

## CHAPTER 3

# Unemployment

**T**HE EMPLOYMENT ACT OF 1946, which created the Council of Economic Advisers, set forth the goal of maintaining "maximum employment." The extent to which this objective is achieved is usually measured by the unemployment rate, which has come to serve as a measure of the extent of resource underutilization in the economy. For many it is also a measure of economic and social hardship.

We are starting 1975 with the highest unemployment rate since 1958. The story of the deterioration in the economy during 1974 and its effects on the labor market is given in Chapter 2. This chapter examines the various types of unemployment and unemployment rates at different points in time and among demographic groups. It also looks at the welfare implications of unemployment, and at Government measures to ameliorate the difficulties caused by unemployment.

It is important to emphasize, because the point is often misunderstood, that to analyze unemployment is not to provide excuses for it or deny the personal and social problems associated with it. The unemployment of persons who seek work is costly to the workers themselves, their families, and the Nation as a whole. Our goal should be to reduce unemployment whenever this can be done by means which are not more costly than the unemployment itself. It is therefore important to understand the different kinds of unemployment so that the effectiveness of alternative Government policies can be properly evaluated. This chapter is intended to be a guide to the formulation of constructive policies toward unemployment over the long run.

Unemployment is not as simple a concept as is often believed. The meaning of any particular unemployment rate depends on the way unemployment is defined and measured, and on the sources and composition of the unemployment. Although it is generally clear when we are at points of very high unemployment and widespread underutilization of productive capacity, it is much more difficult to determine when we are at "maximum employment." The unemployment rate of 7.2 percent reached in December 1974 clearly represents a substantial departure from maximum employment. At the other extreme, under current definitions, a zero rate of unemployment is impossible to attain, and efforts to do so would have undesirable consequences. Although the period following World War II was one of rapid

economic growth and rising levels of real income, the unemployment rate averaged 4.7 percent from 1947 through 1973. Only during World War II (1944), when 17 percent of the total labor force were in the Armed Forces, did the rate ever fall close to 1 percent. An understanding of the issues related to unemployment is needed to determine the extent to which a particular rate is too high, or when the goal of maximum employment is attained.

## DEFINITION AND MEASUREMENT OF UNEMPLOYMENT

The major source of information on unemployment is a monthly Government survey of about 47,000 households, the Current Population Survey or CPS. The survey includes detailed questions about the labor force status of household members aged 16 and over, with the object of identifying those who are employed, unemployed, or out of the labor force.

Persons are classified as employed if during the survey week they did any work as a paid employee or in their own enterprise, or if they worked 15 hours or more as an unpaid employee in a family enterprise. Those temporarily absent from jobs because of labor-management disputes, bad weather, vacation, or illness and other personal reasons are counted as employed, regardless of whether they were paid during the week.

Persons are classified as unemployed if they were not employed during the survey week but were available for work and had made a specific effort to find a job at some time within the preceding 4 weeks, or if they were waiting either to report to a new job within 30 days or to be recalled to a job from which they were laid off.

The civilian labor force is the sum of those who are employed (excluding the Armed Forces) and those who are unemployed. The unemployment rate commonly reported is the number of unemployed persons as a percentage of the civilian labor force.

The unemployment rate is, of course, a function of the specific definitions used and the manner in which the questionnaire is administered. For example, in 1967 it was first stipulated that unemployment should include those seeking work at any time during the preceding 4-week period rather than the previously implied 1-week period. This change in definition is believed to have increased the measured unemployment rate of women, because many women are on the margin between being out of the labor force and unemployed. The unemployment rate may also be affected by the expedient of relying on only one adult member of the household to report for all members. The respondent may not be accurately informed about the jobs held or sought by all household members. There is, for example, some evidence from special surveys that teenagers give a different impression of their unemployment and labor force participation when they respond directly to the survey.

## SOURCES AND NATURE OF UNEMPLOYMENT

Unemployment has several aspects that shift in relative importance from time to time. Some portion of unemployment is cyclical; that is, it is associated with the business cycle. Other unemployment is primarily a consequence of frictional, structural, and seasonal factors. These components of unemployment are analytical concepts and are difficult to identify empirically. It is nevertheless important to understand their differing nature.

### FRictional UNEMPLOYMENT

The economy always generates a considerable amount of unemployment resulting from the multiplicity of random events that occur in labor markets. Such unemployment arises partly as a by-product of normal economic change—the closing of some firms, a slowdown in others, the opening and expansion of still others, and changing production techniques within firms. Partly in response to these changes, some workers are laid off and others quit or enter or reenter the labor force. Many become unemployed during this process because the matching of workers to the changing job openings is seldom accomplished instantaneously. Unemployment may also arise as a by-product of personal considerations, quite independent of the fortunes of firms. Thus, events such as the completion of school or of service in the Armed Forces and the lessening of household responsibilities often lead to a movement into the labor force. A preference for a different job environment or geographic area also frequently results in job change, as does an employer's dissatisfaction with a worker's performance.

There is substantial turnover among both the employed and the unemployed. Employment in 1973 averaged 84 million persons per month, but about 100 million different persons worked at some time during the year. Similarly, unemployment averaged 4 million persons per month in 1973, while at least 14 million persons experienced some unemployment in the year. About one-fourth of all those holding jobs in January 1973 had begun their job during the preceding 12 months.

Job loss is usually taken to be an involuntary separation, and quitting a voluntary one. During 1974, 43 percent of the unemployed cited job loss as the immediate reason for unemployment; 15 percent said they had quit their jobs; but 42 percent had just entered or reentered the labor force. In 1973, a year of lower unemployment, the percentage citing job loss was smaller, 39 percent; and the percentage citing quits, or labor force entry or reentry, was greater, 16 percent and 46 percent respectively. Thus, while separation from a job accounts for much unemployment, a similar amount is often the by-product of movement into the labor force.

Entering the labor force usually entails search for a job. Since entrants are by definition not working at a paid job (though they may be fully employed in a real sense as students or housewives), they will usually be counted as unemployed, unless they found a job before becoming technically avail-

able for work. Starting in the 1950's the composition of the labor force began to change as middle-aged married women increased their participation. Since the 1960's the increasing tendency of younger married women to work, and the increase in the teenage labor force because of the post-World War II "baby boom," resulted in rapid increases in the size of the labor force and in the proportion of the labor force comprised of teenagers and married women aged 20 or over (from 20 percent in the labor force in 1950 to 31 percent in 1974). Both groups have relatively high rates of labor force entry and re-entry because of school or home responsibilities. As a result, labor force entrants and reentrants have probably accounted for an increasing proportion of the labor force and of the unemployed during the post-World War II period, and hence for a higher level of frictional unemployment. The unemployment of entrants and reentrants, however, is not always entirely frictional. For example, during a recession one sees a cyclical component in the unemployment of entrants and reentrants that is reflected by longer duration.

In a dynamic economy, wage rates, skill requirements, and other job characteristics are constantly changing. As such changes occur, the information about the labor market that people have acquired depreciates in value. Because it takes time to acquire new and useful information, instantaneous job change is seldom feasible. Individuals looking for more rewarding work and firms looking for more productive employees invest time and other resources in the search process. Thus job mobility and the ensuing frictional unemployment are essential consequences of economic change. To the extent that job mobility increases economic efficiency through a better matching of workers and jobs, it helps promote economic growth.

This is not to say, however, that the actual amount of frictional unemployment necessarily equals the optimal amount required to promote efficient economic growth. That is, it is not known whether labor markets in a private enterprise economy will allocate an optimal amount of resources to the dissemination of job information. Periodic surveys in which workers are asked how they located their current job always show that informal sources of information, such as friends and relatives, are more important than such formal sources as private and public employment agencies. Informal networks seem to provide detail about the tangible and intangible characteristics of job vacancies and of job applicants that workers and firms value highly. Because such detail is much less readily obtained through formal channels, it has been difficult for the Government to devise improvements over the existing system.

## **STRUCTURAL UNEMPLOYMENT**

Even during periods of low unemployment, some groups have persistently high unemployment that tends to be of long duration, occurring either in a single spell or in a sequence of spells. Such unemployment is often referred to as structural, in contrast to frictional unemployment, which tends to be of

shorter duration, although there is no hard and fast line between these two classifications.

Structural unemployment represents imperfect labor market adjustment as a result of some barrier to the mobility of resources. For example, the high unemployment in Appalachia during the 1950's and 1960's was initially a consequence of a decline in the demand for coal and of union wages and fringe benefits that were pushed substantially above the competitive level, and thus led to greater mechanization. The resources of the region were not readily adaptable to other industries, and the personal and financial costs of moving to a different area, combined with a chance of obtaining a high-paying job in Appalachia, impeded migration from the region. Since then, the migration out of the region by younger workers, the retirement of older workers, and the improvement of transportation systems which facilitated the development of new industries have dramatically reduced the unemployment rate in Appalachia. As a result, although the unemployment rate in the Appalachian region was 8.6 percent in 1962 compared to the national rate of 5.5 percent, by 1971 it had fallen to 5.9 percent—the same as the national unemployment rate.

The high unemployment rate of teenagers and of workers with little skill may also be partly attributable to structural factors, but of a different sort. In 1974 the unemployment rate of teenagers aged 16 to 19 was 14 percent for white youths and 33 percent for black youths, compared to 3.8 percent for all males aged 20 and over. These higher rates may to some extent result from such artificial barriers to wage rate adjustment as legislated minimum wages; in this sense they can be said to have structural elements. The Federal minimum wage at present is \$2.10 per hour for workers covered by the legislation before 1966, and \$1.80 per hour for workers who were covered later, mainly some agricultural workers, domestics, and employees of small retail chains. Some employment not covered by the Federal minimum wage is covered by various State and local legislation. In some instances, State and local minimums exceed the Federal level. For example, the current minimum wage in the District of Columbia is \$2.50 per hour in some industries. Other legislation adds to the minimum cost of employing a low-wage worker by requiring, for example, employers' expenditures for social security, unemployment insurance, and workers' compensation insurance.

Some adults, but more teenagers, do not have the skills to command a wage that equals or exceeds this minimum cost of employment for other than peak periods of demand in the business of a particular firm. The knowledge that some job openings exist at the minimum wage may encourage some to continue searching, thus adding to the number of unemployed. Others may drop out of the labor force altogether. Since the minimum wage reduces wage differentiation among workers, it will generate a greater decline in employment for the less skilled and for those subject to discrimination in the labor market. These effects explain part of the substantially higher unemployment

rate for teenagers compared to adults and for black teenagers compared to white teenagers. Racial differences in unemployment are discussed in greater detail below.

### **SEASONAL UNEMPLOYMENT**

Seasonal fluctuations in the demand for and supply of labor cause large flows of persons into unemployment. The seasonal nature inherent in some production processes, such as agriculture and construction, and in some consumption—visiting beach resorts in the summer and ski resorts in the winter—can create seasonal fluctuations in employment and unemployment. For example, the unemployment rate of construction workers in February tends to be 133 percent larger than in August. Changes in technology, such as mechanical harvesting equipment and new methods which permit all-weather construction, may have reduced some seasonal fluctuations in employment. Some industries diversify their product lines or use fluctuations in inventories to reduce the costs associated with seasonal variations in demand.

Seasonal fluctuations can also arise on the labor supply side. The unemployment of young people has a strong seasonal component, related mainly to the search for jobs during school vacations. The school calendar was originally designed to fit seasonal demands for young workers in agriculture, but such employment has declined in relative importance.

If the seasonal pattern is regular from year to year, and if data are available for several years, "seasonal factors" can be computed. Indeed, many of the basic monthly unemployment statistics are "seasonally adjusted" by the Bureau of Labor Statistics to show the month-to-month change in unemployment due to factors other than the change in the season. Adjusting the basic data with the standard statistical technique, however, does not remove the impact of seasonality from the average level of unemployment; rather, it spreads the effects of seasonality uniformly throughout the year. Thus, groups with relatively high seasonal unemployment will, on an annual basis, have a relatively high unemployment rate, other things being the same. For example, the higher annual unemployment rates of blue-collar workers compared to white-collar workers, of Alaska compared to the other States, of teenage males compared to adult males, are in part attributable to greater seasonality of employment.

### **CYCLICAL UNEMPLOYMENT**

During a downturn in economic activity the rate of plant closings accelerates and the rate of openings or expansions of firms declines. The rise in unemployment accompanying such a general decline in business activity is referred to as cyclical unemployment and is associated with the underutilization of economic resources, both human and physical. The rise in the unemployment rate from 4.7 percent in the fourth quarter of 1973 to 6.6 percent in the fourth quarter of 1974 is, of course, the most recent example of a cyclical increase in unemployment.

