This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: The Youth Labor Market Problem: Its Nature, Causes, and Consequences

Volume Author/Editor: Richard B. Freeman and David A. Wise, eds.

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-26161-1

Volume URL: http://www.nber.org/books/free82-1

Publication Date: 1982

Chapter Title: The Youth Labor Market Problem in the United States: An Overview

Chapter Author: Richard B. Freeman, James L.. Medoff

Chapter URL: http://www.nber.org/chapters/c7871

Chapter pages in book: (p. 35 - 74)

# 3　The Youth Labor Market Problem in the United States: An Overview

Richard B. Freeman and James L. Medoff

The unemployed young person has replaced the unemployed breadwinner as the focus of much concern about joblessness in the United States and other countries. In part, the upsurge of interest reflects a major demographic development of the 1960s and 1970s—the increased proportion of young persons in the population—which has raised the youth share of the unemployed. In part, it also reflects an upward trend in rates of joblessness among some groups of young persons, most notably blacks, relative to the population as a whole. Considerable social concern has also been expressed about the correlates of youth joblessness—crime, violence in schools, illegitimate births, and suicide, among others—and about potential long-term consequences in the form of a "lost generation" of young workers. What are the quantitative dimensions of the youth joblessness problem in the United States? In what ways is youth unemployment similar or dissimilar to adult unemployment? How concentrated is the problem among minorities? To what extent is the lack of employment associated with other major social problems? What questions and topics must be addressed if we are to understand the nature of the youth labor market problem?

This chapter examines these questions with information from various sources. It presents an overview of the nature of the youth labor market problem in the U.S., sets out the principal patterns in the data, and develops the questions to which they give rise. Section 3.1 focuses on job market phenomena as depicted in Current Population Survey (CPS) and related data. It shows that the problem of high and increasing joblessness

is concentrated among black youths and the less educated, that it is intimately associated with movements into and out of the labor force, and that the youth labor market problem has wage as well as employment dimensions. Section 3.2 examines a number of major national problems—crime, violence in schools, illegitimate births, and suicide—which may be related to youth joblessness. Regardless of how one views the job market difficulties of the young, the interrelation between employment problems and other social ills clearly merits serious attention. The second section also considers briefly the research questions to which the quantitative analysis directs attention.

### 3.1    Quantitative Dimensions of Job Market Problems: Current Population Survey Evidence

There are several ways in which to measure the labor market position of young workers: through indicators of the amount of labor, the type of jobs held, rates of pay, and so on. Each of these measures has both advantages and disadvantages for analysis, highlighting some aspects of the position of the young while neglecting other aspects. The most widely used indicator, the rate of unemployment, provides a measure of the divergence between supply and demand at a point in time but has the disadvantage of being highly dependent on the self-reported job search of persons. Labor force participation rates offer evidence on the available supply of labor but suffer from the same problem. Because the young move into and out of the work force more frequently than members of many other groups, the distinction between being in the labor force and unemployed or being out of the labor force is tenuous, making these rates potentially misleading indicators of the position of the young. The ratio of employment to population is a "harder" statistic as it reflects "objective" numbers: employment can be measured with establishment as well as household survey data. The disadvantage of the employment to population ratio is that it fails to indicate the extent to which economic constraints prevent individuals from carrying out their desired activities.

With respect to other indicators, measures of the wage and type of job held by young persons are not as easy to interpret as the comparable measures for older workers because the young seek employment for differing reasons: to obtain short-term cash or for longer-run career purposes. To the extent that wages for jobs that offer good future prospects are lower than those for other jobs, the usual measure of the value of employment, wages, can be misleading. Therefore, for at least some purposes, it is important to obtain information on several characteristics of youth jobs, such as their permanent or temporary status, whether they have a future, and the extent of learning involved, as well as wage rates.

The various indicators of the position of youths in the labor market are, it should be stressed, interrelated. Decreases in the wages of the young are likely to increase employment, increased participation due to exogenous supply shifts will lower wages, and so forth. For this reason, and because of the multifaceted nature of the employment relation, a variety of indicators of the youth labor market are examined in this section. The amount of labor is measured by the rate of unemployment, the labor force participation rate, and the employment to population ratio, with particular attention given to the last statistic. Characteristics of jobs are measured by the broad industry and occupation of workers, which are associated with diverse employment characteristics, and by wages.

In addition to different indicators of labor market position, there are also several different surveys of persons which provide information on the young. The most widely used survey is the Current Population Survey of the U.S. Bureau of the Census, which obtains information by a random sample of over 50,000 households. Two other surveys that provide information on young workers are the National Longitudinal Survey of Young Men (NLS) and the National Longitudinal Survey of the High School Class of 1972 (NLS72). These surveys follow individuals over time, whereas the CPS is primarily a cross-sectional survey. In another study, we examine in detail the difference between the CPS and the longitudinal surveys.[1] Since the differences we find are fairly substantial, they should be considered in interpreting the CPS data used in this chapter.

### 3.1.1    Amount of Labor

Young workers have traditionally had higher rates of unemployment, lower rates of labor force participation, and lower employment to population ratios than other workers. While some of these differences reflect enrollment in school, even youths who are out of school have long exhibited. lower rates of work. Figures 3.1–3.3 graph the pattern of utilization rates over the postwar period for all young men, young men who are not enrolled in school, and young women, by specified age groups. They also graph the utilization rates that are predicted for each of these youth groups by a regression of that group's actual rates on the rates of "prime age" males, aged 35–44, for the postwar period. The patterns of actual rates over time reveal general trends in the utilization of youth labor, while deviations between actual and predicted rates provide some indication of how youth rates have moved relative to prime-age male rates (see the appendix for the regressions used to create figure 3.1).

Figures 3.1–3.3 highlight various important aspects of the employment problem in the United States for young persons. First, youth unemployment has trended upward both relative to adult rates and absolutely. The pattern of residuals from the regressions reveals a distinct upward trend
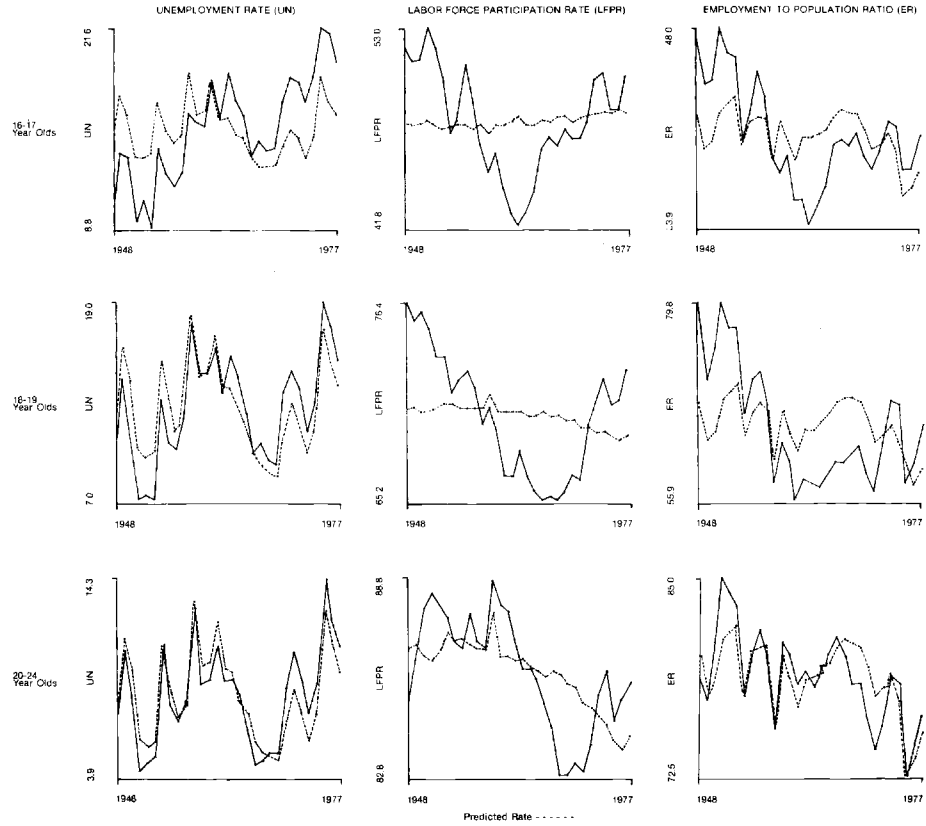
**Fig. 3.1**     Unemployment, Participation, and Employment Rates for All Young Men, 1948–77
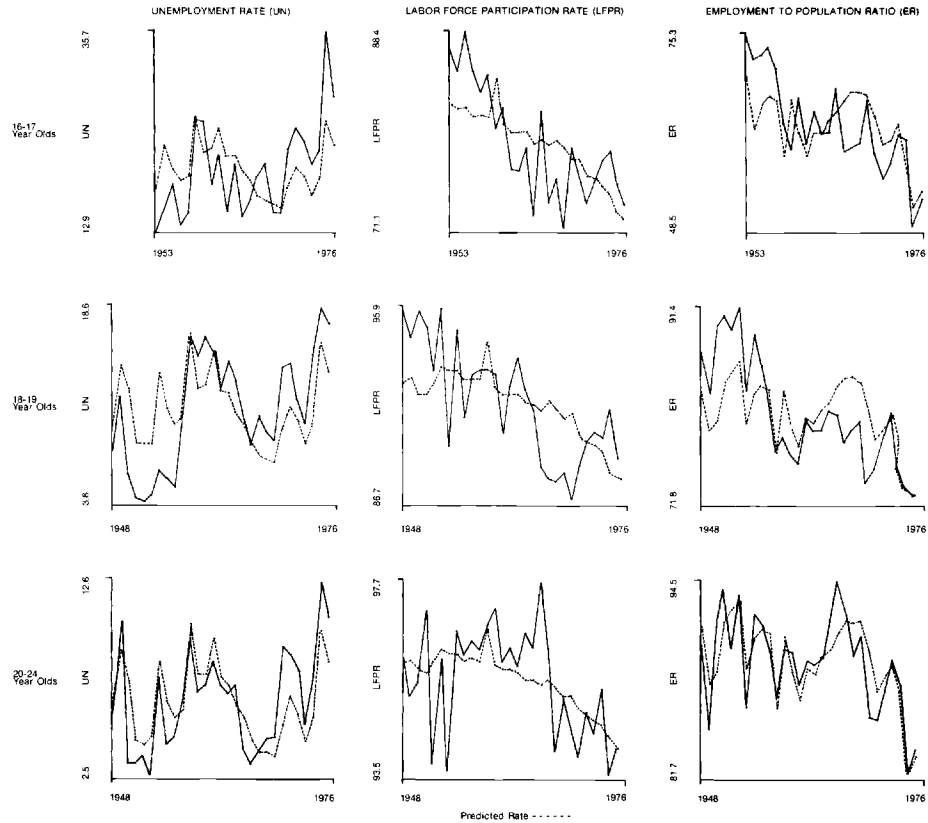
**Fig. 3.2**        Unemployment, Participation, and Employment Rates for Out-of-school Young Men, 1948–76
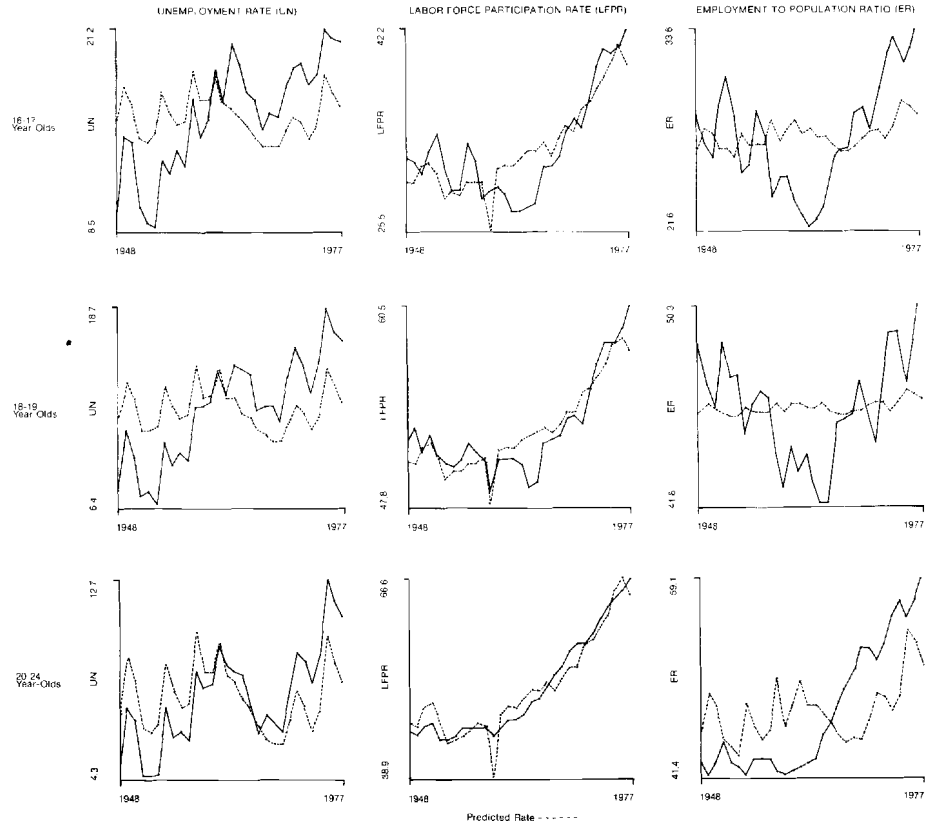
**Fig. 3.3**        Unemployment, Participation, and Employment Rates for All Young Women, 1948–77

