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1st Session } JOINT COMMITTEE PRINT

UNEMPLOYMENT: TERMINOLOGY, MEASUREMENT, AND ANALYSIS

SUBCOMMITTEE ON ECONOMIC STATISTICS

OF THE

JOINT ECONOMIC COMMITTEE

CONGRESS OF THE UNITED STATES

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LETTERS OF TRANSMITTAL

NOVEMBER 29, 1961.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee, other Members of Congress, and the general public, are a group of study papers on the general topic "Unemployment: Terminology, Measurement, and Analysis," which have been prepared for the Subcommittee on Economic Statistics.

It is believed that these papers will be especially useful to the members of the subcommittee and the witnesses who will be testifying before the subcommittee later this year.

These study papers do not necessarily reflect the views of the committee or any of its members.

Sincerely,

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

NOVEMBER 29, 1961.

Hon. WRIGHT PATMAN,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR MR. CHAIRMAN: Transmitted herewith is a group of study papers on the general topic "Unemployment: Terminology, Measurement, and Analysis," which have been prepared for the Subcommittee on Economic Statistics in connection with its study of employment and unemployment.

These papers were prepared in the Bureau of Labor Statistics, and are individually identified in a letter of transmittal from Mr. Ewan Clague, a copy of which is attached. For these papers deep appreciation must be expressed.

I believe that these study papers will be extremely valuable for the consideration of the subcommittee and the witnesses who will testify later this year, as well as other Members of Congress and the general public. This is not to imply, however, that anything contained in these papers necessarily reflect the views of the subcommittee or its members.

Sincerely,

WILLIAM PROXMIRE,
Chairman, Subcommittee on Economic Statistics.

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U.S. DEPARTMENT OF LABOR,
BUREAU OF LABOR STATISTICS,
Washington, D.C., November 28, 1961.

Hon. WILLIAM PROXMIRE,
Chairman, Subcommittee on Economic Statistics,
Joint Economic Committee, Congress of the United States.

THE HONORABLE WILLIAM PROXMIRE: In preparation for your public hearings on unemployment, the staff of the Bureau of Labor Statistics, in response to your request of June 22, 1961, has prepared several background papers.

Hyman L. Lewis, Chief, Office of Labor Economics, has prepared a paper on "Unemployment Terminology and Classification," with the assistance of Joseph A. Brackett, who prepared the appendixes. One of the difficulties in probing into the problem of unemployment is the wide range of terms and different definitions used by various authors. It may not be possible at this time to arrive at a commonly acceptable list of standard definitions, but we hope that Mr. Lewis' discussion will help to clarify some of the confusion.

Robert Stein and Frazier Kellogg, of the Division of Manpower and Employment Statistics, have examined several major issues arising out of the postwar trends in unemployment. Among the questions discussed are the behavior of unemployment in the four recent business recessions, the rise in unemployment rates even in relatively prosperous years, the extent of seasonal unemployment, and the problems of preparing short-term forecasts of unemployment.

Gertrude Bancroft, Assistant Chief, Division of Manpower and Employment Statistics, has prepared a paper on "Some Alternative Indexes of Employment and Unemployment." She has shown the results of several different methods of allowing for the part-time employment of persons in the labor force and has developed an index of labor utilization rates which may be of use to your committee.

We will make use of the results of these studies when we appear before your committee to testify during the hearings.

EWAN CLAGUE, *Commissioner.*

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UNEMPLOYMENT TERMINOLOGY AND CLASSIFICATION

UNEMPLOYMENT TERMINOLOGY AND CLASSIFICATION*

This paper was undertaken in response to a request from the Joint Economic Committee for:

> A paper discussing definitions and terminology describing the major types of unemployment (cyclical, structural, frictional, seasonal, etc.). The purpose would be to suggest terminology which would be analytically meaningful and which could be consistently used in discussions on this subject.

An analysis of the way in which unemployment is described and classified is necessary at the present time because the great variety of terms and classifications in current use has tended to introduce ambiguities in understanding unemployment and in developing the consensus desirable for analysis of unemployment problems. Underlying this investigation was the hope that it might reveal certain principles which could be applied to increase the consistency and usefulness of future unemployment classifications.

