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ABSTRACT

This paper reviews the nature of the youth employment problem by considering its causes, deterioration in the employment situation of black youth, and the number of youth facing serious employment problems. Section 1 discusses reasons for concern regarding youth unemployment. Items mentioned in section 2 are related normal as well as harmful experiences due to labor market outcomes. Section 3 discusses the interpretation of existing concepts and measures of youth employment patterns in terms of serious versus minor problems. Causes of youth unemployment are examined in section 4 from several perspectives. Four sections focus on (1) reasons for unemployment rate differences between youth and adults, (2) factors influencing changes over time and differences across geographic areas in youth employment patterns, (3) the changing patterns of racial differences in unemployment, and (4) summarizing the explanations of the youth employment problem. Section 5 presents some estimates of the numbers of youth who encounter serious employment problems using four methods. Twenty-one data tables are appended. (YLB)

The Nature of the Youth Employment Problem: A Review Paper

Technical Analysis Paper No. [illegible]

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Summary and Conclusions

Does high youth unemployment represent a serious problem or a natural voluntary outcome of new workers integrating into the labor market? What accounts for the deterioration in the employment situation of black youth? How many youth face serious employment problems? These questions have attracted the attention of researchers, of policymakers, and of the public. Differing views about these questions will be in the minds of members of Congress as they deliberate over new legislation to deal with youth employment problems. This paper examines the evidence bearing on these problems.

Before stating the paper's conclusions, it is important to mention the methodological and data problems we must confront in attempting to reach conclusions. Because of school and the lack of family responsibilities, it is natural for many youth to show only a partial attachment to the labor force. But, for other youth, nonparticipation in the labor force is the outcome of poor job opportunities and/or the harmful experiences of crime or teenage pregnancies. In principle, the data allow one to distinguish between those who are voluntarily and involuntarily out of work by relying on the unemployment and not in the labor force classifications. However, the evidence indicates that official classifications by themselves are inadequate for our purpose. Many classified

as outside the labor force actually want and are willing to accept jobs. Many young people classified as unemployed engage in only a casual job search for very short periods.

Since the distinction between unemployment and not in the labor force is of only limited value, a good strategy is to focus on the employment versus nonemployment distinction, especially for youth expected to work (those who are out of school and are not mothers of young children). The best indicator of serious problems among individual youth is substantial joblessness over the year. There is little ambiguity about data showing youth who search for but cannot find a job for 4 to 6 months or more.

In addition to issues related to the concepts underlying the data, some investigators have questioned the validity of the basic youth data. Several surveys of youth have indicated that the Current Population Survey (CPS) understate youth employment and thus overstate the youth unemployment problem. While it is far from clear that the CPS data have such biases, this paper presents results based on data from a variety of surveys.

The first conclusions deal with question of the incidence and duration of youth unemployment. We find:

(1) The majority of young workers integrate effectively into the labor market. About 70 percent of young white workers and almost 60 percent of young black workers did not bear even one week of unemployment during the entire year of 1977.

(2) Most youth unemployment is borne by those experiencing substantial unemployment over the year. In 1977, young workers with 15+ weeks of unemployment accounted for between 70 to 80 percent of total weeks of unemployment.

(3) Youth jobs turn over fast and young people frequently move in and out of the labor force. However, their high turnover is not primarily responsible for their high unemployment. Eliminating all of the excessive incidence of youth unemployment induced by turnover would still leave about 70 percent of the differential between youth and adult unemployment rates.

Turning to other sources of youth employment problems, we find:

(4) The level and coverage of the minimum wage, as well as other wage rigidities affect youth employment. Recent minimum wage increases probably added about 1 percentage point to the overall teenage unemployment rate and about 3-4 percentage points to the black teenage unemployment rate.

(5) Traditional supply and demand forces affect the youth employment situation. Youth employment levels are highly sensitive to changes in aggregate demand. An increase in the unemployment rate of prime age male workers from 3.0 to 3.6 percent reduces the employed shares of white and black youth by about 2 and 4 percentage points, respectively. Youth in areas with a favorable industry mix have a better chance of finding a job than youth in other areas. Youth employment rates are also sensitive to the changes in the demand for military personnel. On the supply side, the relative size of the youth labor force influences youth employment and wage levels. In particular, the bulge in the youth population during the 1960's lowered youth employment and wages.

(6) The economy does an excellent job of absorbing the large inflow of youth into the labor force during the summer months. The Summer Youth Employment Program accounts for a good part of the country's success in preventing youth joblessness from rising during the summer.

The analysis of the high and rising racial differentials in youth unemployment yields several conclusions, including:

(7) The racial gap is wider according to the official CPS data than according to data from other surveys. The National Longitudinal Survey (NLS) and the National Crime Survey (NCS) show serious, narrower employment gaps between white and nonwhite youth than does the CPS. Only the National Longitudinal Survey of 1972 High School Graduates (NLS72) indicates that the employment and earnings situation for young black high school graduates is favorable and nearly equal to that of whites.

(8) Counting the armed forces personnel as employed would leave a large racial differential in employment-population ratios, but would eliminate a good part of the worsening trend in the racial differential among young men.

(9) Family status differences by race appear to exert little effect on racial differentials in employment status except in the case of young women, 20-24. About half of the 12 point gap between the employment-population ratios of white and non-white women, 20-24, appears associated with the higher proportion of nonwhite women who are mothers.

(10) The move from rural farm to big city areas contributed to the worsening trend in the employment of nonwhite youth between 1950 and the mid-1960's. Migration apparently played a little role in the worsening trend since the mid-1960's. By 1976, black teenagers did much worse inside central cities than outside central cities, but the area differences were smaller among blacks, 20-24.

(11) Several studies show that race has a significant negative effect on a youth's employment status, even after taking account of educational attainment, location, age, family background, and area characteristics. While these results suggest a large possible impact from discrimination, the remaining differences could be due to excluded factors, such as differences in educational achievement.

(12) Nearly 20 percent of the racial gap among youth living with their families is the result of differences in the income, education, and especially employment status of the family head. Young people whose family head was unemployed or outside the labor force had a 13 to 15 point lower probability of being employed than youth whose head was employed in the private sector.

(13) The worsening employment trends for black youth have been concentrated on a subset of youth. In other words, increasing inequality has taken place within the black youth population. Those young black men who worked at least one week in 1967 and 1977 have kept pace in terms of earnings per year with young white workers. What accounts for the worsening is the sharp drop in the percentage of young black men who work at all during the year.

The final section provides estimates of the number of youth with serious employment problems. According to data covering 1977, we find:

(14) The pool of 16-24 year-olds who experience 15+ weeks of unemployment is large (2.9 million), but represents only about 10 percent of young workers. The serious employment problems extend beyond the poor, the black, and the high school dropout; whites make up 70 percent of those with substantial unemployment.

(15) Very few of those with substantial unemployment over the year experience several short spells between jobs. The majority had over 26 weeks of unemployment and had no more than one employer.

(16) The number of low income 16-24 year-olds with substantial unemployment amounted to 734,000 in 1977. Over 80 percent of these youth were out of school.

I. Reasons for Concern

High youth unemployment has persisted in the American economy for nearly three decades. Since 1954, unemployment rates of teenagers have not fallen below 11 percent. In spite of an array of private and government efforts, youth unemployment rates have continued to rise. Unemployment rates of teenagers averaged 16.9 percent between 1970 and 1978, as compared with 14.3 percent in the 1960's and 11.4 percent in the 1950's. The ratio of youth to adult unemployment rose from 2.5 in 1954 to 3.3 in 1978. Nonwhite youth have faced the most dramatic worsening in employment prospects. Unemployment rates of nonwhite teenage men jumped from 19 percent in the 1955-59 period to an extraordinary 34 percent in the 1977-78 period.

The direct interpretation of these high unemployment rates is that a large share of young people spend time looking for jobs when they could be working. Their idleness represents a waste of resources to the nation and a loss of income to the young people unable to find jobs. Nevertheless, some have questioned whether youth unemployment is a serious problem. According to this view, young people are generally looking only for part-time jobs during off-school hours; young people generally do not have important family responsibilities; and youth unemployment frequently amounts to short-term job hunting which has to accompany movements in and out of the labor force.

In spite of these considerations, youth unemployment is a serious concern for several reasons. First, youth unemployment is not essentially a necessary short-term phenomenon. Most youth unemployment occurs among young people who cannot find jobs for long periods of time. Second, the incidence of youth unemployment is extraordinarily severe among white and nonwhite youth from low income families. Third, youth joblessness has been worsening over time for the most disadvantaged groups; black youth unemployment rates have reached unprecedented levels. Finally, evidence indicates that youth joblessness has long-term negative effects; lack of early work experience can reduce employment and earnings of young adults.

The specifics of the worsening employment situation facing nonwhite youth appear in Tables 1 and 2. Note that in 1964 nonwhite youth ages 20-24 had about the same chances for employment as did white 20-24 year olds. By 1977-78, the share of nonwhites working fell 15 percent points below the comparable figure for whites.

This deteriorating job situation for young blacks has disturbing implications for the overall effort to achieve racial equality. In spite of improving opportunities for blacks in educational and occupational areas, many young blacks are skeptical that adequate job preparation will yield reasonable rewards. The extraordinarily high unemployment rates they face while young reinforces their

belief that their hard work will result in little payoff in the job market. Unless the job situation improves for young blacks, widespread racial inequality may become self-perpetuating.

Perhaps the decline in the youth population coming in the 1980's will allow many of the youth problems to wither away. However, while the declining population will likely reduce the absolute scale of the problem, there is no clear evidence that the percentage of youth experiencing serious problems will go down because of the declining numbers of youth. Indeed, since the incidence of serious problems is particularly high among young blacks and since blacks will make up an increasing share of youth the proportion of problem youth will actually rise.

Given these concerns, it is worthwhile to review the nature of the youth employment problem. An important focus is the distinction between youth joblessness that results from normal youth expperiences and youth joblessness that represents a serious social concern. Section II begins by relating normal as well as harmful experiences to labor market outcomes. Section III discusses the interpretation of existing concepts and measures of youth employment patterns in terms of serious versus minor problems. In section IV, we look at the causes of youth unemployment from several perspectives. We focus on the role of normal experience and serious joblessness in explaining youth-adult unemployment differentials, trends in youth unemployment, and the high

and increasing racial differentials in youth unemployment. In section V, we conclude by presenting some measures of the number of youth who experience serious employment problems.

II. Youth Experiences and Labor Market Outcomes

Youth experiences can naturally lead to employment patterns that differ from those of adults. It is normal for many youth to show only a partial commitment to the labor force because of their student status and because of limited financial responsibilities to their families. Even the young workers who do work full-time will naturally show a job shopping pattern as compared to the more stable job pattern of adults. The teenage and early twenties are years in which many have harmful experiences that affect their employment options. Criminal activity and teenage pregnancies are the two most widespread harmful experiences.

The combining of school and work can lead to high unemployment because part-time, part-year jobs are limited, because frequent movements into the labor force require some minimal period of job search, and because young workers cannot or do not want to gain seniority on jobs available in their years as students. After completing school, youth would be expected to experience another spell of unemployment as they try to locate their first full-time job.

To some extent, school and work are substitutes. Young people staying in school are giving up current income to improve their future earnings prospects. From this standpoint, low youth employment is not a social problem. On the other hand, school and work are increasingly complementary. Many students need to work part-time while going to school; their joblessness is a real concern:

The share of youth enrolled in school declines sharply between the 16-17 and the 22-24 age categories. Note in Table 3 that, as of October 1977, 90 percent of 16-17 year-olds but less than 20 percent of 22-24 year-olds were students. The share combining both school and work declines more gradually since older students tend to work more than younger students. The data in Table 3 also document how the seasonal nature of youth labor force participation declines with age.

Family status is another explanation of difference between youth and adult employment patterns. The vast majority of young people live with parents who are primarily responsible for their support. The limited financial responsibilities of youth can account for their less stable work attachments and less intensive efforts to search for jobs. To many unmarried youth, the job will often be less important than one's social life.

The increase in financial responsibility with age is revealed in Table 4. Among young men, about 90 percent of 16-17 year-olds but only 40 percent of 22-24 year-olds live with parents; 60 percent of 22-24 year-olds are either independent (other family status) or have dependents.

Short tenure on specific jobs and limited work experience are other natural explanations for employment differences between youth and adults. Because youth have participated only a short time in the labor market, they

have been unable to build up the seniority and specific training that often accompanies job tenure. Table 5 shows how job tenure rises with age. This lack of job tenure makes youth more subject to layoff and subsequent unemployment. The effort to find the job at which tenure is desirable leads to job shopping and frictional unemployment. In spite of the accompanying unemployment, job shopping can be productive not only as a way for youth to find out which careers are most appropriate, but also as a way of gaining job experience and skills.

In some instances, youth activities might be expected to lead to lower unemployment rates than adults experience. When job opportunities are poor, youth tend to extend their schooling.[1] Unless these youth try to combine work and school, the limited job opportunities can be offset by declines in the labor force and result in fewer full-time unemployed workers. As Table 6 illustrates, the percentage of youth out of school and out of work has not increased nearly as much as increases in youth unemployment rates. The all volunteer army is another outlet, especially for young men. As job opportunities in the civilian labor market become scarce for high school dropouts, youth who might have experienced unemployment can enter the army. High school dropouts make up an increasing share of first term enlistees.

However these normal youth experiences affect employment status, it is the harmful youth experiences that lead to the most serious employment outcomes. Potential workers are expected to gain their basic educational skills while

they are young. Those who do not have basic reading, writing, and math competencies by age 21 will have access to the fewest jobs and will be most likely to have chronic labor market problems. While school attendance and achievement has risen substantially over the last two decades, especially for low income and minority youth, the number without basic skills is disturbingly high.

Building up a credible work record that can yield references for future jobs is another task to have accomplished by the early 20's. Unfortunately, many young people have no work experience over an entire year even during the 20-24 year age range. In 1977, 23 percent of nonwhite men, 20-24, and 36 percent of nonwhite women, 20-24, did not work even one week. Of the unemployed nonwhite men, 20-24, in March 1978, 15 percent had never worked full-time for at least 2 consecutive weeks.