in youth rates relative to prime-age male rates, particularly in the 1970s. Among all 16–17 year old men, for example, actual rates of unemployment average about three to four percentage points above the rates predicted in the 1970s compared to three to four percentage points below those predicted in the 1950s. Moreover, for the period 1948 to 1977, addition of a simple time trend to a regression of the rate of unemployment of either young men or young women of specified ages on the rate of unemployment of 35 to 44 year old men yields the following established trend coefficients (standard errors):

|  | Coefficients (standard error) of time trend: | |
| Age: | Male | Female |
| 16–17 | .31 (.02) | .34 (.03) |
| 18–19 | .17 (.02) | .32 (.02) |
| 20–24 | .10 (.02) | .18 (.01) |

However, in contrast to the clear picture of change in unemployment rates, figures 3.1–3.3 tell a more mixed and uneven story about trends in participation rates and employment ratios. Among all young men (figure 3.1), participation rates fall through the early 1960s for 16–17 year olds and through the late 1960s for 18–19 year olds, and then rise through the 1970s. Similarly, employment to population ratios show an upward trend after the early 1960s for the 16–17 and 18–19 age groups, and are consistently above those predicted for all three age groups after the early 1970s, which runs counter to the picture of marked deterioration found in the unemployment data.

The situation for out-of-school young men (figure 3.2), on the other hand, shows a more definite pattern of deterioration. Participation rates reveal an overall downward trend, without the consistently strong increases found for all young men during the 1970s. Similarly, employment to population ratios for the out-of-school group show a continuing downward trend through the 1970s, and, in contrast to those of all young men, are frequently below those predicted during the 1970s, particularly for the 16–17 and 18–19 age groups. As far as can be told from these graphs, utilization of *all* young men did not worsen markedly in the 1970's, while that of the out-of-school group did.

The measures of the labor market position of all young women in figure 3.3 show even greater divergences between the pattern of utilization as indicated by unemployment rates and the pattern as indicated by participation rates and employment ratios. Unemployment of young women rises both absolutely and relative to the unemployment rate of prime age men. However, employment ratios and participation rates also rise both absolutely and relative to the rates for prime-age males, implying more, rather than less, utilization of teenage and young women workers.

In sum, while the rate of unemployment among the young shows a deterioration relative to older male workers, the employment to population ratios and labor force participation ratios tell a different story, particularly for women. Overall, the data raise doubts as to the existence of a "job crisis" for all young workers.

### 3.1.2   Black Youth Joblessness

The absence of a definite deterioration in the employment of all young workers does not mean, however, that there is no youth employment crisis, but rather that the problem may be localized. Data on the employment, unemployment, and labor force participation rates of young workers by race from the Current Population Survey show a striking deterioration in the utilization of young blacks, which can be viewed as the essence of the youth employment problem in the United States. This claim is documented by the evidence on the overall magnitudes of employment and joblessness among white youths and among black and other youths from the early 1950s to the 1970s given in table 3.1. First, the employment to population ratios given in line 1 for young men show a marked drop for blacks compared to the rough stability for whites. Among 16–17 and 18–19 year old black men, the ratios drop sharply from 1954 to 1964, stabilize in the late 1960s, and then drop sharply in the 1970s recession. Among 20–24 year old black men, the ratios hold steady until the 1970s, but then drop noticeably. Regressions linking the black employment ratios to those for comparably aged whites and a time trend make clear the extent of deterioration. The estimated trend coefficients (standard errors) are: $-1.04$ (.05), $-1.06$ (.09), and $-.39$ (.12), for 16–17, 18–19, and 20–24 year olds respectively.[2] As a result of the downward trend in utilization, the ratio of black to white employment rates drops from rough equality in the early 1950s to .43 (16–17 year olds), .57 (18–19 year olds), and .78 (20–24 year olds) by 1977.

The decline in the employment to population rate for young black men has two components: a marked rise in the fraction out of the labor force (line 2), which contrasts with stable fractions for young whites; and an increase in the fraction in the labor force lacking jobs (line 3), which also occurs among whites, although to a much lesser extent. The relative importance of the two adverse developments can be gauged by decomposing the identity that links the employment $(E)$ to population $(P)$ ratio to the labor force participation rate $(L)$ and to the unemployment rate $(U \equiv L - E/P)$:

(1)               $E/P \equiv (L/P)\,(1 - U/L);$

or in log differential form:

(2)               $d\ln E/P \equiv d\ln L/P + d\ln (1 - U/L).$

**Table 3.1**      **Dimensions of the Minority Youth Employment Problem 1954–77[a]**

| | Black and other male | | | | White male | | | | Black and other female | | | | White female | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1954 | 1964 | 1969 | 1977 | 1954 | 1964 | 1969 | 1977 | 1954 | 1964 | 1969 | 1977 | 1954 | 1964 | 1969 | 1977 |
| **1. Percent with job** | | | | | | | | | | | | | | | | |
| Age: 16–17 | 40.4 | 27.6 | 28.4 | 18.9 | 40.5 | 36.5 | 42.7 | 44.3 | 19.8 | 12.4 | 16.8 | 12.5 | 25.8 | 23.6 | 30.3 | 37.5 |
| 18–19 | 66.9 | 51.7 | 51.2 | 36.9 | 61.2 | 57.7 | 61.1 | 65.2 | 29.6 | 32.9 | 33.7 | 28.0 | 47.2 | 43.1 | 49.1 | 54.3 |
| 20–24 | 75.7 | 78.1 | 77.3 | 61.2 | 77.9 | 79.4 | 78.8 | 78.7 | 43.1 | 43.8 | 51.6 | 45.4 | 41.6 | 45.3 | 53.3 | 61.4 |
| **2. Percent in labor force** | | | | | | | | | | | | | | | | |
| Age: 16–17 | 46.7 | 37.3 | 37.7 | 30.8 | 47.1 | 43.5 | 48.8 | 53.8 | 24.5 | 19.5 | 24.4 | 22.6 | 29.3 | 28.5 | 35.2 | 45.8 |
| 18–19 | 78.4 | 67.2 | 63.2 | 57.8 | 70.4 | 66.6 | 66.3 | 74.9 | 37.7 | 46.5 | 45.4 | 44.8 | 52.1 | 49.6 | 54.6 | 63.3 |
| 20–24 | 91.1 | 89.4 | 84.4 | 78.2 | 86.4 | 85.7 | 82.6 | 86.8 | 49.6 | 53.6 | 58.6 | 59.4 | 44.4 | 48.8 | 56.4 | 67.7 |
| **3. Percent of labor force unemployed** | | | | | | | | | | | | | | | | |
| Age: 16–17 | 13.4 | 25.9 | 24.7 | 38.7 | 14.0 | 16.1 | 12.5 | 17.6 | 19.1 | 36.5 | 31.2 | 44.7 | 12.0 | 17.1 | 13.8 | 18.2 |
| 18–19 | 14.7 | 23.1 | 19.0 | 36.1 | 13.0 | 13.4 | 7.9 | 13.0 | 21.6 | 29.2 | 25.7 | 37.4 | 9.4 | 13.2 | 10.0 | 14.2 |
| 20–24 | 16.9 | 12.6 | 8.4 | 21.7 | 9.8 | 7.4 | 4.6 | 9.3 | 13.2 | 18.3 | 12.0 | 23.6 | 6.4 | 7.1 | 5.5 | 9.3 |
| **4. Percent without work experience** | | | | | | | | | | | | | | | | |
| Age: 16–19 | | [c] | 32.7 | 55.3[b] | | [c] | 24.5 | 37.6[b] | | [c] | 60.0 | 68.7[b] | | [c] | 38.7 | 36.4[b] |
| 20–24 | | 9.7 | 12.8 | 20.8[b] | | 7.2 | 9.8 | 7.2[b] | | 34.2 | 30.3 | 39.8[b] | | 34.4 | 25.9 | 21.5[b] |

[a]Lines 1, 2, and 3 are based on figures from U.S. Department of Labor, *Employment and Training Report of the President, 1978*, tables A–4 and A–14 (pp. 187–88 and pp. 202–4).
Line 4 is based on figures from U.S. Department of Labor, Special Labor Force Reports *Work Experience of the Population: 1976* (table A–8, p. 20), 1969 (table A–8, p. A–15), 1964 (table A–8, p. A–11).

[b]Data are for 1976.

[c]In 1964, 49.6% of nonwhite males, 41.6% of white males, 63.5% of nonwhite females, and 56.1% of white females aged 14–19 had no work experience.

For the period 1954–1977, equation (2) yields the following decomposition of the secular change in the employment to population ratio for young black men in the three stated age groups:[3]

|  | Age groups: | | |
| --- | --- | --- | --- |
|  | 16–17 | 18–19 | 20–24 |
| $d$ln $E/P$ | − .76 | − .59 | − .21 |
| $d$ln $L/P$ | − .41 | − .30 | − .14 |
| $d$ln $(1 − U/L)$ | − .35 | − .29 | − .07 |

The drop in labor force participation is, according to these statistics, as or more important a factor in the falling employment ratio than is the increased rate of unemployment. This implies that changes in unemployment rates *understate* the extent of the unemployment problem facing young blacks and that the behavior of nonparticipants is critical to understanding the black youth unemployment problem.

Line 4 of table 3.1 examines the lack of employment for blacks from a different perspective: in terms of the fraction of young persons who obtain *no* work experience over a year. In contrast to the employment, labor force, and unemployment figures, which are based on monthly surveys of activity during a given week, these figures are obtained from a retrospective question (on the March CPS) about activity over an entire year. What stands out is the marked increase in the proportion of blacks without work for a whole year: from 10% of 20–24 year old blacks in 1964 to 21% of this group in 1976, whch contrasts to the rough stability in the proportion of white men aged 20–24 without work experience.

Lines 5–8 present comparable figures for black and white women. While the employment to population ratios and labor force participation rates for young black women do not trend downward in absolute terms, they drop sharply *relative* to the rates for white women. In 1954, the ratio of black and other to white female employment rates was .77 for 16–17 year olds, .63 for 18–19 year olds, and 1.04 for 20–24 year olds. By 1977, the increased employment of white women brought the ratios down to .33, .52, and .74 respectively.

