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Abstract

Since World War II, unemployment rates for black youths have risen much more rapidly than for white youths. This report reviews the many possible causes of the worsening relative employment status of black youths. These include market and structural trends in the sizes of labor force entry cohorts, competition in the low-wage labor market from women and students, the level and coverage of the minimum wage, occupational and industrial structure, and the geographic distribution of jobs; and social and demographic trends in school enrollment, armed force enlistment, marriage and family norms, and recipiency of public assistance.

Several of the most commonly mentioned explanations for youth labor force trends--for example, minimum wage legislation trends and the sizes of recent youth cohorts--are not closely consistent with the timing and age pattern of trends in the labor force. On the other hand, a major source of the deteriorating relative status of black teenagers appears to be the massive reduction in agricultural jobs during the past 30 years. These jobs historically provided a very large fraction of employment prospects for youths with limited and poor-quality schooling, and especially for black youths. Recent changes in occupational and industrial structure have not replaced these low-skill jobs. A further source of change in race differentials in the youth labor force appears to be trends in school enrollment rates, which have increased more for blacks than for whites in recent years. Increased enrollments for blacks have reduced their labor force participation rates and may have caused those black youths with the best employment chances to leave the labor force, leaving behind youths

with the poorest job qualifications. The result has been an increase in unemployment rates. Similarly, for young men, military enlistment trends in the 1970s have resulted in higher proportions of blacks than whites in the armed forces. New enlistees have been drawn from the more employable ranks of the black population, thereby increasing the unemployment rates of the black civilian labor force.

These arguments suggest that historical differences between blacks and whites in the occupational sectors in which they worked, in school enrollment patterns, and in military enlistment patterns concealed the true racial disparity in youth unemployment because black youths entered the work force before whites and found work in the agricultural sector. Now that black and white school enrollment and armed forces enlistment norms are more alike and unskilled jobs are scarcer, the true inequality in employment prospects is revealed.

Changes in the Relative Labor Force Status of Black and White Youths: A Review of the Literature

INTRODUCTION

Since World War II there has been considerable change in the labor force standing of black youths. Whereas in the early 1950s unemployment and labor force participation rates for blacks and whites aged 16-24 were nearly equal, in the late 1970s, black unemployment rates for this age group are two to three times those of whites, and their labor force participation rates are approximately half those of whites. These dramatic changes imply a seriously worsening social and economic position of young blacks.

The deterioration of the relative labor market position of black youths is particularly troublesome in view of the significant trends toward racial equality in other socioeconomic dimensions. Since 1960 there have been clear improvements in the educational attainment, occupational status, and wages of young blacks relative to whites (Farley, 1977; Freeman, 1973, 1978). The deteriorating labor force status of black youths, coupled with the overall socioeconomic betterment of the black population, is a paradox in American social change during the post World War II era.

To further understanding of trends in unemployment and labor force participation of black youths, this paper reviews literature that casts light upon why the relative labor market position of black youths has worsened during the post World War II era. There are many proposed explanations of this trend, but, unfortunately, little research has directly and adequately examined them. Much of the writing that has been done is speculative and fails to provide empirical support for

suggested arguments. More empirically oriented work, by contrast, has tended to report bivariate associations between labor force and other economic trends and has failed to control adequately for other changes. A further problem with past research has been its predominant focus on economic sources of labor force changes, and lack of attention to social and demographic changes during the recent period. Nonetheless, much can be learned from reviewing the state of knowledge about the youth labor market.

Explanations for the trend in the relative labor market standing of blacks and whites may be classified into two broad types: structural or market explanations and social demographic explanations. Roughly speaking, the former emphasize changes in the balance of supply and demand in the youth labor market. The latter emphasize the changing composition of the youth population. Among the market explanations that we consider are (1) increased labor market crowding, resulting from the postwar baby boom, (2) increased labor market competition between youths and other groups such as women and immigrants, (3) reduced willingness of employers to hire youths as a result of increases in the level and coverage of the minimum wage, (4) changes in the occupational and industrial structure that have eliminated jobs traditionally held by black youths, and (5) changes in patterns of residential and industrial location that have increased the "mismatch" between the black youth population and available employment.

The demographic trends that may have affected the youth labor force through a variety of mechanisms include (1) differential school enrollment trends between blacks and whites, (2) trends in military enlistment, (3) trends in marital status and family structure, and (4) trends in recipiency of public assistance.

In appraising alternative explanations for the deteriorating labor force status of black youths, it is important to remember essential features of the trends. Although several causes of the trends may act in concert in a complex way, given our limited understanding of the sources of the trends, the most plausible explanations must be consistent with the obvious features of the historical experience. Among these features are the following. (1) The relative rise in youth unemployment and decline in labor force participation for black youths covers the full post World War II era; that is, it is not a recent development. (2) The deterioration in the labor force status of black youths has occurred at a different pace for youths of different ages. For black teenagers the worsening of their labor force standing has occurred throughout the postwar era, but is particularly strong prior to 1970. By contrast, for youths aged 20-24, the deterioration has occurred only since 1970. Hence the postwar trend has consisted of a generalization of the black youth unemployment problem from teenagers to youths in both their teens and early twenties (Mare and Winship, 1979a; Bowers, 1979). (3) And, as noted, the worsening employment situation of black youths has occurred despite marked improvements in the socioeconomic standing of blacks generally, and young blacks in particular. In discussing competing explanations for labor force trends, we shall refer to these facts to show how adequately the explanations conform to them.

The main conclusions of our review are as follows:

(1) Several commonly mentioned explanations for youth labor force trends, namely trends in cohort size, the minimum wage, and labor market competition from other groups, have empirical and theoretical shortcomings. There is

scant reason to conclude that labor market crowding resulting from either past fertility trends or increased women's labor force participation disproportionately hurts black youths. With regard to the minimum wage, black youths may have been more affected than whites by trends in legislation, but empirical studies of these effects are too seriously flawed to permit conclusions.