Perhaps the most harmful experience for many youth is involvement in crime. Crime is to a large extent a youth activity. Youth under age 24 account for 55 to 60 percent of all arrests in the U.S. Of all arrests for crimes of violence, 40 percent were of persons under age 21. Unfortunately, the data on the share of youth ever arrested is generally not available on a national basis. Apparently, large numbers of white and black young men have some arrests which could affect their employment. A study of the 1945

Philadelphia youth cohort indicated that about 10 percent of young white men, and 25 percent of young black men had been arrested by age 18 for a relatively serious offense.[2] The data from the Philadelphia study also showed a clear connection between juvenile and adult crime. Of juvenile offenders, 43 percent committed crimes between age 18 and 26; only 12 percent of those with no juvenile record committed a crime during the 18-26 period.

Young women may face special income and job market problems because they bear a child in their early teenage years. Having a child in one's early years limits a woman's ability to gain early work experience. When no father is present, the woman must usually rely on welfare. The trends in childbearing show that fertility rates of young women are falling, but fertility among unmarried women is rising. Between 1965 and 1976, there was a decline in births per 100 women, ages 15-19, from 7.0 to 5.4. At the same time, the number of births per 100 unmarried women, ages 15-19, rose from 12 to 22.5. An unfortunate result of early childbearing has been long-term dependency. Moore estimates that one-quarter of women who bear their first child in their teenage years spend time on welfare by age 27.[3]

While these harmful experiences can raise youth unemployment, causation also runs in the opposite direction. High youth unemployment can lead to social problems and to long-term barriers to employment. This is particularly true for nonwhite, low income and inner-city youth. Poor experience in the labor market can interact with other forces to push young people into crime, into unstable family relationships and/or into an alienation and withdrawal from the regular labor market. The absence of available productive outlets in the labor market can be particularly critical at this early stage of life, Once having committed a serious crime, once having become a parent with no means of supporting a child, or once having a long period outside of a regular job, individuals must overcome special barriers to enter useful careers and to maintain stable employment.[4]

Although causality is difficult to establish, the worsening youth employment prospects have coincided with worsening trends in criminal activity, in illegitimacy, in suicides, and in welfare dependency. Furthermore, evidence is accumulating that the inability to find stable work while young affects one's employment and wages in the future.[5]

In summary, all youth are in a transition period with respect to their social lives as well as their experiences in the labor market. While normal experiences of youth can lead to employment patterns that differ from those of adults, it is the harmful experiences affecting large numbers of youth that are likely to lead to the most serious employment problems for youth and adults.

III. Measuring and Interp[illegible]outh Employment Patterns

The process by which [illegible] integrate into the labor market must be kept in mi[illegible]en measuring and interpreting youth employment patterns. Finding the appropriate measures is one part of the problem. The unemployment rate, the key indicator of general labor market conditions, has serious limitations as a measure of youth employment opportunities. But whatever measure one uses interpretation is difficult because of the simultaneity between school, family formation, and military experiences and youth employment outcomes. For example, early childbearing may hurt the employment prospects of young women; but poor employment opportunities could influence teenage girls to bear children.

This section looks first at the conceptual issues underlying the unemployment rate and other measures of youth labor force status. Next, we discuss differences across surveys in the estimates of youth employment and unemployment.

Concepts of Youth Employment Status

Because the unemployment rate does not capture variations and differences in labor market attachment, it has limited value for assessing youth labor market conditions. When the labor force is fixed, changes in the unemployment rate shift workers between employment and unemployment. Since youth labor force participation is variable and often short-term, the unemployment rate can show little movement even while substantial changes are taking place in youth employment conditions.

The UR may overstate or understate the severity of the youth employment problem. The understatement results from the "discouraged worker" phenomenon. Some youth who are not working are reported as not in the labor force (NILF) in spite of their desire to take a job now. These youth, who may have stopped actively seeking jobs because they believe no jobs are available, are classified as discouraged workers. The evidence that many youth classified as NILF are willing to work is actual work patterns. As the labor market improves, thereby increasing the number of available jobs, many youth previously outside the labor force move into jobs.

The often tenuous distinction between U and NILF creates difficulties for comparing youth subgroups, for examining over time, and for setting appropriate targets.[6] A good example is the recent changes in the employment status of black youth. Between April 1977 and April 1979, the unemployment rate of black men, 16-21, fell only 4.3 points from 30.6 to 26.3. This change masked the larger improvement in job opportunities indicated by the growth in the employment population ratio from 29.8 to 36.5. If the percentage of young black men who participate in the labor force had not increased over the 1977-79 period, the unemployment rate would have fallen from 31 to about 15 percent.

A second problem with relying solely on the unemployment rate it gives all unemployed workers the same weight. In fact,

unemployed workers differ substantially in the hours of lost work effort, in the amount of lost wages, in the need for income by the worker's family unit, and in the extent to which unemployment represents some minimum necessary amount of job search.

Comparing the unemployment of 16-17 year-old males with the unemployment of 25-34 year-old males provides a good illustration of why attaching the same weight to all unemployed workers is inappropriate. Nearly all the unemployed 16-17 year-olds are in-school looking for part-time work while nearly all unemployed 25-34 year-olds are looking for full-time jobs. Over 90 percent of 16-17 year-olds live with their parents while over 80 percent of unemployed 25-34 year-olds have to support themselves. The share of the unemployed looking for work for 15 weeks or more was 10 percent among 16-17 year-olds and 27 percent among 25-34 year-olds.

Still another indicator of the seriousness of unemployment is the number of hours unemployed workers actually spend looking for jobs. Bowers reports data from a special January 1973 survey showing that only 18 percent of unemployed teenage males looked for work more than 10 hours per week;[7] in contrast, 25 percent of unemployed adult men spent over 10 hours in active job search.

Given the differences between youth and adults and among youth subgroups in labor force attachment, it is important to look beyond the unemployment rate to assess the severity

of labor market problems. A variety of measures are necessary to capture the employment situation for young workers. Among the most useful are the employment-population ratio, the officially unemployed plus the discouraged unemployed, and the number who cannot find jobs for long periods. Although youth show low long-term unemployment in a typical month, the monthly figures do not reveal the number of youth who experience substantial joblessness. Only data on the work experience of youth over a full year can give valid figures for the extent of serious youth joblessness. These figures are available from the March Work experience surveys.

Survey Differences in Measures of Youth Employment Status

In addition to these conceptual issues, interpreting youth labor force statistics has become complicated by the different numbers of employed and unemployed youth that are reported by different surveys. The monthly CPS is the primary data source for youth employment statistics. However, there are other sources of youth employment data broadly representative of the nation as a whole. Each March, the Census conducts a work experience survey in which interviewers ask about weeks of employment and unemployment, total earnings, and usual hours worked per week over the entire prior year. Beginning in 1966, the Labor Department contracted with the Census to conduct the National Longitudinal Survey (NLS), a representative sample of young men and

women. The NLS differed from the CPS primarily in its effort to follow the same youth through their young adult years. Additional distinctions were that the NLS questionaires were more lengthy then the CPS and that the NLS respondent to questions about youth labor market experience was the youth himself, while the CPS respondent to questions about youth more is often the youth's mother.

The Department of Health, Education, and Welfare (DHEW) sponsored another nationally representative longitudinal survey of a subset of youth. The HEW survey, NLS72, covered a sample of youth who were high school seniors in Spring 1972. The youth were drawn from a sample of high schools. The NLS72 differs from the CPS in its sample selection process, its use of mail questionaires, its actual questions, and its greater use of the youth as respondent.

The National Crime Survey (NCS) is another nationally representative survey including data on youth employment status. The NCS is a monthly survey of 14,000 households. Census interviewers conduct the survey and Census field staff draw the sample using methods similar to the CPS selection process. Although the primary purpose of the NCS is to collect victimization data, the first set of questions to each respondent concerns his or her labor force activity. The key differences between NCS and CPS are in the rotation pattern, in the training of interviewers, and in the respondents. Nearly all data on youth from the NCS comes from asking youth.

To summarize, data on youth employment status are available from the CPS, NLS, NLS72, and the NCS. Of these four sources, only the CPS relies on respondents other than the youth for much of the data on youth employment status. How do the results across surveys differ?

The most extensive comparisons have been made between the NLS and CPS. Freeman and Medoff performed several detailed comparisons of employment status by subgroup.[8] Their numbers appear in Tables 7 and 8. Several findings are notable. First, the NLS consistently shows higher labor force participation than does the CPS. The differences in participation are particularly high for youth in school. Second, the EP ratios from the NLS are much higher than EP ratios from the CPS. The NLS-CPS diferences are most striking for young blacks. Among males, age 18-19, the NLS shows almost no difference by race in EP ratios for the relevant months in 1967, 1968, and 1969 while the CPS indicates much higher EP ratios for whites than for blacks. Third, the unemployment rates are sometimes higher in the CPS and sometimes higher in the NLS. In general, the UR's of white males are consistently higher in the NLS while the UR's of black males are often lower in the NLS. On the key issue of the racial differences in employment status, the NLS data show much smaller differences than appear in the CPS data.

Meyer and Wise report comparisions between NLS72 and CPS data that cover only the October 1972 employment status of youth who graduated high school in mid-19782.[9] In these numbers which appear in Table 9, the NLS72 data show a much better youth employment situation than do the CPS data. While comparisons for years beyond 1972 are unavailable at this time, the patterns of high youth employment, low youth unemployment and low racial differentials persist through 1976. The direct comparisons made by Meyer and Wise are imprecise because the NLS72 data on October 1972 employment status comes from a question asked in October 1973 about whether the individual worked at any time during October. The CPS employment status question relates primarily to a specific week in October. In spite of the differences in methodology, the overall employment picture for young graduates that emerges from NLS72 data is clearly more favorable that what comes out of CPS data.

Less complete but more recent figures are available from 1977 NCS data. Looking at data on nonwhite males in Table 10, we find that EP ratios are significantly higher and unemployment rates are significantly lower in the NCS than in the CPS. The differences are smaller among young women. In spite of the NCS-CPS differences sizable racial differentials in employment status remain in the NCS data.

IV. Causes of Youth Employment Patterns

Isolating the causes of youth employment patterns is a difficult and complex task. It requires answers to several questions, such as: why do youth unemployment rates generally remain at high levels? what explains how youth employment and unemployment patterns change over time and differ across geographic areas? why do some youth experience long periods of unemployment while other youth find jobs easily? what accounts for the extremely high unemployment and nonemployment rates of minority and low income youth? why have the employment problems of black youth worsened over time?

The purpose of this section is to review the evidence bearing on these questions. The review is divided into four parts. Part A examines the reasons for unemployment rate differences between youth and adults. Part B considers the factors influencing changes over time and differences across geographic areas in youth employment patterns. Part C analyses the changing patterns of racial differences in employment. Part D brings together the explanations from Parts A-C in order to summarize the explanations of the youth employment problem.

A. Why is youth unemployment so high relative to adult unemployment?

Unemployment rates of young people are considerably higher than adult unemployment rates in all Western countries. In 1976, the ratio of youth relative to adult unemployment rates ranged from 1.6 and 1.7 in Japan and Germany to 9. in Italy. In the United States, unemployment rates of 16-24 year-olds averaged about 2.5 times the adult unemployment rate over the 1970's.

Explanations of the differences between youth and adult unemployment fall into two main categories. One has to do with the idea that young workers are less attractive to employers than adult workers because they lack experience, good work attitudes, skills, and stability. The second relies on the notion that youth unemployment is a natural outcome of high turnover, seasonality, and the transition between school and work.

Before assessing the importance of high turnover to youth adult unemployment differentials, it is worth noting that movements in and out of the labor force and between jobs need not result in unemployment. It is possible that youth could search for jobs while in school or while in a prior job and end up without any period of joblessness. On the other hand, since youth are generally not in the labor force on a full-

time, full-year basis, it is reasonable to look first at the extent to which labor force entry and job changes account for age differences in unemployment rates.

A simple mechanism can account for effects of high turnover and less than full-year participation. On average, 16-19 year-olds spend about 30 weeks per year in the labor force. Each year he or she must find a new job or return to an existing job. Suppose job search or job recall takes some minimum amount of time. Then, if young workers were to want only 25 weeks of employment and the minimum time to locate a job were 5 weeks, the average youth would be unemployed 5 out of 30 weeks, for an average unemployment rate of 16.6 percent. This high unemployment rate would not represent a serious employment problem. Rather, it would be the natural outcome of some minimum time for job search and the part-year commitment to the labor force.

According to this explanation, adult unemployment rates are low because adults are able to remain on their jobs for long periods. Because few adults separate from their jobs voluntarily and because adults are able to remain on some subsequent job for a long period, the job search time would generally make up a

smaller proportion of total time in the labor force. For example, suppose that 25 percent of all adults separated from their jobs per year and took 10 weeks to find a new job. The adult unemployment rate would then be 4.8 percent, which equals 10 weeks times .25 divided by 52 weeks.

Evidence for the turnover explanation in the United States comes from several sources. First, youth unemployment is said to be relatively short-term. In April 1979, for example, only 18 percent of unemployed 16-21 year-olds had been looking for work for 15 weeks or more, as compared to 41 percent of unemployed men, 35-44. Over half the unemployed 16-21 year-olds had been unemployed 5 weeks or less. Second, while most unemployed teenagers are classified as entrants or reentrants to the labor force, most unemployed adults have lost or quit their prior job. In April 1979, about 70 percent of unemployed teenagers, but only 20 percent of unemployed males, 20 and over, had recently entered the labor force. Third, over the course of the year, young workers tend to average more but shorter spells of unemployment than do adult workers. Finally, gross flow data indicate that young workers entering the labor force find jobs in the month they enter as frequently as do adult entrants to the labor force.