The marked deterioration in the relative employment of young black workers shown in 3.1 constitutes one of the major puzzles about the youth labor market in the United States and thus one of the prime questions for future research: Why has the utilization of young black workers declined relative to that of young white workers?

The striking difference in the labor force participation rates of 16–24 year old blacks and whites in the 1970s, which accounts for much of the difference in employment to population ratios, is examined further in table 3.2 which gives the percentage distribution of black and white young persons by various exclusive labor market categories from 1976 to 1973. Three basic differences between blacks and whites stand out in the

**Table 3.2**          **Labor Market Status: May 1976, 1977, 1978[a]**

| Age and status | All young persons | | | | | | Out-of-school young persons | |
|---|---|---|---|---|---|---|---|---|
| | May 1976 | | May 1977 | | May 1978 | | May 1978 | |
| | Black | White | Black | White | Black | White | Black | White |
| *16–17* | | | | | | | | |
| Working | 12.4 | 36.7 | 11.4 | 38.8 | 12.0 | 41.9 | 32.7 | 64.4 |
| Not working | 87.6 | 63.3 | 88.6 | 61.2 | 88.0 | 58.1 | 67.3 | 35.6 |
| With jobs | 0.7 | 1.6 | 0.1 | 1.5 | 1.0 | 1.7 | 4.3 | 2.6 |
| Without jobs | 86.9 | 61.7 | 88.4 | 59.7 | 86.9 | 56.4 | 63.0 | 33.1 |
| Have looked | 17.3 | 13.3 | 18.1 | 13.9 | 16.2 | 13.1 | 26.5 | 13.2 |
| Available for work and looking[c] | 10.7 | 8.3 | 9.7 | 7.8 | 11.0 | 7.8 | 23.8 | 12.1 |
| Not looking actively | 0.6 | 0.3 | 0.5 | 0.4 | 0.7 | 0.2 | 2.8 | 0.4 |
| Not available for work[d] | 6.0 | 4.7 | 7.8 | 5.8 | 4.6 | 5.1 | 0.0 | 0.7 |
| Not in labor force | 69.6 | 48.4 | 70.4 | 45.8 | 70.7 | 43.3 | 36.4 | 19.9 |
| *18–19* | | | | | | | | |
| Working | 26.1 | 56.5 | 25.1 | 56.6 | 29.4 | 58.9 | 42.3 | 74.5 |
| Not working | 73.9 | 43.5 | 74.9 | 43.4 | 70.6 | 41.1 | 57.7 | 25.5 |
| With jobs[b] | 1.2 | 2.7 | 1.3 | 2.9 | 1.6 | 2.3 | 2.4 | 2.4 |
| Without jobs | 72.6 | 40.8 | 73.6 | 40.5 | 68.9 | 38.8 | 55.3 | 23.1 |
| Have looked | 20.5 | 12.3 | 23.6 | 12.3 | 23.5 | 11.0 | 28.0 | 8.0 |
| Available for work and looking[c] | 15.7 | 8.0 | 17.2 | 7.8 | 19.9 | 6.8 | 26.1 | 7.5 |
| Not looking actively | 0.6 | 0.2 | 0.7 | 0.4 | 1.2 | 0.3 | 1.5 | 0.3 |
| Not available for work[d] | 4.2 | 4.0 | 5.8 | 4.1 | 2.4 | 4.0 | 4.4 | 0.2 |
| Not in labor force | 52.2 | 28.6 | 50.0 | 28.2 | 45.4 | 27.8 | 27.2 | 15.1 |
| *20–24* | | | | | | | | |
| Working | 51.4 | 64.7 | 48.7 | 66.9 | 50.3 | 68.9 | 57.3 | 75.9 |
| Not working | 48.6 | 35.3 | 51.3 | 33.1 | 49.7 | 31.1 | 42.7 | 24.1 |
| With jobs[b] | 3.0 | 3.7 | 4.0 | 3.2 | 3.8 | 3.4 | 4.5 | 3.5 |
| Without jobs | 45.6 | 31.6 | 47.3 | 29.8 | 45.9 | 27.7 | 38.2 | 20.7 |
| Have looked | 15.5 | 8.5 | 17.2 | 8.1 | 15.5 | 6.7 | 15.2 | 5.3 |
| Available for work and looking[c] | 13.6 | 6.7 | 15.1 | 5.8 | 13.7 | 4.9 | 14.5 | 4.9 |
| Not looking actively | 0.4 | 0.2 | 0.6 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 |
| Not available for work[d] | 1.5 | 1.6 | 1.5 | 2.2 | 1.5 | 1.7 | 0.5 | 0.3 |
| Not in labor force | 30.1 | 23.1 | 30.1 | 21.7 | 30.4 | 21.0 | 23.0 | 15.3 |

[a]Based on weighted counts with the appropriate Current Population Surveys.

[b]Includes employed workers not working because of illness, vacation, bad weather, or labor dispute and unemployed workers on temporary or indefinite layoff or about to start a new job.

[c]Includes job losers, job quitters, workers who left school, and those wanting temporary work.

[d]Includes people who already have jobs and those unavailable because of school or temporary illness.

table. The first is the sizable differential in the proportion of young persons working: in each age group the proportion of whites working exceeds that of blacks by more than 10 percentage points. Second is the extent to which differentials are associated with differences in the fraction not in the labor force, as opposed to unemployed. In 1978, for instance, 90% of the 29.9 percentage point gap in the fraction working among 16–17 year olds is due to the fraction not in the work force; 60% of the 29.5 point gap among 18–19 year olds and 51% of the 18.6 point gap among 20–24 year olds are also associated with persons not in the labor force. The possibility that the labor force participation differences between young blacks and whites are due to differential propensities to enroll in school is, it should be stressed, rejected by the data. As can be seen in the last two columns of table 3.2, even larger differences are found between blacks and whites out of school than are found in the overall population.

The differential patterns and trends in the employment of young blacks and whites are examined further in table 3.3, which presents the employment, labor force, and unemployment rates of out-of-school high school graduates and dropouts. Lines 1 and 2 deal with all 16–24 year old male high school graduates or dropouts while lines 3 and 4 treat males and females who either graduated or dropped out in the given year. The figures in lines 1 and 2 show that the percentages of black male high school graduates or dropouts with jobs are much lower than the percentages for comparable young white men and that, after a modest decline from 1964 to 1969, the differentials grew sharply between 1969 and 1976, when black labor participation rates fell and unemployment rates rose. Lines 3 and 4 tell a similar story for persons in the relevant graduating class or dropout population. The magnitudes of some of the differences in 1976 are startling, to say the least. According to the CPS survey only 39% of black high school graduates in the class of 1976 who were not enrolled in college were employed in October 1976 compared to 73% of their white peers; the black participation rate was 16 points below that for whites; and the unemployment rate was nearly three times as high for blacks. Among dropouts only 20% of black youths compared to 50% of white youths were employed, with a 23 point difference in participation rates and a twofold differential in unemployment rates.

Because a sizable proportion of black/white differences in youth employment results from differences in labor force behavior, it is important to examine with the Current Population Survey the position of individuals who are not participants in the labor force. Table 3.4 records the percentage of 16–19 and 20–24 year old nonparticipants who are in and out of school, the percentage of these groups who report that they do or do not want a job in the survey week, and their activity or reason for not seeking employment. For men, the data suggest that most nonpartici-

**Table 3.3             Employment of High School Graduates and Dropouts 1960–76[a]**

| Age and status | Black and other | | | White | | | |
|---|---|---|---|---|---|---|---|
| | 1964 | 1969 | 1976 | 1960 | 1964 | 1969 | 1976 |
| 1. All male high school graduates not enrolled in college 16–24[a] | | | | | | | |
| a. Percent with a job | 75.8 | 81.6 | 67.3 | | 86.5 | 88.1 | 87.0 |
| b. Percent in labor force | 93.3 | 91.5 | 86.1 | | 94.9 | 93.8 | 95.4 |
| c. Percent of labor force unemployed | 18.8 | 11.3 | 22.0 | | 8.9 | 6.0 | 8.9 |
| 2. Male high school dropouts 16–24[b] | | | | | | | |
| a. Percent with a job | 70.3 | 72.7 | 50.4 | | 76.1 | 74.7 | 71.1 |
| b. Percent in labor force | 85.8 | 83.0 | 73.6 | | 88.1 | 83.7 | 88.5 |
| c. Percent of labor force unemployed | 18.1 | 12.4 | 31.5 | | 13.6 | 10.8 | 19.7 |
| 3. Male and female high school graduates in reported year not enrolled in college | | | | | | | |
| a. Percent with a job | 52.3 | 50.0 | 39.0 | 67.0 | 64.6 | 73.4 | 72.9 |
| b. Percent in labor force | 81.1 | 72.6 | 70.3 | 77.0 | 77.5 | 80.2 | 85.9 |
| c. Percent of labor force unemployed | 35.6 | 31.2 | 44.5 | 13.0 | 16.7 | 8.5 | 15.1 |
| 4. Male and female school dropouts in reported year | | | | | | | |
| a. Percent with a job | 49.3 | 49.3 | 19.7 | 48.7 | 39.2 | 51.4 | 50.2 |
| b. Percent in labor force | 63.4 | 62.7 | 46.2 | 59.7 | 52.8 | 60.9 | 69.2 |
| c. Percent of labor force unemployed | 22.2 | 21.3 | 57.3 | 18.4 | 25.7 | 15.5 | 27.4 |

[a]All figures are taken from *Employment of High School Graduates and Dropouts*, 1960 (table 2, p. 465, table A, p. A–5); 1964 (table 1, p. 639, table 4, p. 642); 1969 (table 2 and table 3, p. 38); 1976 (table 3, p. A–13, table K, p. A–18).
[b]1964 and 1969 figures in lines 1 and 2 include male graduates aged 16–21 only.

pants, including those out of school, do not in fact want a job in the survey week, but does not elucidate the reasons why they are not seeking work. Two-thirds of 16–19 year old out-of-school male nonparticipants do not want a job for "other" (unknown) reasons while half of 20–24 year old out-of-school male nonparticipants are also reported as not wanting a job for "other" reasons. Among 16–19 year old out-of-school women, the proportion who do not want a job for "other" reasons is about one-third. Among 20–24 year olds, however, it is clear that choice of household activities causes people to be out of the labor force.

The figures in columns 5 and 6 of the table show a much higher proportion of out-of-the-labor force blacks wanting a job but "discouraged" because they think they cannot get a job or for "other" reasons. Thirty-six percent of out-of-school 16–24 year old black nonparticipants

**Table 3.4**     **Distribution of Nonparticipants in the Labor Force, by School Status and Desire for Work, 1977[a]**

| | All races | | | | Both sexes | |
|---|---|---|---|---|---|---|
| | Male workers | | Female workers | | White | Black and other |
| Status | 16–19 | 20–24 | 16–19 | 20–24 | 16–24 | 16–24 |
| Total out of labor force | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| In school | 80.8 | 71.0 | 67.6 | 23.5 | 58.9 | 60.3 |
| want a job now | 21.4 | 15.7 | 19.6 | 16.2 | 18.3 | 23.6 |
| do not want a job now | 78.6 | 84.3 | 80.4 | 83.8 | 81.7 | 76.4 |
| Out of school | 19.2 | 29.0 | 32.4 | 76.5 | 41.1 | 39.7 |
| want a job now but | 27.1 | 34.7 | 22.5 | 18.8 | 18.7 | 35.6 |
| ill, disabled | 1.3 | 6.3 | .9 | .9 | 1.4 | 1.3 |
| think cannot get job | 11.3 | 12.3 | 6.9 | 3.6 | 4.8 | 11.6 |
| household responsibility | — | — | 7.7 | 9.3 | 5.5 | 12.9 |
| other reasons | 14.5 | 16.2 | 7.0 | 4.9 | 7.1 | 9.9 |
| do not want a job now | 73.0 | 65.5 | 77.5 | 81.2 | 81.3 | 64.2 |
| ill, disabled | 3.8 | 15.7 | 1.5 | 2.4 | 3.3 | 3.6 |
| keeping house | 2.5 | 1.0 | 43.9 | 71.4 | 53.2 | 35.3 |
| other | 66.8 | 48.8 | 32.2 | 7.4 | 24.8 | 25.1 |

[a]U.S. Department of Labor, *Employment and Earnings*, vol. 25, no. 1 Survey, 1978, table 39, p. 167 and table 40, p. 168. Columns may not add because of rounding.

desire a job compared to 19% of their white peers. While defining samples as including women as well as men keeping house the main reason for not wanting a job, one-quarter of both black and white groups do not want a job for "other" reasons.