(2) The decline in the availability of unskilled farm jobs has played a major role in youth labor force trends. Sharply declining farm employment for black youths prior to 1970 mirrors the rising unemployment of black teenagers during this period.

(3) Two recent trends in the composition of the youth population appear to be important determinants of the changing relative standing of black and white youths. These include rapidly rising rates of school enrollment for black youths and the significant movement of young blacks into the armed forces during the post Vietnam era. These two trends have reduced civilian employment and, possibly increased unemployment through a number of mechanisms.

(4) The deteriorating relative labor force standing of black youths may be broadly interpreted as the outcome of other historical forces equalizing the social standing of blacks and whites. Changes in industrial structure, racial discrimination, and black socioeconomic levels have reduced racial disparities in proportions of youths employed in agriculture, enrolled in school, and serving in the armed forces. In the past, these disparities concealed racial employment differentials because black youths left school before whites and found work in the lowest-skilled sector of the labor market. With the elimination of low-skill farm jobs and the enterance of blacks and whites into the labor market at similar ages, the true racial inequality of opportunity in the youth labor market has been revealed.

This paper first reviews market and structural explanations of labor force trends. Then it turns to sociodemographic sources of labor force change. It concludes with a summary and a discussion of further research needs.

2. MARKET AND STRUCTURAL EXPLANATIONS

Postwar Fertility Trends and Cohort Size

A popular explanation of trends in the youth labor force is that youth unemployment levels have their roots in the high fertility during the 15 years following World War II, which has produced unprecedentedly large labor force entry cohorts during recent years. As a consequence, the supply of labor in the youth cohort has outstripped the growth in work opportunities. One implication of this argument is that as the "baby boom" cohorts age and smaller cohorts enter the youth labor force, youth labor force status should improve.

A number of researchers have shown the effects of the baby boom on the employment status of youths as a whole. Wachter and Kim (1979) demonstrate that changes in cohort size explain at least part of the trend in employment of youths as a whole. Welch (1979) and Freeman (1979b) show an inverse relationship between a cohort's size and the average wage received by its members.

Although the effects of cohort size on the employment opportunities of youths as a whole have been documented, trends in cohort size do not explain trends in the relative standing of black and white youths in any straightforward way. First of all, much of the deterioration in the status of blacks

occurred in the 1950s and early 1960s (Mare and Winship, 1979a). The largest baby boom cohorts, however, were born in the late 1950s and do not enter the labor market until the 1970s. Thus the timing of deterioration for blacks is not well matched by increases in the sizes of cohorts in the youth population.

Second, it is unclear what the mechanism is by which black youths would be disproportionately hurt by increases in cohort size. One possibility is that the labor market behaves like a queue (Thurow, 1975). By this formulation, employers typically prefer to employ whites and hire blacks only when qualified whites are scarce. When the youth population increases substantially, employers have less need to hire blacks because white youths are plentiful. Thus black youths are hurt disproportionately by increases in cohort size.

A major difficulty with the queue interpretation, however, is that it is inconsistent with other trends in the labor force standing of youths. Were a racially ordered queue the dominant labor market mechanism, increases in the youth population would not only deprive blacks of jobs, but would also push employed blacks into lower-status, more poorly paying jobs. Despite rising unemployment, however, this has not occurred. On the contrary, young black workers have enjoyed rising relative wages and occupational upgrading (Wachter and Kim, 1979; Freeman, 1978; Farley, 1977).

A second way that trends in cohort size might affect the labor force standing of black youths is through an increase in the size of the black youth population rather than of the youth population as a whole. If black and white youths were imperfect substitutes--that is, competed for different markets--and the black youth labor force grew faster, then

increases in the black youth population would decrease employment opportunities. It is not clear, however, that black and white youths are imperfect substitutes. They might be imperfect substitutes if they worked in different labor markets. For example, if black youths were segregated into occupations that could not generate jobs as quickly as they joined the labor force, the large size of black youth cohorts might explain their greater relative increase in unemployment.

Osterman (1979) provides some evidence of an interaction between labor market segmentation and cohort size. Using cross-sectional data he finds that black youths are more sensitive to local labor market structure, particularly the proportion of "youth jobs"--those in construction, manufacturing, and trade industries--in the SMSA; he argues that this indicates that white youths can move with greater ease into jobs not traditionally held by youths, whereas blacks remain concentrated in "youth-specific" occupations. If this interpretation is valid, such occupational segregation would hurt a large cohort of black youths entering the labor force unless the available occupations grew fast enough to accommodate all new workers.

Other evidence on labor market segmentation, however, contradicts Osterman's findings. Westcott (1976) reports that youths are concentrated in certain industries--trade, services, government, and manufacturing--but there is no racial segmentation. Moreover, although the black youth population has grown faster than the white population, the black youth labor force has not. The black labor force has grown more slowly than the white labor force, in part because of increased black school enrollments (see discussion below). Thus if the impact of cohort size on employment status

were to occur through labor market segmentation, the faster growth in the white labor force would have caused an improvement in the relative labor force status of blacks. Although this has occurred for relative wage levels (Wachter and Kim, 1979), it plainly has not for relative unemployment levels.

On balance, postwar fertility trends may have affected the labor force standing of youths as a whole, but they are apparently not responsible for the deteriorating relative position of blacks.

Increased Competition for Other Groups

Three demographic groups that may have provided increased job competition to black youths are women, undocumented aliens, and white students, all of whom have increased their labor force participation during the period of labor market deterioration for black youths. However, there is no research that demonstrates a trend in direct competition. With regard to undocumented aliens, there is only limited information on the growth of their population (Heer, 1979) and no labor force data. As for women and white students, they appear to work in some of the same major occupational groups as black youths. However, much more detailed examination of the occupational distribution of these groups and trends in the distributions is required to show direct competition.