The unemployment resulting from a general business recession differs from unemployment attributable to other causes. As the rate rises during the cycle, there is an increase in the incidence of unemployment, that is, in the proportion of those who are unemployed during some part of the year (Table 24). This increase accounts for only part of the increase in unemployment, however. For example, the unemployment rate in 1971 was 69 percent greater than in 1969; but the incidence of unemployment was only 30 percent greater. The total number of weeks of unemployment experienced during the year by the average unemployed person also increases during a recession, and this is an additional factor increasing the unemployment rate. Available data on the unemployment of persons with work experience during the year indicate that for adult males, in the period 1964 to 1973, 28 percent of the annual variation in the unemployment rate can be explained by the duration of unemployment over the year, 24 percent by the incidence of unemployment, and 48 percent by their joint effects. During a recession the greater average duration of unemployment over the year seems to be largely due to more weeks of unemployment per spell, rather than to more frequent spells per unemployed person.

TABLE 24.—*Dimensions of unemployment and weekly hours worked: comparison of selected years of high and low unemployment, 1957-74*

Item	1957	1958	1960	1961	1969	1971	1973	1974
	Percent							
Unemployment rate: <sup>1</sup>								
All civilian workers.....	4.3	6.8	5.5	6.7	3.5	5.9	4.9	5.6
Long duration unemployment <sup>2</sup> .....	.8	2.1	1.4	2.2	.5	1.4	.9	1.0
Percent unemployed at any time during year <sup>3,4</sup> .....	14.7	17.9	17.2	18.4	12.5	16.3	14.2	-----
Percent of those with unemployment with two or more spells <sup>4,5</sup> .....	41.1	41.1	36.6	37.0	32.3	32.5	32.5	-----
Unemployed by reason: <sup>6</sup>								
Total unemployed.....					100.0	100.0	100.0	100.0
Job losers.....					35.9	46.3	38.7	43.4
Job leavers.....					15.4	11.8	15.7	14.9
Reentrants and new entrants.....					48.7	41.9	45.7	41.6
	Weeks							
Average duration of unemployment:								
Currently unemployed.....	10.5	13.9	12.8	15.6	7.9	11.3	10.0	9.7
Completed spell of unemployment <sup>7</sup> .....	5.7	7.4	6.0	7.2	4.6	6.6	-----	-----
Sum of spells of unemployment during the year <sup>4,8</sup> .....	13.1	15.6	14.1	14.5	9.8	14.2	12.0	-----
Average hours worked per week.....	41.0	40.6	40.5	40.5	39.9	39.3	39.3	39.0

<sup>1</sup> Percent of civilian labor force.

<sup>2</sup> Unemployed for 15 weeks or longer.

<sup>3</sup> Percent of those in the civilian labor force at anytime during the year.

<sup>4</sup> Data from the Work Experience Survey and relate to persons 14 years of age and over for 1957-61 and 16 years and over for other years.

<sup>5</sup> Data relate only to persons with work experience during the year.

<sup>6</sup> Data are not available for 1957-61.

<sup>7</sup> Estimate.

Note.—Data are from the Current Population Survey and relate to persons 16 years of age and over (except as noted). Detail may not add to totals because of rounding.

Source: Department of Labor, Bureau of Labor Statistics.

As unemployment rises during the cycle, layoffs account for a larger proportion of unemployment, while voluntary separation and entry and reentry into the labor force decline in relative importance. Most workers who quit their jobs presumably do not return to them. However, a substantial proportion of those on a layoff do return to their former jobs, rather than take new jobs, and this proportion is greater for layoffs attributable to a recession.

Not all workers are equally likely to experience the effects of cyclical unemployment (Table 25). Cyclical fluctuations generally have a small amplitude in the service sectors and a wide amplitude in manufacturing, particularly of durable goods. Within industries, cyclical fluctuations in employment tend to be greater for blue-collar or production workers than for white-collar or supervisory workers. The differences, however, vary from one cycle to another.

TABLE 25.—Unemployment rates by selected demographic and industrial groups: comparison of selected years of high and low unemployment, 1957–74

[Percent]

Group	1957	1958	1960	1961	1969	1971	1973 IV <sup>1</sup>	1974 IV <sup>1</sup>
All civilian workers.....	4.3	6.8	5.5	6.7	3.5	5.9	4.7	6.6
RACE								
White.....	3.8	6.1	4.9	6.0	3.1	5.4	4.3	5.9
Negro and other races.....	7.9	12.6	10.2	12.4	6.4	9.9	8.6	11.7
AGE-SEX								
Men 20 years and over.....	3.6	6.2	4.7	5.7	2.1	4.4	3.1	4.7
Women 20 years and over.....	4.1	6.1	5.1	6.3	3.7	5.7	4.7	6.5
Both sexes 16–19 years.....	11.6	15.9	14.7	16.8	12.2	16.9	14.4	17.5
OCCUPATION								
White-collar workers.....	1.9	3.1	2.7	3.3	2.1	3.5	2.9	3.7
Professional and technical Managers and administrators, except farm.....	1.2	2.0	1.7	2.0	1.3	2.9	2.2	2.5
Sales workers.....	1.0	1.7	1.4	1.8	.9	1.6	1.3	2.2
Clerical workers.....	2.6	4.1	3.8	4.9	2.9	4.3	3.6	5.2
	2.8	4.4	3.8	4.6	3.0	4.8	4.0	5.0
Blue-collar workers.....	6.0	10.2	7.8	9.2	3.9	7.4	5.4	8.3
Craft and kindred workers.....	3.8	6.8	5.3	6.3	2.2	4.7	3.5	5.4
Operatives.....	6.3	11.0	8.0	9.6	4.4	8.3	5.7	9.6
Nonfarm laborers.....	9.4	15.1	12.6	14.7	6.7	10.8	8.4	11.6
Service workers.....	4.7	6.9	5.8	7.2	4.2	6.3	5.6	6.9
Farm workers.....	1.9	3.2	2.7	2.8	1.9	2.6	2.4	2.6
INDUSTRY								
Nonagricultural private wage and salary workers.....	4.9	7.9	6.2	7.5	3.5	6.2	4.8	6.9
Construction.....	10.9	15.3	13.5	15.7	6.0	10.4	8.8	13.4
Manufacturing:								
Durable goods.....	4.9	10.6	6.4	8.5	3.0	7.0	3.9	7.3
Nondurable goods.....	5.3	7.7	6.1	6.8	3.7	6.5	4.8	7.9
Service industries <sup>2</sup> .....	4.2	5.7	5.1	6.2	3.5	5.6	4.3	5.2
Government workers.....	1.9	2.5	2.4	2.5	1.9	2.9	2.6	3.2

<sup>1</sup> Seasonally adjusted.

<sup>2</sup> Quarterly data are for service and finance industries.

Note.—Data relate to persons 16 years of age and over except for 1957 occupation data, which relate to persons 14 years of age and over.

Source: Department of Labor, Bureau of Labor Statistics.

To a large extent the demographic characteristics of the unemployed vary over the business cycle because of differences in industry and occupation. Blue-collar workers in goods-producing industries are more likely than white-collar and service industry workers to be adult males and union members and less likely to be college graduates. Groups with these characteristics will therefore generally experience greater fluctuations in unemployment over the business cycle.

Even within an industry-occupation sector, the incidence of unemployment is uneven. Some workers undergo a sharp decline in their weeks or hours of employment during the year, while many others experience little or no decrease. This unequal sharing of unemployment results in greater inequality in the distribution of personal income during a recession.

## INFLATION AND UNEMPLOYMENT

It has been suggested that there is a negative relation between the unemployment rate and the rate of increase in wages and prices, and that such a relation exists in the long run as well as over the business cycle.

During a period of cyclical expansion, an increase in aggregate demand leads to a greater demand for labor, which is expressed by increases in wages (or in the rate of increase in wages) or by the hiring of less skilled workers at the same wage. This increase in demand for labor will result ultimately in a reduction in unemployment. Thus, in a cyclical expansion one observes a negative relation between wage-rate increases and unemployment. On the downside of a business cycle, firms with a decreased demand for labor lay off workers and lower the rate of increase in money wages. The unemployment rate will increase, accompanied by a decline in the rate of wage increase.

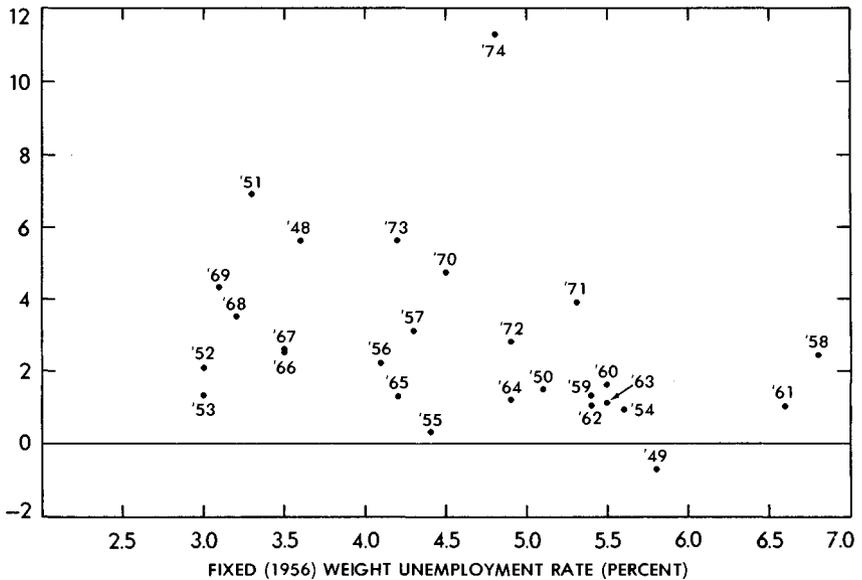
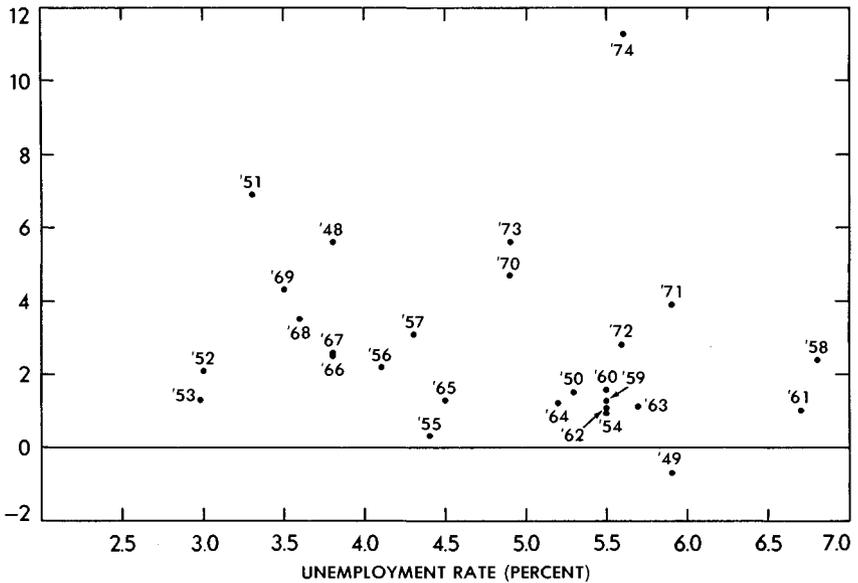
In the long run, however, there would not appear to be a mechanism linking the rate of unemployment to any one rate of stable wage or price increase. One would expect the unemployment rate to be determined by the magnitude of frictional, structural, and other basic forces which are independent of the particular level of a stable rate of inflation. The rate of unemployment that the economy tends to generate when the rate of inflation has no tendency to accelerate is sometimes referred to as the "natural" rate of unemployment. This is a misnomer, however, since the "natural" rate may vary over long periods in response to changes in the underlying factors which determine its level.

During the 1960's many economists believed that there was a long-run, negative relation between the unemployment rate and the rate of increase in wages or prices, initially described by the "Phillips curve" and later by functions involving additional variables and equations. Empirically, simple charts relating the U.S. rate of increase in prices or wages to the unemployment rate did show a downward-sloping relation for the 1960's, although by the 1970's there was clear evidence that the relation was not stable across decades (Chart 7, top panel).

Chart 7

# Unemployment Rate and Prices

PERCENT CHANGE IN  
PERSONAL CONSUMPTION  
EXPENDITURES DEFLATOR



NOTE: WAGE AND PRICE CONTROLS WERE IN EFFECT JANUARY 1951–FEBRUARY 1953 AND AUGUST 1971–APRIL 1974. DURING THESE PERIODS, HOWEVER, THE CONTROLS VARIED IN COMPREHENSIVENESS.

SOURCES: DEPARTMENT OF COMMERCE, DEPARTMENT OF LABOR, AND COUNCIL OF ECONOMIC ADVISERS.