The sizable differences in labor force participation rates between young blacks and whites, the declining rate of participation among young blacks, and the lack of information about unenrolled nonparticipants direct attention to a second major research question, the answer to which is needed in order to understand the youth labor market problem in the United States: What are the out-of-the-labor force youths doing and why have they left the work force?

While much of the difference between the employment of young black and white workers is associated with differences in labor force participation, there are also sizable interracial differences in the proportion of young persons available for work and looking for work, particularly in the older age groups. According to table 3.2, 17.2% of 18–19 year old blacks, for example, were available and looking in 1977 compared to 7.8% of 18–19 year old whites, while 15.1% of 20–24 year old blacks were looking compared to 5.8% of 20–24 year old whites.

What are the direct causes of this differential in unemployment? Table 3.5 presents data on the proportion of black and white labor force unemployed for several "direct" reasons: loss of job, quitting, and entrance into the labor force, with this last group being divided between reentrants, defined as those who previously worked at a full-time job lasting two weeks or longer but who were out of the labor force prior to beginning to look for work, and new entrants, defined as persons who never worked at a full-time job lasting two weeks or longer. The figures direct attention to two factors in the high unemployment rate of black youngsters: difficulty in obtaining an initial job upon entry to the work force, which is the prime cause of black/white differences among 16–17 year olds and 18–19 year olds; and loss of jobs, which explains the bulk of differences among 20–24 year olds.

The differences in the proportions of black and white teenagers who are unemployed entrants are remarkable. In 1969, 11.4 of the 13.9 percentage point difference between the unemployment rates of 16–17 year old blacks and whites was attributable to entrants; 5.5 points of the 12.8 percentage point differential between 18–19 year olds was also due to entrants. In 1978, the relevant differences were 28.8 of 30.2 points for 16–17 year olds, and 26.0 of 29.0 points for 18–19 year olds. By contrast, differential rates of job leaving had very little impact on the overall differential in unemployment rates, and rates of job loss had only a slight effect on the difference in unemployment rates by race among 16–17 year olds and a moderate effect on the differences in unemployment rates by race among 18–19 year olds.

Table 3.5          Direct Cause of Youth Unemployment, 1969-78[a]

| | Black | | | White | | |
|---|---|---|---|---|---|---|
| Age and status | 1969 | 1975 | 1978 | 1969 | 1975 | 1978 |
| *16–17* | | | | | | |
| Total unemployment rate | 24.6 | 42.4 | 44.0 | 10.7 | 17.7 | 13.8 |
| losers | 2.7 | 5.6 | 3.4 | 1.4 | 3.3 | 1.5 |
| leavers | 2.4 | 1.8 | 0.8 | 1.0 | 1.4 | 1.3 |
| total entrants | 19.6 | 35.1 | 39.8 | 8.2 | 13.0 | 11.0 |
| reentrants | 7.7 | 19.5 | 11.9 | 3.5 | 5.0 | 4.2 |
| new entrants | 11.9 | 15.6 | 28.0 | 4.7 | 8.0 | 6.8 |
| *18–19* | | | | | | |
| Total unemployment rate | 18.5 | 36.7 | 38.0 | 5.7 | 15.9 | 9.0 |
| losers | 5.4 | 13.1 | 4.8 | 1.9 | 7.2 | 2.7 |
| leavers | 4.5 | 0.7 | 2.7 | 0.7 | 1.3 | 1.9 |
| total entrants | 8.6 | 22.9 | 30.5 | 3.1 | 7.4 | 4.5 |
| reentrants | 8.1 | 14.1 | 17.8 | 2.5 | 4.8 | 2.9 |
| new entrants | .05 | 8.8 | 12.7 | 0.6 | 2.6 | 1.6 |
| *20–24* | | | | | | |
| Total unemployment rate | 7.1 | 28.3 | 18.8 | 4.4 | 13.6 | 6.6 |
| losers | 2.5 | 18.0 | 8.7 | 1.6 | 8.7 | 3.1 |
| leavers | 2.7 | 1.7 | 2.2 | 1.0 | 1.0 | 1.2 |
| total entrants | 2.0 | 8.7 | 7.9 | 1.7 | 4.0 | 2.3 |
| reentrants | 1.5 | 5.8 | 5.1 | 1.5 | 3.6 | 1.8 |
| new entrants | 0.5 | 2.9 | 2.9 | 0.2 | 0.4 | 0.5 |

[a]Weighted counts from the appropriate May CPS tapes.

The high proportion of young black labor force participants in the entrant and unemployed categories could be due to one of two factors: an especially large number of black entrants or an especially high rate of unemployment among entrants. That the problem is largely one of inability to find a job upon entry rather than a high reentry rate can be seen by comparing black and total entry rates, defined as the proportion of persons who have entered the labor force in a month relative to the number in the labor force. For blacks, Clark and Summers,[4] using CPS data, report a rate of flow out of the labor force into the labor force of .19, which, given a ratio of labor force participants to nonparticipants of about 1 to 1 for the group, yields an entry force of .19. For all men, Clark and Summers report a rate of flow from out of the labor force into the labor force of .21 which, at a ratio of labor force nonparticipants of about 2 to 3 gives an entry rate of .14 (= .21 × 2/3). The 5 percentage point differential in entry rates falls far short of the 10 to 25 point differential in rates of unemployment among new entrants in table 3.5. More direct evidence from Clark and Summers on the probability that new entrants obtain jobs immediately upon entry confirms the interpretation of table 3.5 in terms of the difficulty that blacks have in finding jobs. According to their data, 51% of blacks compared to 36% of whites move from the labor

force to unemployment rather than employment.[5] Compilation of data from the NLS reveals the same pattern of flows, although the estimates vary somewhat from those derived from the CPS.

Finally, it is important to note that the increased rate of unemployment among young blacks from 1969 to 1978 can be attributed to increased unemployment among new entrants and increased unemployment due to losses of jobs:

| Age | Change in unemployment | Change in losers rate | Change in entrants rate |
|-----|-----|-----|-----|
| 16–17 | 19.4 | 0.7 | 20.2 |
| 18–19 | 19.5 | – 0.6 | 21.9 |
| 20–24 | 11.7 | 6.2 | 5.9 |

In short, the evidence on direct causes of unemployment suggests that, for teenagers, failure to obtain a job rapidly upon entrance into the market and (for 20–24 year olds) a high job loss rate constitute major labor market problems, raising additional questions regarding the nature of the youth labor market: Why do young blacks have greater problems in finding a first job than young whites? Why are young blacks laid off more frequently than young whites?

### 3.1.3  Characteristics of Employment

The labor market position of workers depends not only on whether they hold a job or not but also on the type of job and rate of pay. In this section we will compare the industrial and occupational distribution of young male workers to that of all male workers, the percentage of young workers with part-time as opposed to full-time positions to the same percentage for all workers, and the earnings of young workers to the earnings of all workers. The data show that the young are concentrated in a different set of jobs from other workers, are especially likely to work part-time, and have experienced sizable declines in relative earnings in the period studied.

Evidence on the industrial and occupational position of young and all male workers is given in table 3.6, which records percentages employed in one-digit industries and occupations from the decennial Censuses of Population, and in table 3.7, which presents similar percentages from Current Population Surveys. The divergence between the employment distributions of young and all workers is summarized with an Index of Structural Differences (ISD), defined as the sum of the absolute values of the percentage point differences between the groups. Formally, if $\alpha_{ij}$ is the percentage of workers in age group $i$ in the $j$th category and $\alpha_{\cdot j}$ is the percentage of all workers in the category, the index is defined for the age group $i$ as $\sum_j |\alpha_{ij} - \alpha_{\cdot j}|$.

Table 3.6 The Industrial and Occupational Distribution of the Employment of Young and All Male Workers Census of Population (1950–70)[a]

| Industry or occupation | 1950 | | | | 1960 | | | | 1970 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16–17 | 18–19 | 20–24 | Total[b] | 16–17 | 18–19 | 20–24 | Total | 16–17 | 18–19 | 20–24 | Total |
| Industries | | | | | | | | | | | | |
| Agriculture | 39.2 | 24.5 | 15.0 | 15.9 | 18.1 | 11.8 | 7.4 | 9.0 | 8.8 | 5.7 | 3.8 | 5.3 |
| Mining | .5 | 1.5 | 2.3 | 2.2 | .2 | .8 | 1.2 | 1.4 | .2 | .7 | 1.1 | 1.2 |
| Construction | 4.0 | 6.6 | 8.0 | 8.2 | 3.5 | 6.9 | 8.4 | 8.4 | 3.5 | 6.5 | 8.4 | 9.1 |
| Manufacturing | 15.0 | 26.5 | 30.0 | 27.0 | 15.5 | 25.5 | 32.6 | 30.2 | 13.1 | 24.7 | 31.0 | 29.7 |
| Transp., etc. | 2.4 | 5.1 | 8.9 | 9.2 | 1.9 | 3.8 | 6.6 | 8.5 | 2.0 | 4.8 | 7.7 | 8.6 |
| Trade | 23.7 | 22.0 | 18.8 | 17.1 | 40.5 | 29.3 | 19.6 | 17.0 | 52.5 | 37.0 | 21.3 | 18.9 |
| Finance | .5 | 1.6 | 2.0 | 2.8 | .8 | 1.7 | 2.8 | 3.4 | 1.1 | 1.7 | 3.7 | 4.0 |
| Bus and repair | 1.8 | 2.5 | 3.4 | 3.0 | 2.9 | 3.5 | 3.3 | 2.9 | 3.8 | 3.9 | 3.9 | 3.6 |
| Pers. service | 2.9 | 2.6 | 2.4 | 2.9 | 4.3 | 2.8 | 2.1 | 2.5 | 3.6 | 2.2 | 1.8 | 2.1 |
| Ent. and rec. | 4.4 | 2.0 | 1.2 | 1.0 | 3.5 | 1.6 | .9 | .8 | 3.2 | 1.7 | 1.1 | .9 |
| Prof. and rel. | 1.6 | 2.4 | 3.5 | 4.8 | 3.6 | 5.4 | 6.8 | 6.9 | 7.2 | 9.2 | 12.1 | 10.4 |
| Public admin. | .4 | .9 | 3.2 | 4.6 | .4 | 1.3 | 3.3 | 5.3 | 1.0 | 1.9 | 4.2 | 6.1 |
| Not reported | 3.4 | 1.7 | 1.4 | 1.3 | 4.7 | 5.7 | 5.1 | 3.6 | | | | |
| Index of structural differences | 68.9 | 29.5 | 10.8 | | 75.3 | 35.5 | 12.3 | | 82.1 | 39.3 | 11.6 | |