These pieces of evidence lend support but do not prove the validity of the turnover explanation. Data on the duration of spells of unemployment do not reveal how long it takes for young workers to find jobs. A spell of unemployment can end by the youth giving up and leaving the labor force. Nor do the data cited above tell us how many spells of unemployment are experienced by the youth with employment problems. The fact that most unemployed youth are entrants or reentrants to the labor force does not tell us why such a large share of entrants and reentrants must bear unemployment. Finally, the finding that youth entrants find jobs as rapidly as adult entrants is based on gross flow data that are unreliable.

A direct examination of the turnover explanation must rely on data on employment and unemployment experience over at least a full year period. The March 1978 Work Experience Survey, which covers 1977, provides the latest information available on a full year's employment experiences of youth and adults.

A look at the employment record for 1977 is enough to suggest that high turnover plays only a limited role in explaining high youth unemployment. Tables 11 and 12 array the 1977 data. Several notable facts appear inconsistent with the turnover picture. The vast majority of young workers do not spend any

time unemployed. Even among nonwhite teenagers, the group that suffers by far the highest unemployment rates, most workers did not experience a single week of unemployment. Looking at the data in terms of weeks of employment highlights the point. About three-quarters of weeks of employment were worked by nonwhite and white youth with no unemployment at all over the year.

The distribution of youth unemployment is highly unequal. Between 70 and 80 percent of the weeks of unemployment were borne by young workers with 15 weeks or more of unemployment. The average number of weeks of unemployment for this group was about 30 weeks. Many of these long-term unemployed did not work at all during 1977. Among black males, 16-24, those unable to find any job accounted for one-third of total weeks of unemployment. These nonworkers averaged over 20 weeks of unemployment.

The concentration of unemployment is almost as high among youth as among adult workers. In the case of white workers, about 68 percent of youth unemployment and about 73 percent of adult unemployment was borne by workers with 15 weeks or more of unemployment over the year. Among nonwhites, those with substantial unemployment experienced 81 percent of youth unemployment and 83 percent of adult unemployment.

Although the actual distributions of youth unemployment are highly unequal and inconsistent with the turnover explanation of high youth unemployment, a good deal of inequality in unemployment would result even if a random, high turnover process generated the unemployment. To estimate the degree of inequality in unemployment generated by a random, high turnover process, we can build a simple model of the economy.

Consider a model in which some workers leave their job every week, thereby opening up vacancies filled during the same week. Each week's pool of jobseekers is made up of those not placed in jobs the prior week plus those whose jobs ended in the current week. Suppose all jobseekers have an equal chance of finding a job. The probability of a job seeker finding a job would be equal to the number of vacancies divided by the number of jobseekers. Given an unemployment rate and the duration of time a worker stays on the job once he or she finds one, it is possible to simulate this model economy over a full year to calculate its distribution of unemployment. The simulation results can illustrate the pure effects of high turnover, in cases where we assume short job durations.

Several tests of the model were performed with alternative job durations and unemployment rates. In one example, in which we assume jobs last only 13 weeks

and the unemployment rate is 20 percent, the share of unemployment accounted for by those unemployed 15 weeks or more turned out to be 32 percent. This figure is much lower than the 70 to 80 percent appearing in the actual data on the share of unemployment borne by long duration unemployed. This comparison indicates that it is not primarily high turnover which accounts for most youth unemployment.

In spite of these results, it remains true that high turnover is an important characteristic of the youth labor market. Jobs turnover especially fast. In the first quarter of 1974, the new hire rates (new hires divided by those working at the beginning of the quarter) were .95 for black 16-19 year-olds, .71 for white 16-19 year-olds, but only .18 for adults, 25-44.[10] Over the year, young workers find jobs with more than one employer more often than do adult workers. In 1977, about 32 percent of 16-24 year-old males but only 23 percent of 25-44 year-old males worked for more than one employer. It is noteworthy that 20-24 year-old males, who more often had two or more jobs than 16-19 year-olds, also experience lower unemployment rates than did 16-19 year-old males.

High youth turnover would be expected to exert its most significant impact on unemployment during the summer, when youth flows into the labor force are largest. The full-time labor force doubles every

summer and declines by half in the fall. The total labor force of 16-17 year-old males is almost 30 percent higher during the summer months than during the year as a whole. Nevertheless, unemployment rates of young people are actually lower during the summer.[11] Nearly 90 percent of the summer inflow of young workers is absorbed into jobs the month of entry into the labor force. A pure turnover explanation would seem inadequate as an explanation of this rapid absorption of young workers planning to stay in jobs only for a short period.

Although the importance of turnover is often exaggerated, the data suggest that high youth turnover makes some contribution to high youth unemployment. Workers who change jobs are more likely to become unemployed than workers who remain with one employer. Since more youth than adults work for 2 or more employers, youth would be expected to show higher unemployment on that basis alone. Workers who remain in the labor force the entire year show a somewhat lower unemployment rate than part-year workers. Thus, the more frequent part-year participation of youth would be expected to contribute to higher unemployment rates among young than among older workers.

To obtain some summary measures of the contribution of turnover to the youth-adult unemployment differential,

it is possible to distinguish between differences in the incidence of unemployment and the duration of unemployment. In general, while more youth than adult workers experience unemployment over the year, the duration of unemployment is somewhat smaller among youth than among adult unemployed. These facts have led some analysts to conclude that it is high turnover that accounts for the gap between youth and adult unemployment rates.

This conclusion is misleading. To see why, consider how much of the youth-adult unemployment differential would be eliminated if the excessively high incidence of youth unemployment due to necessary short duration unemployment did not exist. In 1977, 13.5 percent of 25-44 year-old and 30 percent of 16-19 year-old white males experienced unemployment. Suppose the incidence of unemployment among 16-19 year-olds fell to the 13.5 percent adults experienced in such a way as to eliminate unemployment among young workers with the shortest amount of unemployment. In this way, the incidence of unemployment of teenagers and adults would be the same; the excessive incidence of youth unemployment due to natural turnover would no longer exist. It turns out that 70 percent of the gap between youth and adult unemployment rates would remain. Thus, high turnover can account for less than one-third of the youth-adult gap in unemployment rates.

Other explanations of the youth-adult unemployment differential emphasize the differences in characteristics between young and older workers. Because youth have not completed their education, have little work experience, and have few specific job skills, firms tend to prefer adult workers over youth. In additional to differences in their attractiveness to employers, young and older workers differ in their intensity of job search. Since the majority of youth are dependents living with their parents, more youth than adults can afford a casual approach to the labor market.

The explanation that young workers are less attractive to employers than older workers cannot by itself account for high youth unemployment rates. The reason is that, while young workers may be less productive than older workers, youth wages are far less than adult wages. Thus, a less productive young worker could well be as profitable to hire as a more productive adult worker. As of May 1978, the average wage rate paid to 16-17 year-old men was only about half the average wage paid to men, 25 and over. If the labor market functioned as a perfectly competitive market, young workers would face lower wages but not necessarily higher unemployment because of their limited work experience and skills.

It is the interaction of wage rigidities along with the limited attractiveness of young workers that can lead to high youth unemployment. The minimum wage law, union power, and social attitudes place a floor under the wages employers can pay. For more attractive and productive workers, these wage floors do not limit job opportunities because they are below the wage that would prevail in a free market. For less attractive workers like youth, legal and social minimum wages do tend to lower the demand for low wage workers and push such workers into uncovered jobs, into unemployment, or out of the labor force. Average wages paid to youth are much closer to the Federal minimum wage than are the wages paid to adults. In 1978, the Federal minimum wage was virtually equal to average wage rates paid to 16-19 year-old women and 88 percent of average wages of 16-19 year-old men, but less than 50 percent of average wages of adult workers.

The legal minimum wage differs from other forms of wage setting within sectors in terms of its coverage. From 1956 to 1979, the legal minimum wage had declined relative to average wages in manufacturing from 52.9 percent to 49.7 percent. However, the share of private, nonsupervisory, nonagricultural jobs covered by the legal minimum jumped from 53 percent to 84 percent. This means that only 16 percent of relevant jobs are left uncovered by the legal minimum. In fact, the legal

minimum is less comprehensive because of the considerable noncompliance by covered employers. Estimates indicate that perhaps as many as 30 percent of covered jobs paying near the minimum actually pay under the legal minimum. [13] Still, the legal minimum wage covers a much broader array of low wage jobs than do the institutional wage setting policies in specific sectors.

Economists have performed a large number of studies of the impact of the minimum wage. These studies have been subject to a number of limitations. Some have failed to account for an uncovered sector; some have assumed away unemployment in the covered sector; most have been unable to include information on changes in state minimum wages; and none have successfully taken account of employer noncompliance with the legal minimum. Nevertheless, several of the studies are valuable additions to our knowledge.[14] Nearly all the studies show that the legal minimum does induce disemployment effects and that these effects are most pronounced for young workers.

In a comprehensive study, Gramlich found that high minimum wages reduce full-time employment of teenagers substantially and force many into part-time employment.[15] The net result is a small decrease in the number employed but a larger decrease in total lost hours of work. The author takes account of the increases in wages paid to young workers who do find

jobs. His results indicate that the wage gain comes close to offsetting the job loss in the aggregate, but that many young workers from high income families benefit while many young workers from low income families lose. Using Gramlich's techniques, a Labor Department analyst estimated that the 1979 minimum wage increase cost teenagers about 90,000 jobs, or a 1 percentage point rise in their unemployment rate.

Other studies show sizable effects of the minimum wage on youth employment and unemployment. Ragan estimated that the total job loss of teenagers in 1972 resulting from 1966 changes which vastly expanded coverage was about 225,000 jobs.[15] This job loss translated into an unemployment rate that was 3 percentage points higher for black youth and almost 4 percentage points higher among white youth.

Freeman used his study of differences across areas to assess how youth might be affected by the minimum wage.[16] The idea is that while the Federal minimum is the same in all areas, average wages differ by area. Where average area wages are low, the Federal minimum will constitute an effective barrier to the hiring of young people. Where area wages are high, fewer jobs would have paid below the minimum even in the absence of a law. Freeman found that employment

was lower in area with lower average wage rates, but that unemployment rates were not affected. This test provides more evidence that the minimum wage affects youth employment. However, the test may confound other wage rigidity effects with the minimum wage effects. These other wage rigidities might raise average area wages and might cause firms to shift away from young workers in favor of older workers.

Given that wages are somewhat rigid downward, the factors that make young workers less attractive to employers can end up limiting their job opportunities. In general, young workers are less attractive because of characteristics associated with age. However, child labor laws and privately determined age entry requirements present employment barriers based on age per se. While no rigorous study of the effects of age restrictions is available, analyses by Osterman[17] and by Mitchell and Clapp[18] indicate that union and employer policies as well as child labor laws channel young workers into a narrow range of occupations. These effects could lead to overcrowding in youth occupations, which, in turn, results in lower wages and possible unemployment.

The limited range of jobs available to young workers is one reason youth tend to work in short duration, low wage occupations. The other reasons are that some youth do not

want permanent jobs and that other youth are shopping for the right long-term job. For all these reasons, young workers have shorter job tenure than older workers. Once tenure on a specific job is taken into account, young workers apparently have no more chance of becoming unemployed than do older workers. Mincer and Leighton found that experience in the labor force has no impact on the incidence of unemployment other than through its effect on tenure in one's current job.[19]

Young workers face difficulties in finding permanent jobs because they lack work experience. In a survey of firms employing low to medium skill workers, Diamond and Bedrosian found that the majority of firms regarded work experience as a preferred characteristic of workers.[20] In several cases, firms wanted workers with experience in the same or a related job. Osterman found that some young workers are able to obtain such experience by working in "bridge jobs", which are jobs in small firms that offer the experience and references necessary for young workers to move into permanent jobs with large, high paying firms. Unfortunately, many young workers have little or no access to bridge jobs and thus have special difficulties in gaining the work experience desired by employers.

The connection between education and youth employment opportunities is complex. Young workers who have not

completed their education generally work in temporary, part-time, and low wage jobs. In May 1978, among 16-19 year-old male workers who did not complete high school, students worked an average of 15 hours per week at jobs averaging $2.35 per hour while nonstudents worked 31 hours per week at jobs averaging $2.98 per hour. As youth enter their early 20's, high school and college graduates appear to have a significant advantage in employment and earnings over nongraduates. Among young white men, 20-24, who are out of school, high school graduates showed a .85 employment-population ratio, an 8.5 percent unemployment rate, and a $5.10 per hour wage in March 1978 while dropouts experienced a .75 employment-population ratio, a 15.4 percent unemployment rate, and a $4.54 per hour wage.

Some studies have questioned the idea that added education for particular workers improves their employment status in their early years in the labor market. A National Commission on Employment Policy review of studies of youth employment cited several analyses which indicated little or no positive effect on employment from completing high school.[21] These studies generally used the National Longitudinal Survey and covered youth experiences in the late 1960's and early

1970's. Even the studies that did find positive impact from added education questioned the direction of causation. Youth who do well generally would tend to complete high school. Thus, completion of high school could be an indicator of an individual's employability rather than a necessary aid to the employment of all young people.

In spite of these studies, more recent data appears to lend support to education's positive role in the employment of young people. The employment gains sometimes show up only a few years after completion of high school. For example, among out of school nonwhite young men, dropouts had only a slightly higher unemployment rate than graduates in the 16-19 years (33.7 to 28.1), but the gap widened in the 20-24 age period (28.7 to 17.3). The HEW-sponsored survey of 1972 high school seniors (NLS72) indicated that high school graduates integrated smoothly into the labor market, even in the high unemployment years of 1975 and 1976. Unemployment rates of white and nonwhite male graduates were only 5.9 and 8.6 even during the 1975-76 recession.

In addition to factors affecting the attractiveness of youth to employers, there are factors affecting the labor force commitment of youth relative to adults. Differences in family obligations between young and older workers would be expected to cause differences in the need for

earned income. In March 1978, only 2.5 percent of young men, 16-19, headed families (with children or married without children) as compared to 30 percent of men in the 20-24 age range, and 70 percent in the 25-34 age range. While overall employment-population ratios rise substantially by age (from .46 to .72 to .88), the employment-population ratios of family heads move up much more slowly (from .85 to .83 to .91). Of couse, it is difficult to determine causation. Those with access to good employment opportunities may form families at younger ages; those who form families while young may thus become more serious about finding jobs; or finally, those who are socially capable may both do well in the labor market and form families at a young age.