One explanation for the instability across decades is that a long-run Phillips curve exists but that the curve has been shifting outwards. Some have suggested that this shift is in response to an increase in labor force turnover resulting from the increasing proportion of women and teenagers in the labor force. Even if the tightness of the labor market for each age-sex group were unchanged—that is, if age-sex specific unemployment rates were unchanged—an increase in the proportion of the labor force comprised of adult women and teenagers would increase the measured overall unemployment rate. Hence the same rate of inflation would be associated with a higher level of unemployment.

The lower panel in Chart 7 presents data relating the rate of change in a price index to the unemployment rate, adjusted for changes in the age-sex composition of the labor force by the use of 1956 labor force weights. The adjusted unemployment rate has been falling relative to the measured rate. For example, the 1974 unemployment rate of 5.6 percent is reduced to 4.8 percent if the age-sex weights of the 1956 labor force are used. The adjustment reduces but does not eliminate the impression of outward movement of the points during the 1970's; and the pattern of points suggests that the irregularity persists. Despite considerable empirical work allowing for the role of further variables and of lags, it has proved difficult to defend the claim of a long-run Phillips tradeoff between inflation and unemployment.

It should also be noted that a series of shifting, negatively sloped short-run curves relating inflation and unemployment is theoretically consistent with the concept of a "natural" rate of unemployment which is independent of the rate of inflation in the long run. As the short-run curves shift, the observed points on the curves trace out a long-run curve, which becomes more nearly vertical as more time is given to the process. Thus, no stimulus toward lowering unemployment can be derived from a higher inflation rate once the public has adjusted to it. The long-run vertical line originates at a point on the unemployment axis corresponding to the level of the "natural" unemployment rate, a rate which, as noted earlier, depends on the level of frictional and structural unemployment and on other fundamental characteristics of the economy. The changing composition of the labor force would then be one reason to expect an increase in frictional unemployment, and hence a rightward shift of the vertical line in question, that is, a rise in the "natural" rate of unemployment.

Other factors may also have induced a higher natural rate of unemployment over time. The increase in wealth and the accompanying growth of consumer credit have made it easier to maintain consumption during periods of unemployment and may have thereby promoted more job search. Similarly, changes in the welfare program, particularly the availability of food stamps and the program in Aid to Families with Dependent Children (AFDC) for unemployed fathers, available in 23 States and the District of Columbia, now provide additional support for

unemployed persons from families with few assets and little income from other sources.

Finally, the decline in the proportion of the employed who are self-employed or unpaid family workers, from 21.5 percent in 1948 to 9.6 percent in 1974, would also tend to increase the measured unemployment rate, since both groups typically report very low unemployment, presumably because their earnings are residual and not contractual. For example, in 1974 the unemployment rate for these two groups was 0.9 percent, and the rate for wage and salary workers, 5.3 percent.

Other factors, however, would have tended to decrease the unemployment rate over time. For example, rising wage rates increase the opportunity cost of absence from a job, although this effect may have been neutralized by proportionate increases in unemployment compensation benefits. In addition, the occupational-industrial composition of employment has shifted toward white-collar jobs in the service and government sectors, and these ordinarily have lower rates of unemployment.

In summary, although there does generally appear to be an inverse relation between unemployment and inflation in the short run, the stability of such a long-run relation has been challenged. Much evidence suggests that in the long run the rate of unemployment is consistent with any fully anticipated rate of inflation. Continued research on this topic should eventually provide a more definitive answer.

#### DURATION OF UNEMPLOYMENT

For the average worker a spell of unemployment lasts only a few weeks. From 1948 through 1969 the average completed spell was estimated at 5.5 weeks, though it tended to be longer during a recession. It was 3.7 weeks in 1953 (unemployment rate, 2.9 percent) and 7.4 weeks in 1958 (unemployment rate, 6.8 percent).

One should note that the duration of unemployment commonly calculated from the CPS refers to a different measure, the number of weeks of unemployment experienced by those who are currently unemployed. Calculated this way, the average duration of unemployment tends to be considerably longer than the average completed spell of unemployment during the year. The difference arises because the probability of leaving unemployment the following week is related to the number of weeks the individual has been unemployed: the longer one has already been unemployed, the greater the probability of remaining unemployed. The proportion with long-term unemployment will, therefore, be greater among the currently unemployed than among those who are completing spells of unemployment. In 1969 about 4.7 percent of the currently unemployed in an average month had been unemployed for 27 weeks or more, while only 1.8 percent of all those who experienced a spell of unemployment at any time during the year were unemployed for 27 weeks or more.

The duration of unemployment can be viewed still a third way. Some persons experience several spells of unemployment in a year, which together add up to a considerable length of time. Indeed those who have completed a spell of unemployment are more likely to become unemployed again than are those who have not been unemployed. In 1973, 13 percent of those working at some time during the year had one or more spells of unemployment, but 32 percent of those with at least one spell had two or more spells, and 52 percent of those with at least two spells had three or more spells. Counting all spells, 11 percent of the experienced workers who had some unemployment reported that they were unemployed for a total of 27 weeks or more in 1973. On the average, workers who had been unemployed at some time reported 12.0 weeks of unemployment during the year. For this group, which excludes persons who were seeking jobs at some time in the year but did not work, the average length of a completed spell was 8.5 weeks and the average number of spells was about 1.7.

Estimates of the duration of unemployment from the work experience survey may be biased upwards because the survey is conducted in March but relates to the previous year and hence must rely on the respondent's memory. Retrospective reporting may be particularly faulty about brief episodes of unemployment and among those who did not receive unemployment insurance. The number of spells may thus be underestimated and their average length overestimated, particularly for women and teenagers. This would explain why the duration of a completed spell obtained from the work experience survey exceeds estimates of the duration of a completed spell based on the data in the monthly CPS.

The duration of a spell of unemployment seems to vary among demographic groups. Among the currently unemployed, the duration of unemployment is somewhat lower for women than for men, and it increases markedly with age for both sexes. In 1973 the group aged 55 and over made up 9 percent of all the unemployed, but 19 percent of those who were unemployed 27 weeks or more.

Older workers usually have longer tenure on the job and greater job security, and thus a low incidence of unemployment. Once they lose a job, however, it is much more difficult for them to find a comparable one. Older workers are likely to have had much training that was useful to their previous employer but would not necessarily be of value to any other; and because their general training was received at an earlier time their general skills may have become obsolete. Firms are reluctant to invest in an older worker whose remaining work life is shorter and whose retirement with pension is more imminent. Finally, geographic mobility is much more costly at older ages. The closing of a firm or a decline in an industry or an area may thus result in severe problems for older workers.

#### INTERNATIONAL COMPARISONS

Generally the United States and Canada have higher measured rates of unemployment than most other developed countries with market economies

(Table 26). The sources of unemployment, its duration, and the hardship associated with it differ greatly from country to country, and an understanding of these factors is needed to interpret the differences.

The definition of unemployment also varies among countries, and this can cause differences in the measured unemployment rate. In some countries measured unemployment represents the number of persons registered with government unemployment exchanges; such a procedure usually produces lower rates than the one used in the United States. The U.S. Department of Labor has adjusted the unemployment rates of major developed countries to conform more closely to U.S. concepts. However, although the greatest care is taken in making these difficult adjustments, it is probably impossible to achieve full comparability. The adjustments must depend on labor force surveys which differ in the wording and sequence of questions, and the true effect of these differences cannot be determined. Moreover, the vast institutional differences among countries would raise serious questions about the comparability of data even if the questionnaires were identical.

TABLE 26.—*Unemployment rates in the United States and seven other developed countries, selected periods, 1969–74*  
[Percent; seasonally adjusted]

Country	Adjusted to U.S. concepts <sup>1</sup>				As published <sup>2</sup>			
	1969	1973	1974		1969	1973	1974	
			III	November			III	November
United States.....	3.5	4.9	5.5	6.6	3.5	4.9	5.5	6.6
Canada.....	4.7	5.6	5.4	5.5	4.7	5.6	5.4	5.5
France.....	3.1	3.5	4.1	5.6	1.7	2.1	2.5	3.4
West Germany.....	.8	1.0	2.6	3.1	.9	1.2	3.1	3.7
Great Britain <sup>3</sup> .....	3.0	3.0	3.2	3.1	2.4	2.6	2.7	2.7
Italy.....	3.7	3.8	3.2	4.3.5	3.4	3.5	3.0	4.3.2
Japan.....	1.1	1.3	1.4	-----	1.1	1.3	1.4	-----
Sweden.....	1.9	2.5	2.1	1.7	1.9	2.5	2.1	1.7

<sup>1</sup> With the exception of Canada, labor force and unemployment data are adjusted where possible to be made more comparable to U.S. definitions and concepts. Age limits roughly approximate the age at which compulsory schooling ends. For the United States and Canada published and adjusted data are identical.

<sup>2</sup> For Great Britain and West Germany, registered unemployed as a percent of employed wage and salary workers plus the unemployed. For others, unemployment as a percent of the civilian or total labor force. With the exception of France, which does not publish an unemployment rate, these are the rates most usually published in the country.

<sup>3</sup> Data as published exclude school leavers and adult students. Including such persons, the unemployment rate was 2.7 in 1973.

<sup>4</sup> October 1974.

Note.—The quarterly and monthly adjusted data are estimates based on annual adjustment factors and should be viewed as approximate indicators of unemployment under U.S. concepts.

Source: Department of Labor, Bureau of Labor Statistics.

The Labor Department adjustments (Table 26) bring the unemployment rates of some countries closer to the U.S. level, although for West Germany the differential widens. Significant differentials still remain. Although international data on duration of unemployment are less comparable, the United States appears to have more short-term frictional unemployment, but a relatively low rate of long duration unemployment compared to several

other countries (Table 27). It is not known to what extent differences in the proportion of those unemployed for long periods can be attributed to differences in the duration of unemployment benefits or in other provisions of unemployment compensation systems.

TABLE 27.—*Long-term unemployment in the United States and six other developed countries, selected periods, 1970–74*

Country and period	Unemployment rate <sup>1</sup>		Percent of unemployed who have been seeking work for: <sup>1</sup>		Long-term unemployment rate (percent) <sup>1, 2</sup>	
	Percent	Relative to average 1968–1973	3 months or more <sup>3</sup>	6 months or more <sup>4</sup>	3 months or more	6 months or more
United States:						
1970.....	4.9	1.04	16.2	5.7	0.8	0.3
1973.....	4.9	1.04	18.9	7.8	.9	.4
1974: III.....	5.5	1.17	19.0	7.6	1.0	.4
Canada:						
1970.....	5.9	1.05	33.1	15.6	2.0	.9
1973.....	5.6	1.00	35.4	15.6	2.0	.9
France:						
1970: March.....	2.2	.85	56.3	40.6	1.2	.9
West Germany:						
1970: April.....	.5	.63	69.9	50.5	.2	.2
1972: April.....	.9	1.06	63.4	41.4	.6	.4
Great Britain:						
1971.....	3.3	1.18	-----	28.2	-----	.9
1973.....	2.6	.93	-----	41.6	-----	1.1
1974: July.....	2.7	.93	47.0	33.7	1.2	.9
Italy:						
1970.....	3.1	1.09	73.0	42.8	2.4	1.4
Sweden:						
1970.....	1.5	.68	21.8	9.8	.3	.1
1973.....	2.5	1.14	36.7	18.7	.9	.5

<sup>1</sup> Data for Canada, France, West Germany, Italy and Sweden are based on labor force surveys and are fairly comparable to U.S. data. However, they have not been adjusted to U.S. concepts. Data for Great Britain are from the series on registered unemployed and are not comparable to the United States.

<sup>2</sup> Percent of civilian or total labor force, except in Great Britain where it is a percent of registered unemployed plus employed wage and salary workers.

<sup>3</sup> Fifteen weeks or more in the United States, 4 months or more in Canada, and 13 weeks or more in Great Britain and Sweden.

<sup>4</sup> Twenty-six weeks or more in the United States, 7 months or more in Canada, 26 weeks or more in Great Britain, and 27 weeks or more in Sweden.

Sources: Department of Labor (Bureau of Labor Statistics) and Council of Economic Advisers.

One reason for the greater frictional unemployment in the United States and Canada, compared to many countries in Western Europe, may be the rapid rate of growth in the labor force and in employment, primarily because of their more rapidly growing populations. From 1962 to 1972, the civilian labor force increased at annual rates of 2.1 percent in the United States and 3.0 percent in Canada; but the civilian labor force (adjusted to U.S. concepts) increased only 1.3 percent in Japan, 1.0 percent in France, and 0.7 percent in Sweden; and it declined by 0.1 percent in West Germany and by 0.7 percent in Italy. A more rapidly growing labor force may imply a larger proportion of recent entrants who have a high incidence of unemployment, though often of short duration. In addition, employers may be less reluctant to lay off workers when there is a steady flow of new workers into the market.