| Occupations | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Prof. tech. and kindred | .5 | 2.1 | 5.5 | 7.3 | 1.3 | 3.3 | 9.3 | 10.3 | 1.7 | 4.2 | 14.5 | 14.4 |
| Farmers and managers | 2.7 | 3.6 | 5.6 | 10.4 | 1.8 | 1.7 | 2.0 | 5.5 | .4 | .5 | .9 | 2.8 |
| Managers ex farmers | .5 | 1.2 | 3.4 | 10.5 | .5 | 1.3 | 3.8 | 10.6 | .7 | 1.6 | 4.9 | 11.2 |
| Clerical | 4.8 | 9.4 | 9.4 | 6.5 | 7.8 | 11.3 | 10.3 | 7.0 | 7.9 | 11.4 | 11.3 | 7.6 |
| Sales | 10.7 | 7.5 | 6.9 | 6.4 | 13.8 | 7.8 | 6.2 | 6.9 | 9.3 | 6.7 | 6.2 | 6.9 |
| Craftsmen and foremen | 3.4 | 8.1 | 14.9 | 18.7 | 4.6 | 10.1 | 15.4 | 19.5 | 5.6 | 12.4 | 18.5 | 21.2 |
| Operatives | 15.9 | 25.8 | 28.1 | 20.1 | 18.5 | 26.0 | 26.5 | 19.9 | 18.1 | 26.7 | 24.1 | 19.5 |
| Private household | .2 | .1 | .1 | .2 | .5 | .2 | .1 | .1 | .3 | .1 | .1 | .1 |
| Service ex priv. | 9.7 | 6.0 | 4.6 | 5.9 | 11.5 | 8.0 | 5.6 | 6.0 | 24.8 | 14.1 | 8.1 | 8.0 |
| Farm laborers | 35.7 | 20.0 | 8.6 | 4.9 | 14.7 | 8.8 | 4.4 | 2.7 | 7.0 | 4.1 | 2.1 | 1.7 |
| Laborers ex farm and mine | 13.0 | 14.5 | 11.5 | 8.1 | 19.1 | 14.2 | 9.4 | 6.9 | 24.1 | 18.1 | 9.3 | 6.6 |
| Not reported | 2.6 | 1.7 | 1.3 | 1.1 | 5.8 | 7.3 | 6.6 | 4.6 | | | | |
| Index of structural differences | 89.5 | 63.3 | 37.4 | | 76.9 | 56.3 | 30.6 | | 85.1 | 62.1 | 23.3 | |

**Table 3.7** The Industrial and Occupational Distribution of the Employment of Young and All Male Workers; Current Population Survey: May 1969, 1973, 1978[a]

| Industries | 1969 | | | | 1973 | | | | 1978 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16–17 | 18–19 | 20–24 | Total[b] | 16–17 | 18–19 | 20–24 | Total[b] | 16–17 | 18–19 | 20–24 | Total[b] |
| Agriculture | 8.7 | 4.9 | 2.9 | 2.6 | 6.8 | 4.4 | 3.1 | 2.5 | 6.5 | 5.0 | 3.5 | 2.6 |
| Mining | .1 | .7 | .7 | 1.1 | .1 | .8 | 1.1 | 1.2 | .2 | 1.0 | 1.5 | 1.4 |
| Construction | 4.5 | 7.8 | 8.7 | 9.2 | 5.2 | 11.7 | 11.7 | 9.7 | 5.0 | 11.2 | 13.1 | 9.4 |
| Manufacturing | 11.5 | 24.5 | 37.9 | 35.2 | 12.0 | 24.6 | 29.2 | 31.6 | 10.7 | 19.7 | 28.0 | 29.2 |
| Transportation, etc. | 2.3 | 4.7 | 8.0 | 9.1 | 1.9 | 3.9 | 7.5 | 8.8 | 2.5 | 3.8 | 6.9 | 9.1 |
| Trade | 46.9 | 35.7 | 17.5 | 16.7 | 49.1 | 35.4 | 22.4 | 18.5 | 52.2 | 38.1 | 24.2 | 19.4 |
| Finance | 1.1 | 1.9 | 3.2 | 3.8 | 1.2 | 1.7 | 3.8 | 4.3 | 1.1 | 1.6 | 3.2 | 4.1 |
| Bus. & repair | 4.6 | 4.5 | 3.2 | 2.9 | 3.7 | 4.2 | 4.0 | 3.1 | 3.4 | 5.8 | 5.3 | 3.8 |
| Personal service | 8.2 | 2.5 | 1.8 | 1.9 | 7.5 | 2.3 | 1.5 | 1.7 | 7.6 | 3.3 | 1.7 | 1.7 |
| Ent. & rep. | 4.5 | 2.11 | 1.1 | .0 | 3.8 | 1.9 | .9 | 6.9 | 4.1 | 2.2 | .9 | 1.1 |
| Prof. & rel. | 6.2 | 8.8 | 10.5 | 9.6 | 7.8 | 8.0 | 10.5 | 10.7 | 5.6 | 6.3 | 8.6 | 11.6 |
| Public admin. | 1.5 | 1.9 | 4.5 | 7.0 | .9 | 1.0 | 4.2 | 7.0 | 1.2 | 2.1 | 3.0 | 6.6 |
| Index of structural differences | 92.1 | 47.0 | 11.7 | | 85.8 | 43.7 | 15.0 | | 89.7 | 52.8 | 21.0 | |

| Occupations | 1969 | | 1973 | | 1978 | |
|---|---|---|---|---|---|---|
| | 16–19 | Total | 16–19 | Total | 16–19 | Total |
| Professional, tech, kindred | 2.8 | 14.4 | 2.0 | 13.4 | 1.6 | 15.2 |
| Farmers & managers | (c) | .08 | (c) | .05 | (c) | .1 |
| Managers ex. farmers | 1.1 | 11.4 | 1.2 | 12.2 | 1.3 | 12.7 |
| Clerical | 6.0 | 8.0 | 7.4 | 7.3 | 6.6 | 6.9 |
| Sales | 6.0 | 5.5 | 5.6 | 5.8 | 5.4 | 5.8 |
| Craftsmen & foremen | 7.5 | 21.2 | 10.8 | 21.9 | 10.5 | 21.2 |
| Operatives ex. transport | 25.5 | 22.1 | 20.3 | 14.1 | 16.5 | 12.4 |
| Private household | .2 | .06 | .2 | .05 | .4 | (c) |
| Service ex private HH | 16.1 | 7.1 | 20.8 | 8.8 | 22.7 | 9.2 |
| Farm laborers | 5.9 | 1.8 | 4.4 | 1.8 | 4.1 | 1.7 |
| Laborers ex farm & mine | 24.3 | 8.1 | 23.3 | 8.3 | 26.0 | 8.6 |
| Transport operatives | (c) | (c) | 4.1 | 6.3 | 5.1 | 6.2 |
| Index of structural differences | 70.9 | | 72.0 | | 75.4 | |

[a]Tabulations are from the appropriate May Current Population Surveys, excluding the self-employed.

[b]Males 16 years and older.

[c]Less than .05 percent.

The industry employment figures reveal an enormous difference between the sectors of employment of 16–17 year old men and all male workers, a sizable difference between the industries hiring 18–19 year olds and all men, but only a modest difference between the industrial distribution of 20–24 year olds and all men. Both the Census data and the CPS data show 16–17 year olds to be largely concentrated in trade and substantially underrepresented in manufacturing, among other sectors. From 1950 to 1970 the employment of 16–17 year olds as well as of other men in agriculture dropped sharply. Men in the next age bracket, 18–19 year olds, are also relatively overrepresented in trade but much less so than 16–17 year olds. The 18–19 year olds tend to find a relatively large number of jobs in manufacturing. Overall, the ISD is reduced by about 50% as the group increases in age from 16–17 to 18–19. In contrast to teenage groups, the industrial distribution of 20–24 year olds closely mirrors that of all male workers, suggesting that when they reach their twenties the young are beginning to enter what may be called adult job markets. From 1973 to 1978, however, the ISD grew for 20–24 year olds as well as for the teenagers.

Divergences in job distributions are considerably greater along occupational dimensions, with 16–17 year olds highly concentrated in laborer and service jobs and 18–19 year olds in laborer, service, operative, craft, and clerical jobs. For 20–24 year olds, the divergences are smaller and appear to have fallen from 1950 to 1970.

Whether the marked difference in the industrial and occupational distribution of employment of teenagers and all male workers does, in fact, reflect differences in job markets depends on the link between the jobs obtained by teenagers and adult jobs. The wide divergences shown in tables 3.6 and 3.7 are, at the least, suggestive of significant differences between the teenage and adult job markets.

The data on part-time versus full-time work given in table 3.8 lend some support to the separate market interpretation of the divergences in job distributions. According to the table, nearly half of teenage workers and three-fourths of those aged 16–17 are either employed part time or are on part-time schedules. By contrast, the proportions of all workers employed part time and on part-time schedules are much smaller. Over 40% of unemployed teenagers are seeking part-time jobs compared to about 20% of all unemployed workers. To the extent that the markets for full-time and part-time workers are at least reasonably separable, these figures support the contention that there are substantive differences between the youth, especially teen, and adult job markets.

## 3.1.4  Wages

On the price side of the youth labor market, two major developments stand out: a sharp drop in the relative earnings of young workers in the

**Table 3.8**          **The Distribution of Youth and All Workers by Part-time Job Status: 1977[a]**

| Age and sex | Percentage of employed working part-time[b] | Percentage of unemployed seeking part-time work | Percentage on part-time schedules[c] |
|---|---|---|---|
| Civilian labor force, both sexes | | | |
| All ages | 14.4 | 20.7 | — |
| 16–19 | 45.5 | 43.9 | — |
| Nonagricultural male employees | — | — | |
| All ages | | | 7.6 |
| 16–17 | | | 74.5 |
| 18–24 | | | 15.3 |
| Nonagricultural female employees | — | — | |
| All ages | | | 27.4 |
| 16–17 | | | 82.6 |
| 18–24 | | | 23.2 |

[a]U.S. Department of Labor, *Handbook of Labor Statistics, 1978*, tables 21, 22, pp. 87–93.
[b]Includes voluntary part-time; persons on part-time schedules for economic reasons were counted as full-time employees.
[c]Includes persons who wanted only part-time work.

period under study and an increase in the earnings of young blacks compared to young white workers. Columns 1–3 of table 3.9 document the marked fall in the relative earnings of the young in terms of the ratio of usual weekly earnings of full-time white men aged 16–24 to the usual weekly earnings of full-time white men 25 and older. These data are taken from the May Current Population Survey, which provides a continuous series of rates of pay from 1967 to the present. The data show drops in the rates of earnings for each age group of 10 points on average. Corroboratory information on the annual earnings of year-round and full-time workers from the March CPS reveals similar patterns of change: a twist in the age-earnings profile against young workers.[6] Because a fairly sizable number of young persons are employed part time, columns 4–6 of the table record the ratio of the earnings of part-time young white men to the earnings of full-time older workers. All but two of these earnings ratios drop, though by a smaller margin than the ratios for full-time workers, presumably because of their initially low levels. If the full-time and part-time workers are treated as a single group, the deterioration in the earnings position of the young becomes even more marked. This is because the proportion of 16–24 year old out-of-school men working part time doubled over the period covered from 8% in 1965 to 16% in 1977, exacerbating the drop in relative earnings.