As in the cohort size argument, it is unclear why competition from women and students should hurt black youths more than whites. Again, it seems necessary to postulate a labor market queue. Older women may displace white youths who in turn displace blacks. Alternatively, women may directly displace black youths. Although the first assumption seems more reasonable, it would imply reduced employment of white youths, which has not occurred.

For the manufacturing sector in 1970, Grand and Hamermesh (1979) provide cross-sectional evidence that adult white women and youths are substitutes, that is, that rising employment of the former will, ceteris paribus, displace the latter from jobs. However, they are unable to demonstrate that adult women disproportionately displace black youths.

On balance, there is scant evidence that black youth employment trends result from increased labor market competition. However, research that explicitly addresses this hypothesis remains to be done.

Minimum Wage Legislation

Over the last 25 years, the coverage of minimum wage legislation has increased substantially. Amendments to the legislation in 1966 increased coverage from 53.8% to 74.0% of the employed population and in 1974 increased coverage to 85.4%. These increases have disproportionately included blacks. The pre-1966 legislation covered only 47.0% of the present-day black population whereas the 1966 and 1974 amendments increased coverage to 88.0% (Employment Standards Administration, 1976). No data are available to show whether or not these increases have been as inclusive for black youths as they have been for the total black population.

Although the nominal minimum wage has increased over the last 25 years, the real minimum wage has not. Rather it has fallen as a percent of gross average hourly earnings. In 1956 the minimum wage was 56% of gross average hourly earnings. In 1967 it was 50%, and in 1976 it was 46% of gross hourly earnings (Employment Standards Administration, 1976).

Changes in the coverage and rate of the minimum wage can have a number of effects on labor force behavior. On the demand side the effects are unambiguous: Increased coverage and level of the minimum wage will cause disemployment and increase the cyclic sensitivity of low-wage, low-productivity workers (Kosters and Welch, 1972). Demand for such workers is reduced because legislation forces employers to pay these workers more than their marginal productivity. The cyclic sensitivity of low-wage, low-productivity workers is increased because their marginal product will be above the minimum wage when economic activity is high, but below it during recessions. Thus these workers will be disproportionately laid off.

Possible minimum wage effects on labor force participation are less clear-cut and may operate both directly and indirectly. Directly, increases in the minimum wage may either attract more individuals into the labor market as a result of increases in the wage offered or decrease labor force participation if individuals are unwilling to be unemployed while waiting for a higher-wage job (Mincer, 1976). The change in the minimum wage may indirectly affect labor supply in an economy with a covered and uncovered sector (Welch, 1974; Mincer, 1976). Increases in the minimum wage may draw individuals into either the covered or uncovered sector. If individuals are lured into the covered sector (by the promise of higher wages), then the supply of labor in the uncovered sector will decrease, raising wages and drawing individuals into the labor force. If individuals flow from the covered to the uncovered sector, then wages in the uncovered sector will be depressed and individuals will leave the labor force.

Because minimum wage effects on labor supply are ambiguous, minimum wage effects on unemployment rates are also ambiguous. The disemployment

caused by increases in the minimum wage obviously increases unemployment. The disemployment effect, however, may be offset by a reduction in labor supply or exacerbated by increases in labor supply. The strength of each of these tendencies, and how they differ between black and white youths, must be determined empirically.

There are a number of reasons why black youths may be more adversely affected by changes in the minimum wage than white youths. First, black youths may be disproportionately in low-wage, low-productivity jobs. Second, black youths may be dispropotionately located in jobs that have come under the coverage of minimum wage legislation. As noted above, there have been substantial increases in the coverage of black employees since the mid-sixties. Finally, blacks and whites may have different labor supply reactions to changes in the minimum wage. Mincer (1976) found that nonwhite youths are more likely than whites to leave the labor force in response to changes in the minimum wage.

There is a massive empirical literature on the effects of the minimum wage. Unfortunately, there has been little agreement on the direction or size of the effects. This results from methodological differences among studies and failure to solve the many methodological problems inherent in studying minimum wage effects. We discuss the most important of these problems here.

First, most studies have failed to control for variables that have probably affected labor force participation and unemployment rates. For example, studies that have controlled for cohort size do not find minimum wage effects whereas those that do not include this variable do (Goldfarb, 1975; Lovell, 1972). The problem of controls is a general one in aggregate

time series analyses of minimum wage effects. Many possible independent variables in such analyses are highly collinear, making the independent effect of any single variable hard to isolate. Future research on the minimum wage will best solve this problem by examination of trends separately for different regions of the country. By looking at more than one time series, such analyses will suffer less from severe collinearity.

Second, although theoretical arguments imply changes on both the supply and demand sides of the labor market in response to changes in minimum wage legislation, most analyses reported in the literature are based on a one-equation system, rather than a two-equation system that separately models supply and demand.

Finally, most minimum wage analyses conflate two features of minimum wage change that should be treated separately, namely trends in the level and extent of coverage of the minimum wage. Typically, the "minimum wage" is measured as the mandated minimum wage divided by the average wage of each demographic group and weighted by the group's coverage rate (for example, Mincer, 1976). Because the coverage of the legislation has increased while the real minimum wage has decreased, this measure changes little between 1969 and the present. Research that has used this measure implies that the minimum wage has had no effect on black youth unemployment since 1969. Whether or not this is the case, however, is unclear since there is no reason to assume, as these models do, that the wage level and the coverage rate have equal effects on labor force behavior.

In summary, the state of the empirical literature makes it impossible to state with confidence what the effects of the minimum wage

on youth unemployment have been. As noted, black employment may have been disporportionately affected by minimum wage legislation. But convincing empirical research that tests the adequacy of the theory and determines the fraction of black youth unemployment deterioration that can be ascribed to the minimum wage remains to be done.