The relatively high level of frictional unemployment in the United States is also reflected in comparatively high rates of job turnover. For example, turnover rates in manufacturing, measured as the number of separations (quits and layoffs) per 100 employees per year, were 55 and 65 respectively in the United States and Canada in the 1960's—from 70 percent to more than 100 percent higher than in countries such as West Germany, Great Britain, or Italy, even in years of very low unemployment. Institutional and cultural factors may account for these differences in turnover. In many Western European and Asian countries worker-employer relationships discourage layoffs and quits. A distinctive characteristic of Japanese labor markets is the system of "lifetime employment," in which many workers are felt to be committed to employment by a single firm throughout their careers. The firms with such arrangements are usually large, and intrafirm job mobility replaces interfirm mobility. Available data indicate very low rates of job change in Japan, even for young workers. Among young graduates of manpower training programs in 1968, only 28 percent changed employers during the next 3 years. Among U.S. youths aged 15 to 20 who had left school and entered the labor force, however, about 53 percent of whites and 66 percent of blacks changed employers between 1966 and 1967, according to the National Longitudinal Survey. It is difficult to evaluate the efficiency of intercountry differences in job mobility, but the variation in behavior is striking.

Another factor in the differing measured unemployment among some countries is the extent of self-employment. Self-employed persons and unpaid workers in family enterprises, mainly farms, are seldom reported as unemployed. In the United States, about 10 percent of the employed are self-employed or unpaid family workers. Although in Sweden the proportion is similar to that in the United States, it is considerably higher in several other countries: 32 percent in Japan, 29 percent in Italy, 21 percent in France, and 16 percent in West Germany. Thus, relative to the United States, unemployment appears lower in these countries than it would be if only wage and salary workers were considered.

Finally, government actions can influence the extent to which measured unemployment varies over the business cycle. In Sweden, for example, extensive expenditures on training and public employment programs during recessions reduce the cyclical increase in measured unemployment. During 1973, a year of cyclical downturn in Sweden, an annual monthly average of 79,000 persons were in training or public employment programs and hence were counted as employed or out of the labor force. Since this group is large compared to the monthly number of persons reported unemployed, about 98,000, it is clear that without the programs, or if persons in the programs were counted as unemployed, the measured rate would have been substantially higher than the reported rate.

In West Germany, some adjustment to the business cycle has been made through the migration of foreign workers who now comprise about 10 per-

cent of the civilian labor force. During slack times the foreign workers, who are more prone to layoff, usually returned to their home countries. In 1974, however, this pattern seems to have changed, perhaps partly because of recent restrictions on new migrant labor; and fewer unemployed foreign workers left the country. Thus, in October 1974 foreign workers made up 13 percent of the registered unemployed, compared to 6 percent in March 1973. In January 1975 renewed government efforts were made in West Germany to encourage the emigration of unemployed migrant workers.

## THE DISTRIBUTION OF UNEMPLOYMENT

The U.S. data for 1974 show a wide disparity in unemployment among demographic groups. The unemployment rate is higher for teenagers than for adults, for women than for men, for blacks than for whites, and for unskilled workers than for the skilled. These differentials have endured in U.S. labor markets for a long time. Even in 1969, a year of extremely tight labor markets, when the unemployment rate for adult men was 2.1 percent, the unemployment rate was 3.7 percent for adult women, 6.4 percent for blacks, and 12.2 percent for teenagers. The development of efficient public policy requires an understanding of the nature and causes of these unemployment differentials.

### DIFFERENTIALS DUE TO LABOR FORCE TURNOVER

Labor force turnover seems to explain much of the unemployment of women and teenagers. Some teenagers and more women have a continuous attachment to the labor force; others are just beginning such an attachment; and still others enter and leave the labor force, sometimes more than once during the year. For example, although more than half the women and teenagers were in the labor force at some time in 1973, only 31 percent and 22 percent respectively were in the labor force for 50–52 weeks. Of all males aged 25 to 54, however, 87 percent were in the labor force for the entire year.

As noted above, high rates of labor force turnover generally have the effect of increasing measured unemployment, while job-to-job mobility does not always have such an effect. In our unemployment statistics, persons with a job are not classified as unemployed, even though they may be searching for another. During the recession year of 1961 less than half the persons who changed jobs for any reason, including job loss, experienced unemployment as it is defined here. In a year of normal unemployment the proportion is likely to be still lower. Entry and reentry into the labor force, on the other hand, is subject to a more direct translation into measured unemployment, since search by those working as students or in the home is counted as unemployment. Not surprisingly, a large amount of unemployment among teenagers and women is accounted for by labor force entrants and reentrants (Table 28).

In 1974, 44 percent of the unemployed adult women and 68 percent of the unemployed teenagers had been out of the labor force before becoming

TABLE 28.—*Distribution of unemployed by reason for unemployment, by age and sex, 1973-74*

[Percent]

Reason	Men 20 years and over		Women 20 years and over		Both sexes 16 to 19 years	
	1973	1974	1973	1974	1973	1974
Total unemployed.....	100.0	100.0	100.0	100.0	100.0	100.0
Job separations.....	75.0	79.4	53.2	56.5	29.0	31.9
Job losers.....	59.1	65.4	34.6	38.6	17.2	19.7
Job leavers.....	15.9	14.1	18.6	18.0	11.8	12.2
Previously out of labor force.....	25.0	20.5	46.8	43.5	71.1	68.1
Reentrants.....	21.6	18.2	41.5	37.9	29.5	30.6
New entrants.....	3.4	2.4	5.3	5.6	41.5	37.4
Unemployment rate <sup>1</sup> .....	3.2	3.8	4.8	5.5	14.5	16.0

<sup>1</sup> Unemployment as percent of civilian labor force.

Note.—Detail may not add to totals because of rounding.

Source: Department of Labor, Bureau of Labor Statistics.

unemployed, compared to only 21 percent of unemployed adult men. We can exclude both new entrants and reentrants from the unemployed and from the civilian labor force to compute an unemployment rate referring only to persons who are unemployed because they lost or quit their jobs. The resulting unemployment rate for adult women declines almost to that for adult males, and the differential between adults and teenagers is substantially narrowed (Table 29).

TABLE 29.—*Civilian unemployment rates by age and sex, under alternative definitions, 1969-74*

[Percent]

Sex, age, and year	Unemployment rate			
	All unemployed <sup>1</sup>	Job losers and job leavers <sup>2</sup>	Job losers <sup>3</sup>	Unemployed plus discouraged workers <sup>4</sup>
<b>Men 20 years and over:</b>				
1969.....	2.1	1.6	1.2	2.4
1970.....	3.5	2.7	2.3	3.8
1971.....	4.4	3.4	2.9	4.7
1972.....	4.0	3.0	2.5	4.3
1973.....	3.2	2.4	1.9	3.5
1974.....	3.8	3.0	2.5	4.1
<b>Women 20 years and over:</b>				
1969.....	3.7	1.9	1.3	4.9
1970.....	4.8	2.7	2.0	6.0
1971.....	5.7	3.3	2.5	7.2
1972.....	5.4	3.1	2.2	6.9
1973.....	4.8	2.6	1.7	6.0
1974.....	5.5	3.2	2.2	6.6
<b>Both sexes 16 to 19 years:</b>				
1969.....	12.2	3.6	2.0	13.4
1970.....	15.3	5.0	3.2	16.6
1971.....	16.9	5.3	3.6	18.4
1972.....	16.2	5.3	3.5	17.6
1973.....	14.5	4.7	2.8	15.8
1974.....	16.0	5.7	3.6	17.2

<sup>1</sup> Percent of civilian labor force.

<sup>2</sup> Percent of civilian labor force excluding new entrants and reentrants.

<sup>3</sup> Percent of civilian labor force excluding new entrants, reentrants, and job leavers.

<sup>4</sup> Percent of civilian labor force plus discouraged workers. Discouraged workers are defined here as those not in the labor force because they believe they cannot find a job.

Sources: Department of Labor (Bureau of Labor Statistics) and Council of Economic Advisers.

Labor force turnover has another side, exits from the labor force; and some suggest that many of those who leave the labor force are discouraged workers who cannot find jobs. The flows of women and teenagers out of the labor force are large; quantitatively they can be expressed as the percentage of those in the labor force who withdrew. Withdrawals represented 33 percent of the teenage labor force in 1973; 24 percent of the labor force for women aged 20 to 24 and 13 percent for women aged 25 to 59; and 1.8 percent for men aged 25 to 59. Only a small proportion cited economic factors as the reason for leaving the labor force, however; and among this group still fewer cited "slack work" as opposed to what would seem to be a planned short-term job—"seasonal or temporary job" (Table 30).

"Discouraged workers" are often defined more broadly to include all persons outside the labor force who would like a job but think it is useless to seek one. Some of the people so classified in 1973, about 14 percent, have never worked. Most, about 77 percent, intend to seek work within a year, and about 40 percent had looked for a job at some time but could not find

TABLE 30.—Reason for separation from last job for persons not in the labor force but who worked during the previous 12 months, by age and sex, 1973

Reason for separation	Total	Age in years			
		16 to 19	20 to 24	25 to 59	60 and over
<b>MEN</b>					
Number (thousands).....	3, 714	1, 427	776	660	849
Percent distribution by reason:					
Total.....	100.0	100.0	100.0	100.0	100.0
School, home responsibilities.....	41.6	61.8	64.0	21.2	2.8
Ill health, disability.....	12.0	1.6	2.3	34.0	21.1
Retirement, old age.....	14.4	( <sup>1</sup> )	( <sup>1</sup> )	9.5	55.4
Economic reasons.....	16.2	19.0	13.9	15.0	14.3
End of seasonal or temporary job.....	11.8	15.1	9.9	8.5	10.7
Slack work.....	4.3	3.9	4.0	6.5	3.5
All other reasons.....	15.9	17.6	19.7	20.3	6.5
<b>WOMEN</b>					
Number (thousands).....	6, 329	1, 360	1, 348	2, 994	626
Percent distribution by reason:					
Total.....	100.0	100.0	100.0	100.0	100.0
School, home responsibilities.....	51.4	63.9	68.8	46.1	12.3
Ill health, disability.....	7.9	1.8	3.0	10.9	18.0
Retirement, old age.....	4.4	( <sup>1</sup> )	( <sup>1</sup> )	1.3	38.4
Economic reasons.....	18.9	16.5	12.8	22.8	18.5
End of seasonal or temporary job.....	14.4	13.8	9.7	17.2	13.5
Slack work.....	4.4	2.7	3.1	5.7	4.9
All other reasons.....	17.4	17.9	15.4	18.9	12.9

<sup>1</sup> Not applicable.

Note.—Detail may not add to totals because of rounding.

Source: Department of Labor, Bureau of Labor Statistics.

one. One can calculate an unemployment rate in which those who are out of the labor force because they believe they cannot find a job are added to the unemployed and to the labor force. This change increases the unemployment rate for adult men by 0.3 percentage point and for adult women

by 1.1 to 1.5 percentage points, and hence increases the male-female unemployment differential (Table 29).

When discouraged workers are included in the unemployment data, the increment in the unemployment rate fluctuates somewhat with the business cycle for adult women (by 0.3 percentage point from 1969 to 1971), but not for adult males. It is thus not the business cycle but rather demographic or structural economic factors, such as age, skill, and region, that account for most of the "discouraged worker" phenomenon.

#### THE MALE-FEMALE DIFFERENTIAL FOR EXPERIENCED WORKERS

When entrants are excluded from the data, as in Table 29, the sex differential in unemployment becomes very small. When the comparison is confined only to those among the unemployed who lost their jobs, the unemployment rate for women is about that of men during times of low unemployment; but it is lower than the rate for men during times of higher unemployment.

In principle, women would be more vulnerable to layoffs than men, because on average they do not have as many years of work experience as men of the same age. They are therefore likely to have accumulated fewer seniority rights and to have received less training or other investment in skill specific to the firm. In addition—and it is difficult to separate this factor from the preceding one—employers may discriminate against married women when reducing the firm's payroll. On the other hand, a smaller proportion of employed women are in occupations and industries with sharp cyclical fluctuations. Women are more likely to be employed in white-collar jobs—62 percent of women and 40 percent of men were in such jobs in 1974—and in service industries like government where unemployment fluctuates less over the business cycle. The industrial-occupational mix factor seems to dominate, since during recessions the unemployment differential by sex narrows for experienced workers. In addition, the slower rate of entry of women into the labor force during a recession narrows the sex differential in the overall unemployment rate (including labor force entrants).

Another factor that tends to increase the unemployment rate of married women is the migration of families, who generally move where the husband's job opportunities are better. Although in some cases this migration may also improve the wife's job opportunities, it more often results initially in her unemployment in a new labor market. Thus in 1970, married women aged 25 to 34 who had moved to a different county within the year had an unemployment rate of 11 percent, compared to 5 percent for nonmigrants; among married men of the same age the rates for migrants and nonmigrants were 4.8 percent and 2.1 percent respectively. This effect diminishes, however, in the course of time.