**Table 3.9 Percentages of the Median Usual Weekly Earnings of Out-of-school Men to Workers Aged 25 and Older, by Race: 1967–77[a]**

| Age | Earnings of full-time young white men/ Earnings of full-time white men, age 25+ | | Change in earnings ratios | Earnings of part-time young white men/ Earnings of full-time white men, age 25+ | | Change in earnings ratios | Earnings of full-time young nonwhite men/ Earnings of full-time white men, age 25+ | | Change in earnings ratios |
|---|---|---|---|---|---|---|---|---|---|
| | 1967 | 1977 | 1967–77 | 1967 | 1977 | 1967–77 | 1967[b] | 1977 | 1967–77 |
| 16 | .38 | .34 | −.04 | .19 | .14 | −.05 | .33 | .32 | −.01 |
| 17 | .49 | .39 | −.10 | .21 | .19 | −.02 | .39 | .32 | −.07 |
| 18 | .54 | .49 | −.05 | .22 | .20 | −.02 | .44 | .44 | .00 |
| 19 | .61 | .52 | −.09 | .22 | .24 | .02 | .42 | .43 | −.01 |
| 20 | .66 | .58 | −.08 | .35 | .26 | −.09 | .63 | .52 | −.11 |
| 21 | .73 | .61 | −.12 | .22 | .23 | .01 | .57 | .50 | −.07 |
| 22 | .79 | .63 | −.16 | .41 | .24 | −.17 | .59 | .54 | −.05 |
| 23 | .84 | .71 | −.13 | .38 | .32 | −.06 | .59 | .54 | −.05 |
| 24 | .87 | .75 | −.12 | .37 | .26 | −.11 | .60 | .63 | −.03 |

[a]U.S. Department of Labor, unpublished tabulations from May 1967 and May 1977 Current Population Surveys. 1967 refers to voluntary part-time unless out of school; 1977 refers to all part-time workers.

[b]No whites in 1967.

Finally, the last three columns in table 3.9 reveal a pattern of change in the earnings of young blacks relative to full-time white male workers aged 25 and older which is of a smaller magnitude than those obtained for young white men, indicating of an improvement in the earnings of young blacks vis-à-vis young whites. This contrasts with the worsened employment record of young blacks relative to young whites, possibly indicating movement along a relative demand schedule. It may be that the increase in the relative earnings of blacks is attributable to an outward shift in the demand schedule for blacks relative to whites due to the passage of the Civil Rights Act of 1964.

### 3.1.5 Summary

The evidence in this section from the Current Population Survey on the labor market position of young workers has yielded several findings regarding the changing market for the young. We have found that the unemployment rate of all young workers deteriorated relative to older workers; that, by contrast, the employment to population ratio did not decline, except for young men not enrolled in school; that all indicators of employment—unemployment rates, labor force participation rates, and employment to population ratios—showed a worsened labor market position for young blacks while, by contrast, their relative earnings position improved; that a large proportion of the drop in black employment is associated with nonparticipation in the work force, about which relatively little is known; that much of black unemployment is due to problems in finding a first job and to job loss; that the occupational and industrial distribution of teenage employment diverges sharply from that of adult males, suggesting a reasonably distinct job market, while the distribution of jobs of 20–24 year old men is quite similar to that of all men; that relatively many teenagers are part-time employees; and that the relative earnings of young workers dropped sharply in the period studied.

### 3.2 Associated Social Problems

Two basic aspects of the concern about youth unemployment are fear that high rates of joblessness among the young will have long-term consequences for their economic well-being, and fear that youth unemployment is associated, perhaps causally, with social problems such as youth crime, drug abuse and the like. The potential long-term economic effects of being unemployed during youth are examined by Ellwood,[8] Corcoran, and Meyer and Wise. The immediate social problems that may be linked to youth joblessness are analyzed in this section.

### 3.2.1 The Social Problems

Figures from a variety of sources seem to indicate a growing malaise among young people in the U.S. during the past two decades. In this section, we briefly present the data available on youth crime, violence in school, illegitimate births, and youth suicide rates.

### Youth Crime

Table 3.10 demonstrates that youth arrest rates for both violent crimes and property crimes have risen dramatically since the mid-1950s. It is interesting to note not only the absolute increase in the rate of crime, but also the increase in the youth (under 21 years of age) rate relative to that of the entire population. In all cases reported in table 3.10, the youth rate was lower than that of the entire population in 1950 but surpassed that rate in all categories in 1975.

Table 3.11 demonstrates that the increase in youth arrests is found for blacks as well as whites. In addition, the arrest rates for blacks are consistently much higher than those for whites.

### Violence in School

Table 3.12 shows the sharp increase in violence in schools from 1964 to 1968, and table 3.13 shows the striking increase in school violence from 1970 to 1973. The increase in assaults is especially dramatic in both periods. Over the same periods, school enrollment rose only modestly and thus cannot account for such striking increases.

**Table 3.10** **Annual Arrests per Thousand Population of Relevant Age: 1950–75[a]**

| Category | 1950 | 1955 | 1965 | 1970 | 1975 |
|---|---|---|---|---|---|
| All arrests | | | | | |
| all ages | 5.3 | 11.3 | 26.0 | 32.3 | 37.6 |
| under 21[b] | 2.1 | 5.0 | 20.0 | 31.9 | 42.7 |
| Violent crimes[c] | | | | | |
| all ages | .6 | .3 | .8 | 1.2 | 1.7 |
| under 21 | .3 | .2 | .6 | 1.2 | 1.9 |
| Property crimes[d] | | | | | |
| all ages | .9 | .9 | 3.5 | 5.1 | 7.2 |
| under 21 | .8 | 1.5 | 6.0 | 8.8 | 12.9 |

[a]Number of arrests from U.S. Federal Bureau of Investigation, *Uniform Crime Reports for the United States* XXI (1950) 2:110–11, XXVI (1955):113–14, XXVI (1965):114, XLI (1970):128, LXVI (1975):190.

Population figures from U.S. Bureau of the Census, *Statistical Abstract of the United States* 72 (1951):10; 77 (1956):26; 87 (1966):8; 97 (1976):27. Data unavailable for 1960.

[b]1950 population aged 20 estimated as one-fifth the population aged 20 to 24.

[c]Includes murder, nonnegligent homicide, rape, robbery, and aggravated assault; includes negligent homicide in 1950.

[d]Includes burglary, larceny and auto theft.

Table 3.11          **Annual Arrests per Thousand Population
of Relevant Age, by Race: 1965–75**[a]

|  | Whites | | | Blacks[b] | | |
|---|---|---|---|---|---|---|
| Category | 1965 | 1970 | 1975 | 1965 | 1970 | 1975 |
| All arrests | | | | | | |
| all ages | 18.9 | 24.6 | 29.9 | 65.3 | 74.8 | 79.1 |
| under 18 | 12.2 | 18.4 | 27.3 | 27.8 | 38.9 | 45.4 |
| Violent crimes[c] | | | | | | |
| all ages | .3 | .5 | .9 | 3.0 | 5.1 | 6.3 |
| under 18 | .1 | .3 | .6 | 1.5 | 2.9 | 4.0 |
| Property crimes[d] | | | | | | |
| all ages | 2.5 | 3.6 | 5.4 | 9.0 | 14.2 | 17.6 |
| under 18 | 4.0 | 5.3 | 9.0 | 11.0 | 15.6 | 19.6 |

[a]Number of arrests from Uniform Crime Reports XXXVI (1965):117–18: XLI (1970):131, 132; XLVI (1975):192–93. Population figures from same source as table 3.10.
[b]All nonwhites in 1965.
[c]Includes murder, rape, robbery, and aggravated assault.
[d]Includes burglary, larceny, and auto theft.


## Other Social Problems

Two more problems, the rate of births to unmarried young women and the rate of suicides among young persons, are not signs of juvenile delinquency nor necessarily of juvenile degeneracy, but are still causes of great social concern. Table 3.14 demonstrates two important trends in the rate of illegitimate births to young women. First, the fertility rates for

Table 3.12          **Percentage Increases in Crimes in Schools
in 110 Urban School Districts (1964–68)**[a]

|  | Cases | | Percentage |
|---|---|---|---|
| Category | 1964 | 1968 | increase |
| Homicide | 15 | 26 | 73 |
| Forcible rape | 51 | 81 | 61 |
| Robbery | 396 | 1,508 | 376 |
| Aggravated assault | 475 | 680 | 43 |
| Burglary, larceny | 7,604 | 14,102 | 85 |
| Weapons offenses | 419 | 1,089 | 136 |
| Narcotics | 73 | 854 | 1,069 |
| Drunkenness | 370 | 1,035 | 179 |
| Crimes by nonstudents | 142 | 3,894 | 2,600 |
| Vandalism incidents | 186,184 | 250,549 | 35 |
| Assault on teachers | 25 | 1,081 | 7,100 |
| Assault on students | 1,601 | 4,267 | 167 |
| Other | 4,796 | 8,824 | 84 |

[a]Senate Subcommittee on Juvenile Delinquency Survey, 1970, reported in J. M. Tien, *Crime/Environment Targets*.

Table 3.13          Percentage Increases in Crime in Schools
                    in 516 School Districts (1970–73)[a]

| Category | Percentage increase |
|----------|--------------------|
| Homicide | 18.5 |
| Rape and Attempted Rape | 40.1 |
| Robbery | 36.7 |
| Assault on Students | 85.3 |
| Assault on Teachers | 77.4 |
| Burglary of School Buildings | 11.8 |
| Drug and Alcohol Offenses on School Property | 37.5 |
| Weapons Confiscated | 54.4 |

[a]*Our Nation's Schools . . .* , Preliminary Report of the Senate Subcommittee to Investigate
Juvenile Delinquency, 1975.

both white and nonwhite unmarried women between the ages of 15 and
19 have increased in the past two decades. The rate for white women has
increased steadily, while that for nonwhite women fell through 1965,
jumped sharply between 1965 and 1970, and has been falling since.
Second, the difference in fertility rates has remained relatively constant
over time—a difference of about 70 births per thousand each year. These
trends may indicate a serious social problem, especially if these women
are very young. These mothers are usually either out of school when they
become pregnant or are forced to leave during their pregnancies. Many
are unable to work or go to school after their children are born because
they have no one who can care for the child.

   Table 3.15 shows two major trends in the rate of suicides among young
persons. First, although the suicide rate has stayed relatively constant for
the population as a whole during the past two and a half decades, the
suicide rate for young persons has risen dramatically. In 1970, for exam-
ple, the suicide rate for 20–24 year olds, both white and nonwhite, rose
above that of the population as a whole. Second, the suicide rate for
20–24 year olds is consistently higher than that for 15–19 year olds.

Table 3.14          Fertility Rates for Unmarried Teenage Women: 1955–76[a]

| Year | Births per 1,000 unmarried women | |
|------|-------|----------|
|      | White | Nonwhite |
| 1955 | 6.0 | 77.6 |
| 1960 | 6.6 | 76.5 |
| 1965 | 7.9 | 75.8 |
| 1970 | 10.9 | 90.8 |
| 1975 | 12.1 | 88.1 |
| 1976 | 12.4 | 84.6 |

[a]National Center for Health Statistics.

**Table 3.15**         **Suicides per 100,000 Population, 1950–76[a]**

|  | Nonwhite | | White | | |
| --- | --- | --- | --- | --- | --- |
| Year | 15–19 | 20–24 | 15–19 | 20–24 | Population |
| 1950 | 1.9 | 4.9 | 2.8 | 6.4 | 11.4 |
| 1955 | 2.4 | 5.8 | 2.7 | 5.5 | 10.2 |
| 1960 | 2.4 | 4.5 | 3.8 | 7.4 | 10.6 |
| 1965 | 3.9 | 8.3 | 4.1 | 9.0 | 11.1 |
| 1970 | 4.2 | 12.0 | 6.2 | 12.0 | 11.6 |
| 1975 | 4.6 | 14.4 | 8.1 | 16.9 | 12.7 |
| 1976 | 5.4 | 13.8 | 7.7 | 16.8 | 12.5 |

[a]National Center for Health Statistics.

### 3.2.2   Relationships to Labor Market Problems

The preceding social statistics reveal substantial changes in several important social indicators regarding youth. While cause and effect are very difficult to untangle, the increases in youth crime, violence in schools, illegitimacy, and suicide are probably linked, at least to some extent, to the labor market problems of the young. The relationship between youth labor force experiences and social problems may be causal. On the other hand, the labor market problems and the social problems may both be indicators of underlying changes in the values and environment of young persons.