Changes in Occupational Structure

The post World War II era has witnessed significant changes in the occupational makeup of the labor force. The most important changes have been a continued decline in the absolute and relative size of the population employed in farm occupations, and increases in the proportions of the labor force employed in professional and technical and in service occupations (U.S. Bureau of the Census, 1975, p. 139). For youths there have been similar occupational changes, but the decline in agricultural employment has been much more drastic than for adults. This trend for youths, however, is much stronger for blacks than for whites. For white males aged 16-17, for example, the proportion of employed youths who were farm laborers declined from 36 to 7% between 1950 and 1970, whereas for nonwhite males aged 16-17 the corresponding decline was from 58 to 7% (Mare and Winship, 1979a). For youths generally, and blacks in particular, therefore, there has been a virtual revolution in the occupational structure of employed persons.

There are several explanations for the race differential in the downward shift in farm employment. Obviously, the opportunity for decline since 1950 was greater for blacks than for whites because of blacks' higher level of agricultural employment in 1950 (resulting from

past declines in the white farm population). In addition, however, blacks were disproportionately employed as tenant farmers, particularly on southern cotton farms. The mechanization of cotton farming, primarily in the 1950s, disproportionately reduced black employment (Fisher, 1973; Beale, 1976; U.S. Bureau of the Census, 1978). Moreover, during this period, the economic position of black farmers was weaker than that of white farmers. As farms consolidated, farms employing blacks were disproportionately eliminated (U.S. Bureau of the Census, 1978). If accurate, these interpretations of the differential decline in farming between blacks and whites imply that blacks generally, and black youth in particular, may have involuntarily lost a major source of employment and did not voluntarily leave farming for better job prospects.

These trends suggest that the decline in farm employment may be a major source of increasing unemployment for black youths (Iden, 1977; Seninger, 1978; Fisher, 1973; Stevenson, 1973). Theoretical arguments on the implications of occupational shifts for youth unemployment are not well developed. Nonetheless, the decline in farm employment may have increased black youth unemployment by several mechanisms. Large declines in one source of employment will, in the absence of offsetting occupational growth elsewhere, reduce the proportion of the population employed (Mare and Winship, 1979a). More specifically, however, the decline of farm employment may have both a short- and longer-term effect. In the short run, large declines in farm jobs create an immediate job shortage in rural areas. In principle, youths affected by these dislocations will eventually find employment elsewhere. In the interim, unemployment rates will increase. Fisher (1973) shows that unemployment rates of black males vary inversely with year-to-year changes in farm employment.

In the longer run, the reduction in farm employment may shift black youth unemployment upwards through at least two mechanisms. If employers in the nonagricultural sector do not reduce their discrimination against black youths (or reduce it too slowly), an influx of youths to that sector may not be absorbed. That is, if a fixed proportion of nonagricultural jobs is controlled by discriminating employers, then, as black youths enter that sector, they will experience barriers to employment that they would not have experienced in the absence of a decline in farm jobs. This argument is plausible, but we know of no independent empirical support for it. Moreover, it is inconsistent with the declining overall proportion of the labor force made up by black youths resulting from rising white youth labor force participation rates and increased schooling for blacks. Nonetheless, this mechanism merits further investigation.

There is a second, more plausible mechanism through which the decline in farm employment may have caused increased black youth unemployment. However much nonagricultural growth offsets reduced farm employment, the latter nonetheless consititutes a serious reduction in the number of jobs for unskilled workers. Thus, displaced black youths experience high unemployment not necessarily because fewer jobs exist, but because fewer jobs matched to their skill levels remain in the economy. Because black youths typically have less and poorer quality schooling and work experience than whites, they suffer most in a labor market that shifts from offering largely agricultural to almost exclusively nonagricultural employment. Of course, this trend may have been offset by rising black educational attainment over the postwar era, but the effectiveness of this rise in improving the employability of black youths is unknown.

In the absence of sound theory and of evidence on the quantitative impact of the decline in farm employment, its importance in accounting for youth employment trends cannot be stated. Nonetheless, trends in agricultural employment seem to us a likely source of a large amount of the deterioration in black teenage employment. The trend in farm employment, unlike a number of other social and economic trends cited as causes of youth labor market trends, has occurred uninformly throughout the 1950-1970 period when most of the deterioration in the relative standing of black teenagers occurred. Moreover, the decline in agricultural employment is consistent with the improving relative position of black youths with respect to occupational status and earnings. An explanation for the relative deterioration of the labor force **standing of black youths that** emphasizes the decline in agriculture, therefore, is consistent with major features of the postwar historical record. The implications of change in occupational structure should be a major research priority.

Residential and Industrial Location

The postwar era has seen considerable geographical movement of both families and jobs. Jobs have moved from central cities to suburbs, while families have moved from rural to urban areas and from central cities to suburbs. Migration streams for whites during this period have been predominantly from cities to suburbs, whereas for blacks they were largely from rural to urban areas up until the 1970s which saw the onset of significant black suburbanization.

This movement of residence and employment may be a source of rising teenage unemployment rates, particularly for blacks (Kain, 1968;

Friedlander, 1972; Anderson, 1976; DeVise, 1976; Myers and Phillips, 1979). By this argument, black youths are handicapped by their segregation in central cities when unskilled and semi-skilled employment is growing more rapidly in suburban areas (Kain, 1968; Anderson, 1976). Costs of transportation between central cities and suburban places of employment raise the costs to black youth of finding employment and reduce their effective wages if they secure a job (Myers and Phillips, 1979). As a result, central-city youths increasingly opt for unemployment. A corollary of this argument is that what employment growth has occurred in central cities has been mainly in professional, managerial, and skilled clerical jobs. Low-skilled inner-city youths, therefore, suffer from a "mismatch" between their weak qualifications and the available employment.

