First, now that over half of married mothers with young children work outside the home at least part of the time, long-term economic dependence for welfare mothers is becoming increasingly deviant and unacceptable to the average citizen. Furthermore, if the children who are raised in welfare families are not joining the labor force after they have grown up but are simply reproducing offspring who themselves grow up and depend on welfare, this undermines the argument that their mothers are engaged in socially productive work, i.e., in producing the next generation of workers.

[7]Concern for male employment may also explain why widowed mothers are treated differently from other single mothers, even though they work fewer hours and receive higher public benefits. First, widowhood is caused by the death of a spouse and therefore is not a voluntary event. Providing for widows does not encourage male irresponsibility or reduce the motivation to work. Second, Survivors Insurance (SI), like all aspects of social insurance, is closely tied to the previous work attachment of the (deceased) spouse and thus it enhances rather than undermines the work ethic.

In sum, widowed mothers who are eligible for SI are indirectly attached to the labor force even though they are not currently employed.

[8]Note that we are not making any assumptions about the exact mechanism that underlies the "q's." It could be something about the environment (a correspondence between the quality of schools that daughters and mothers attend) or a more direct mechanism (a correspondence between the values of daughters and mothers, or a correspondence between the levels of information about the welfare system that mothers and daughters have).

[9]In fact, our model does not hold when we try to apply it to previous generations. There is no proportion of dependent women in generation zero that, when combined with the fertility and transference estimates we use for some models, would produce the proportion of dependent women we observe in generation one. If our approach is an approximation of reality, then different fertility and/or transference rates were in effect during generation zero, and thus perhaps we should allow for different rates in the future. However, we have no data on which to base different estimates, so in the absence of further information, we assume the current estimates will hold in the future.

[10]This belief continues even though many economists argue that in the contraceptive era children are luxury goods, that individuals who cannot afford to raise children will have fewer children.

[11]Some of this research is summarized in Janowitz (1976), White (1979), and Wilson and Neckerman (1986).

[12] The age range was selected to maximize the likelihood of obtaining completed fertility and of observing welfare use. While the data have complete fertility histories, the information on welfare use is restricted to "the past five years." If we had chosen an older sample of women, our estimate of completed fertility would have been better, but we might have missed welfare use for those mothers whose children were over 18.

[13]We believe we may have overestimated the difference in fertility, since the largest misclassification is probably women who were long-term recipients, who had only one or two children, and whose youngest child turned 18 in the observation period.

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