Many of the studies that examine the social correlates of youth labor market difficulties have focused on the problem of youth crime. The major works that study the relationship between unemployment and youth crime fall roughly into three categories: the subculture approach, the cost-benefit approach, and the institutional approach.

The subculture approach maintains that youth crime is principally the result of a peer group subculture: young people band together in social groups whose values differ from those of adult society. Many of the youth groups value violence, destruction, theft, and individual escapism via drugs. They engage in these activities for social prestige rather than monetary gain. This view is well articulated both by Cohen in his studies of youth peer groups and by Howard and Ohlin. Cohen emphasizes the wide differences between the values of youth and the values of adults, and he stresses the importance of these values in determining behavior. Cohen believes that a lack of guidance from and contact with parents may be a reason for rejection of adult values on the part of youth. Emotional instability in family relationships, broken families, working mothers, and teachers are held responsible, in part, for delinquency. According to this approach, high adult unemployment will tend to reduce juvenile delinquency since unemployed parents will have more time to spend with their

children. Proponents of this theory also argue that a decline in youth unemployment will lead to a decline in youth crime. Subculturists assume that employment requires steady, disciplined contact between youths and their elders, thus decreasing the strength of peer subculture attachments and values.

The second group of theories on the relationship between delinquency and economic conditions emphasizes the role of cost and benefit calculations for the potential delinquent. These theorists argue that crime, like other human activities, can be viewed as having certain monetary costs and benefits associated with it. The individual chooses crime because he perceives that the benefits of crime outweigh the costs. The cost-benefit theorists, unlike the subculturists, believe that the decisions to engage in crime is an individual decision rather than a group one. The conditions that determine the costs and benefits are externally influenced but are subject to the tastes and perceptions of the individual. This approach emphasizes the pecuniary aspect of crime rather than its social deviancy. Hence, the theory offers a better explanation of crimes of property such as theft, larceny, robbery, prostitution, and drug dealing, than of violent crimes such as rape and murder, which rarely involve direct pecuniary benefits.

The foremost proponents of the cost-benefit approach, Becker, Fleisher and Ehrlich, believe that the amount of youth crime is affected primarily by the expected costs of crime, taking into account the likelihood of arrest and conviction, injury, and so on; the expected benefits of crime, based on the demand for stolen goods; and tastes, such as a desire for the thrill of crime, and the strength of the need for additional income. As youth unemployment increases, the ability to generate income legally is reduced. In order to maintain a minimum income level, a youth may decide to earn money illegally. Thus cost-benefit theorists believe that as youth unemployment increases, youth crime (especially property crimes) will also increase.

The institutional approach reflects a more complex concept of the behavior of youths than do the previous two. The theory is based on direct observation of small groups of youths rather than upon aggregate data. The institutional approach shares the emphasis of the cost-benefit approach in distinguishing between various types of crime and in emphasizing the monetary incentives behind much of youth crime. This theory, however, stresses the fact that many criminal activities are virtually indistinguishable from legitimate careers, and may be perceived as such by youths. "Selling dope," "taking numbers," "pimping," and other illegal activities, when engaged in regularly, can provide a steady income. Like legitimate jobs, they have peak hours and off hours on a daily or weekly basis, they require a period of training before earnings can be maximized, and they operate by a standard system of norms and proce-

dures. Adherents to this approach predict that, contrary to the results of the cost-benefit approach, an increase in youth unemployment will be associated with a fall in youth crime. Institutionalists predict that youths will view those crimes that generate a steady income as forms of regular employment. Thus, in response to an employment survey, a youth may report himself as employed because he works at a regular job, even if the job is illegal. A youth may also choose to report himself as employed if he is earning a good income illegally in order to justify a level of consumption that greatly exceeds what he could spend from other sources of income. He may also fear that if he is categorized as unemployed, he will be forced to join unemployment programs that would compromise his ability to earn income from illegal activities. For these reasons, a youth who is engaged in illegal activities may be recorded as employed. Thus, as participation in criminal activities rises, the unemployment rate may actually fall, implying an inverse relation between unemployment and crime. On the other hand, the youth engaging in crime may report himself as being out of the labor force—neither working nor seeking work.

Table 3.16 briefly summarizes some of the major studies done in support of the alternative theories of youth crime. The techniques and variables used vary dramatically across studies, and the empirical research has often produced contradictory results.

The evidence from all three viewpoints seems to point to crime as an alternative for youths who cannot find jobs, but the statistics reveal little more. Most studies relate measures of criminal activity to measures of unemployment and other variables but the selection of variables and research techniques differs considerably. Some studies use youth arrests, some use all arrests, and some include nonproperty crime while others do not. Most studies examine the link between crime and youth unemployment but some use general unemployment and one uses overall business activity. Some use different age groups while others lump age groups together. The income level in an area seems to have a strong effect on crime, yet many studies include no income variable. The descriptive studies center only on ghetto youths, although they may operate quite differently from those middle-class youths whose monetary incentives for crime may not be so strong. Statistics on crime are weak because they fluctuate with the budgets made available for law enforcement as much as with the amount of crime. Also, those who are arrested may be innocent, while many other criminals are never caught.

Another issue that is not touched on in any of the empirical studies is the importance of school enrollment for teenagers below college age and the effect of teenage unemployment on enrollment. If youths have difficulty finding jobs they may just stay on in school rather than join the labor market legally or illegally.

**Table 3.16**      **Summary of Empirical Research on the Relationship between Unemployment and Crime.**

| Authors | Method and sample | Results and conclusions |
|---|---|---|
| *Subculture* | | |
| Glaser and Rice | Estimated correlations between age specific arrest data from an FBI national sample and both age specific and total unemployment rates from 1932 to 1950. Also studied municipal arrest data from Chicago, Cincinnati and Boston for selected years between 1980 and 1952. | Glaser and Rice found a significant negative correlation between crime and both unemployment figures for youths under age 18. For adults aged 19–34, there was a significant positive relationship, and for adults over age 35, the correlation was significant negative. The municipal data indicated a significant positive relationship between the unemployment rate and property crime arrests for persons aged 25 and older. |
| *Cost-benefit* | | |
| Fleisher | Fleisher performed extensive regression analysis on: (1) the municipal data used by Glaser and Rice; (2) the national sample also used by Glaser and Rice; (3) cross-sectional data from Chicago for 1958; and (4) data from 101 cities from FBI police agency reports. | With these four data sets, Fleisher derived the following results (respectively): (1) controlling for income, race, etc., unemployment had a uniformly positive effect on arrest rates; (2) there was a positive relationship between crime and unemployment for all age groups except those below age 16; (3) unemployment positively affected delinquency; and (4) unemployment had a significant positive effect on delinquency for the lowest income group. |

| | | |
|---|---|---|
| Ehrlich | Examined the effect of the unemployment rate for 14–24 year old urban males on their decision to engage in unlawful activities. Controlled for probability of apprehension, time served by offenders, income, education, and per capita public expenditure on crime control. | Results on unemployment were generally inconsistent and insignificant. Income, race, and time served in prison have strong effects. The labor force participation rate for 14–24 year olds has a significant positive effect on auto theft and larceny. |
| Cook | Studied recidivism rates among 327 men paroled from Massachusetts institutions for felons. | Cook found a positive correlation between short job tenure (which he used as a proxy for job dissatisfaction) and recidivism. He reasoned that it is not a lack of jobs *per se* that encourages criminal activity but rather a lack of interesting or well-paying jobs. |
| *Institutional* Bullock | Interviewed 304 black and 268 Chicano teenagers in Watts and East Los Angeles in 1971. | Illegal activities constitute the single greatest source of market income for young men in central cities. The principal activity is drug dealing. |
| Friedlander | Interviewed 25 black teenagers in Harlem in 1968. | Criminal activity serves as an alternative occupation for a person in the ghetto with few skills and little education. |
| Liebow | Studied low-income black men in a Washington, D.C. ghetto. | The legitimate jobs available to youths who have little education are perceived as dull, degrading, and low paying, and as not offering an improved future. |

Finally, what difference does the status of the youth—whether he is living at home under parental support, living alone, or supporting his own family—make in his desire for legal or illegal employment? Evidence from descriptive studies seems to indicate that the greater the degree to which he must support himself and/or others, the more desperately he will need an income and the more vigorously he will pursue an occupation—legal or illegal.

Although more research is clearly required, it appears that youth labor market problems are linked to youth crime in a complex manner. Less work has been done on the relationship between youth labor market problems and the other social ills examined earlier. However, the evidence that does exist suggests that there is some link between labor market problems and social problems.

The evidence already cited on violent crimes would seem to be relevant to the more specific problem of violence in schools. In particular, the subculture theory provides a plausible theory linking youth unemployment and violent behavior. A link between youth problems in the labor market and rising illegitimacy rates has been examined by the National Advisory Council on Economic Opportunity. The council cites a number of indications that putting off marriage because of poor job prospects or unemployment contributes to the high rates of illegitimate births among the poor. Finally, both the National Advisory Council and Fleisher have found a positive correlation between suicide and unemployment, although the reason for this relationship is unclear for young persons.

These studies are both interesting and suggestive, but they by no means provide conclusive evidence on the nature of the relationship between youth labor market difficulties and social ills. As mentioned above, the relationship may be causal, or both the labor market problems and the social problems may be symptoms of a serious underlying change in the attitudes and environment of American youths. Clearly more investigations concerning this topic should be undertaken.

### 3.2.3   Future Research

The review of the literature above indicates that there is no clear answer to the question of how youth unemployment is related to other social problems. Increases in rates of delinquency may be due to many other causes including a decline in the number of two-parent families, peer pressure, a lack of good education for many youths, and various social factors. In order to determine the magnitudes of these effects on delinquency relative to the effect of poor labor market experience, new types of data must be collected, and a large amount of research must be done.

We recommend, for example, that questions be included in surveys of youth labor force activity which ask what the unemployed and nonpartici-

pants do. Of those students who attend school, ask what they do in the afternoons; of those who do not attend school, ask probing questions about how they spend their time. Questions asking a youth what he does do should be much more informative than questions that tend to rule out what he does not do (i.e., "Did you work over forty hours in the past week at a job?") Also, more detailed questions about the types of jobs held by those who are employed might lead us to a better understanding of what youths are doing. Questions on the perceived permanence of a specific job could indicate youth attachment to that job. Questions on the amount and nature of training, and on the likelihood of promotion within the firm could indicate, more objectively than the previous questions, what future the youth can expect from his job.

# Notes

1. See Freeman and Medoff, "Why Does the Rate of Youth Labor Force Activity Differ across Surveys?," chapter 4 of this volume.
2. Data for these regressions were taken from *Employment and Training Report of the President, 1978*, pp. 187–88, 213–14.
3. Data for these calculations were taken from *Employment and Training Report of the President, 1978*, pp. 188, 214.
4. From Clark and Summers, "The Dynamics of Youth Unemployment," chapter 7 of this volume.
5. See Clark and Summers, chapter 7 of this volume.
6. See Freeman, "The Effect of Demographic Factors on Age-Earnings Profiles" for substantiation of this fact.
7. See Ellwood, "Teenage Unemployment: Permanent Scars or Temporary Blemishes?," chapter 10 of this volume; Corcoran, this volume; Meyer and Wise, this volume.

# References

Bullock, P. 1973. *Aspirations vs opportunity: careers in the inner city.* Ann Arbor: Institute of Labor and Industrial Relations, University of Michigan, Wayne State.

Becker, G. "Crime and Punishment." U.S. Department of Labor. 1978. *Employment and training report of the president, 1978.* Washington, D.C.: GPO.

Cloward, R. and L. Ohlin. 1973. *Delinquency and opportunity.* Glencoe, Illinois: The Free Press.

Cohen, A. 1960. *Delinquent boys.* Glencoe, Illinois: The Free Press.