These arguments have many critics (Harrison, 1972, 1974a, 1974b, 1974c; Mooney, 1969; Offner and Saks, 1971; Offner, 1972; Leigh and Rawlins, 1974). In part this is because the empirical research designed to support them has been weak, suffering from numerous methodological flaws. In addition, however, equally plausible counterarguments are available. The flight of whites to the suburbs is not without its advantages for city dwellers. Departure of whites leaves open job opportunities for those who remain behind (Offner and Saks, 1971). More important, job growth in suburban areas has not outpaced that of central cities. Even within occupational and industrial categories, employment growth in the central cities has at least kept pace with suburban growth (Harrison, 1947c). It is not at all clear, therefore, that the movement of jobs and families has been a major source of employment trends.

Debate over the validity of the suburbanization-of-jobs/residential-segregation explanation of black employment trends has been sharply

polarized. On balance, the critics have thus far shown a greater willingness to sift through the complex evidence bearing upon the hypothesis and seem to us convincing that trends in employment and residential location are not major sources of employment trends. Nonetheless, the debate has focused primarily on trends in labor force status for blacks as a whole and not for black youths. Nor has there been a comprehensive effort to use Census and Current Population Survey data to measure labor force, residential, and employment location trends during the full postwar era and to assess possible ecological sources of trends in the youth labor force. There remains room for more useful research on this problem.

3. DEMOGRAPHIC SOURCES OF CHANGE

School Enrollment Trends

One of the most important changes in the youth population since World War II has been the dramatic upswing in school enrollment rates. Enrollment rates have increased for both black and white youths, although the increase for whites occurred mainly in the 1950s and 1960s, whereas for blacks it has occurred over the full postwar era, and particularly in the 1970s during which teenage black enrollment rates have achieved parity with those of whites. (For further discussion of these trends, see Mare and Winship, 1979a.)

School enrollment trends may have affected the labor force status of youth in a number of ways. In this section we note five possibilities and cite fragmentary evidence for their importance. First, and most obviously, increased school enrollment results in diminished rates of

labor force participation. For many youths schooling is a full-time task, and work is either impossible or undesirable. As a result, labor force participation is lower for students than for nonstudents (for example, Fearn, 1968; Bowen and Finegan, 1969; Lerman, 1970; Gustman and Steinmeier, 1979). Over time, therefore, as enrollment rates for black youths rise, labor force participation rates and the proportion of youths with jobs should decline. A number of commentators suggest that unemployment rates understate youth joblessness inasmuch as many discouraged job seekers withdraw from the labor force and are not counted as unemployed (Freeman, 1979a, 1979c; Congressional Budget Office, 1976, 1978). They have pointed to declining black labor force participation to support this view. But at least some of the decline in labor force participation and the proportion of youths with jobs may be simply a redistribution of youths into schools where labor force participation is naturally lower (Mare and Winship, 1979a, 1979b; Iden, 1977). (Of course, some youths may enter school because job opportunities are scarce [Duncan, 1965], but this does not explain long-run enrollment trends.)

Second, increased enrollments have affected labor force behavior by increasing educational attainment. Because of this, successive cohorts of black youths should be more competitive with white youths in the job market. Individuals with more education have lower probabilities of being unemployed (Katz, 1974; Conly, 1974; Feldstein and Ellwood, 1979). However, investigations of this relationship seldom control for other variables, so education may not have any causal relationship with unemployment. If it does, then the increased relative educational attainment of blacks should have lowered the black-white unemployment ratio.

Third, increased enrollments have increased the period of weak labor force attachment experienced by each cohort. Students, unlike other youths, are unlikely to be employed in jobs that they intend to keep for a long time. For instance, Lazear (1977), using the National Longitudinal Survey of Young Men, found that 92% of all students switched jobs upon graduation. Thus students may be frequently moving in and out of the labor force and between jobs and frequently experiencing unemployment in the process. Thus increased school enrollments may increase the length of this transitional period and raise unemployment rates. Kalachek (1973), Feldstein (1973), and Folk (1969) make a similar argument to explain high youth unemployment rates generally over the post World War II era.

Fourth, increased school enrollment have shifted the age at which out-of-school unemployment is most likely. If youths are mostly to experience unemployment right after they leave school, then increasing school enrollments will mean increasing the age when they are likely to be unemployed. Thus increased school enrollments redistribute unemployment from the earlier ages to later ones (Mare and Winship, 1979b). This is consistent with the fact that rising black youth unemployment rates now occur for 20-24 year olds, whereas they were previously confined to teenagers.

A fifth effect of enrollment trends is that schools have drawn the most employable youths out of the labor force. Although more youths may enroll in school when jobs are scarce than when they are plentiful (Duncan, 1965), it may be that it is precisely those individuals with the most ambition and ability--that is, who have the best employment prospects--who are most likely to remain in school and out of the labor force. This

may artificially deflate unemployment rates among students, although many highly able youths do not work while in school. But the main effect may be that the youth labor force largely comprises the least capable members of the age group (Bowen and Finegan, 1969; Feldstein and Ellwood, 1979; Kalachek, 1969). As a cohort ages, labor force participation rates rise and unemployment rates decline. In large part this reflects that the more able youths gradually enter the labor force as they finish their schooling at later ages than their less able peers (Feldstein and Ellwood, 1979). Over cohorts, as school enrollment rates rise, the selection process becomes more drastic. Although youths of lower ability are enrolling, the average "employability" of out-of-school youths is reduced. During the past two decades, as enrollment rates have risen disproportionately for blacks, the selection of the most capable young persons has become more severe. Since persons who leave school early become ever more concentrated at the bottom of the employability distribution, average levels of labor force participation and employment deteriorate for the out-of-school group.