Women differ from men in the way they search for jobs. Among married women, this difference may well be a function of their dual responsibilities in the labor market and at home. In 1973, a sample of workers who had taken

their current jobs within the year responded to a survey about job search methods. Men spent more time in search: 40 percent of the men and 29 percent of the women usually spent 6 or more hours per week looking for work. Men searched over a wider area: 67 percent of the men and 45 percent of the women reported that they had traveled 11 or more miles from home in search of a job. Men also used more methods of search than women.

#### STUDENT AND NONSTUDENT TEENAGERS

The unemployment of teenagers who have ended their schooling is quite different from that of students seeking part-time or summer jobs often unrelated to their eventual careers.

The proportion of teenagers aged 16 to 19 who are enrolled in school in October has increased from 58 percent in 1956 to 66 percent in 1973. The proportion of students who participate in the labor force during the school year has also been increasing—from 32 percent in October 1956 to 41 percent in October 1973. As a result, 52 percent of the teenage labor force were enrolled in school in 1973 compared to only 39 percent in 1956.

Every June brings a large increase, usually a 30–40 percent increase, in the teenage labor force, which currently averages 8.1 million youths during the school months. The economy manages to absorb most of this influx. In 1969, as many as four out of five teenage students were reported in the labor force at some time during the summer; all but 11 percent eventually found jobs. About one-third of the unsuccessful jobseekers searched only 2 weeks or less, and 68 percent searched 4 weeks or less. During the summer the teenage unemployment rate rises sharply, thereby increasing the average annual rate of teenage unemployment.

In the second half of the 1960's the unemployment rate among teenage students increased in relation to the rate for nonstudents and responded little to the expansion in the economy. Because of students' increased participation in the labor force, however, employment ratios of students (employed students as a percentage of the population) also increased in comparison with those of nonstudents. Thus unemployment rates should be evaluated in conjunction with employment ratios or labor force participation rates for teenagers or any other group whose participation rate is substantially below 100 percent.

Since the middle 1950's the labor force participation rate of nonstudents aged 16 to 19 has been around 70 percent. Many of these young people are interested in full-time jobs and remain in the labor force all year. Since they are learning about the labor market, more of their unemployment arises from changing jobs than from the movement into the labor force that characterizes student unemployment.

Although youths out of school have above average layoff and quit rates, the resulting job changes may have beneficial consequences. New or relatively new members of the labor force search extensively for desirable conditions of employment, experimenting among different occupations and

employers. Moreover, since young workers do not have a work history, employers have less information about teenagers than they have about older workers, and this makes the hiring process more difficult. Information from a survey of out-of-school male youths between 1966 and 1968 suggests that job changing may be a good investment. Those who changed employers generally obtained larger pay gains over the period than those who did not; and among black youths the pay increases during the period rose consistently with the number of changes.

The unemployment rate of all teenagers has risen sharply relative to the rate of adult men since the late 1950's. This rise is due partly to the increase in school enrollment and to the changing participation pattern of students, both of which result in higher turnover. Part of this relative rise in teenage unemployment may stem from the extension of minimum wage coverage and from the growth of social legislation that raises the cost to the firm of teenage compared to adult labor.

The minimum wage may also have a more insidious long-run effect on the careers of youths, particularly teenagers out of school. Traditionally, on-the-job training has done much to improve skills. Such job training may be unprofitable for employers if they must pay higher minimum wage rates. The youths who suffer most would be precisely those who might need the most help—youths with little schooling and greater learning difficulties and those subject to discrimination.

#### VETERANS AND NONVETERANS

The higher unemployment rate of male veterans of the Vietnam era compared to nonveterans has been a matter of public concern. When the rate is disaggregated by age, however, it is clear that only veterans aged 20 to 24 have significantly higher rates of unemployment than nonveterans (Table 31). The relative and absolute difference in unemployment declines with age and disappears for those aged 30 to 34. The relative unemployment rate of veterans aged 20 to 34 has fallen since 1971, largely because of a decline in discharges and the consequent increasing average age of veterans compared to nonveterans.

Since young veterans include most of those recently discharged from the Armed Forces, they are likely to be new entrants or reentrants to the civilian labor force. As discussed above, entry is generally associated with higher unemployment. Veterans may also be less informed about the current civilian labor market than other entrants whose activities have been largely centered in the home and school. After being away for a number of years, veterans may find that previously acquired information about the labor market has become obsolete, and new information is difficult to acquire because of weakened ties with friends and home. This drawback disappears as the veterans acquire information relevant to job search in the civilian sector.

Under the federally financed program of Unemployment Compensation for Ex-Servicemen (UCX), newly discharged veterans with at least 90

TABLE 31.—*Unemployment rates for male Vietnam era veterans and nonveterans 20 to 34 years, by age, 1970–74*

[Percent <sup>1</sup>]

Age and veteran status	1970	1971	1972	1973	1974
20 to 34 years:					
Veterans .....	6.7	8.3	6.7	4.9	5.3
Nonveterans .....	5.3	6.3	5.7	4.9	6.0
Ratio <sup>2</sup> .....	1.26	1.32	1.18	1.00	.88
20 to 24 years:					
Veterans .....	9.5	12.3	10.6	8.8	10.9
Nonveterans .....	8.1	9.5	8.7	6.8	8.2
Ratio <sup>2</sup> .....	1.17	1.29	1.22	1.29	1.33
25 to 29 years:					
Veterans .....	4.5	5.8	4.9	3.7	4.3
Nonveterans .....	3.9	4.7	4.2	4.3	4.9
Ratio <sup>2</sup> .....	1.15	1.23	1.17	.86	.88
30 to 34 years:					
Veterans .....	3.2	3.5	3.0	2.6	2.7
Nonveterans .....	3.1	3.7	3.0	2.4	3.4
Ratio <sup>2</sup> .....	1.03	.95	1.00	1.08	.79

<sup>1</sup> Except as noted.

<sup>2</sup> Ratio of rate for veterans to that for nonveterans.

Note.—Vietnam era veterans are those who served after August 4, 1964. In 1973, of the Vietnam era veterans of all ages, 91 percent were 20 to 34 years of age.

Source: Department of Labor, Bureau of Labor Statistics.

days of continuous active service and a discharge other than dishonorable are eligible for unemployment compensation in any State where they wish to file a claim, under the conditions and benefits prevailing in that State. In fiscal 1974 there were 527,000 military separations and 342,000 initial claims for UCX, a claim rate of 65 percent. The average weekly benefit was \$66, and benefits were received for an average of 13.6 weeks in a benefit year, about the same as for all insured unemployed.

The UCX program may encourage unemployed veterans to spend more time searching for a job; and among veterans who become students it may encourage a period of unemployment rather than withdrawal from the labor force. Most young nonveterans, on the other hand, have too little work experience to qualify for substantial unemployment insurance benefits, if any. Again, as the cohort ages, the veterans exhaust their eligibility for UCX, nonveterans acquire more job experience, and the gap in eligibility for unemployment benefits narrows. These developments also narrow the unemployment differential.

#### UNEMPLOYMENT DIFFERENTIALS BY EDUCATION

A pronounced inverse relation exists between education and unemployment (Table 32). The differential varies among demographic groups and over time. For example, the differential narrowed perceptibly in the last decade for males aged 35 to 54.

There is a presumption that firms would be most reluctant to lose, through a layoff or a quit, those workers in whom they had made the largest investments. Among such investments are hiring costs (such as the cost of evaluating prospective employees), and the cost of training that is specific to the

TABLE 32.—Unemployment rates by education, sex, and age, 1962 and 1972

(Percent)

Sex and years of school completed	Age					
	20 years and over		20 to 34 years		35 to 54 years	
	1962	1972	1962	1972	1962	1972
Men: Total.....	5.7	4.9	7.1	6.8	4.8	3.4
8 years.....	7.3	5.8	11.4	10.0	7.3	6.2
9 to 11 years.....	7.3	6.4	11.2	11.0	5.7	4.0
12 years.....	4.3	4.8	5.7	6.9	3.0	3.0
16 years or more.....	1.5	2.2	1.9	2.9	.9	1.7
Women: Total.....	5.6	5.4	8.0	7.2	4.9	4.7
8 years.....	6.2	5.5	13.6	8.7	6.4	5.6
9 to 11 years.....	8.3	7.5	13.0	14.4	7.0	5.4
12 years.....	5.2	5.1	7.2	6.6	4.0	4.3
16 years or more.....	1.5	3.0	1.9	4.0	1.6	2.4

Note.—Data relate to March of each year.

Source: Department of Labor, Bureau of Labor Statistics.

particular firm (that is, training useful almost exclusively in the firm where it is acquired). Workers with more education tend to be less homogeneous, and the less homogeneous the class of workers, the greater the resources devoted by the firm to acquiring information about the characteristics of particular individuals. More educated workers also appear to receive more training on the job, because their prior education facilitates further training and because they are more likely to have characteristics such as ability, steadfastness, and good health which firms find desirable in their trainees. Thus one expects a lower incidence of turnover (layoffs plus quits) among more educated workers. Related to these points is the different occupational and industrial distribution of those with more schooling: a greater concentration in white-collar jobs and in the service sector. As indicated above, these occupational and industrial characteristics are associated with a reduced amplitude of cyclical fluctuations in unemployment.

Workers with more education are more likely to change jobs without undergoing unemployment. It may be easier for them to search for a new job while employed because their more cerebral and portable work permits more flexible work schedules, or because prospective employers can evaluate their qualifications initially without their presence. Moreover, unemployment is more expensive for those with higher levels of schooling; as a result of their higher wages, unemployment benefits replace a lower proportion of their lost wages.

Data on job mobility which are available for 1961 by occupation but not by education support these hypotheses. Job turnover was generally much lower in the highly skilled occupations associated with more education. Thus, only 4.7 percent of male nonfarm managers and 8.5 percent of male professionals changed jobs in 1961. The rate of job change increased consid-

erably for those with less skill, reaching 16.4 percent for laborers. When the number of changes made by those who changed jobs is also considered, the differentials in total turnover become even more pronounced; the job changers with lower skills were more likely to have made more than one change (40 percent for laborers), while a smaller proportion of the highly skilled had changed jobs more than once (22 percent for professionals). The proportion of males who changed jobs without any unemployment was 55 percent for professionals, 37 percent for operatives, and 32 percent for laborers.

It has been suggested that the increase in education over the past three decades may have reduced overall unemployment. The reasons why unemployment differs among education groups, however, need not apply to unemployment over time. For example, the amount of training specific to the firm would not necessarily respond proportionately to increases in the education of the population, although at a given moment training and education may be strongly linked. In addition, increases in education over time result in increases in schooling levels within occupations, as well as an increase in the proportion of the labor force in more skilled occupations. If unemployment is more strongly associated with occupation than with education, secular increases in the level of education would result in less than proportionate declines in the unemployment rate. For a rising level of education to have no effect on the overall unemployment rate would require an increase in unemployment rates within at least some education groups. It is not possible to test this hypothesis adequately since unemployment rates by education, controlling for demographic characteristics, are not available for the years before 1962, and hence there are not enough data points to separate cyclical from longer-term effects.

#### UNEMPLOYMENT DIFFERENCES BY RACE

The rate of unemployment among blacks has been about double that of whites in the post-World War II period. From 1948 through 1973 the unemployment rate averaged 8.6 percent for blacks and 4.3 percent for whites. Although the black-white differential in earnings has narrowed over the past 20 years, no such narrowing is as evident in the unemployment differential.

The race difference in unemployment may be attributed to differences in demographic and socioeconomic characteristics, as well as to current discrimination in the labor market. Some demographic and socioeconomic differences, however, may themselves be consequences of past discrimination. Among whites, unemployment rates vary across groups with different characteristics; for example, rates are higher for teenagers than for adults, for high school dropouts than for college graduates, for laborers than for professionals; and they are higher in the West than in the South. Because these characteristics differ by race, unemployment rates for blacks and whites with the same characteristics could be the same although their overall rates differed. The younger average age and lower levels of schooling and occu-

pation of blacks would imply higher black unemployment rates. The greater residential concentration of blacks in the South would, on the other hand, imply lower black unemployment rates.

The extent to which racial differences in unemployment can be attributed to various measurable factors has been computed for March 1970 from data collected in the 1970 Census of Population. As reported in the census, the unemployment rate for persons aged 16 and over was 6.3 percent for black men and 3.6 percent for white men; 7.7 percent for black women and 4.8 percent for white women (Table 33). The computations were performed separately for the more restricted group of men and women aged 25 to 64 who were experienced workers, that is, who had worked at some time during 1969. For this group the civilian unemployment rate for men was 3.5 percent for blacks and 2.5 percent for whites. By excluding young persons, those aged 65 and older, and those who had been out of the labor force the preceding year, the unemployment rate is reduced, and more so for blacks. The rate differential is thereby reduced, especially for men. It is primarily the exclusion of young workers which accounts for this effect.