To determine the current usages and their rationale, an extensive survey of published materials was undertaken, starting with the most convenient single source of unemployment classifications—the hearings, study materials, and report of the Special Committee on Unemployment Problems of the U.S. Senate in late 1959. Other materials examined included textbooks and specialized publications dealing with unemployment specifically, with labor economics in general and finally, with basic general economic theory.[1]

Conclusions which emerge from this review suggest that duration of unemployment and relative adequacy of demand for labor should be primary criteria in selecting terms and classifications for today's problems. Other implications are that clarity of policy discussions could be considerably enhanced if terms were made more explicit, if classifications were kept internally consistent, and if clear distinctions were drawn between descriptive and analytical terminology.

THE DIVERSITY OF CLASSIFICATIONS

This relatively brief investigation into the vast field of unemployment literature revealed a large number of classifications, ranging from only two to as many as eight different labels or terms. Some groupings are overlapping and inconsistent, some are incomplete, and some are clearly oriented toward a particular interest. Common terms are frequently used with varying definitions, some of them quite vague.

The problem, thus, is not only to determine how unemployment is classified, but more importantly why there are so many terms and classifications, what their common threads are, and whether definitions could be developed which would be both consistent and practical.

---

*This section prepared in the Bureau of Labor Statistics, U.S. Department of Labor, by Hyman L. Lewis, with the assistance of Joseph A. Brackett.

[1] App. I is a glossary and discussion of the terms appearing in these sources, together with a listing of the various classifications used.

In few fields of economic analysis are the data and analytical techniques adequate for as fine and precise a set of classifications as would be desirable. A choice must often be made between a limited number of categories, to gain overall clarity, and a broader number, for greater detail. Frequently, the analyst is required to allocate a unit to a category in which it does not precisely fit. This problem is clearly understood and accepted in employment statistics, for instance, where it is sometimes necessary to count all the employees of a multiproduct plant as being engaged in producing only the major product of that plant.

This type of problem tends to be magnified in the case of unemployment analyses, largely because the policy implications are more serious. Thus, since a man may be jobless for a number of different reasons, classifications of unemployment by causes would—if it were possible to quantify them—add up to well over 100 percent of the unemployed. This point was made by Beveridge in 1909, but attempts are still made to establish a neat listing of various causes which adds up to approximately the unemployment total ; in some cases this result is achieved by enumerating certain specific causes and lumping the remainder under a catchall term.

The sharp differences among unemployment classifications have arisen, however, not from the difficulties of statistical classification, but rather from the fact that classification simply is a tool for the understanding of some particular aspect of unemployment or for the presentation of a particular point of view. Classifications differ, in the most fundamental sense, because they are shaped, consciously or not, to serve particular purposes.

Analysis of the literature from this standpoint of purpose reveals that the definitions, concepts, and groupings now in use reflect three general approaches—theoretical explanation, statistical measurement, and problem-oriented analysis. Typically, theory- and problem-oriented classifications deal with causes, while classifications associated with measurement do not, at least initially, have any relation to causes. In practice, most authors discussing unemployment freely mix terms that have originated in different approaches or in the work of different writers within one of these broad categories.

Examination of different theories of unemployment shows how classifications are constructed within the framework of different but explicit concepts as to the workings of the economy. For this purpose, the writing of three theoretical economists whose concepts have influenced many presently used classifications were analyzed.[2] The theoretically established classifications vary according to the underlying assumptions and the internal logic of the models or frames of reference. Many of the concepts utilized are not measurable in any direct sense, nor were they intended to be.

The classifications associated with measurement, on the other hand, rely fundamentally on enumeration and, therefore, are influenced basically by the availability of data and by techniques of statistical analysis. These include the monthy surveys of the Department of Labor and a large number of one-time studies. Quantitative classifications directly identify the kinds of persons affected and the general types of changes from one period to another; for identifying causes, however, they can be used only indirectly, by inference

[2] App. II consists of summaries of the views of Pigou, Keynes, and Schumpeter.

within a theoretical framework which takes account of broad interacting economic forces.

The problem-oriented classifications of unemployment often resemble both theoretical and measurement classifications; they often use identical terms. However, they at times differ fundamentally from other unemployment classifications by having relatively vague definitions and overlapping categories. This vagueness and overlapping may appear because those concerned with problem-solving are likely to be less interested in building up a logical point, which may be theoretical, than in emphasizing particular aspects of unemployment. Thus several types of unemployment may be selected from a category that theorists group together, in order to gain added emphasis for each type. Or, terms may be given new meaning by dropping the assumptions or theoretical models that gave a specific meaning to them originally. Sometimes new definitions or labels appear in problem-oriented classifications because writers believe certain economic forces or trends producing unemployment problems have not been sufficiently recognized.