There has been no conclusive research on this argument, but several pieces of evidence provide tentative support for it. Intracohort analysis of the determinants of employment status among not-enrolled youths shows that enrolled youths would average higher employment than their out-of-school counterparts had they elected to drop out rather than remain in school. This is indicated by a large (around .5) correlation between unmeasured factors predicting school enrollment status and factors predicting the employment status of not-enrolled youths (Meyer and Wise, 1979).

Further evidence that schools select the most employable youths comes from age and seasonal patterns of youth unemployment. First, older youths have much higher employment than younger youths. In part this reflects their greater maturity and attachment to work. But this pattern also reflects that at older ages, the most employable members of each cohort finally enter the labor force after they finish their schooling (Feldstein and Ellwood, 1979). Since the most able obtain the most schooling, they are most likely to be out of the labor force at the younger ages, causing higher unemployment rates for the younger group.

Finally, evidence on the effects of educational selectivity is provided by the seasonal unemployment pattern. Every summer the labor force receives large numbers of students, producing massive youth unemployment every June. For persons aged 16-24 unemployment is typically higher in June than at any other month. Remarkably, however, by August, unemployment rates for this group are lower than at any other month of the year. Youths are highly successful finding work over the summer. This suggests that students as a whole are a highly employable group and that when they finish school their employment prospects are bright relative to early dropouts. It might be suspected that the low late-summer unemployment merely reflects the overall level of economic activity during the summer. But unusually low unemployment is experienced in August by only the 16-24 year olds. No other age group has unusually low unemployment during this month, which would be the case were the seasonal pattern for youths is just the result of overall economic prosperity. (For evidence on this see, for example, U.S. Department of Labor, 1975, Tables 61 and 63.)

These results suggest that school enrollment trends may be important determinants of the declining employment of blacks in the labor force as well as of trends in labor force participation rates and employment ratios. As black youths enter school in greater numbers, the ranks of labor force participants are depleted of those youths most likely to find work. This may contribute to the secular rise in black youth unemployment rates.

We have suggested a number of mechanisms through which school enrollment trends may have affected youth labor force trends. Some of these arguments bear upon labor force participation, whereas others bear upon unemployment. Moreover, to some degree the effects of enrollment trends may be offsetting since enrollment raises educational attainment while it draws youths away from the labor market. Elsewhere we have examined several of the mechanisms discussed here (Mare and Winship, 1979a, 1979b), but further work needs to be done to assess the overall importance of enrollment trends.

Changes in the Size and Composition of the Armed Forces

The military is the largest employer of youth although the armed forces are not counted as employed. Changes in the size of the armed forces, however, affect the civilian youth labor force in a number of ways. In the past 20 years these changes have been sizable. During the 1960s there was a massive buildup because of the Vietnam War. Whites were disproportionately represented in the armed forces relative to blacks in this period. At the height of the war in 1968, for 18-24 year olds, 20% of white males but only 15% of black males were in the military. Since the War, with the establishment of the all-volunteer army, the proportion of white youths in the military has declined dramatically. In

1977 only 7% of white males were in the military. The decline for blacks, however, has been much less dramatic and, in recent years, black enlistment rates have exceeded those of whites. In 1977, 11% of black males aged 18-24 were in the military.

Changes in the size of the military affect the male civilian labor force in several ways. They alter the size and composition of the youth labor force, the age distribution of unemployed persons, and the work experience of the youth population.

Changes in the size of the youth labor force induced by military recruitment patterns can affect the position of youths relative to adults in the labor market. The Vietnam War caused a massive reduction in the youth labor force because many young men either were drafted, enlisted, or enrolled in school to avoid military service (Cooper, 1978). This contraction in the civilian labor force, plus increased economic activity during the War, should have tightened the market for youths and other low-skilled labor (Killingsworth and King, 1977). It is unclear, however, how this affected the relative status of black and white youths.

Changes in the size of the military also affect the composition of the civilian labor force. Eligibility for the military is partly based on performance on a mental ability test, which disqualifies the least able. This suggests that military recruits are less likely to have been unemployed had they not entered the armed forces than many of the persons who actually did not. Indirect evidence on this is found in research on the effect of labor market conditions on military enlistment. The unemployment rate has little or no effect on the enlistment rate. Rather, the available civilian wage is the most important economic factor determining enlistment, suggesting that enlistees would have been

employed, albeit perhaps not in the best-paying jobs, had they remained civilians (Kim, 1979; Fisher, 1969; Cooper, 1971; Kim et al., 1971). On the other hand, the military is less likely to recruit the most able youths, since they are most likely to pursue higher education (Cooper, 1978). Hence the military typically recruits persons of average ability. Thus the ability composition of the civilian labor force is affected by school enrollment and military enlistment rates. When enrollment and enlistment rates are high, the employability of the average youth in the labor force will be reduced because the most able will typically be in school, and the moderately able will often be in the military.

How might this affect the relative unemployment levels of black and white youths? During the Vietnam era, rates of school enrollment and participation in the armed forces were significantly higher for whites than for blacks. By the above argument, this circumstance kept black male unemployment lower (relative to that of whites) than it otherwise would have been. During the 1970s, however, relative to whites, blacks have sharply increased their enrollment and enlistment. As a result, the black civilian force has lost relatively more of its high- and moderate-ability individuals. This may explain the rising relative unemployment level of black males during the 1970s.

Increasing participation in the armed forces of black youths relative to that of whites also shifts the average age at which unemployment is experienced for black youths. When persons leave the military, they experience higher unemployment as they reintegrate themselves into civilian life. Eventually, however, veteran unemployment rates are no higher than those of nonveterans (Cutright, 1973; Grover and McEaddy, 1974). Thus

military service, like schooling, increases the age at which individuals are likely to be unemployed. As black armed forces participation has increased relative to that of whites, black unemployment has shifted to the older years of youth and early adulthood as servicemen return to civilian life.