TABLE 33.—Unemployment rates by race, Spanish heritage, and sex, March 1970

[Percent]

Item	Comparison of blacks and whites		Comparison of persons of Spanish heritage and whites not of Spanish heritage	
	Men	Women	Men	Women
Persons 16 years of age and over:				
White or white not of Spanish heritage.....	3.6	4.8	3.5	4.7
Black or Spanish heritage.....	6.3	7.7	5.8	8.1
Persons 25 to 64 years of age who worked in 1969:				
White or white not of Spanish heritage.....	2.5	3.1	2.4	3.0
Black or Spanish heritage.....	3.5	5.2	3.7	5.4
Predicted black or Spanish heritage rate if blacks or persons of Spanish heritage had the white or white not of Spanish heritage distribution of: <sup>1</sup>				
Age.....	3.4	4.7	3.7	4.6
Plus: Region.....	3.8	4.9	3.1	3.9
Plus: Schooling.....	3.3	4.2	2.5	2.5
Plus: Marital status.....	3.0	4.1	2.6	2.5
Plus: Occupation.....	2.6	3.9	2.5	2.1

<sup>1</sup> Using micro-data from the 1:1,000 sample of the 1970 Census of Population, the dichotomous variable unemployed-employed in the survey week in March 1970 was regressed for each group on the control variables. The mean values of the control variables for whites or whites not of Spanish heritage of the same sex were inserted into the regression for blacks or persons of Spanish heritage to obtain the predicted value for blacks or persons of Spanish heritage.

Note.—The unemployment status refers to the week prior to Census Day, April 1, 1970. For those who returned the forms late, the data may refer to April. The data, therefore, are not strictly comparable to unemployment rates obtained from the Current Population Survey and reported by the Bureau of Labor Statistics. Data relate to persons living in the 50 States and the District of Columbia.

Sources: Department of Commerce (Bureau of the Census) and Council of Economic Advisers.

The remaining race differential in unemployment rates of 1.0 percentage point for March 1970 among males aged 25 to 64 who worked in 1969 would be increased to 1.3 percentage points if adult blacks had the same distribution of age and region of residence as whites (Table 33). This

arises primarily because blacks are more concentrated in the South, where unemployment is lower. When control for the race difference in schooling is added, the differential is reduced to 0.8 percentage point; and 20 percent of the original differential is explained. A substantial reduction in the differential is obtained, however, only when marital status and occupation (10 broad categories), are introduced. With these five variables, one can account for 90 percent of the differential in unemployment. Under the same stepwise procedure as for men, 62 percent of the larger race differential for women is accounted for by the five control variables. Among women, however, age, region, and schooling have a larger effect on the differential than among men.

These results cannot easily be used to determine the extent to which the racial differences in unemployment are due to current discrimination in the labor market. Race differences in some of the control variables, such as marital status and occupation, may themselves be partly attributed to the effects of current discrimination. For example, unemployment and low income due to discrimination in employment could lead to higher rates of marital separation; employers may bar some persons from particular occupations on the grounds of race. However, other relevant variables which were not measured—such as the quality of schooling and the extent of training on the job—could also have important effects and help to explain race differences in unemployment.

Differences between blacks and whites in their basic education and other skills may also have arisen indirectly through discrimination. Labor market discrimination can lower or make more uncertain the monetary return from schooling and consequently lower the incentive for additional schooling. Perhaps more important, past discrimination, unrelated to the current labor market, clearly lowered the quantity and quality of schooling for blacks. Several decades ago when the older workers in today's labor market were of school age, the quality of schooling for blacks was vastly inferior by almost any measure. There has been considerable progress in this area, so that today available measures of schooling resources, such as expenditures per pupil, have been brought to approximate equality.

Even if discrimination in the labor market were widespread, it could result in lower wages instead of higher unemployment for blacks relative to whites with the same skill and other relevant characteristics. If there were no equal opportunity legislation or other restrictions on wages, and if employers discriminated against blacks, blacks might work for less pay than similarly qualified whites; this would provide an incentive for employers to hire them, although the incentive might not always be sufficient. If white employees were to refuse to have a black supervisor, employers might hire blacks for jobs below their skill level or maintain segregated work forces. If, because of racial tension, it were too costly to employ black and white workers of similar skill levels in an integrated work force, segregated work forces may

also develop. In each case, discrimination could take the form of reduced compensation, inferior jobs, or segregation, rather than higher unemployment.

Discrimination is more likely to lead to unemployment differentials when employers are prevented from paying different wages for equal work, because of legal, union, or social pressure. Discrimination may then to a greater extent take the form of restricted job openings for blacks, because it is sometimes more difficult to prove discrimination in hiring or promotion than in overt pay differences. Such a development could increase the difficulty of finding and maintaining employment, and hence increase the unemployment rate for blacks. Moreover, the prospect of equal pay may encourage blacks to quit jobs with low pay and search longer for more promising positions.

Empirical studies have estimated the extent to which differences in State laws requiring "equal pay for equal work" (prior to the national Civil Rights Act of 1964) affect race differences in income and unemployment, when other economic variables are held constant. The results indicate that State equal pay laws reduced the gap between the wage rates of equally skilled blacks and whites but increased the difference in unemployment. The wage effect was greater than the unemployment effect, however, and annual earnings differentials between blacks and whites consequently narrowed.

The ambiguity of the relation between discrimination and unemployment is further illustrated by a comparison of the unemployment differential between the urban South and the urban non-South during the decennial census years 1940 through 1970 (Table 34). The unemployment differential between white and black men tends to be larger in the non-South, partic-

TABLE 34.—Unemployment rates for males in the urban South and urban non-South, by race and age, selected years, 1940-70

Age group and year	North and West (percent)		South (percent)		Difference between black and white rates (percentage points)		Ratio of black to white rate	
	Black	White	Black	White	North and West	South	North and West	South
<b>Males 14 to 24 years:</b>								
1940	34.7	22.6	23.1	14.7	12.1	8.4	1.54	1.57
1950	22.9	10.7	14.0	8.0	12.2	6.0	2.14	1.75
1960	18.5	9.0	13.4	7.7	9.5	5.7	2.06	1.74
1970	16.7	8.6	12.4	6.7	8.1	5.7	1.94	1.85
<b>Males 25 years and over:</b>								
1940	16.5	9.4	11.6	6.4	7.1	5.2	1.76	1.81
1950	10.6	4.7	7.0	3.4	5.9	3.6	2.26	2.06
1960	9.8	3.9	7.0	3.3	5.9	3.7	2.51	2.12
1970	5.5	2.9	3.5	1.9	2.6	1.6	1.90	1.84

Note.—In 1940 black includes Negro and other nonwhite races; in 1950, 1960, and 1970 Negro only. In 1970 white includes some races other than Negro and American Indian usually classified as nonwhite. These other races made up 0.6 percent of the combined group "white and other" in the South and 1.8 percent in the North and West.

Source: Department of Commerce, Bureau of the Census.

ularly in 1950 and 1960. Since the black-white difference in education has been larger in the South than in the non-South, unemployment rate differentials adjusted for education would show an even more exaggerated tendency for the South to display a smaller race differential in unemployment. On the other hand, broadly considered, economic opportunities have generally been greater for blacks outside the South both absolutely and relative to whites; this is reflected in the much smaller differences in earnings in the non-South between blacks and whites of the same education.

By 1950 eight States had passed enforceable fair employment laws, and by 1960 eight more had such legislation. All were outside the South. Perhaps for this reason the unemployment differential by race became much more pronounced in the non-South than in the South in 1950 and 1960. By 1970, however, the national Civil Rights Act (1964) prohibited discrimination in all States, and the regional difference in the unemployment differential became much smaller.

Factors other than equal opportunity legislation may also have influenced the regional pattern of unemployment by race. A large proportion of black workers in the North and West migrated from the South as young adults. As relative newcomers, they had less access to information about job opportunities than whites, who were more likely to have an established network of information among friends and relatives. Among blacks new to an area, information about where to expect discrimination would be gained primarily by experimentation. In the South, although many blacks migrated to urban areas, the available opportunities were probably much better known to the black community.

The persistence of a differential in unemployment between blacks and whites, after adjustment for skill and other factors, is therefore not easily explained. In part, the direct influence of discrimination may be greater on unemployment but less on wage rates now than in previous periods because of nationwide equal employment legislation. Moreover, ending all forms of current labor market discrimination would not necessarily affect unemployment in the short run. It could increase unemployment for a time as blacks found it worthwhile to search more widely for new and unfamiliar, but potentially highly rewarding, opportunities. On the other hand, groups that have been discriminated against for a long time may not immediately believe that a change has taken place, and therefore only gradually respond to the new opportunities. One would not, of course, expect substantial new investments or changes in occupation by older blacks in response to a decrease in current labor market discrimination, because they have already made investments specific to their job or occupation, and the length of their future work life is shorter.

#### UNEMPLOYMENT OF PERSONS OF SPANISH ORIGIN

Another group which has been subject to discrimination in the United States is made up of persons of Spanish descent who comprise about 5 per-

cent of the population and of whom about 95 percent are white. In 1974 the unemployment rate for men classified as of Spanish origin was 7.3 percent, compared to 4.8 percent for all white men. For women, the comparison was 9.4 percent and 6.7 percent respectively.

Persons of Spanish origin differ from whites as a whole in characteristics that are likely to influence their unemployment rates. For example, among men aged 25 and over in 1974, the median years of school completed by men of Spanish origin was 9.7 years, compared to 12.4 years for all white men. Difficulties in communicating in English may affect employment opportunities, although this factor interacts with level of schooling. About 16 percent of persons classified as of Spanish heritage in the 1970 Census of Population were foreign-born, compared to 5 percent for all whites. Persons of Spanish origin are also more likely to be young and to live in the western regions of the country, two categories associated with higher unemployment. For example, about 30 percent of all persons of Spanish origin in the United States live in California, compared to about 10 percent for all whites in the United States; and the unemployment rate for California tends to be higher than the national average—44 percent higher in the period 1969 through 1973.

To determine the extent to which particular demographic and economic characteristics account for the difference in unemployment between those of Spanish heritage and whites not of Spanish heritage, an analysis similar to that for the black-white comparison was made on the basis of data from the 1970 Census of Population (Table 33). Although in the census (March 1970), men of Spanish heritage aged 16 and over had substantially higher unemployment rates than other white men, the differential of 2.3 percentage points is nearly halved when the data are restricted to men aged 25 to 64 who worked in 1969. The decline in the differential is largely due to the exclusion of youths aged 16 to 24, who make up a greater proportion of the Spanish heritage labor force than of the white labor force. Of the 1.3 percentage point differential in unemployment rates for adult men who worked in 1969, 0.6 percentage point, or nearly half, is attributable to region, that is, to the greater relative concentration of men of Spanish heritage in the West, where unemployment is high. Nearly all (92 percent) of the differential in unemployment rates of adult men is explained by the three variables: age, region, and schooling.

In March 1970 women of Spanish heritage aged 25 to 64 who worked in 1969 had higher unemployment rates than white women not of Spanish heritage, although 63 percent of the differential is due to differences in age and region (Table 33). After adjusting for differences in schooling, as well as in age and region, one finds that women of Spanish heritage actually have lower unemployment rates than other white women with the same characteristics—2.5 percent compared to 3.0 percent.

The analysis of unemployment differences between persons of Spanish heritage and other whites suggests that the significantly higher unemploy-

ment rate of the former is due to differences in age, region, and schooling. The extent to which these differences in characteristics are attributable to historical discrimination in the United States is not known, but it would seem that differences in unemployment rates are not a consequence of current labor market discrimination. This analysis does not, however, shed light on the magnitude of discrimination against persons of Spanish origin in other phases of their economic and social life.

## UNEMPLOYMENT AND INCOME MAINTENANCE PROGRAMS

Assistance to the unemployed has been widely accepted on grounds of equity and economic efficiency as an appropriate Government function since the Great Depression of the 1930's. Greater equity can be achieved by increasing the income of the unemployed through transfers which spread the cost of unemployment among the public. In addition, the transfers may stimulate the employment of otherwise idle resources by increasing the aggregate demand for goods and services. Two major Government programs of the last four decades to provide income support for the unemployed are the unemployment insurance system and public service employment.

## UNEMPLOYMENT, INCOME, AND POVERTY

A cyclical downturn in business activity is associated with lower employment and a shorter average workweek for the employed. The effect of a downturn is to change the level and distribution of aggregate earnings. Because approximately 95 percent of the labor force is employed, however, even a sharp rise in the unemployment rate means a relatively small decline in employment and therefore in earnings. For example, from 1969 to 1971 the unemployment rate increased from 3.5 to 5.9 percent, with little change in the rate of labor force participation; employment as a percentage of the labor force decreased from 96.5 percent to 94.1 percent, or by 2.5 percent. The average length of the workweek decreased by 0.6 hour (1.5 percent) to 39.3 hours. Thus, aggregate hours worked per member of the labor force decreased by approximately 4 percent. In the most recent cyclical downturn, from the fourth quarter of 1973 to the fourth quarter of 1974, the aggregate hours worked per member of the labor force fell by approximately 3 percent.