It is clear, then, that the clarification of unemployment classifications involves their relationship to different and quite desirable efforts to understand unemployment. Before a selection of approaches can be made, however, it is necessary to examine the basic terms and attempt to determine how much consistency exists in their use.

THE DIFFERING DEFINITIONS OF BASIC TERMS

Throughout the literature, certain key words appear, both in a descriptive and a causal framework; the most common ones are *seasonal*, *cyclical*, *frictional*, and *structural*. There follows a brief discussion of each of these, and of several other fairly frequent labels; a more detailed presentation of some 70 different terms appears in Appendix I, where an attempt is made to list them in an organized fashion.

Seasonal.—This is the simplest and most obvious of all terms in common use. Recurrence and generally short duration are major characteristics. The effects of the weather and of customary buying patterns (which are partially influenced by the season) are implicit. In addition, a few analysts mention—and presumably all include—labor force entries and exits, which tend to concentrate at certain times of the year.

Many consider seasonal unemployment to be a form of "frictional" unemployment, in the sense that it is accepted as part of minimum unemployment levels.

The dimensions of seasonal unemployment, despite its apparent simplicity, are by no means clear. As an illustration, the duration and magnitude of unemployment in the automobile and apparel industries may be determined neither by fashion nor by custom but by the level of business, i.e., some of it may be cyclical. Similarly, a worker attached to a resort industry could move, when the season ends, to another resort area; if he does not, there is a question whether his unemployment can be characterized as due to seasonal factors or lack of mobility.

Cyclical.—This type of unemployment gets its name from the changes occurring during the recession phase of the business cycle.

Some analysts limit the term explicitly to nationwide or general business declines; a few recognize the fact that certain industries have a cycle of their own, distinct from that of the economy as a whole.

Some observe a cyclical component in technological unemployment—the rise and fall of new industries, the need to make adjustments to technical changes or new developments—and link the two types with economic growth as a continuing process. Some go behind the term to point to causes of the business cycle and end up with a definition which embraces unemployment resulting from a general deficiency of demand, although recognizing that the label is not entirely appropriate.

Frictional.—This type of unemployment is associated with the fact that in a dynamic—or changing—economy, there will not be a perfect or immediate matching of available jobs with available people. Many authors apply this term only when unsatisfied demands for labor or unfilled jobs are present somewhere in the economy and individual workers, for any of several largely inescapable reasons, cannot immediately be matched with suitable positions. Thus, the term reflects the immobility of labor and capital equipment and the imperfect organization of the labor market, such as a lack of knowledge of job opportunities.

There is in this term a connotation of unavoidability and in some cases even of desirability because of the flexibility; there is also the implication that increases in aggregate demand can reduce this type by facilitating the necessary moves, but cannot completely eliminate it.

More concrete definitions stress that frictional unemployment results from certain conditions which are characteristic of a private enterprise economy—voluntary quits, business failures or reorganizations, migration, new entrants into the labor market, etc.—and these conditions are temporary or short for the individual, although always present in the economy as a whole.

It is fairly common, particularly in nontechnical writings, for this term to be used in the sense of "minimum" unemployment at full employment levels, embracing in addition to the causes mentioned seasonal unemployment and the short-term unemployment resulting from permanent shifts in the demand for labor.

There are some classifications which give the term an even broader definition, encompassing structural changes which are longer lasting but still are manifestations of imperfect adjustments to changes which do not, on a net basis, diminish total demand but only change its character.

Structural.—This type of unemployment, while commonly recognized, is one of the most difficult to define clearly and consistently. Distinctions between "frictional" and "structural" unemployment are not sharp; sometimes they are regarded as identities or one is frequently considered to be a part of the other. Both commonly are thought of as consequences of impediments to adjustment of labor demand and supply in a dynamic economic system in which there are continuous changes in technology, in consumer tastes, in plant location, and in the composition, distribution, and uses of labor and other resources; since these changes are inherent in our economy, they are considered part of its nature or structure.

The word "structural" frequently implies that the economic changes are massive, extensive, deep-seated, amounting to transformation of

an economic structure, i.e., the production functions or labor supply distribution. More specifically, it refers to changes which are large in the particular area, industry, or occupation. These basic economic changes are considered as shifts—for instance, between industries or between geographic areas of the national economy—not as absolute decreases within the particular economic structure being discussed.