It is interesting to note that young men who are living with parents or are otherwise related to the family head do relatively poorly in the labor market through their late 20's and early 30's. In March 1978, 11 percent of white and 21 percent of nonwhite 25-34 year-old men were living in households as children or other relatives of the family head. The white and nonwhite young men in this family status had employment-population ratios of only .77 and .61, respectively. In comparison, the employment-population ratios of independent 25-34 year-olds were .91 for white and .84 for nonwhite young men.

B. What accounts for the trends over time and differences across geographic areas in youth employment patterns?

This section analyzes the impact of traditional supply and demand forces in determining youth employment patterns. The first step is to describe the trends in the youth labor market that have taken place over the last 30 years. The next step is to review the evidence on the effects of aggregate demand, of the quality and quantity of youth labor, and of the demand for youth-specific labor.

The population trends are the best starting point. In the decade of the 1950's, the population of 14-17 year-old white youth increased by over 40 percent; black youth in this age range showed a moderate increase of just under 20 percent. The massive increases in the population of 18-24 year-olds occurred in the 1960's. The size of this youth group jumped by over 50 percent among whites and by over 60 percent among blacks. By the 1970's, the population increases among 18-24 year-olds were moderating substantially among whites, but still rose by about 25 percent among nonwhites. Projections for the 1980's indicate a declining population of white and black 16-24 year-olds, with the decreases more sizable among whites than among blacks.

No single trend can adequately describe the long-term changes in the youth labor market. Among young men, the employment share of the population has

increased moderately for whites, but decreased substantially for nonwhites. In general, white students have increased their employment-population ratios substantially while the percentage of white nonstudents in jobs has declined. As a result, the proportion of young white men not in jobs or school has risen, sometimes substantially. Out-of-school 16-17 year-old white males have faced a sharp worsening in job opportunities, with unemployment rates rising from about 14 percent in the 1964-65 period to almost 30 percent in the 1977-78 period. In the case of nonwhite young men, sharp declines in the percentage employed and sharp increases in the unemployment rate have hit all age-school status groups. For example, nonstudents, 18-19, experienced reductions in their employment population ratios from about .73 in 1964-65 to about .60 in 1978. The share of the nonwhite male population neither in school nor in jobs jumped from 5.6 to 13.3 percent among 20-24 year-olds and from 7.4 to 10.0 among 18-19 year olds.

Counting youth in the armed forces as employed does little to change this picture for whites, but does moderate the decline somewhat for nonwhites. Among

18-19 year-old nonstudents, the gap between white and nonwhite employment-population ratios increased from 8 to 19 points between 1967 and 1978 when the armed forces are excluded. Including the armed forces in employment and population figures causes the gap to widen from 10 to 14 points.

School enrollment trends differ by race and by time period. Young white men generally raised their school attendance rates during the 1950's and early 1960's, but reduced their school attendance from the late 1960's to the early 1970's. This reduction was concentrated almost entirely in the 18-21 year-old age range, where the percentage in school dropped from 51 percent in 1967 to 40 percent in 1978. Among young black men, enrollment rates went up sharply from 1950 to the mid-1960's and then levelled off or increased slowly up to the late 1970's.

Young women entered the labor force in large numbers over the last few decades. Between the 1955-59 period and 1978, overall employment-population ratios jumped from .37 to .49 for white 16-19 year-olds and from .43 to .60 for white 20-24 year-olds. The employment ratios changed little for nonwhite women. The upward trends were similar for white students and nonstudents; but among nonwhite women, students increased their employment while nonstudents showed declines in employment.

Unemployment rates deteriorated dramatically for young nonwhite women, students and nonstudents. In the 1955-59 period, nonwhite 16-19 year-olds and 20-24 year-olds had unemployment rates of 23 and 15 percent; by 1978, the comparable rates had reached 38 and 21 percent. This worsening occurred while the adult male unemployment rate declined slightly. Unemployment rates of young white women moved up moderately from the late 50's to the early 60's and remained about level until recently.

Young women have continued to increase their school attendance rates from the 1950's through the mid-1970's. While the largest increases occurred up through the mid-1960's, small increases in school enrollment showed up during the 1967-78 period.

To explain these trends as well as the variations in employment and school attendance across cities, Freeman and Wachter and Kim have examined the role of traditional supply and demand factors.[22] One focus has has been on the importance of aggregate demand. Several studies have demonstrated that employment opportunities for young workers are highly sensitive to the state of the labor market. Changes in general economic conditions set off especially large changes in youth employment because young people have low job tenure, low seniority, little skill specific to the firm, and are often new entrants to the labor market. During the

1976-79 expansion, employment of young workers, age 16-24, increased by 10 percent while employment of adult males, 25 and over, rose by only 2 percent.

Wachter and Kim estimated the impact of aggregate demand not only on youth employment, but also on the percentage of youth who were in school full-time, unemployed, and neither in the labor force nor in school. Their findings showed that recessions tend to move youth from jobs to unemployment, to full-time schooling and to out of the labor force. In other words, when times are bad, youth tend to substitute school for work as well as become discouraged and leave the labor force and school. Black youth employment is especially sensitive to general labor market conditions. The estimates indicate that a decrease from 3.6 to 3.0 in the unemployment rate of prime age male workers would raise the employed share of black youth by about 4 percentage points and raise the employed share of white youth by about 2 percentage points.

Youth employment is also highly sensitive to differences in general employment conditions across cities. Freeman examined how variations across 115 metropolitan areas in 1970 affected youth employment.[23]

He found that the variations in the demand for labor had a highly significant impact on the share of young people employed, a smaller effect on the youth unemployment rate, and a moderate effect on the percentage of youth enrolled in school. Job conditions in the local labor markets were especially important for young workers out of school.

These results show that the number of youth with labor market difficulties depends on the demand for labor as well as on the characteristics of young workers. Special problems disappear for some workers in a tight labor market. In 1967, when the prime age male unemployment rate was 1.7 percent, only 4.5 percent of workers 16-24 experienced 15 or more weeks of unemployment. By 1977, when the prime age male unemployment rate reached 3.5 percent, the percentage of youth bearing substantial unemployment rose to almost 11 percent.

A second focus has been on the role of the surge in the youth population. In theory, large additions to the youth labor force could have a variety of consequences. The actual effects depend on the ability of employers to utilize young workers in tasks normally performed by adult workers, on the flexibility of wages of youth relative to adult workers, and on the movements of youth between school and work. If employers cannot easily substitute youth for adults, a rise in percentage of youth in the labor force would lead to a decline in the

wages of youth relative to adults. The fall in relative wages would be necessary to increase the absolute number of young people working. But, the percentage of youth in jobs might fall for one of two reasons. First, the low wages might make market jobs unattractive relative to school, house work, illicit jobs, or other activities. A second possibility is that the decline in youth wages is limited by the existence of the minimum wage and other wage rigidities. The result is that demand for workers would expand too little to accommodate the increase in the youth labor supply.

Wachter and Kim attempted to isolate the effects of population shifts between 1963 and 1978 on the percentage of youth employed, unemployed, and attending school full-time.[26] In general, the authors found that increases in the youth share of the population lowered the percentage of youth who were employed and raised the percentage who were unemployed, who were attending school while outside the labor force, and who were neither in school nor in the labor force.

Although the Wachter-Kim time series results are plausible, they are not conclusive because of the short time period involved and the difficulty in isolating the population trend from other trends. What adds credibility to the findings are similar results obtained

from an analysis of differences in youth employment patterns in 1970 across metropolitan areas. Freeman found that areas in which young people make up a large percentage of the labor force tended to have lower than expected employment-population ratios for young people.[25] The weakness in employment opportunities sometimes translated into declines in labor force participation, so that unemployment rates did not always rise. As might be expected, job chances of 16-19 year-olds were more sensitive to the 16-19 share of total population than were the job chances of 20-24 year-olds sensitive to that group's share of the population.

These results indicate that increases in the youth population and labor force reduce job opportunities for the average young worker. Given these findings, we would expect that the labor force bulge that occurs every summer induces similar effects. But, as noted above, job opportunities for youth actually improve during the summer. A vast flow of young workers enters the labor force every summer. In 1976, for example, the full-time labor force of 16-19 year-olds jumped from 3.8 million in March to 7.0 million in June, 8.3 million in July, 7.5 million in August before falling back to about 4 million for the rest of the year. Nearly 90 percent of the increase in

the youth labor force was matched with an increase in employment. The result was a decline in the unemployment rate between the spring and summer.

The ability of the economy to absorb large numbers of young people during the summer indicates the flexibility of employers to anticipated seasonal changes in the labor force. However, the bulge in the youth population may have worsened full-time, year-round opportunities for young people, while part-time and summer jobs continued to be available. One reason may be that students coming into the summer market are more employable and have lower expectations than youth in the full-year market.

Much of the success of young people in finding jobs during the summer also can be attributed to the large scale of the Federal job creation programs. Clark and Summers estimated that the average number of summer jobs provided between 1968 and 1976 was about 600,000.[26] Since about 3 million teenagers left school and entered the labor force for the summer, the Federal effort employed as many as 20 percent of all summer entrants. The share of employment that occurred because of summer programs probably exceeded 20 percent. It is difficult to estimate precisely the Federal impact because of the difficulty in determining how many youth would

have obtained jobs in the absence of the Federal program.

Demand for young workers varies not only by season, but also across areas and over time. Freeman investigated the effects of differences in the industrial mix of employment across 115 metropolitan areas.[27] The idea was to see whether areas with high percentages of industries traditionally employing youth ended up with higher youth employment population ratios than areas with low percentages of youth specific industries. Freeman found that a favorable industry mix did raise youth employment. Wachter and Kim looked at the impact of changes over time in the largest employer of youth-specific labor--the military.[28] Their results showed that the size of the military did indeed have significant positive effects on overall youth employment opportunities. The armed forces effect was especially significant for nonwhite men.

C. What are the causes of the large and rising employment differentials between white and nonwhite youth and between low income and upper income youth?

The serious and worsening problems of black youth are the central concern of policymakers. Black youth have encountered unemployment rates in the 1970's that are extreme by any standard, even the standard of the great depression. Among nonwhites, 16-19, unemployment

rates have reached the 35-40 percent range in the last few years, or well above the 20 percent range experienced in the late 1950's. The rise in unemployment rates has extended to nonwhite 20-24 year-olds, who have seen increases from the 15 percent to the 20 percent range. Employment-population ratios, which are sometimes clearer indicators than the unemployment rate, tell a similar story. In the case of young men, blacks experienced a sharp drop in employment-population ratios, while whites showed a relatively level pattern. Young nonwhite women increased their employment-population ratio slightly while young white women made sharp advances in employment.

Low income white youth also face severe employment problems. In March 1978, white youth from families with incomes less than 70 percent of the Bureau of Labor Statistics lower Living Standard had unemployment rates of 20-27 percent. The unemployment rates for 20-24 year-old low income white youth were about as high as for all nonwhite youth. Only 57 percent of 20-24 year-old low income white men were employed, a slightly lower share than the 61 percent registered by nonwhite men, 20-24. In the 16-19 category, low income white youth had a better employment record than all nonwhite youth. The detailed numbers appear in Table 20.

Before examining the causes of the enormous differentials in employment patterns, it is worthwhile

looking carefully at the underlying data. As noted above, special surveys of youth employment have yielded estimates of youth employment and unemployment that differ from the Current Population Survey estimates used in official reports. Data from the National Longitudinal Survey and from the HEW Survey of 1972 High School Seniors showed racial employment gaps considerably smaller than data from the CPS. One reason suggested for the differences in estimates is that the youth-based surveys always interview the youth while the CPS often interviews the youth's parent.[29]

An estimate of the possible effect of this data problem on racial differentials in a recent year can be derived by comparing numbers from the CPS with numbers from the National Crime Survey (NCS). The NCS asks a set of employment questions to the youth directly instead of relying on responses of a responsible adult. As Table 10 shows, the racial differentials in employment status are much lower in the NCS data than in the CPS data. This is especially true for males, where differences in data sets could account for one-third to one-fourth of the racial differentials in employment-population.

Even with these adjustments, the size of the racial differential in youth employment remains enormous. What

makes the size and worsening trend unexpected are facts showing general improvements in the employment opportunities of nonwhite workers. Among adult men, unemployment rates of nonwhites have been falling relative to unemployment rates of whites. Between the 1955-59 and the 1977-78 periods, (periods with similar unemployment rates of adult men), the unemployment rate of nonwhite men, 25-34, fell from 8.3 percent to less than 6 percent. Earnings of nonwhite adult women have reached virtual parity with earnings of white adult women. In the case of youth, the worsening employment situation for nonwhites has not carried over into wages. In May 1978, average wage rates of young nonwhite women were equal to those of young white women; among young men, nonwhites received wage rates about 85 percent of the wages paid to whites.

Analysts have looked at a variety of observable and unobservable phenomena to attempt to explain the sharp worsening in nonwhite youth employment. This section begins by assessing the importance of such observable factors as armed forces enrollment, educational attainment, family status, and geographic area of residence. Next, it turns to less observable, but important variables such as discrimination, work attitudes, and arrest records.

Armed forces enrollment is one determinant of nonwhite youth employment status. However, the military's effects

are subject to alternative interpretations. One interpretation is that the military is a major employer of youth and that young people in the armed forces should be counted as employed. The alternative interpretation is that entry into the army by low income and minority youth is an indication of the paucity of job options in the civilian economy; on this interpretation, counting army personnel as employed would be misleading.

Whatever interpretation one chooses, it is worth looking at the racial differentials in male youth employment with and without the military. Tables 13 and 14 show the basic numbers. Note that even including the armed forces as employed leaves a wide gap between the employment-population ratios of white and nonwhite young men. The addition of the military to the employed pool would moderate but far from eliminate the rise in male youth unemployment rates.