This decrease in the hours of employment during a cyclical downturn is not shared equally throughout the labor force. Rather, for most workers little or no decline occurs in their hours of work, while for others the decrease is large. The result is more inequality in the distribution of income from employment. Empirical studies of income inequality among families and adult males in the post-World War II period demonstrate that inequality increases in recessions and decreases during cyclical expansions, but there has been no secular trend.

Because many unemployed individuals are eligible for income transfers, the decline in income for those who become unemployed is smaller than

might be suggested by the decline in hours of work or in labor market earnings. In 1974 experienced workers who became unemployed because of layoffs (and in some cases because they quit their jobs) generally received unemployment insurance benefits for up to 26 or 39 weeks; and if income were sufficiently low, they qualified for income maintenance programs. Those who remained employed, though their hours of work fell, and those who were unemployed but ineligible for unemployment benefits could have received assistance from other income maintenance programs if their incomes were sufficiently low. Temporary legislation enacted in December 1974 increases the proportion of workers covered by unemployment insurance and extends the benefits up to a maximum of 52 weeks during this period of high unemployment.

Recent studies based on 1971 survey data have estimated the extent to which transfer programs replace income losses associated with rising overall unemployment. The transfer programs include unemployment insurance, Aid to Families with Dependent Children, food stamps, and social security. Among households headed by a person aged 65 or under and at the poverty level before receiving the transfers, the programs were estimated to replace 31 percent of the lost earnings of male-headed households and 56 percent of the lost earnings of female-headed households. The replacement ratios were lower for higher-income families.

One study also calculated the average family income loss, after taking account of transfer benefits and changes in work participation of other family members, arising from unemployment of the family head. Among households experiencing some unemployment and headed by a man aged 65 or under, the average annual family income loss (net of transfers) associated with a 1 percentage point higher unemployment rate was estimated to be 5.7 percent for those at the poverty level. At five times the poverty level, the loss was 4.9 percent of the family income. Among households headed by a woman aged 65 or under, the estimated loss was approximately 3 percent for all income levels. There was, of course, considerable variation in income loss within these groups.

These estimates of income loss may be biased upward for several reasons. In surveys there is much more underreporting of transfer income than of earned income. Moreover, the appropriate comparison is with income after deduction of payroll and income taxes and of work-related expenses; and, although transfers are not subject to payroll and income taxation, the estimates were made for pretax earnings. In addition, no estimate was made of the value of extra home productivity or leisure arising from the reduced work time, a value that may not be negligible during brief spells of unemployment. The study is especially likely to underestimate replacement of lost earnings by transfers when the increased unemployment results from the business cycle, because the estimates were based on differences in income and unemployment between households at a moment in time. Cyclical increases in unemployment involve a larger proportion of workers eligible for unemployment compensation, because the unemployment is more

heavily weighted toward layoffs than quits or labor force entry, and toward the covered sector of the work force. In addition, the maximum number of weeks for which benefits are available generally increases in a recession. For example, 64 percent of the unemployed received benefits in the high unemployment year of 1961, compared to 39 percent in the low unemployment year of 1966. On the other hand, additional factors may lead to a downward bias. The study could not account for the loss of employees' fringe benefits when they are unemployed, or for the adverse psychological and other effects due to the greater uncertainty among both the employed and the unemployed when unemployment rises. However, it would appear that the transfer programs may replace a substantial proportion of the loss in after-tax earnings, particularly during cyclical increases in unemployment.

Even during times of relatively low unemployment, more weeks of unemployment and lower incomes are associated with each other. Contrary to common belief, however, unemployment is no longer a major cause of poverty. Although during the Great Depression the relation between unemployment and poverty was undoubtedly strong, in the postwar period the relation weakened. Table 35 shows data on the work experience of persons who headed poverty households in 1959 and 1972, years with roughly the same level of unemployment (5.5 percent) although the number and percentage of the population in poverty declined considerably over the period.

Although failure to work a full year was strongly associated with poverty in both years, only a minority of the heads of households in poverty cited

TABLE 35.—*Work experience of family heads below the low-income level, by sex, 1959 and 1972*

Work experience of head	Total		Male head		Female head	
	1959	1972	1959	1972	1959	1972
Total families (thousands).....	8, 320	5, 075	6, 404	2, 917	1, 916	2, 158
Total families (percent).....	100.0	100.0	100.0	100.0	100.0	100.0
Did not work full year.....	61.5	76.0	54.7	65.4	84.2	90.4
Unemployment a main reason for not working a full year.....	15.6	13.2	18.4	16.8	6.4	8.4
Worked 1-49 weeks.....	14.4	11.1	17.3	14.9	4.9	5.8
Did not work, unable to find a job.....	1.2	2.2	1.0	1.9	1.5	2.6
Unemployment not a main reason for not working a full year.....	45.9	62.7	36.3	48.5	77.9	82.0
Worked 1-49 weeks.....	16.5	19.1	14.8	16.4	22.3	22.7
Did not work and did not seek a job.....	29.4	43.7	21.5	32.2	55.6	59.3
Keeping house.....	10.9	19.0	(1)	(1)	47.5	44.7
Ill, disabled.....	9.5	14.6	10.8	17.1	5.4	11.3
Retired, going to school, and other reasons.....	8.9	10.1	10.7	15.1	2.7	3.3
Worked a full year (50-52 weeks) <sup>2</sup> .....	38.5	24.0	45.3	34.6	15.8	9.6

<sup>1</sup> Not applicable.

<sup>2</sup> Includes head in Armed Forces.

Note.—Persons below the low-income level are those falling below the poverty index adopted by the Federal Inter-agency Committee in 1969.

Data for 1959 and 1972 are not exactly comparable because of changes in definition and methodology.

Detail may not add to totals because of rounding.

Sources: Department of Commerce (Bureau of the Census) and Council of Economic Advisers.

inability to find work as the reason for working less than a full year. In 1959, only 15.6 percent of the heads of poverty households worked less than a full year because they could not find work, and by 1972 this percentage had decreased to 13.2 percent.

An increasing proportion of poor families are headed by someone who works only part of the year—or more often, who does not work at all—because of ill health, old age, or home responsibilities, not from inability to find a job. Low wage rates, however, remain an important cause of poverty.

The decline in the relative importance of unemployment as a reason for poverty is primarily related to rising real wage rates during periods of employment and to increased real income supplements for the unemployed. In addition, for the same overall unemployment rate, the proportion of male heads of households experiencing unemployment has been declining.

There is some increase, or a slowing rate of decrease, in poverty during recessions. The increase in poverty is greater, the deeper the recession. For those with fixed incomes, poverty increases as the rate of inflation rises. Data for 1974 are not yet available; but it can be anticipated that because of the cyclical rise in unemployment and the high rate of inflation, poverty is likely to have increased over the year and may increase still further in 1975.

#### UNEMPLOYMENT INSURANCE SYSTEM

The nationwide unemployment insurance system, initiated by the Social Security Act of 1935, is a joint program administered by the States within broad Federal guidelines. As a result of Federal tax law, private nonfarm wage and salary workers (except domestics and employees of very small nonprofit organizations) and certain State employees are covered by the unemployment compensation system. In some States, agricultural, domestic, local government, and additional State workers are also covered. Separate Federal programs exist for unemployed Federal employees and unemployed persons recently discharged from the Armed Forces. A temporary, wholly federally financed program for employees not covered by the State or other Federal programs was enacted in December 1974. (See the discussion of the Unemployment Assistance (UA) program below.)

A worker must satisfy several “tests” to be eligible for unemployment benefits. These tests refer to cause of unemployment, duration of covered employment, earnings in covered employment, and availability for work. The worker usually cannot receive benefits unless he or she is available for, actively searches for, and does not reject, suitable employment. Benefits are available in all States for those unemployed because of a job layoff. A waiting period of 1 week after the filing of the claim is required before benefits begin in most States. In some States and under certain circumstances, benefits are also available to those discharged for misconduct and to those who voluntarily left a job with “good cause.” In the latter two situations, the conditions of eligibility, the length of the waiting period before benefits can begin, and the extent of benefit reduction vary considerably from State to State. Strikers are generally not eligible for unemployment compensation, although in New

York and Rhode Island they become eligible after a waiting period of several weeks. There are many other specific provisions for eligibility, and they too vary from State to State.

The duration of regular benefits usually increases with the length of the worker's past employment in jobs covered by the program, up to a maximum of 26 weeks of benefits in most States. Extended benefits have been granted for up to an additional 13 weeks in States with high rates of unemployment, for a maximum of 39 weeks. Public Law 91-373 requires that States provide these 13 weeks of additional compensation for those who have exhausted their regular State benefits if two conditions are satisfied. First, the average State-insured unemployment rate for the 3 most recent calendar months must equal or exceed 4.0 percent. Second, the average rate for this 3-month period must be at least 120 percent of the average of such rates for the same weeks in the prior 2 years. Under Public Law 93-368, however, States can elect to waive the "120 percent rule" to extend benefits. By the end of December 1974, 11 States were providing extended benefits, one under this waiver.

### *New Legislation*

In response to the sharp rise in unemployment in the second half of 1974, two new laws that affect the unemployment insurance program were enacted in December 1974. The Emergency Unemployment Compensation Act provides for an additional 13 weeks of benefits, for a maximum of 52 weeks. The new benefits go into effect in a State when the insured unemployment rate averages 4 percent or more over the preceding 13 weeks, either nationally or in the particular State. Benefits cease when neither condition is satisfied. The program became operative in January 1975. Using general funds, the Federal Government reimburses the States for 100 percent of the benefits paid under this program, which lasts through 1976.

Under Title II of the Emergency Jobs and Unemployment Assistance Act of 1974 a special unemployment compensation program was established to provide benefits lasting up to 26 weeks for some unemployed workers who are ineligible for the regular State or Federal programs. Unemployment Assistance benefits are available to workers who would satisfy the State requirements when two modifications are made in the regulations. One is that all wage and salary employment is treated as covered, a benefit to those who have had part or all of their previous employment in industries not covered by the State program (12 million wage and salary workers). The other modification is that the most recent 52 weeks can be used to satisfy the employment requirement, replacing the usual practice in the State programs of using the 52 weeks prior to the most recent 3-month period. This primarily benefits recent entrants to the labor force. When employment records are not immediately available, claims for Unemployment Assistance may be evaluated on the basis of an affidavit filed by the applicant. Unemployment Assistance, which is fully federally financed from general revenues, becomes operative in a local area when for 3 consecutive months the national unemployment rate averages 6.0 percent or more, or the local

area unemployment rate averages 6.5 percent or more. The program ceases in a State when these conditions are no longer satisfied. The program started accepting claims in January 1975; the legislation terminates in December 1975.

Farm and domestic workers had generally been excluded from regular State unemployment coverage, largely because of the substantial administrative difficulty in verifying previous employment, previous wages, availability for work, and search for work, and in experience rating of employers. These problems unavoidably remain in the UA program. One study estimated that the two new unemployment compensation laws would induce an increase in the measured unemployment rate by about 0.7 percentage point. However, because of the expected high level of unemployment in 1975, the social benefit of extending income support to a broader group of unemployed workers was considered of greater value than the difficulties created by the programs.

### *Benefits*

The average weekly number of persons receiving unemployment benefits was 2.3 million and the average check was \$64 in 1974. Some received benefits for less than a full week because they started a job or had a part-time job. Benefits are related to earnings and range among the States from one-half to two-thirds of the worker's recent average weekly wage, up to a State maximum. The maximum basic benefit varies from about \$60 to \$117 per week. The percentage of unemployed claimants who are at the maximum also varies widely from State to State. For example, in 1972 the percentage of newly insured claimants eligible for the maximum ranged from 12 to 73 percent, while the average for the country was 44 percent. Ten States and the District of Columbia provide "dependents' allowances" for children, and some of these States also provide them for a nonworking spouse. These benefits can amount to a maximum of an additional \$46 per week. State unemployment compensation benefits are not subject to taxation.

Some union contracts have provisions for private supplements to State unemployment compensation. For example, United Auto Workers' contracts have established Supplemental Unemployment Benefit Funds (SUB Funds) to which the employer contributes. A worker with at least 3 years' experience could receive a stipend from the fund for up to 52 weeks which would make his total State plus SUB Fund compensation approximately 95 percent of his regular take-home earnings, less \$7.50. In January 1975 the average weekly SUB Fund benefit was approximately \$100 for a worker receiving State unemployment insurance benefits and \$185 for a worker who had exhausted the State benefits. SUB Fund benefits are subject to income taxation.