Length of unemployment also is stressed in many definitions. The stubborn and persistent unemployment resulting from the more massive changes in economic structures is considered to be structural, in comparison with the relatively short duration of frictional unemployment.

Recently, the term "structural" has been applied to include the composition of the labor force, with the implication that changes in supply, for instance in the number of unskilled workers, can affect total unemployment. (A change in the mix of the labor force could cause a rise in the unemployment rate without a rise in the rate for any of the age-sex groups; this type of structural unemployment is not numerically significant and under present labor force conditions represents more of a statistical than an analytical problem.)

Insufficient growth in the economy as a whole magnifies all kinds of unemployment, but it is considered by some as especially important in connection with structural unemployment, since it slows down the accommodating of the continuing and necessary shifts in demand as between industries, occupations, and areas.

Even were a single definition to be agreed upon, measurement would present an especially difficult problem. The reason for a person's becoming unemployed may be quite different from his failure to obtain another job within a short period of time. The first may be due to structural changes, the second may reflect the fact that he does not want to leave the community, although jobs may be available elsewhere, or that he is near retirement age, or does not want to acquire a new skill, or is unwilling to accept a lower wage.

Other important terms.—Of the many other labels in use, some are descriptive of personal characteristics, some are time-oriented, some revolve around value judgments. Many can be subsumed under the terms already discussed, but there are also several distinct terms which need some discussion at this point.

"Hidden" or "disguised" unemployment refers to various forms of unemployment not recognized or included in unemployment statistics, such as older workers believed to be prematurely withdrawing from the labor force because they cannot find work, workers who lose skilled jobs and accept work that does not utilize their full capacities, or workers who are employed fewer hours a week than they are available for. These forms of unemployment, particularly in areas of persistent unemployment and in nonindustrialized sections, may be caused by lack of capital equipment or other complementary resources that tie up large proportions of the labor force in agriculture or other kinds of activity where average productivity and income are low.

"Unemployability" is included in many unemployment classifications under such labels as "personal unemployment" or "unemployment of marginal workers." Criteria are largely subjective, although attempts have been made at specific measurement. Some analysts argue, on the basis of wartime experience, that given sufficient demand, no one is "unemployable." The journalistic term "hard core"

unemployment seems to be a combination of value judgments as to unemployability with various intractable aspects of structural maladjustment.

"Secondary" unemployment is another useful but less widely recognized classification. It is unemployment caused by the loss of income and reduction of demand generated by other unemployment. This type is recognized by some leading economists; in the present analysis, however, it is assumed that this type of unemployment expands or contracts in direct relation to the unemployment from which it results, so that separate itemization would be redundant. This is to be distinguished from the unemployment of so-called secondary workers, i.e., other members of the family who enter the labor force, especially when the main breadwinner is unemployed.

"Technological" unemployment is used by many authorities in place of the more-inclusive term "structural" unemployment, apparently in order to give greater emphasis to causal aspects of this kind of maladjustment. Theoretically, the technologically unemployed are not the numbers directly laid off but are a net figure, after taking into account the numbers who found jobs, either directly as a result of the change or indirectly as a result of increased demands for other items; ideally, technological change results in a redistribution of output and employment and not a curtailment, so that any resultant unemployment reflects imperfect adjustments of labor and capital.

CONCLUSIONS

The possibility of standard terminology

In attempting to reduce the various concepts and approaches to their simplest form, two possible ways to meet the purpose of this paper are suggested. One is to settle upon firm definitions of terms and the second is to avoid the use of terms altogether, by adopting classifications which do not require that specific terms, such as structural or frictional, be used.

Some possible definitions of terms are suggested in this section for discussion purposes, with the clear recognition that a degree of arbitrariness is necessary if the terms are not to be obscured by attempting to get precise shadings. It is also necessary to recognize that some terms are nonmeasurable and that all involve value judgments to some extent.

For instance, *seasonal* unemployment could be used for the result of periodic changes which recur within the span of a year or less and which are clearly related to the weather, holidays, or customs. *Cyclical* unemployment could be described as the result of decrease in demand in the recession phase of the business cycle, although a number of reasons may be assigned for the cycle itself. *Frictional* unemployment could be limited to those nonseasonal changes which, while always present, affect particular individuals for only a brief period of time, regardless of cause. *Structural* unemployment could then be seen as the result of deep-seated and relatively permanent changes in the quality and location of the demand for or supply of labor.