Differential schooling is another possible explanation. The problem with this explanation is that the schooling gap has been narrowing at the same time as the employment gap has been widening. While out-of-school nonwhite youth are less likely to have graduated high school than out-of-school white youth, the schooling differential appears to account for little or none of the differential in employment

and unemployment. Note in Table 15 that nonwhites lag behind whites within the dropout and high school graduate categories. Young nonwhite men (20-24) who graduated high school showed a 17 percent unemployment rate, as compared to an 8.5 percent for young white graduates. Although high school graduation may help the employment opportunities of non-white youth, the data indicate that the narrowing of the schooling gap was inadequate to avert a worsening in the employment gap.

Educational quality differences may explain part of the continuing racial gap in employment opportunities. According to the latest national study of functional literacy among 17 year-olds, the white literacy rate was 33 percentage points higher than the black rate (91 per cent for white and 58 per cent for blacks). This differential could account for some of the 15-25 point gap in employment-population ratios. While many jobs do not require high reading, writing, or math skills, poor abilities in these areas certainly limit the range of jobs available to young people. One problem with this explanation is that test score differences have not widened by race, as have employment-population ratios. Thus, only if these test score differences increased in importance relative to job characteristics could they account for the worsening position of black youth. Such an explanation is possible, but it seems inconsistent with the improving relative position of black young adults, which is often attributed to increased education. To this point, researchers have not documented the precise relationship between differences of academic achievement and differences in employment.

A highly positive picture of the employment opportunities of nonwhite high school graduates emerges from the HFW NLS72 survey. A year and one-half after graduation, nonwhite young men showed an employment-population ratio only a few points below the ratio for white young men. The average EP ratio from 1973-76 was .91 for white graduates and .87 for nonwhite graduates. The near equality extended to weeks worked and wage rates.[30]

Although the NLS72 data indicate that education can close much of the white-nonwhite employment gap, the CPS data indicate that increased education can only serve a limited role. Additional evidence will be required before one can be confident about either conclusion.

Currently, it is clear that nonwhite high school graduates do markedly better than nonwhite dropouts. An analysis of employment experience in March and May 1978 indicated that high school graduation added 10 or more points to the likelihood that a nonwhite youth would be employed. The contribution of the high school degree is net of effects of age, residential location, family status, region, family income, and a number of family members. The positive results from recent data contrast somewhat with findings from other analyses indicating that increased education had little effect on nonwhites immediately after school completion. Since these other studies covered the late 1960's and only the immediate post-schooling

period, the findings of a positive effect from high school graudation appear to be more reliable indicators. Employment levels of nonwhite graduates continue to remain above those of dropouts through the 25-34 year-old period. In March 1978, the employment-population ratios for nonwhite men, 25-34, were .81 for high school graduates (with no college) and .73 for dropouts.

These results document that among black youth with similar family backgrounds, high school graduates do better than dropouts. This does not prove that it is high school graduation itself that causes the improvement in job opportunities. It could be that unmeasured motivational factors cause some youth to do better in education and jobs.

Racial differences in family status could also contribute to employment differentials. Young nonwhite men are less likely to have family responsibilities than are young white men. Young nonwhite women are more likely to have to care for young children than are young white women. In spite of these differences, family status appears to have little effect on the racial gap in the employment status of 16-19 year-old women and of 16-19 year-old young men. Family status differences do appear to play a sizable role in explaining the racial gap in employment of 20-24 year-old women. The overall employment-population ratio of nonwhite women would be .56 instead of .50 in March 1978 had their family status distribution been the same as that of white women. This diffference of 6 points represents about half of the overall gap between white and nonwhite employment population ratios.

Considerable research indicates that women who bear children in their teenage years experience income, employment, and earnings problems that carry through their mid-20's. The effect of early childbearing on employment and income occurs through lost education, lower marital stability, and lost work experience.[31] While early childbearing appears to account for part of the racial gap in the employment of young women, causation could run from poor employment opportunities to early childbearing. Young black women may decide that, given the lack of good opportunities, early childbearing is not particularly costly.

Geographic considerations have relevance to both the worsening trend and the current problems of nonwhite youth employment. The move away from rural farm locations no doubt contributed to the declining employment of nonwhite youth from the early 1950's through the mid-1960's. In 1950, 32 percent of nonwhite males, 18-19, lived in rural farm areas, where they experienced unemployment rates under 3 percent. At the same time, unemployment rates of nonwhite male, 18-19, living in the cities was about 20 percent. By the late 1970's virtually no young nonwhites lived in rural farm areas. The shift from farms to the big cities no doubt helped to lower nonwhite youth employment while raising nonwhite youth wages. Although the migration of nonwhites lowered the percent nonwhite youth in jobs, it does not account for much of the worsening gap between white and nonwhite youth that occurred between the mid-1960's and late 1970's.

Currently, the employment of nonwhite youth suffers from their concentration in poverty areas of large cities. Nearly 41 percent of nonwhite youth as opposed to only 6 percent of white youth lived in poverty areas of metropolitan areas. In these areas, demand conditions are poor, as reflected in the high adult unemployment rates of 10.2 percent, as compared to a 4.5 percent in all nonpoverty areas. The high adult unemployment rates in poverty areas add to the competitors youth face for even low level jobs. A presentative of a large fast food company with outlets in poor central city areas as well as in the suburbs has found that adults compete for vacancies in the inner city but not in suburban areas.[32]

A comparison of employment levels of nonwhite youth by geographic area provides some indication that problems are most severe in the inner city. In March 1978, out-of-school black men, 16-19, had an employment-population ratio of .60 outside central cities, but only .36 in central cities. The figure for 20-24 year-old black workers indicated much smaller differences inside and outside central cities. Clearly, the employment problems of black workers extend beyond central cities. In nonpoverty areas in nonmetropolitan areas, black teenagers experienced a 32.6 unemployment rate.

Another potential cause of racial differentials has to do with differences in the willingness to take and to remain at low wage or unpleasant jobs. In general, the evidence does not support the view that black youth are

less willing to work at low level jobs than are white youth. black youth do not move from job to job as often as do white youth. When asked about their lowest acceptable wage, nonwhite unemployed youth reported reservation wages near or below the wages of employed nonwhite youth.[33]

A look at quit behavior reveals evidence on both sides of the issue. On the one hand, nonwhite young men quit only slightly more often than do white young men. However, relatively more nonwhites are willing to quit at a time when no new jobs or other activity are available to replace their existing job. This type of quit behavior cannot be fully explained by differences in education, family status, age, and other personal characteristics. Osterman found that, for the 1969-70 period, the excessive number of quits into unemployment accounted for 26 percent of the racial differences in unemployment reported in the National Longitudinal Survey.[34] (It is important to recall that the NLS showed much smaller racial differentials in unemployment than does the official CPS data.)

Flanagan hypothesized that given their lower wages, it is natural for nonwhites to quit and search for other jobs more frequently than whites.[35] One would expect nonwhite jobseekers to look for jobs more intensively. The data lend little or no support to this theory. Nonwhite women earn wages equivalent to white women. And nonwhite men earn less but show no different job search

patterns than do white men. The amount of time spent per week looking for work is no longer for nonwhite than for white youth.

The most direct evidence concerning willingness to work will come out of the youth entitlement demonstration project, which offers a job to all low income youth, 16-19, and in school in selected target areas. Over half of the eligible participants are black youth. Although the data are not available to determine precisely what share of low income youth are willing to work at the minimum wage, the projects have clearly demonstrated that the number of such youth is very large. Data from a survey conducted before the experimental projects began show that large numbers of low income black youth actually work at wages below the legal minimum wage.

Racial discrimination is another important explanation of racial differentials in youth employment. In general, efforts to measure the impact of racial discrimination have relied on indirect methods. Analysts attempt to control for differences in personal characteristics, such as skill, education, and place of residence, and then see whether the race of the individual has a significant effect on employment status. The race variable virtually always has a significant negative impact on employment. The review paper prepared for the National Commission on

Employment Policy cites two studies indicating that about half of the difference in employment status between whites and blacks could not be explained by differences in personal characteristics.[37] Using a similar technique to explain March 1978 employment status of out-of-school 18-24 year-olds in the labor force, it was found that the race variable exerted a 9 percentage point increase in the probability of being unemployed, after taking account of age, high school graduation, family status, and place of residence.[38]

While studies documenting the significance of the race variable make a plausible case for the discrimination explanation, such results are subject to the criticism that some variables associated with personal characteristics have been omitted. For example, few studies are able to control for the quality of education or for differences in achievement. One study with these data from the NLS72 survey showed the race variable exerted a small negative effect on weeks worked (1-1.5 weeks per year) and no effect on wage rates. However, the NLS72 covered only high school graduates and, as reported above, its basic employment figures differed from comparable CPS numbers.

Although evidence of racial discrimination is available from EEOC proceedings, it is difficult to translate specific instances of discrimination into an overall estimate of the effects of discrimination on

current racial differentials in youth employment. The impact of changes in discrimination on changes in racial differentials is even more difficult to estimate. While racial differentials in youth employment rates have widened, suggesting a possible increase in discrimination, racial differentials in youth wage rates have narrowed. Moreover, racial differentials in the employment and earnings of young adults have apparently narrowed.

Criminal activity and arrest records may have been interacting with racial discrimination to help cause the worsening employment situation for nonwhite youth. The sharp rise in crime rates beginning in the mid-1960's did coincide with the decline in employment-population ratios of nonwhite young men. National figures on the numbers of white and black youth arrested for serious crimes are not available. However, Wolfgang found in a special study of a sample of young men living in Philadelphia that arrest records were high for white and black young men.[39] By age 22, 33 percent of whites and 61 percent of blacks had an arrest record. Of these youth, 10 percent of whites and 25 percent of blacks had been arrested before they reached age 18. Perhaps more important, 6 percent of white men arrested as juveniles and 15 percent of black men arrested at an age younger than 18 (62 percent of all youth arrested as juveniles) reported engaging in a high number of serious crimes as adults.

Several possible links exist between crime and employment. First, the lack of employment opportunities can push some youth into criminal activities. Second, arrest and conviction records present barriers to finding jobs, especially with private employers. Miller reports that 15 percent of employers have unyielding barriers to employing offenders, another 75 percent consider criminal information relevant to the hiring decision.[40] Although employers show little understanding of the meaning of arrest records and in spite of the legal barriers against using arrest records, Miller reports that the majority of employers continue to use arrest and conviction records. Given the employment barriers created by arrest and conviction records, the higher level and more rapid increase in arrests of blacks relative to whites could have contributed to the worsening racial differentials in employment.

A third link between crime and employment could occur through racial discrimination. With limited information on an individual's criminal background, some employers may have illegally used race as a proxy for criminal behavior. Finally, young men may have increasingly resorted to illicit occupations as an alternative to regular market jobs. If this move is more pervasive among blacks, it could account for a worsening racial differential.

In spite of plausible connections between crime and employment, no analyses have documented the actual effects of these linkages. Such an analysis would have to take account of the facts that: 1) while the racial differentials worsened for black men and women, only the situation for young men could be explained by the crime variable; 2) while criminal behavior is more pervasive in large cities, the wide gap between white and black youth employment extends to areas outside central cities; and 3) if illicit occupations were attracting more young nonwhites than whites away from market jobs, one would not observe the fact that nonwhite youth are as willing to work at minimum and subminimum wages as white youth.

Another hypothesis attributes some of the poor employment experience of minority and low income youth to the incentive effects of income transfer programs. As noted above, a large share of low income youth are in families receiving income maintenance from AFDC, SSI, or food stamps. Although youth under age 18 can work without affecting the family's payment, earnings of other young people result in welfare payment reductions to the family. No studies are available to indicate whether welfare payment status affects the employment of youth. However, studies do show that employment of welfare mothers, many

of whom are young, is negatively affected by the size of payments and work disincentives associated with welfare programs. West studied of how young people not heading families are affected by income transfers.[41] He looked at the impact of negative income tax payments provided through the Seattle-Denver income maintenance experiments on 16-21 year-old nonheads. West found that the added income and the high tax rates associated with the experiment caused significant reductions in the work effort of young nonheads. Not only did employment fall, but involuntary unemployment rose apparently as a result of the income maintenance payments.

A related contention is that young low income women bear children early because of the existence of welfare. Studies of the relationship between the size of welfare payments and the incidence of early childbearing could not detect any independent impact from the welfare system.

In addition to the effects of welfare programs, other factors associated with family background might influence the employment problems of low income and minority youth. Since heads of low income and minority families are less likely to be employed than are other family heads, youth from disadvantaged families might have fewer direct job contacts and might acquire fewer work habits than other youth. Low educational attainment of the family head

might affect the employment success of children directly or indirectly through its impact on the child's educational attainment. Finally, low family income might force youth into jobs to help support the rest of the family.

To examine these potential effects, I performed regression analyses based on data from the March 1978 CPS on male youth, male youth, 18-24, nonstudents, who were children or other relatives of the family head. The results indicated that the employment status of the family head and family income affected youth employment status in the expected direction. Youth whose family head was unemployed or outside the labor force had a 13 to 15 point lower probability of being employed than youth whose head was employed in the private sector. Those youth whose family head was self-employed did best, while youth whose family head was employed by the government did slightly worse than youth with heads in private sector jobs. The effect of low income, after holding personal and other family characteristics constant, was to raise the probability of being employed and unemployed. Lack of income clearly induced out-of-school youth to enter the labor market, thereby raising their employment-population ratio but also their unemployment rate. The head's educational status had no independent effect on the employment status of the child.

Racial differentials in the characteristics of family heads appears to explain part of the observed racial differentials in youth employment. When no information

about the family head was included in a regression, the independent effect of race was to reduce the probability of employment of young men, 18-24, who were living at home by about 14 percentage points. Adding information on the educational attainment, employment status, and sex of the family head caused the independent effect of race to decline 11 points. Thus, it appears that 3/14 or about 18 percent of the racial differentials in the employment probability of young men is associated with differences in the family head's characteristics.