### *Changes in Coverage and Benefits*

Although coverage under the unemployment insurance program has been extended periodically since its inception, the percentage of the unemployed

who receive benefits has declined (Table 36). This seeming paradox is explained by the changing composition of the unemployed. Over the post-World War II period, there has been a large increase in the proportion of recent entrants in the labor force. Recent entrants have high unemployment but are less likely to meet the eligibility requirements of the unemployment insurance system, and this accounts for the increasing proportion of the unemployed who do not receive benefits. Unemployed youths and women are more likely to be entrants or reentrants and therefore are less likely to receive benefits. Moreover, the increase in school attendance among those aged 16 to 24 has led to a change in work behavior: students enter and reenter the labor force, often more than once during the year, taking short-term jobs, and quitting more often than older workers. For these reasons, the percentage of unemployed youths receiving benefits under State programs has declined since 1960. Adult men, in contrast, are more likely to qualify for unemployment benefits because they have sufficient work experience and because a layoff more frequently precipitates their unemployment. The exten-

TABLE 36.—Insured unemployment as percent of total unemployment and unemployment benefits as percent of average weekly earnings, 1948-73

Year	Insured unemployment as percent of total unemployment						Average weekly State unemployment benefits as percent of average weekly earnings in covered employment
	Total insured <sup>1</sup>	State insured <sup>2</sup>					
		Total 16 years and over	Men		Women		
			16 to 24 years	25 years and over	16 to 24 years	25 years and over	
1948.....	63.5	43.1					34.1
1949.....	68.0	54.2					36.0
1950.....	48.8	46.0					34.4
1951.....	48.7	47.2					32.2
1952.....	56.8	55.4					33.0
1953.....	58.2	54.0					32.3
1954.....	58.1	52.9					33.5
1955.....	49.1	44.4					32.1
1956.....	48.1	44.2					33.3
1957.....	54.9	50.6					33.5
1958.....	71.0	54.9					35.3
1959.....	56.1	45.0					33.4
1960.....	53.8	49.5	24.0	63.3	19.2	63.9	35.2
1961.....	63.5	48.6	25.3	62.8	19.2	58.6	35.4
1962.....	49.8	45.6	20.9	60.3	17.1	58.3	34.9
1963 <sup>a</sup> .....	48.5	44.4	19.5	59.4	16.7	58.6	34.6
1964.....	46.3	42.4	16.8	60.9	14.8	56.5	33.8
1965.....	43.1	39.5	14.6	59.9	12.3	54.6	33.8
1966.....	39.3	36.9	11.9	61.0	9.8	53.3	34.7
1967.....	42.7	40.5	13.6	72.4	11.8	53.2	34.7
1968.....	42.1	39.4	11.7	74.0	9.8	56.9	34.3
1969.....	41.6	38.9	10.7	76.6	9.3	57.3	34.4
1970.....	50.6	44.2	16.0	76.9	12.8	65.1	35.7
1971.....	46.3	43.1	17.6	74.2	13.4	58.6	36.5
1972.....	45.1	38.2	15.7	70.6	11.2	52.6	35.9
1973.....	41.4	37.8	15.7	71.7	11.2	53.8	36.0

<sup>1</sup> Includes persons covered under the following unemployment compensation programs: State, Federal employee, Railroad Retirement Board, and veterans. Also includes Federal and State extended benefit programs.

<sup>2</sup> Includes only persons covered under the State programs and excludes all other programs as well as Federal and State extended benefit programs.

<sup>3</sup> Totals include Puerto Rican sugar cane workers beginning July 1963; but they are excluded from data by sex and age.

Note.—State insured unemployment data are not available by age and sex prior to 1960.

Source: Department of Labor, Manpower Administration.

sions of coverage are reflected in the rising proportion of adult men who receive benefits. Thus, even though the proportion of adult men receiving benefits has risen, two factors have caused a reduction in the proportion of the total unemployed receiving benefits: an increase in the proportion of the unemployed who are young workers and women; and a decline in the proportion of unemployed youth receiving benefits.

During recessions, an increased proportion of the unemployed receive benefits, especially when the data include recipients of extended benefits. In part this reflects the greater proportion of job losers and adult men among the unemployed. Due to the new legislation, an unusually high proportion of the unemployed will receive benefits in 1975.

As indicated in Table 36, the average weekly unemployment insurance benefit has ranged from 32 to 37 percent of average gross weekly wages in covered employment. This ratio underestimates the actual replacement of the earnings loss of the insured unemployed because they usually earn less than the average covered worker, and unemployment benefits are not taxed. It has been estimated that for unemployed insured male family heads in families with income below 150 percent of the poverty line, benefits may replace about 70 percent of lost income after taxes; for those with higher income, the replacement ratio may be about 40 percent.

#### *Effects of Unemployment Insurance*

The unemployment compensation system may itself influence the frequency and duration of unemployment, and hence the measured unemployment rate. The State unemployment insurance system is funded by taxes levied on employers in proportion to their wage bill. The tax rate varies according to the employers' experience rating, which is based on the extent to which their workers draw benefits from the system. Because the variation in tax rates is set within narrow margins, however, the experience rating is not closely matched to benefits. Thus, in firms with high layoff rates the benefits to employees over a long period are likely to exceed the employers' contribution to the fund. In effect then, the tax and benefit structure tends to subsidize seasonal and casual employment relative to stable employment. For example, it makes the planned annual layoff an attractive alternative to the paid vacation for employers of lower-wage workers. This in turn may induce an increase in the frequency of measured unemployment and thereby lead to an increase in the unemployment rate.

Unemployment benefits may also tend to lengthen the duration of insured unemployment. The system partially compensates for the time spent searching for employment, thereby reducing the cost of longer unemployment. The system clearly makes it easier for a worker to maintain his accustomed pattern of consumption during a longer search period.

Studies of interstate differences in unemployment have found that the rate is higher where benefits are high relative to wages. The denial rate, based on administrative decisions regarding eligibility, is also important

in explaining interstate differences in insured unemployment. The denial rate appears to be higher in States devoting more resources to administering the program.

The longer period of unemployment stimulated by unemployment compensation may represent a worthwhile investment for society. If a longer search leads to a job with higher wages and fringe benefits, more pleasant working conditions, or a longer expected tenure, it benefits both the individual and society. Some unemployed persons, however, may have no intention of accepting a job—perhaps because they are planning to leave the labor force or simply because they want a vacation—but go through the necessary steps to collect benefits.

Some have questioned the equity of the unemployment compensation program largely because its benefits are tax free. The greater the family's other income, the larger is the benefit net of taxation that a family receives from a member who gets unemployment compensation rather than wages. A low-paid worker in a high income tax filing unit could actually receive more income net of taxes and work-related expenses by being unemployed than by being employed.

In spite of the difficulties inherent in the current unemployment compensation program, it is nevertheless the most effective way of providing financial support for those who suffer a loss in income due to unemployment.

#### **PUBLIC SERVICE EMPLOYMENT**

Federal public service employment programs are a means of increasing employment opportunities, particularly during periods of high unemployment. It is intended that Federal revenues will be used to employ persons who would otherwise be jobless, in government jobs that would not otherwise exist.

The Emergency Employment Act of 1971 (EEA) provided the first large-scale public employment program broadly applicable to the unemployed population since the Works Progress Administration (WPA) of the 1930's. Special types of public employment programs for particular target groups, however, have been funded on a more limited scale since the 1960's, for example, the summer employment of youth in the Neighborhood Youth Corps and the subsidized employment of the elderly in Operation Mainstream. In contrast to the WPA, which was administered by separate Federal agencies created for the task, the Public Employment Program (PEP) under EEA was essentially a form of revenue sharing, with the Federal Government supplying the funds and State and local governments actually administering the program.

PEP was conceived as a countercyclical program to provide "transitional" jobs at a time when the unemployment rate was about 6 percent. PEP participants were more likely than the average unemployed person to be veterans, male, and well educated (75 percent had graduated from high school). In fiscal 1973, when the program was in full operation, an estimated 150,000

man-years of employment were funded by the PEP program. The extent to which these numbers reflect net additions to State and local employment—that is, employment that would not have occurred without the program—can only be estimated. Studies indicate that each PEP job created less than a job, and that this “displacement effect” increased as time passed and as the possibility of substituting Federal for State and local funds increased. Several estimates put the displacement effect after 2 years in the range of 50 percent.

The Comprehensive Employment and Training Act (CETA), which became operative in 1974, provides public employment funds in two forms to States and localities acting as prime sponsors. Under Title I, bloc grants for manpower programs allocated to the sponsor may at the sponsor’s discretion be applied to public service employment or to any other activity related to manpower. Title II is labeled Public Employment Programs, but the funds can be used for either public service employment or traditional manpower programs, such as on-the-job training. Title II funding is to be provided only to areas where the unemployment rate has averaged 6.5 percent or higher for 3 consecutive months.

Estimated outlays on the various parts of CETA for fiscal 1975 are: Title I, \$1.6 billion; Title II, \$585 million; Titles III and IV (Indians, migrants, Job Corps), \$342 million. An additional \$250 million will be spent in fiscal 1975 for public service employment from 1974 CETA authority that allowed a one-time appropriation for continuing programs under the EEA. Of this estimated total of \$2.8 billion, \$380 million was spent on summer youth programs in 1974. It is expected that the number of CETA public service jobs will increase from approximately 85,000 in fiscal 1974 to 170,000 during 1975 and 1976. Compensation and administrative costs per man-year are anticipated to be about \$9,000.

### *New Legislation*

The Emergency Jobs and Unemployment Assistance Act of 1974 supplements CETA by providing a public service employment program known as the Temporary Employment Assistance (TEA) program. Under this new legislation an additional \$875 million will be available during fiscal 1975 to State and local government prime sponsors to create as many as 97,000 jobs. The funds may be used for projects that extend over a 12-month period and employ persons who have been unemployed for at least 30 days, or at least 15 days in areas of excessively high unemployment. “Preferred consideration” is to be given to those who have exhausted their unemployment compensation. The Administration has also requested that \$125 million be restored to the TEA program in fiscal 1975. The TEA program together with CETA would then provide up to 280,000 jobs when both programs are in full operation.

### *Effects of Public Employment Programs*

Public employment has been suggested as a way of reducing unemployment during recessions. Some argue that public employment, whereby people are directly hired by the government, is superior to other macroeconomic instruments with respect to creating more employment per dollar spent. Estimates have been made of the net employment generated by a given expenditure on public employment, compared to that generated by an equal expenditure on government purchases from the private sector or by an equal reduction in the tax bill. On the basis of the PEP experience, public employment was found to create more additional jobs in the very short run (1 or 2 quarters after the program begins) than either of the other two policies. After 5 or 6 quarters have passed, however, the superiority of public employment as a tool for creating jobs was found to diminish as State and local governments substitute Federal funds for their own funds. Eventually, this displacement of State and local funds with Federal funds would allow State and local taxes to be reduced (or grow at a slower rate) and in turn stimulate economic activity, including employment. Then, in effect, the public employment funds can be viewed as generalized revenue sharing funds, with Federal sources (taxes, deficits) replacing local funding of local projects.

The reduction in unemployment due to public service jobs would depend partly on the effect of the program on the size of the labor force. If public service jobs could be confined only to persons with previous work experience and with a proved period of unemployment, then the employment-generating effects would be directly translated into reduced unemployment.

There are other advantages, and these are frequently cited to support public service employment. For some workers the jobs may provide training and, by allowing a regular work schedule and environment, slow the depreciation of prior training and work habits. Some useful output is produced; income maintenance is provided without the welfare stigma. Critics of public employment have noted, however, that a public service job reduces the time available for seeking more permanent private sector employment, and for many workers it would lengthen the time away from usual employment. Time away from usual work may increase the depreciation of skills specific to particular jobs.

Although public employment appears to have a short-run advantage over other policy tools in creating jobs, it also appears more likely than other policies to put pressure on the price level. Indeed, the more successful the program is in employing individuals who would normally be seeking jobs or working in the private sector, the tighter the private sector labor market will be; and rising wages and prices will result. The inflationary impact would be smaller if the program were financed by an increase in taxes rather than by an increase in the debt. The jobs lost as a result of the tax increase, however, are likely to be more productive than the jobs created by the public

employment program, both because of the difficulty of matching the skills of the unemployed with those required for public service jobs and because the assigned tasks are often ones that would otherwise be given low priority.

In summary, a public employment program that is effective as a counter-cyclical measure would presumably provide jobs that State and local governments would not otherwise create, that can be established quickly, and that can be readily eliminated as job opportunities in the private sector increase. To ensure that jobs are net additions to employment, it may be necessary to create distinct tasks in separate and visible agencies set up for the purpose. To provide productive employment, the jobs have to be suitable for persons of diverse prior training, employment experience, and age; and they must require at most a very short period of training. These sometimes conflicting conditions may increase the difficulty of creating a successful program.