Cook, P. 1975. The correctional carrot: better jobs for parolees. *Policy Analysis* 1:11–54.

Ehrlich, I. 1973. Participation in illegitimate activities: a theoretical and empirical investigation. *Journal of Political Economy* 3:521–65.

Fleisher, B. 1966. *The economics of delinquency*. Chicago: Quadrangle Books.

Ford, G. and U.S. Department of Labor. 1977. *Employment and training report of the president, 1977*, Washington, D.C. GPO.

Freeman, R. B. 1978. The effect of demographic factors on age-earnings profiles. *The Journal of Human Resources* 3:289–319.

Friedlander, S. 1972. *Unemployment in the urban core: an analysis of thirty cities with policy recommendations*. New York: Praeger Publishers.

Glaser, D. and K. Rice. 1959. Crime, age, and unemployment. *American Sociological Review* 5:679–86.

Henry, A. F. and J. F. Short. 1954. *Suicide and homicide*. Glencoe, Illinois: The Free Press.

Liebow, E. 1967. *Tally's corner: a study of negro streetcorner men*. Boston: Little, Brown and Co.

National Advisory Council on Economic Opportunity. 1979. The human cost of unemployment. In their *11th Annual Report*, Washington, D.C. Pp. 21–23.

Ogburn, W. F. and D. S. Thomas. 1922. The influence of the business cycle on certain social conditions. *Journal of the American Statistical Association* September: 305–50.

U.S. Bureau of the Census. *U.S. census of the population, 1950*. Volume 4, Special Report Part 1, chapters B and D. Washington, D.C.: GPO.

U.S. Bureau of the Census. *U.S. census of the population, 1960*. Subject Report PC(2) 7A and 7F. Washington, D.C.: GPO.

U.S. Bureau of the Census. *U.S. census of the population, 1970*. Subject Report PC(2) 7A and 7B. Washington, D.C.: GPO.

U.S. Bureau of Labor Statistics. 1978. *Employment and earnings*, Vol. 25, no. 1. Washington, D.C.: GPO.

U.S. Bureau of Labor Statistics. 1966, 1970. *Employment, high school graduates and dropouts*. Special Labor Force Reports #54 and #121. Washington, D.C.: GPO.

U.S. Bureau of Labor Statistics. 1961. *Employment of June 1960 high school graduates*. Special Labor Force Report #15. Washington, D.C.: GPO.

U.S. Bureau of Labor Statistics. 1977, 1979. *Handbook of labor statistics 1977 and 1978*. Bulletins 1966 and 2000. Washington, D.C.: GPO.

U.S. Bureau of Labor Statistics. 1977. *Students, graduates and dropouts in the labor market, October 1976*. Special Labor Force Report #200. Washington, D.C.: GPO.

U.S. Bureau of Labor Statistics. 1966, 1971, 1977. *Work experience of the population*. Special Labor Force Reports #62, 127 and 201. Washington, D.C.: GPO.


# Appendix

The data graphed in figures 3.1–3.3 are from the *Employment and Training Report of the President, 1978*, table A-4, pp. 186–87, and table A-19, p. 212. The predicted values in figures 3.1–3.3 were generated by the following regressions of youth rates on prime age male rates.

### Regression Results Used to Create Figure 3.1

Regression
Number          Estimated Coefficients (Standard Errors)

| No. | | |
|---|---|---|
| 1. | $ERMK = -85.85 + 1.34$ PER | $SEE = 3.25$ |
| | $(44.50)\ (0.47)$ | $R^2 = .20$ |
| 2. | $ERMT = -85.32 + 1.55$ PER | $SEE = 3.65$ |
| | $(50.10)\ (0.53)$ | $R^2 = .21$ |
| 3. | $ERMYM = -85.15 + 1.74$ PER | $SEE = 1.69$ |
| | $(23.10)\ (0.25)$ | $R^2 = .63$ |
| 4. | $LFPRMK = 81.32 - 0.34$ PLFPR | $SEE = 3.05$ |
| | $(65.20)\ (0.67)$ | $R^2 = -.03$ |
| 5. | $LFPRMT = -1.08 + 0.73$ PLFPR | $SEE = 3.42$ |
| | $(73.30)\ (0.75)$ | $R^2 = .00$ |
| 6. | $LFPRMYM = -32.92 + 1.22$ PLFPR | $SEE = 1.45$ |
| | $(31.10)\ (0.32)$ | $R^2 = .32$ |
| 7. | $UNMK = 10.14 + 1.69$ PUNR | $SEE = 2.95$ |
| | $(1.73)\ (0.54)$ | $R^2 = .23$ |
| 8. | $UNMT = 4.80 + 2.65$ PUNR | $SEE = 1.72$ |
| | $(1.01)\ (0.32)$ | $R^2 = .71$ |
| 9. | $UNMYM = 1.13 + 2.33$ PUNR | $SEE = 1.14$ |
| | $(0.67)\ (0.21)$ | $R^2 = .81$ |

### Regression Results Used to Create Figure 3.2

Regression
Number          Estimated Coefficients (Standard Errors)

| No. | | |
|---|---|---|
| 1. | $ERMKO = -260.70 + 3.43$ PER | $SEE = 5.07$ |
| | $(78.30)\ (0.83)$ | $R^2 = .41$ |

2.    $ERMTO = -178.30 + 2.75\ PER$    $SEE = 4.07$
          $(58.40)\ (0.62)$    $R^2 = .40$

3.    $ERMYMO = -109.50 + 2.11\ PER$    $SEE = 1.79$
          $(25.60)\ (0.27)$    $R^2 = .68$

4.    $LFPRMKO = -266.8 + 3.55\ PLFPR$    $SEE = 3.83$
          $(90.50)\ (0.93)$    $R^2 = .37$

5.    $LFPRMTO = -88.55 + 1.85\ PLFPR$    $SEE = 2.26$
          $(51.70)\ (0.53)$    $R^2 = .28$

6.    $LFPRMYMO = 21.97 + 0.76\ PLFPR$    $SEE = 0.99$
          $(22.60)\ (0.23)$    $R^2 = .26$

7.    $UNMKO = 11.30 + 2.89\ PUNR$    $SEE = 4.60$
          $(2.97)\ (0.93)$    $R^2 = .27$

8.    $UNMTO = 3.46 + 2.54\ PUNR$    $SEE = 3.52$
          $(2.06)\ (0.65)$    $R^2 = .34$

9.    $UNMYMO = 0.69 + 1.94\ PUNR$    $SEE = 1.80$
          $(1.06)\ (0.33)$    $R^2 = .54$

### Regression Results Used to Create Figure 3.3

| Regression Number | Estimated Coefficients (Standard Errors) | |
|---|---|---|
| 1. | $ERFK = 86.72 - 0.63\ PER$ | $SEE = 3.31$ |
|    | $(45.40)\ (0.48)$ | $R^2 = .02$ |
| 2. | $ERFT = 63.09 - 0.18\ PER$ | $SEE = 2.28$ |
|    | $(31.20)\ (0.33)$ | $R^2 = -.02$ |
| 3. | $ERFYM = 245.30 - 2.10\ PER$ | $SEE = 5.26$ |
|    | $(72.20)\ (0.77)$ | $R^2 = .18$ |
| 4. | $LFPRFK = 462.70 - 4.43\ PLFPR$ | $SEE = 2.42$ |
|    | $(51.90)\ (0.53)$ | $R^2 = .70$ |
| 5. | $LFPRFT = 361.00 - 3.17\ PLFPR$ | $SEE = 1.41$ |
|    | $(30.10)\ (0.31)$ | $R^2 = .78$ |
| 6. | $LFPRFYM = 843.50 - 8.14\ PLFPR$ | $SEE = 2.05$ |
|    | $(43.80)\ (0.45)$ | $R^2 = .92$ |
| 7. | $UNFK = 11.58 + 1.36\ PUNR$ | $SEE = 10.91$ |
|    | $(1.93)\ (0.61)$ | $R^2 = .12$ |
| 8. | $UNFT = 8.72 + 1.29\ PUNR$ | $SEE = 3.00$ |
|    | $(1.76)\ (0.55)$ | $R^2 = .13$ |
| 9. | $UNFYM = 3.78 + 1.33\ PUNR$ | $SEE = 1.67$ |
|    | $(0.98)\ (0.31)$ | $R^2 = .38$ |

### Means (Standard Deviations) of Dependent Variables

| | | | | | |
|---|---|---|---|---|---|
| ERMK | 40.58 | (3.56) | LFPRMYMO | 95.62 | (1.13) |
| ERMT | 61.14 | (4.03) | UNMKO | 16.80 | (8.67) |

| | | | | | | |
|---|---|---|---|---|---|---|
| ERMYM | 78.98 | (2.73) | UNMTO | 11.08 | (4.25) |
| LFPRMK | 47.83 | (2.96) | UNMYMO | 6.54 | (2.62) |
| LFPRMT | 70.11 | (3.36) | ERFK | 27.21 | (3.30) |
| LFPRMYM | 86.02 | (1.73) | ERFT | 46.03 | (2.21) |
| UNMK | 15.26 | (3.31) | ERFYM | 47.35 | (5.73) |
| UNMT | 12.61 | (3.11) | LFPRFK | 32.34 | (4.35) |
| UNMYM | 8.18 | (2.56) | LFPRFT | 52.72 | (2.96) |
| ERMKO | 52.23 | (24.12) | LFPRFYM | 51.45 | (7.04) |
| ERMTO | 81.37 | (5.17) | UNFK | 15.67 | (3.46) |
| ERMYMO | 89.39 | (3.10) | UNFT | 12.61 | (3.17) |
| LFPRMKO | 65.24 | (29.63) | UNFYM | 7.79 | (2.08) |
| LFPRMTO | 91.47 | (2.63) | | | |
| LFPRMYMO | 95.62 | (1.13) | | | |
| UNMKO | 16.80 | (8.67) | | | |

## Definitions of Variables

*Independent Variables*

PER:      employment to population rates for prime-age males.
PLFPR:    labor force participation rate for prime-age males.
PUNR:     unemployment rate for prime-age males.

*Dependent Variables*

ERMK:     employment to population ratio for 16–17 year old males.
ERMT:     employment to population ratio for 18–19 year old males.
ERMYM:    employment to population ratio for 20–24 year old males.
LFPRMK:   labor force participation rates for 16–17 year old males.
LFPRMTN:  labor force participation rates for 18–19 year old males.
LFPRMYM:  labor force participation rates for 20–24 year old males.
UNMK:     unemployment rate for 16–17 year old males.
UNMT:     unemployment rate for 18–19 year old males.
UNMYM:    unemployment rate for 20–24 year old males.
ERMKO:    employment to population ratio for 16–17 year old out-of-school males.
ERMTO:    employment to population ratio for 18–19 year old out-of-school males.
ERMYMO:   employment to population ratio for 20–24 year old out-of-school males.
LFPRMKO:  labor force participation rate for 16–17 year old out-of-school males.

LFPRMTO:      labor force participation rate for 18–19 year old out-of-school males.

LFPRMYMO:    labor force participation rate for 20–24 year old out-of-school males.

UNMKO:        unemployment rate for 16–17 year old out-of-school males.

UNMTO:        unemployment rate for 18–19 year old out-of-school males.

UNMYMO:      unemployment rate for 20–24 year old out-of-school males.

ERFK:          employment to population ratio for 16–17 year old females.

ERFT:          employment to population ratio for 18–19 year old females.

ERFYM:         employment to population ratio for 20–24 year old females.

LFPRFK:       labor force participation rate for 16–17 year old females.

LFPRFT:       labor force participation rate for 18–19 year old females.

LFPRFYM:      labor force participation rate for 20–24 year old females.

UNFK:         unemployment rate for 16–17 year old females.

UNFT:         unemployment rate for 18–19 year old females.

UNFYM:        unemployment rate for 20–24 year old females.