The role of crime, early childbearing, and parents' nonemployment suggests that the worsening in the situation of black youth has been concentrated on a subset of the population. To examine the potential increase in inequality within the black youth subgroup, we first look at changes in the distribution of unemployment and nonemployment over a full year period. In any given year, the average E/P ratio can be calculated by multiplying the percent of workers (those with at least one week of employment) in the population times the weeks employed per worker as a percentage of full year work. (In symbols, $E/P = \frac{N}{} * \frac{W}{}$, where N represents workers, w is average weeks employed of workers, and P is the population.) By looking at these two components separately, we can determine how much of the decline in the black youth E/P ratio is attributable to a decline in the number of workers and how much to a decline in the share of the year the average worker is employed.

The decomposition of the trends summarized in Table 16 was done using data on the experience of youth in 1967 and 1977. In general, the analysis indicates that nearly all of the worsening in the E/P ratio of nonwhite young men was due to a a decline in the percentage who worked at all during the year. Between 1967 and 1977, the percent of non-white men, 20-24, who worked at least one week declined from 86 to 74. Among 16-19 year-olds the drop was even larger, from 69 percent in 1967 to 47 percent in 1977. In contrast, among nonwhite young men who did work at least one week, the number of weeks worked in 1977 was almost as high as in 1967.

In the case of young nonwhite women, the worsening employment situation hit those who worked in 1977 and those who did not. Although the percent of nonwhite young women who worked at all dropped sharply, so did weeks employed per worker. Only 63 percent on nonwhite women, 20-24, worked during 1977, as compared to 70 percent in 1967. Among workers, average weeks employed fell from 32.7 to 29.2.

Another way of looking at the distribution is to calculate which youth accounted for most of the weeks of employment. Again, the figures indicate an increasing

inequality among nonwhite youth, but not among white youth. In 1967, 49 percent of nonwhite young men, 16-19, accounted for 80 percent of the weeks of employment worked by this population. By 1977, the 80 percent of weeks worked was concentrated on only 34 percent of the population. Increases in the concentration of weeks worked on a smaller segment of the nonwhite youth population also occurred for young women, 16-19 and 20-24, and for young men, 20-24. This rising inequality in the incidence of weeks worked did not occur among white youth as it did among nonwhite youth. For example, about one-third of white women, 20-24, accounted for 72 percent of the employment in both 1967 and 1977.

The trends in earnings of black youth fit together with the employment trends. For those black youth who worked at all over the year, the amounts earned per week moved almost to equality with weekly earnings of white youth. Among 16-19 year-olds of both sexes, earnings per week differed little by race in 1967 and in 1977. Among 20-24 year-old workers, blacks moved from 77 percent of white weekly earnings in 1967 to 93 percent in 1977. Earnings of black women were virtually equal to those of white women by 1977.

The conclusions from these data are striking, especially in the case of black young men. A sharp drop occurred between 1967 and 1977 in the percentage who had any work experience over an entire year. While 3 of 4 white men,

16-19, worked in 1977, only 2 out of 4 blacks, 16-19, worked even one week. However, among the group of black young men that did work, the situation appears to have improved. Earnings per week rose and number of weeks employed dropped only slightly for those who found at least one week of work over the year. Thus, the key to determining the worsening employment situation for young black men lies in focussing on why the group with no work record at all rose between 1967 and 1977.

It is important to point out that the focus on nonworkers would explain some of the trends, but not the levels of racial differentials in youth employment. Weeks employed per worker were almost as high for black 20-24 year-olds as for white 20-24 year-olds in 1977. But, among 16-19 year-olds, a sizable racial differential existed in weeks employed per worker. Black teenagers who worked during the year averaged only 63-70 percent of the weeks of employment over the year worked by white teenagers

D. Summary of Causes of Youth Employment Patterns

This summary brings together the analysis from sections A, B, and C in a way that continues to distinguish betwwen (1) factors determining the level of youth employment and unemployment and (2) factors determining the distribution of youth employment and unemployment.

Sections A and B show how the levels of youth employment and unemployment depend on the quantity and characteristics of young workers and on the demand for young workers. Youth engage in frequent moves into and out of the labor force and from one job to another. Although this high turnover is one reason youth unemployment rates exceed adult rates, about 70 percent of the youth-adult unemployment differential would remain even if one were able to eliminate turnover induced youth unemployment. Seasonal patterns of youth labor force entry do not apparently contribute to high youth unemployment. The relation between family status and employment patterns and between schooling and employment patterns indicates that young workers can afford a more casual attachment to the labor force than can adult workers. As youth leave school and become financially independent, their employment levels go up and their unemployment rates go down. Differences in family status accounted for 75 percent of the differences in employment-population ratios between 16-19 year-old and 25-34 year-old white men.

The limited work experience, education, and seniority of young workers are other causes of high levels of youth unemployment. Employers often express a preference for workers who have completed high school and who have a

credible work record. While direct age-related restrictions by employers, unions and child labor laws may contribute to the young worker's problem in gaining such experience, there is little evidence on the size of such effects.

What makes the differences between youth and adult characteristics especially significant are the wage rigidities that prevent the youth wage from falling low enough to prevent excessive unemployment. Studies of the minimum wage law indicate that the expansion of the law's coverage in 1966 accounted for a significant unemployment effect on teenagers. The relation between youth employment and other wage rigidities has not been documented.

The changing levels of youth employment and unemployment have been influenced by the overall demand for workers as well as the demand for youth-specific workers. As demand expands to reduce the adult male unemployment rate from 3.8 to 3.0 the percentage of white employed youth rises by 2 percentage points and percentage of black youth employed rises by 4 percentage points. Trends in armed forces enrollment have an independent impact on youth employment levels. As armed forces enrollment rises, the youth employment-population ratio also rises. The presence of high shares of youth-specific industries has a positive impact on the employment situation of young people.

The aggregate youth labor supply appears to exert a negative effect on the employment prospects of young people. The bulge in the youth labor force clearly resulted in a decline in youth wage rates. However, this wage adjustment was apparently inadequate to prevent a population-induced rise in youth unemployment.

The factors determining the distribution of youth employment and unemployment are investigated in Section C. After documenting the specifics of the high and worsening unemployment and nonemployment experience of nonwhite and low income youth, the section examines several explanations. Looking at racial differences in employment patterns of young men, one finds that much of the trend in out-of-school employment-population ratios has been associated with differences in armed forces enrollment patterns. It may be that poor civilian employment prospects have caused more young blacks than young whites to enter the military; or it may be that more young blacks than young whites have voluntarily chosen military employment over civilian employment. Another factor potentially influencing racial differentials in male employment is the racial differential in crime rates and arrest records. Employers apparently still utilize arrest record data in making hiring decisions, although this practice is illegal. Since young black men have considerably

higher arrest records than young white men, the gap in employment may be associated with differences in contact with crime.

Family status differences between white and nonwhite women, 20-24, appear to account for about half their differences in employment-population ratios. A nonwhite woman, 20-24, is 10 percentage points more likely to live with her own child than is a 20-24 year-old white woman.

Low income and nonwhite young men and women are likely to live in poverty areas and likely to have parents who are not employed. Both factors worsen the employment prospects of these groups. It is interesting that after one takes account for education, school status, and family background, low income young men are more likely to be in the labor force and in jobs, but also more likely to experience unemployment than are moderate or high income youth. Unfortunately race exerts a large effect on youth employment and unemployment than is independent of years of education, school status, and family background. According to analyses based on official data sources, young black men show 10 points lower employment probabilities than do young white men with similar basic characteristics.

Several data sources other than the Current Population Survey generally show less severe youth employment problems. However, the youth employment rates still far exceed adult

rates and nonwhite youth generally experience much more employment and nonemployment than white youth. Only the data from the survey of 1972 high school graduates indicate that the problem is qualitatively different from what comes out of CPS data. According to the high school senior survey, nearly all high school graduates integrate effectively into the labor market. The conclusion applied to nonwhites as well as whites. By 1976, there was virtual racial equality in the employment and earnings outcomes of the 1972 male graduates.

Finally, the worsening in the average employment situation of black youth inadequately describes the diverging trends within the black youth population. If we focus on the 50-80 percent of young black men who worked at least one week in 1967 and 1977, we find that weeks employed per year increased for 20-24 year olds and worsened only slightly for 16-19 year olds; these young black workers moved to near equality with whites in terms of weekly wages. On the other hand, the percentage of black youth who work at all declined sharply between 1967 and 1977. By 1977, one of four black men, 20-24, and one of two black men, 16-19, did not even work one week over the year.

Together, the findings demonstrate that most of the youth employment problem, even most of the black youth problem, represents serious and substantial nonemployment for a minority of young people. In the next and concluding section, we present several estimates of the size and composition of the youth subgroup encountering serious problems.

V. The Numbers of Youth with Serious Employment Problems

The analysis shows that the youth employment problem is serious for a small percentage of young workers. The majority of young workers integrate well into the labor market. Given these findings, it is worthwhile to estimate the absolute numbers of youth who encounter serious employment problems. Several methods can provide a variety of estimates. This section presents numbers based on four methods.

The first method, which yields Universe I, defines persons with serious employment problems as those who experienced 15 or more weeks of unemployment over the course of a full year. Table 17 provides the numbers of 16-24 year-olds in Universe I by age, race, sex, and educational attainment. The total of nearly 2.9 million is almost 90 percent of the average number of 16-24 year-olds unemployed in an average month. This result is another way of stating our conclusion that most youth unemployment is concentrated on those who experience 15 weeks or more of unemployment over the year.

Before examining the composition of this Universe in detail, it is important to remove possible doubts about whether the problems these youth experience are really

serious. In particular, we must examine the way in which the 15+ weeks of unemployment is distributed over the year. Spells may be short but frequent enough to add up to 15 or more weeks of unemployment, or they may be less frequent but extended over many consecutive weeks. Long spells would indicate serious employment problems.

As the data in Table 2 show, most of those with 15+ weeks of unemployment are not experiencing several spells between jobs. The majority of the substantially unemployed had one or no employers. Only about 30 percent had unemployment that occurred between jobs. Only 15 percent had three or more employers. Finally, a majority of those with 15+ weeks of unemployment had 26 or more weeks of unemployment. In fact, the mean weeks of unemployment for the 15+ weeks group actually exceeded 26 weeks. These findings substantial our previous conclusion.

The characteristics of those with serious employment problems do not correspond to the stereotype of the unemployed youth. Although blacks and hispanic youth experience a high incidence of severe unemployment, whites make up about 70 percent of Universe I. High school dropouts make up only 27 percent while nonstudent high school graduates make up 53 percent of the high unemployment group. In spite of these somewhat surprising numbers, it remains true that the probability of experiencing substantial unemployment is highest for black and hispanic youth and for high school dropouts.

Universe I relies on the traditional unemployment measure as an indicator of a labor market problem. To some, this concept is too broad because it includes young people from moderate and high income families, whose unemployment does not result in serious economic deprivation. To others, the unemployment concept is too narrow because it does not cover young people who want to work at prevailing wages but who are reported as outside the labor force.

In expanding the Universe to include the discouraged unemployed, we move to a stock concept of currently jobless youth who encounter substantial joblessness over the year. A given month's jobless is the sum of the officially unemployed plus those outside the labor force who report they want jobs now. To derive Universe II, we must determine what percentage of a given month's jobless will experience 15 weeks or more joblessness over the year. It is possible to derive such a percentage for the unemployed, but not for the other jobless. Using the percentage of unemployed who will experience substantial unemployment as a proxy and applying it to cover all jobless, we estimate the number of jobless in April 1979 who would be expected to encounter substantial joblessness over the year.[42]

The Universe II numbers appear in Table 19. The total of 3.3 million is only 17 percent more than the Universe I number. Again, it is worth noting that while the incidence of problems is especially high among nonwhite youth, white youth make up about 70 percent of Universe II.

While all youth with substantial joblessness have problems, the most serious youth employment problems are those that contribute to low family income. In Table 20, we present the data on jobless youth from economically disadvantaged families (defined as families whose incomes are 70 percent or less of the Bureau of Labor Statistics Lower Living Standard). In 1977, this meant an income level of about $7000 for a family of four. Universe III is first derived by limiting the concept to those with 15+ weeks of unemployment; we find that 734,000 youth had serious employment and income problems. This number does not include any low income youth who were outside the labor force but reportedly willing to take a job. An alternative estimation of Universe III can be found if we view all out-of-school youth, who were not mothers caring for young children, as composing the "expected to work" category of youth. Using this definition we find that 2.1 million "expected to work" low income youth experienced substantial nonemployment over the year. Whichever of the two estimates one uses, it is clear that most of the youth with serious employment problems are not in school.

What can we conclude from all these numbers? First, the size of pool of youth with serious employment problems is large (2.9 million) although it represents only about

10 percent of young workers. Second, the serious employment problems extend beyond the poor, the black, and the high school dropout. Third, the most severe problems are faced by about 700,000 16-24 year-olds who experience substantial unemployment and are in families with very low incomes. Over 80 percent of these youth are out of school. It is these youth that deserve first priority in government employment and training efforts to combat youth employment problems.

Table 1A

Employment Population Ratios for Male Youth
1955-78

Years	Males 16-19 White	Males 16-19 Nonwhite	Males 20-24 White	Males 20-24 Nonwhite	Adult Male Unemployment Rate
1955-59	50.8	47.5	80.1	67.4	3.8
1960-64	46.0	40.4	79.5	76.7	4.1
1965-69	49.7	39.5	79.8	79.8	2.0
1970-74	51.8	33.2	77.9	70.3	3.0
1975-76	51.1	27.4	75.5	61.3	5.3
1977	54.5	27.4	78.7	61.2	4.3
1978	56.3	29.8	76.0	61.1	3.4

Source: Employment and Training Report of the President, 1978.