Delimiting these terms would leave the necessity for several new descriptive words or phrases which are offered here only tentatively and experimentally.

Strikes and various unusual developments such as floods, fires, and material shortages at times result in unemployment which could be characterized as *irregular* unemployment.

The unemployment which results from certain personal and social characteristics of the jobseeker might be described as *personal problem* unemployment. This would include not only the so-called unemployables, but also those who, for reasons not connected with the operation of the economy, have little or no job mobility, as used in the economic sense. These are people with narrow job potentials—for instance, those who are difficult to train for available jobs and those who would be relatively uneconomic to retrain in view of their nearness to retirement age; also included are people with limited availability because of their own personal decisions as to time and location of work. Many of these are considered by various analysts to fall within the "frictional" or "structural" categories. Measurement of these types is extremely difficult with present general surveys, since subjective criteria are involved.

A more important type of unemployment, not yet identified by a special name in the literature, is that which results from the failure of demand for labor to expand sufficiently in the cyclical upswing to provide for (*a*) the normal growth in the labor force and (*b*) the normal increase in productivity which is inherent in our advancing economy. This could perhaps be described as *growth-gap* unemployment.

This type was not widely recognized until comparatively recently, and is seldom placed in a separate category by analysts. If analyzed at all, it has been included in either the structural or cyclical categories, on the apparent premise that the failure of newcomers or of workers displaced by changes to find jobs results from such causes as inefficiencies in adjustment, the disappearance of job opportunities due to technological change, and deficiencies of demand at the peak of the business cycle. This new category attempts to recognize two factors which are becoming increasingly important: First, there is a certain amount of growth in the labor force each year which results from population growth and longrun trends in participation rates, and is independent of the demand for labor; and, second, a technologically advancing economy has perforce to convert its increased efficiency into larger output since the mere maintenance of output levels (and the resultant reduction in man-hours) would shortly result in a loss of the reason for dynamism. This new category would bring into focus not the loss of jobs but the lack of new jobs.

The present suggestion would, in effect, limit the term "structural" to changes in the character of demand and the term "cyclical" to declines in the level of demand, reserving for a new term the unemployment resulting from failure of overall economic activity to grow at a rate which would provide an adequate number of job opportunities. In the economy as a whole it could be estimated by determining the gap between unemployment at a projected level of gross national product (which would take into account the normal labor force growth, the normal rise in productivity, and an allowance for a minimal amount of unemployment resulting from frictional, structural, and seasonal causes, and the actual level of unemployment in a prosperity phase of the business cycle when demand is heavy enough to result in strong upward pressures on wages and prices.

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Like all simplifications, the above terminology has both theoretical and practical shortcomings; there are some types of unemployment which fall into more than one category, and most categories are to some degree impossible of objective measurement. More to the point, nomenclature cannot be changed so easily; terms become almost indelible, and their connotations are frequently taken for granted. At the least, however, it should not be too much to expect that specific definitions accompany specific analyses.

Possible complementary classifications

Recognizing that there are sharp limits to the ability of any individual or group not only to coin an acceptable new nomenclature, but also to identify the various kinds and causes of unemployment, it is nevertheless clear that classifications are necessary for the understanding and diagnosing of unemployment. They are the aids which point out the size, the trend, and the variety of causes behind the problem. For these purposes several classifications are more useful than one—provided each is complete and internally consistent so that descriptions of the problem are not confused with the causes.

Ideally, a classification should be measurable, theoretically sound and complete, and relevant to public policy. No one set of concepts meets all three requirements; measurement should be objective, while causes and cures must be sought through theory and judgment which are subjective and cannot very well be quantified. This paper suggests tentatively the possibility of establishing two different sets of internally consistent classifications which can be used independently or in consort to satisfy the three needs. In so doing, it is also possible to adopt neutral phraseology which has no connotations. The suggested classifications are not intended for all times and all economies, but for today's problems in today's industrial economy, with its currently established institutions and mores.

One classification measures the problem in terms of the supply of labor and, through statistical techniques, seeks to divide it up in such a way that groups of people with specific problems can be distinguished in a meaningful way. The other seeks to put the subject into the framework of the demand for labor—a major focus of public policy—so that its adequacies and shortcomings may be analyzed.