Finally, military service may provide experience valuable in civilian life, although evidence on this is mixed (Norrblom, 1977; Cutright, 1973; Cooper, 1978; Kohen and Shields, 1977). No analyses to date have adequately controlled for selection into the military to assess properly the effect of the military (Heckman, 1978). This research does show, however, that some armed forces experiences provide valuable training for civilian employment (for example, being an airplane mechanic) whereas other experiences are of little use (for example, being an infantry soldier) (Cooper, 1978).

Although evidence on the impact of military trends on the youth labor force is fragmentary, there is considerable reason to suspect that recent armed forces trends account for part of the deteriorating relative standing of young black men. In particular, the increasing representation of blacks in the armed forces since the Vietnam War coupled with their rising school enrollment may be a major source of rising unemployment of black males in their twenties relative to that of their white counterparts. As noted above, the increase in relative unemployment levels of black youths 20 and over has occurred only since 1970, coinciding with the rising representation of blacks in the armed forces. Thus an explanation of labor force trends that focuses on the effects of armed forces trends is consistent with the most recent historical record. Once again, more work is needed to quantify the importance of these effects.

Marriage and Family Trends

For most of the population youth is a period of transition from living with parents, to the establishment of a new household, to marriage, and to childbearing. Each stage is associated with changes in labor force behavior. For men each step involves greater commitment to the labor force and need to work (Flaim and Gellner, 1972). For women the transition from dependence on parents to living singly makes employment more important, but the change from being single to being married without children has no clear impact on the need to work or not. And as women bear children, the norm is that they should leave the labor force in order to spend their time in the home.

During the past two decades there have been significant changes in patterns of marriage and family formation. The trends differ among race-sex groups. Since 1960, men's average age of marriage has steadily increased. For whites this increase has occurred gradually over the last two decades whereas for blacks the trend begins only in 1970, but is much stronger than for whites (Sweet, 1979b). For white males this trend has caused an increase in both time spent living with parents and time living singly away from the parental household. For blacks, however, it has caused an increase only in time spent living with parents (Sweet, 1979a). For whites these increases have occurred mostly among the college-educated, but for blacks the increase has occurred almost solely among high school dropouts (Sweet, 1979b). Once married, white males--but not blacks--have also increasingly delayed having children after marriage (Sweet, 1979b).

Similar but more dramatic changes have occurred for women. Both white and black women are marrying later, though the increase in average age of marriage has been greater for blacks. Unlike for men, however, the increases have been more uniform across education groups. Later marriage has meant both increases in time spent living with parents and living singly away from the parental home. The increase in time spent living alone, however, has been more pronounced for white women. An important cause of increased marriage age has been increases in educational attainment (Sweet, 1979a). As youths have lengthened their schooling, they have delayed marriage and childbearing. Even within school enrollment statuses, however, delays in marriage and childbearing have occurred.

Whether trends in marriage and family formation are causes of youth employment trends is unclear. One possibility, however, is that delayed marriage raises unemployment and reduces labor force participation for young men by delaying the point when youths must make a stable commitment to the labor force. Single, out-of-school youths may spend less time working because they are experimenting with a series of jobs, interspersed with periods of unemployment and labor force withdrawal (Osterman, 1978; Harwood, 1969). This pattern of activities is facilitated by remaining single because youths can often fall back on parental support and have less need to support other persons. Over time, therefore, as youths delay the formation of new households, their unemployment may increase. Since these delays primarily affect youths in their twenties, and increasing average ages of marriage have been much stronger for blacks since 1970, this may account for the relative increase in black male youth unemployment during the 1970s. Mare and Winship (1979a) provide some tentative empirical support for this argument.

For young women it is not clear that delaying marriage has a direct effect on labor force standing. One possibility is that delayed marriage increases labor force participation rates because young women are economically independent for increasing fractions of their lives, but that this also increases their likelihood of unemployment. In a period of rising labor force participation both in and out of marriage, however, the validity of this argument is hard to assess.

Of course, marriage trends may be more a consequence than a cause of labor force behavior. Poor labor force conditions may cause young persons to stay at home longer and delay new household formation. The importance of this effect is questionable, however, since the secular upswing in marriage age has been relatively insensitive to business cycle fluctuations. Still, longer swings in economic conditions may explain marriage trends (Easterlin, 1973).

In summary, the relationship between marriage and labor force trends is very complex and has not been adequately studied. There remains the possibility that marriage trends are a source of deterioration in the relative labor force standing of black males, but, on balance, they do not appear to be a major one.

Trends in Welfare Recipiency

Since the late 1960s welfare recipiency has increased dramatically. In 1967 there were 1,297,000 families receiving Aid to Families with Dependent Children (AFDC), whereas in 1977 there were 3,533,000 families (Ehrenberg, 1979). Most of the increased recipiency has been for young black women (Mare and Winship, 1979a). There is, however, no research

that has directly assessed whether or not increases in welfare payments have changed black youths' willingness to work. The evaluation of this question is complicated by the definition of recipiency. It is unlikely that youths will receive AFDC payments themselves unless they have families of their own. For those youths who do not have their own families, it is not clear what the definition of recipiency should be. Should youths be counted as receiving welfare if their parents are recipients, even though they may not benefit? Should persons be counted as recipients if they are living with someone other than their parents who is a recipient and they benefit indirectly from that recipiency? Do all welfare beneficiaries live in the same household as the nominal recipient?

Despite these definitional problems, there exists cross-sectional evidence on the effects of welfare recipiency on labor supply. Cross-sectional research shows that welfare recipiency decreases labor supply by increasing school enrollment rates (Mallar, 1977; Masters and Garfinkel, 1977). Net of the increases in school enrollment, though, there is no evidence that welfare recipiency reduces labor force participation. For instance, Rees and Gray (1979) find, controlling for school enrollment status and for family background, that welfare recipiency had no effect on either the total number of hours worked during the year or the probability of being employed. Hence, the net effect of welfare recipiency may be to reduce work, but through the substitution of schooling rather than a simple withdrawal into nonproductive activities.