Table 1B

Employment Population Ratios for Females Youth
1955-78

Years	Females 16-19		Females 20-24		Adult Male Unemployment Rate
	White	Nonwhite	White	Nonwhite	
1955-59	36.9	25.2	43.0	40.1	3.8
1960-64	33.9	22.8	43.6	40.7	4.1
1965-69	37.3	23.5	49.7	49.1	2.0
1970-74	41.5	21.4	55.3	47.4	3.0
1975-76	43.5	21.2	58.7	44.5	5.3
1977	46.0	20.2	61.4	45.4	4.3
1978	48.7	23.5	60.6	45.4	3.4

Table 2A

Unemployment Rates for Male Youth
1955-78

Years	Males 16-19		Males 20-24		Adult Male Unemployment Rate
	White	Nonwhite	White	Nonwhite	
1955-59	12.6	19.8	7.9	14.6	3.8
1960-64	14.9	25.0	8.3	14.2	4.1
1965-69	11.0	22.9	4.7	8.4	2.0
1970-74	14.0	29.4	8.0	14.3	3.0
1975-76	18.0	36.1	12.1	21.8	5.3
1977	15.3	37.4	9.3	21.7	4.3
1978	13.5	34.4	7.6	20.0	3.4

Table 2B

Unemployment Rates for Female Youth, 1955-78

Years	Females 16-19		Females 20-24		Adult Male Unemployment Rate
	White	Nonwhite	White	Nonwhite	
1955-59	11.1	23.3	5.7	14.8	3.8
1960-64	14.5	30.6	7.6	18.0	4.1
1965-69	12.6	30.7	5.8	12.9	2.0
1970-74	14.3	35.9	7.8	17.1	3.0
1975-76	17.2	39.5	10.8	22.1	5.3
1977	16.2	41.1	9.3	23.6	4.3
1978	14.4	38.4	8.3	21.3	3.4

Table 3

Enrollment and Employment Characteristics of Youth by Age and Sex

Sex and Age	Percent of Population Enrolled in School	Percent of Population Enrolled in School and working
Male		
16-17	90.4	34.7
18-19	51.3	20.8
20-21	21.3	12.6
Female		
16-17	88.5	28.5
18-19	47.9	18.6
20-21	33.2	14.5
22-24	15.4	9.4

Summer Employment - Annual Employment Ratios by Age and Sex

Age	Males	Females	Total
16-17	1.28	1.23	1.26
18-19	1.16	1.14	1.15
20-24	1.06	1.04	1.05
25-34	1.00	.97	.99

Ratio is computed at follows:

$$\frac{\text{Average number of people employed in June, July, August}}{\text{Average number of people employed annually}}$$

TABLE 4 A

Family Status of Young Men by Age and Race: March 1978

PERCENT BY FAMILY STATUS:	WHITE 16-17	18-19	20-21	22-24	NONWHITE 16-17	18-19	20-21	22-24
INDEPENDENT YOUTH (total)	2.0	9.8	32.4	62.4	0.3	4.8	17.9	48.4
- Head of Family with children	0.2	2.5	8.7	21.5	-	0.7	5.8	19.9
- Married, Spouse Present, no children	0.8	3.1	10.5	20.8	-	0.7	5.3	7.6
- Other Family Status	1.0	4.2	13.2	20.1	0.3	3.4	6.8	20.9
DEPENDENT YOUTH (total)	98.0	90.2	67.6	37.6	99.7	95.2	82.1	51.6
- Child or other Relative of Head in Two-Parent Family	82.0	74.8	55.2	29.2	57.1	53.4	49.7	30.8
- Child or other Relative of Head in Singe Parent Family	16.0	15.4	12.4	8.4	42.6	41.8	32.4	20.8
TOTAL	100	100	100	100	100	100	100	100
POPULATION (in 000's)	3571	3383	3361	4747	651	562	531	692

TABLE 4 B
Family Status of Young Women by Age and Race: March 1978

Percent by Family Status:	WHITE 16-17	18-19	20-21	22-24	NONWHITE 16-17	18-19	20-21	22-24
INDEPENDENT Youth (total)	6.6	27.8	54.1	79.4	5.2	22.3	42.5	70.1
- Head of Family with children	0.3	1.4	3.5	4.6	1.4	6.0	13.2	24.9
- Wife with children	2.1	7.7	16.9	32.5	0.9	7.0	9.4	21.9
- Married, Spouse Present, no children	1.9	9.9	18.8	23.4	0.9	2.6	5.9	6.9
- Other Family Status	2.3	8.8	14.9	18.9	2.0	6.7	14.0	16.4
DEPENDENT Youth (total)	93.4	72.2	45.9	20.5	94.8	77.7	57.5	29.9
- Child or other Relative of Head in Two-Parent Family	76.2	58.9	36.5	15.6	45.6	42.7	29.7	15.5
- Child or other Relative of Head in one-Parent Family	17.2	13.3	9.4	5.0	49.2	35.0	27.8	14.4
TOTAL	100	100	100	100	100	100	100	100
Population	3454	3534	3525	4962	654	646	630	672

TABLE 5

Duration on Current Job by Age and Sex
January 1973

Males	Median Years on Current Jobs
Total, 16 years and older	
16 - 17 years	.6
18 - 19 years	.6
20 - 24 years	1.2
25 - 29 years	2.5
30 - 34 years	4.2
Females	
Total, 16 years and older	
16 - 17 years	.6
18 - 19 years	.6
20 - 24 years	1.2
25 - 29 years	2.0
30 - 34 years	2.4

Table 6

Share of Male Population, Not Enrolled, Not Employed
1965-1978

Years	White			Nonwhite			Adult Male Unemployment Rate
	16-19	18-19	20-24	16-17	18-19	20-24	
1965-69	.9	3.0	2.4	2.0	7.4	5.6	2.0
1970-74	1.6	5.0	4.8	2.4	10.5	9.5	3.0
1975-76	2.1	7.2	7.6	3.4	14.6	12.7	5.3
1977	2.7	5.4	5.2	1.7	15.9	13.9	4.3
1978	2.4	5.8	4.4	1.6	10.0	13.3	3.4

Share of Female Population, Not Enrolled, Not Employed
1965-1978

Years	White			Nonwhite			Adult Male Unemployment Rate
	16-19	18-19	20-24	16-17	18-19	20-24	
1965-69	1.2	4.3	2.9	2.4	10.2	6.8	2.0
1970-74	1.4	5.3	3.9	1.9	10.9	9.2	3.0
1975-76	2.0	6.4	6.4	3.8	10.6	10.9	5.3
1977	1.6	5.9	5.4	1.9	14.4	13.9	4.3
1978	1.8	5.4	4.2	1.5	12.9	11.6	3.4

TABLE 7

Comparison of Rates of School and Labor Force Activity for Young Men, by Major Activity, 1967, 16-21 year olds. NLS vs. CPS Surveys

	No. in NLS Sample	Major Activity		Employment Population		LFPR		Unemployment	
		NLS	CPS	NLS	CPS	NLS	CPS	NLS	CPS
White Males									
Major Activity:									
School	1657	66.3	66.1	42.1	33.0	52.9	37.5	20.4	11
Not School	786	33.7	33.9	86.6	83.8	92.5	91.6	6.4	8
Nonwhite Males									
Major Activity:									
School	595	55.8	55.8	32.6	21.6	51.3	28.8	36.5	25
Not School	453	44.2	44.2	80.8	73.1	94.2	90.1	14.3	18

TABLE 8

Comparison of Rates of School and Labor Force Activity for Young Men by Race, in 1967. NLS vs CPS Surveys

	No. in NLS Sample	% in School		Employment Population		LFPR *		Unemployment	
		NLS	CPS	NLS	CPS	NLS	CPS	NLS	CPS
White Males									
16 - 17	1343	91.2	91.4	44.2	36.7	56.0	42.8	21.0	14.4
18 - 19	1123	64.4	57.2	60.6	56.7	69.9	63.4	13.3	10.6
20 - 24	1511	34.1	32.2	80.1	78.0	84.5	81.2	5.2	4.0
Nonwhite Males									
16 - 17	633	83.8	88.0	39.4	26.2	58.5	36.7	32.7	28.8
18 - 19	499	53.0	50.5	59.1	47.0	74.9	60.1	21.1	21.7
20 - 24	465	13.3	18.9	81.7	76.9	92.5	85.7	11.7	10.3

LFPR: Labor Force Participation Rate = $\frac{\text{No. in Labor Force}}{\text{Population}}$

TABLE 9

STATISTIC	National Longitudinal Study		Current Population Survey, October 1972	
	White	Nonwhite	White	Nonwhite
Employment Ratio	.880	.784	.815	.680
Labor Force Participation	.929	.902	.916	.880
Unemployment Rate	.054	.130	.110	.227

Table 10

Comparisons of Youth Employment - Population Ratios from Unemployment Rates from the 1977 CPS and 1977 NCS

	Employment-Population Ratios				Unemployment Rates		
	CPS	NCS	Difference NCS-CPS		CPS	NCS	Difference NCS-CPS
White Males							
16-17	45.1	45.7	0.6	16-17	17.6	16.6	-1.0
18-19	65.2	68.5	3.3	18-19	13.0	9.9	-3.1
20-21	71.6	75.3	3.7	20-24	9.3	6.7	-2.6
22-24	83.9	84.7	0.8				
Non White Males							
16-17	18.9	27.0	8.1	16-17	38.7	30.4	-8.3
18-19	37.0	46.0	9.0	18-19	36.1	22.6	-13.5
20-21	52.8	63.0	10.2	20-24	21.7	11.1	-10.6
22-24	67.8	73.6	5.8				
White Females							
16-17	37.5	37.0	-0.5	16-17	18.2	15.4	-2.8
18-19	54.3	57.0	2.7	18-19	14.2	10.8	-3.4
20-21	60.2	63.0	0.8	20-24	9.3	7.2	-2.1
22-24	62.3	61.0	-1.3				
Non White Females							
16-17	12.5	15.3	2.8	16-17	44.7	36.8	-7.9
18-19	28.1	31.4	3.3	18-19	37.4	31.0	-6.4
20-21	38.3	42.5	4.2	20-24	23.6	16.0	-7.6
22-24	50.6	54.4	3.8				

Table 11

Distribution of 1977 Employment and Unemployment
of Young Men

	White Men		Nonwhite Men	
	16-19	20-24	16-19	20-24
1977 Labor Force (in 000's)	5329	7664	595	1011
Percent distribution of Labor force:				
Worked in 1977	96.3	98.6	85.4	91.1
No unemployment	70.3	67.8	54.4	55.6
1-4 weeks of unemployment	8.9	7.0	8.1	6.1
5-14 weeks of unemployment	8.8	11.0	9.3	9.6
15+ weeks of unemployment	8.4	10.9	13.7	15.8
Did not work in 1977	3.7	1.4	14.6	8.9
1-14 weeks of unemployment	2.6	.6	9.6	.9
15+ weeks of unemployment	1.1	.8	5.0	.9
Percent distribution of employment:				
No unemployment	77.6	77.3	71.4	77.57
1-4 weeks of unemployment	8.1	6.4	8.2	6
5-14 weeks of unemployment	8.3	9.8	9.7	2
15+ weeks of unemployment	6.0	6.5	10.7	5
Percent distribution of unemployment:				
Worked in 1977	87.7	91.8	65.3	85.
No unemployment	.0	.0	.0	.
1-4 weeks of unemployment	6.4	4.8	2.7	2.0
5-14 weeks of unemployment	20.5	23.2	10.5	10.9
15+weeks of unemployment	59.8	63.9	52.5	52.9
Did not work in 1977	13.3	8.2	34.7	34.1
1-14 weeks of unemployment	3.8	1.0	8.5	1.5
15+ weeks of unemployment	9.5	7.1	26.2	32.7

Table 12

Distribution of 1977 Employment and Unemployment of Young Women

	White Women		Nonwhite Women	
	16-19	20-24	16-19	20
1977 Labor Force (in 000's)	4779	6891	595	1
Percent distribution of labor force:				
Worked in 1977	94.7	97.3	82.1	.8
No unemployment	72.6	75.2	53.9	.4
1-4 weeks of unemployment	9.3	8.5	11.9	.9
5-14 weeks of unemployment	7.7	7.3	7.1	.9
15+ weeks of unemployment	5.2	6.3	7.1	5.6
Did not work in 1977	5.3	2.7	17.9	.2
1-14 weeks of unemployment	4.0	1.9	12.9	.1
15+ weeks of unemployment	1.3	.8	5.1	3.0
Percent distribution of employment:				
No unemployment	81.2	82.8	69.9	75.6
1-4 weeks of unemployment	7.8	7.3	13.4	6.7
5-14 weeks of unemployment	7.3	6.3	8.6	7.1
15+ weeks of unemployment	3.7	3.8	8.1	10.6
Percent distribution of unemployment:				
Worked in 1977	79.3	87.8	60.9	69.5
No unemployment	.0	.0	.0	.0
1-4 weeks of unemployment	7.9	7.8	5.7	3.1
5-14 weeks of unemployment	23.0	22.1	10.8	10.5
15+ weeks of unemployment	48.3	58.0	44.4	55.9
Did not work in 1977	20.7	12.2	39.1	30.5
1-14 weeks of unemployment	6.5	3.6	11.9	5.1
15+ weeks of unemployment	14.2	8.5	27.2	25.4

Table 13

Employment Status of Not Enrolled Males, Ages 18-19
Including and Excluding Armed Forces (A.F.): 1967-1978

Year	Employment–Population Ratios				Unemployment Rates			
	White Males		Nonwhite Males		White Males		Nonwhite Males	
	excluding A.F.	including A.F.	excluding A.F.	including A.F	excluding A.F.	including A.F.	excluding A.F.	including A.F.
1967	79.7	86.9	71.4	77.[illegible]	9.2	5.7	19.1	15.0
1968	81.3	86.2	69.4	74.[illegible]	7.6	5.4	20.0	16.3
1969	79.6	84.8	70.0	75.[illegible]	8.1	5.8	14.8	11.7
1970	77.7	81.9	58.1	63.[illegible]	12.6	9.9	23.2	19.5
1971	77.3	81.0	65.8	70.[illegible]	13.0	10.6	24.4	20.7
1972	81.7	84.3	63.6	68.[illegible]	10.4	8.7	21.4	18.1
1973	82.8	85.1	71.0	75.[illegible]	8.4	7.1	19.3	15.9
1974	78.3	81.1	60.8	67.[illegible]	13.2	11.3	30.3	24.2
1975	77.9	80.8	50.9	59.2	16.0	13.8	37.5	30.0
1976	77.8	80.6	42.8	52.[illegible]5	14.4	12.4	43.1	33.9
1977	82.9	84.9	49.8	59.[illegible]0	11.1	9.7	39.3	30.9
1978	78.5	81.1	59.8	67.[illegible]5	11.9	8.5	25.5	19.7

Source: Unpublished tabulations from the October Current Population Surveys and from data on the Total Labor Force published in Employment and Earnings.