Researchers have looked at the effect of welfare recipiency on labor supply, but not on employment. Theoretically, the effect is ambiguous. On the one hand, welfare recipiency should decrease employment by increasing

reservation wages. On the other hand, recipiency should decrease labor supply if other activities, for example schooling, are desirable. Unemployment will increase if the disemployment effect is larger than the labor supply effect, and it will decrease if the reverse is true. Unfortunately, we know of no empirical work that has attempted to estimate the relative size of these two effects for welfare recipiency. The problem here is the same as the effect of the minimum wage on unemployment behavior. There is clearly a disemployment effect, but it is unknown if labor supply will decrease to the same degree.

Mare and Winship (1979a) provide tentative evidence that some of the relative increase in unemployment and decrease in labor force participation in the 1970s for black women in their twenties may have resulted from increased recipiency of public assistance. The estimated effect, however, is not large. Moreover, this research does not take full account of the possible reciprocal causal relationship between welfare recipiency and labor force hardship. Plainly, complexities comparable to those faced in examining the effects of marital status arise in appraising welfare effects.

On balance, it seems unlikely that increased recipiency of public assistance is a major source of deterioration in the relative labor force standing of young black women. Nonetheless, research using longitudinal data that examines in detail the dynamics of welfare recipiency and labor force behavior would be valuable.

4. CONCLUSION

The introduction noted the major features of the trends in race differentials in youth unemployment and labor force participation since

World War II. These included deterioration in the relative position of black teenagers during the full postwar era and of blacks in their twenties since 1970, and improvement since 1960 in the relative wages and occupational standing of young blacks. Obviously, no single social or economic change straightforwardly explains such a complex set of trends. Despite limited research on changes in the youth labor force, it is nonetheless possible to evaluate explanations of the changes by examining their consistency with historical trends. On this basis we believe that a small number of the many factors discussed here may be important sources of labor force change. First, the deterioration in the relative labor force status of black teenagers since World War II may be largely a result of the decline in agricultural jobs for black youths over this period. Consolidation and mechanization of farms have reduced the large demand for unskilled labor historically filled by youths and, in the 1940s and 1950s, disproportionately by black youths. As farm jobs were eliminated, there was some compensating growth in the nonagricultural sector of the economy, but it is unlikely that jobs for workers of limited skill and experience were replaced in the numbers that they were eliminated. This conclusion is based on very limited research. Still, it is broadly consistent with trends in the 1950s and 1960s, unlike other popular explanations of the trend.

A second major source of labor force changes is the race differential in school enrollment trends. Consistent with other trends in racial socioeconomic equality, black enrollment rates have converged with those of whites. The increasing tendency of black youths to substitute schooling for work has considerably reduced their labor force participation rates. Over the postwar era school enrollment trends may also be a major cause of trends in the levels and patterns of black youth unemployment. Schools

select those youths who would most likely be employed were they not in school. Thus rising school enrollment reduces the average employability of those out of school and increases unemployment. Since increases in enrollment have been greater for blacks than for whites, black relative employment status has deteriorated. School enrollment trends may also shift the age pattern of unemployment. Prolonged schooling delays the process of labor force entry, when intermittent unemployment is most common. This strongly suggests that the increased relative unemployment of older black youths during the 1970s results in part from relative increases for blacks in average age of school withdrawal.

Finally, for black males in their twenties, rising relative unemployment levels during the 1970s may be partly caused by their rising levels of military service. In the 1970s the armed forces have changed from being disproportionately white to disproportionately black. The armed forces recruit youths who could do relatively well in the civilian labor market, rather than the least employable. As blacks have increased their military participation, therefore, their civilian labor force has disproportionately lost its more employable members, and its civilian unemployment rates have increased.

There is a unifying theme in the effects of agricultural, schooling, and military trends. Each reflects the elimination of historic differences in social standing between blacks and whites. In the past black youths were disproportionately concentrated in farm occupations and were underrepresented in schools and the armed forces. As racial discrimination has weakened, industry has been transformed, and black socioeconomic conditions have improved, these differentials have disappeared: Black and white youths now

hold farm jobs and attend school in similar proportions, and blacks are slightly overrepresented in the armed forces. By the arguments presented here, past inequalities between black and white youths "artificially" minimized differentials in labor force participation and unemployment. As racial equality in other spheres has been achieved, however, differentials in the youth labor market have been revealed. In the past, racial disparities in the youth labor market, a result of racial discrimination and poor preparation for the labor force, were concealed because black youths left school before whites and found jobs in the lowest-wage, lowest-skill sector of the economy. Now that those jobs are scarce and black youths match whites in their schooling patterns, true racial disparities are not revealed.

Having reached this conclusion, we are fully aware that it rests on meager research. We lack calculations that apportion trends in the race differential in labor force status into their sources. And none of the explanations discussed here has been satisfactorily modeled and tested through full use of extant data. Many of the ideas to which we have given short shrift, such as the roles of minimum wage legislation, social welfare payments, and labor market competition, may prove more compelling when examined more thoroughly. And those explanations that we have emphasized rest on large doses of conjecture. Plainly more work is needed.

The call for more research on pressing social issues is easily made, particularly by those of us in the research business. In reviewing the literature, however, we have been struck by the periodicity in concern and speculation about youth unemployment. There was concern in the early 1960s, in the late 1960s, and now again in the late 1970s. Yet sound theories and facts about changes in the youth labor force have been slow

to accumulate. Rather, commentators tend to reinvent old conjectures, in part because there has been little disciplined testing of hypotheses about youth unemployment trends. If research focused on assessing the ideas discussed in this report is carried out, there might be more effective policy discussion during future periods of concern about the youth labor market.

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