Table 14

Employment Status of Not Enrolled Males, Ages 20-24
Including and Excluding Armed Forces (A.F.): 1967-1978

Year	Employment-Population Ratios				Unemployment Rates			
	White Males		Nonwhite Males		White Males		Nonwhite Males	
	excluding A.F.	including A.F.	excluding A.F.	including A.F.	excluding A.F.	including A.F.	excluding A.F.	including A.F.
1967	92.7	95.5	85.1	87.8	3.2	2.3	8.3	6.7
1968	90.8	93.7	84.8	88.2	3.7	2.5	9.3	7.1
1969	91.1	93.8	88.0	90.6	4.3	3.0	7.3	5.6
1970	87.2	90.5	77.1	81.3	8.5	6.3	14.8	11.8
1971	87.1	89.8	77.0	80.6	7.9	6.2	15.4	12.8
1972	88.0	89.9	81.3	83.9	7.8	6.6	10.2	8.6
1973	90.0	92.1	79.7	82.3	4.3	3.7	12.1	10.3
1974	89.3	90.5	78.2	81.5	6.9	6.0	14.7	12.3
1975	83.7	85.3	69.2	73.6	11.8	10.5	18.6	15.5
1976	86.3	87.6	66.8	71.7	9.7	8.8	20.8	17.3
1977	88.7	89.8	70.5	75.3	7.3	6.6	20.6	16.8
1978	89.8	90.7	72.5	76.9	6.1	5.6	18.5	15.2

Source: Unpublished tabulations from the October Current Population Surveys and from data on the total labor force published in Employment and Earnings.

Table 15

Employment Status of Out of school Youth, by age, sex, and ethnic status

March 1978

	Hispanic		Other White		Nonwhite	
Young Men	16-19	20-24	16-19	20-24	16-19	20-24
Dropouts						
Employment-Population	69.2	79.8	73.0	75.1	50.1	60.9
Unemployment Rate	21.9	15.4	15.9	15.4	33.7	28.7
High School Graduates						
EP Ratio	80.0	86.7	82.5	84.9	61.0	71.5
Unemployment Rate	10.7	8.5	10.4	8.5	28.1	17.3
Young Women						
Dropouts						
EP Ratio	32.3	31.5	47.6	39.4	23.3	32.6
Unemployment Rate	28.8	19.4	18.8	16.9	43.2	26.5
High School Graduates						
EP Ratio	60.3	62.6	74.7	70.8	43.3	62.6
Unemployment Rate	10.7	11.0	9.9	7.8	31.4	17.5

Source: Unpublished tabulations from the March 1978 Current Population Survey.

EP ratio is equal to the number employed divided by the population

Table 16

Racial Differentials in Employment and Earnings For Young Workers: 1967 and 1977

	Nonwhite Men		White Men		Nonwhite Women		White Women	
	1967	1977	1967	1977	1967	1977	1967	1977
16-19 Year-Olds:								
E/P [a]	.29	.18	.41	.38	.18	.11	.26	.32
Percent Who Worked	.69	.47	.75	.74	.50	.35	.59	.64
Weeks Worked [b]	22.0	22.3	26.4	28.5	18.6	16.5	23.3	26.0
Earnings per week [c]	$39	$73	$38	$79	$31	$62	$37	$62
20-24 Year-Olds:								
E/P [a]	.62	.52	.89	.86	.44	.35	.46	.56
Percent Who Worked [b]	86	74	89	91	72	79	70	63
Weeks Worked	37.5	36.6	38.1	39.9	32.7	29.2	33.5	36.6
Earnings per week [c]	$76	$165	$99	$178	$59	$121	$68	$123

Source: Unpublished tabulations from the March 1968 and March 1978 Current Population Surveys.

a. The employment-population ratio is the total weeks of employment in 1967 or 1977 divided by the population times 52.

b. Weeks worked is the average weeks of employment of those who worked at least one week in 1967 or 1977.

c. Earnings per week equals total earnings of those with earnings divided by weeks worked of those with earnings. Only earnings per week was calculated for blacks only; the other figures are data on all nonwhites.

Table 17
Universe of Need: I
(Numbers in thousands)

	With 15+ Weeks of Unemployment in 1977								
	Whites		Nonwhites		Hispanic		Total		
	16-19	20-24	16-19	20-24	16-19	20-24	16-19	20-24	Total
Young Men									
Students	168	52	61	17	19	1	248	71	319
Nonstudents									
Did not complete High School	165	214	50	93	22	30	238	337	575
High School Graduates	122	556	13	120	7	38	143	715	858
Young Women									
Students	102	36	31	27	16	5	[illegible]	[illegible]	220
Nonstudents									
Did not complete High School	69	65	18	37	7	12	95	115	210
High School Graduates	109	356	33	157	6	23	147	536	683
Total	735	1279	206	451	77	109	1022	1843	2865

Table 18

Youth with Substantial Amounts of Unemployment/ by Numbers of Employers and Spells of Unemployment, Age, and Sex: 1977

	16-19 year olds			20-24 year olds		
	Unemployed 15-25 weeks	Unemployed 26+ weeks	Total 15+ weeks	Unemployed 15-25 weeks	Unemployed 26+ weeks	Total 15+ weeks of Unemployment
Young Men						
Total	269	361	630	500	624	1124
0-1 Employer	145	237	382	250	399	649
2 Employer	69	67	136	138	126	264
3+ Employers	55	57	112	112	98	210
Looked Between Jobss	104	114	228	218	208	426
Unemployed, But Did Not Look Between Jobs	165	247	412	282	416	698
Young Women						
Total	174	219	393	294	426	720
0-1 Employer	119	173	292	160	286	446
2 Employers						
3+ Employers	22	19	41	44	40	84
Looked Betwen Jobs	51	42	93	197	122	129
Unemployed, But Did Not Look	123	177	300	187	304	491

Source: Tabulations from the March 1978 Current Population Survey.

Table 19
Universe of Need: II
Low Income Youth with Serious Unemployment or Nonemployment by School and Family Status

	Numbers in Thousands		
	16-19	20-24	Total
Young Men			
Students:			
15+ weeks of unemployment (a),(c)	57	12	69
Nonstudents:			
15+ weeks of unemployment (a)	106	267	373
15+ weeks of nonemployment(b),(c)	394	626	1020
Young Women			
Students:			
15+ weeks of unemployment (a),(c)	35	22	57
Nonstudents:			
Head or spouse with children			
15+ weeks of unemployment (a),(c)	15	60	75
Other Family Status			
15+ weeks of unemployment (a)	54	106	160
15+ weeks of nonemployment(b),(c)	420	646	1066
1. Total, only those with substantial unemployment (total a)	267	467	734
2. Total, expected to work with substantial nonemployment (total b)	814	1271	2086
3. Total, not expected to work with substantial unemployment plus expected to work with substantial nonemployment (total c)	921	1366	2287

NOTE: Low income youth are from families with incomes below 70 percent of the lower BLS living standard.

Source: Tabulations from March 1978 Current Population Survey

TABLE 20

EMPLOYMENT STATUS OF DISADVANTAGED YOUTH, MARCH 1978, BY FAMILY INCOME STATUS IN 1977, BY AGE AND RACE

	Population (in 000's)	Employment - Population Ratio	Unemployment Rate
WHITE YOUTH			
16 - 17	1119	17.4	14.8
18 - 19	956	33.6	24.3
20 - 21	963	36.5	25.7
22 - 24	1304	36.1	27.3
TOTAL OR AVERAGE:	4342	31.0	25.5
NONWHITE YOUTH			
16 - 17	633	7.7	31.1
18 - 19	539	15.7	41.4
20 - 21	437	20.8	43.7
22 - 24	565	24.5	41.3
TOTAL OR AVERAGE	2174	16.7	40.8

Table 21

Universe III: Number of Current Jobless with Serious Employment Problems

	Unemployed	Discouraged, Unemployed*	Total Jobless	Percent with 15+ weeks of Joblessness	Universe
White Males					
16-19	561	479	1040	.69	718
20-24	467	264	731	.71	519
Nonwhite Males					
16-19	156	154	310	.78	242
20-24	157	28	185	.86	159
White Females					
16-19	464	589	1053	.63	663
20-24	412	307	719	.67	481
Nonwhite Females					
16-19	174	171	345	.72	248
20-24	176	196	372	.82	305
Total	2567	2188	4755	.71	3335

* Discouraged unemployed are those not in the labor force who want jobs now.

NOTE: This universe is based on data on the work experience of youth during 1977 as a whole and during the April 1979 survey week. These figures represent the universe of need in 1979 if April were the representative month.

Source: Tabulations from the March 1978 Current Population Survey and Employment and Earnings, May 1979.

FOOTNOTES

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3) Kristin Moore, "Teenage Childbirth and Welfare Dependency", Family Planning Perspectives Vol. 10, #4, July-August 1978.

4) Neal Miller, "Employer Barriers to the Employment of Persons with Records of Arrest or Conviction", paper prepared for the Assistant Secretary for Policy, Evaluation, and Research, U.S. Dept. of Labor 1979.

5) David Ellwood, "Teenage Unemployment: Permanent Scars or Temporary Blemishes", and Mary Corcoran, "The Employment, Wage, and Fertility Consequences of Teenage Women's Nonemployment", both presented at the National Bureau of Economic Research Conference on Youth Unemployment, Airlie, Virginia, May 1979.

6) Kim Clark and Lawrence Summers, "The Dynamics of Youth Unemployment" presented at National Bureau of Economic Research Conference on Youth Unemployment, Airlie, Virginia, May 1979.

7) Norman Bowers, "Youth and Marginal Trends in the Employment Situation of Young People", Monthly Labor Review, October 1979.

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10) Malcolm Cohen, and Arthur Schwartz, "New Hire Rates -- A New Measure", Institute of Labor and Industrial Relations, The University of Michigan -- Wayne State University, February, 1979.

11) See Clark and Summers.

12) Orley Ashenfelter and Robert Smith , "Compliance with the Minimum Wage Law" Journal of Political Economy, Volume 87, Number 2 April 1979.

13) One look at the minimum wage literature appears in Robert Goldfarb "The Policy Content of Quantitative Minimum Wage Research" Proceedings of the Industrial Relations Research Association, 1975; Alan F. Scott, "The Minimum Wage: A Bibliography and Review of Recent Literature" SRI International, March 1979.

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17) Paul Osterman, "Youth, Work, and Unemployment", Challenge, May-June 1978

18) Daniel Mitchell and John Clapp, "The Effects of Child Labor Laws on Youth Employment", in Conference Report on Youth Unemployment: Its Measurement and Meaning, U.S. Department of Labor 1978

19) Jacob Mincer and Linda Leighton, "Labor Turnover and Youth Unemployment", paper presented at NBER Conference on Youth Unemployment, Airlie, Virginia, May 1979.

20) Daniel Diamond and Hrach Bedrosian, Industry Hiring Requirements and the Employment of Disadvantaged Groups, New York: New York University School of Commerce, 1970.

21) National Commission for Manpower Policy, "Young Adults Out of School and Out of Work, Part II: A Review of the Causes of Young Adult Unemployment", Briefing Paper, November 1978.

22) Freeman; Michael Wachter and Choongsoo Kim. "Time Series Changes in Youth Joblessness" paper presented at NBER Conference on Youth Unemployment. Airlie, Virginia, May 1979.

23) Freeman.

24) Wachter and Kim.

25) Freeman.

26) Clark and Summers.

27) Freeman.

28) Wachter and Kim.

29) See section III.

30) Meyer and Wise.

31) Sandra Hofferth et al. "The Consequences of Age at First Childbirth. Labor Force Participation and Earnings", Washington, D.C., The Urban Institute, August 1978.

32) Oral presentation by Denis Detzel, Vice President of McDonald's Corporation, to Vice-President's Task Force on Youth Unemployment, May 1979.

33) See National Commission for Manpower Policy Briefing Paper.

34) Paul Osterman, "Racial Differentials in Male Youth Unemployment" Conference Report on Youth Unemployment: Its Measurement and Meaning, U.S. Department of Labor, 1978.

35) Robert Flanagan, "Discrimination Theory. Labor Turnover. and Racial Unemployment Differentials", Journal of Human Resources, Spring 1978.

36) Bowers.

37) Duane Leigh and Lane Rawlins, "Racial Differentials in Male Unemployment Rates: Evidence from Low Income Urban Areas", The Review of Economics and Statistics, May 1974; and Osterman, 1978.

38) Regressions performed by author.

39) Wolfgang.

40) Miller.

41) Richard West, "The Effects of the Seattle and Denver Income Maintenance Experiments on the Labor Supply of Young Nonheads", SRI International, June 1978.

42) First, tabulate the percentage of the year youth from various subgroups will be unemployed. For example, youth with 15 weeks or more unemployment will be unemployed about 60 percent of the year. Next, multiply each percentage times the relevant number in each weeks of unemployment category. For example, one would multiply .6 times the number who experience 15 weeks or more unemployment. This step yields the number of unemployed in a typical week classified by the number of weeks of unemployment over the year. Dividing the unemployed from a category by the total unemployed yields the percentage of unemployed in a particular weeks of unemployment category.

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