1. *Classifications according to characteristics of the unemployed.*—Basically, this approach is an analysis of the supply side of the labor market. It uses the large amount of statistical detail currently available to measure the amount and the trend of unemployment over a period of time—month to month, quarter to quarter, year to year. The data tell who and where the unemployed are and how long they have been unemployed—by age, sex, color, occupation, and industry.

The statistical approach permits, within certain limits, the identification of seasonal and cyclical movements, long-term noncyclical trends, and irregular fluctuations. By inference from the detail about unemployed workers, judgments may be made as to the respective levels of minimum or frictional unemployment and of the unemployment which can be attributed to prolonged and massive changes in technology and in the demand for certain goods and services.

A classification of unemployment according to the persons affected is of obvious assistance to the policymaker—it measures the problems and shows where and what kind of action is desirable. However, it

can at best offer only clues as to the various causes of unemployment; the causes can be directly identified only in conjunction with other data and must be fitted into whatever theoretical framework the analyst selects.

2. *Classifications according to demand factors.*—A second classification seeks to understand the causes of unemployment in terms of the adequacy and quality of demand. This is extremely pertinent today, since remedial instruments are most frequently weighed by their effect upon demand. Classifications from this point of view can be set within a complete theoretical framework so that causes can be seen in relation to each other.

From this standpoint, it is widely recognized that there are two distinct types of unemployment—that which reflects an inadequate number of available jobs, and that which exists despite, or without regard to, the availability of jobs. These are more readily distinguished in theory than in actual measurement. The extent of the latter type of unemployment is obscured and probably exaggerated in a slack economy and appears to be reduced when overall demand is strong; this may be because much of what appears to be "structural" or "frictional" unemployment is actually the result of insufficient aggregate demand.

This type of analysis would be greatly assisted if data were available on unfilled jobs—how many, where located, required skills, etc. Unfortunately, because of the lack of independent measures or descriptions of job vacancies, current discussions of unemployment often merely infer market demand from market supply; that is, the very presence of unemployed persons is thought to indicate insufficient or misdirected demand. A possible demand-oriented classification would be as follows:

A. *Unemployment due to insufficient aggregate demand.*—This might be defined to include unemployment resulting from:

(1) The business cycle, referring not only to the entire economy but also to individual sectors which may have cycles of their own.

(2) Insufficient longrun growth in the economy as a whole to offset the increasing supply of labor plus normal increases in productivity.

B. *Unemployment not attributable to lack of aggregate demand.*—This could be characterized as resulting from structural maladjustments in a dynamic economy, or the natural lack of mobility, not only between areas but also between skills and industries, or deficiencies in the adjustment mechanisms or institutions of the labor market. This type of unemployment is considered to be inevitable in a free economy, for two reasons: It takes time to channel resources and people on a voluntary basis; and there are always inefficient operations in both the labor and capital markets when free choice prevails. However, the total might be reduced through, for instance, improved labor market organization—except perhaps at the peak of a war effort. This might be defined to include:

(1) Short-run maladjustments which occur irrespective of the level, trend, or state of aggregate demand. This category may reflect: (*a*) personal decisions on the supply

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side—initial entrants into the labor force, voluntary quits, jobseekers with special conditions, and casual workers; (*b*) seasonal changes; (*c*) business turnover; and (*d*) a variety of irregular factors, such as strikes, shortages of materials, floods and fires.

(2) Long-run or relatively permanent shifts in the character or quality of demand. These may result from: (*a*) technological causes (which often do not appear until business slackens); (*b*) changes in the demand for specific goods and services; and (*c*) geographical movement of industry and business reorganization.

(3) Long-term imbalances of costs, reflecting interference with free market mechanisms. In these cases, unemployment is considered (consciously or unconsciously) as the price for achieving other objectives, such as price stability, higher profits, higher wages, or the maintenance of labor reserves for peak periods.

(4) Deficiencies (*a*) of resources or capital equipment, or (*b*) resulting from personal characteristics.

POLICY IMPLICATIONS

It will be noted that both of the possible sets of classifications may be utilized to differentiate the time element. This is highly useful, because, from the standpoint of problem solving or choice of instruments, the most important single characteristic of unemployment may well be its duration—whether it is temporary, long run, persistent, and so forth. This knowledge—together with descriptive classifications of maladjustments between labor supply and demand—facilitates development of corresponding attacks upon the problem.

Essentially, classifications of causes of unemployment are indispensable for scientific explanations, but it is not necessary to have precise quantification of causes for policy development. In many cases, the causes of unemployment are irreversible, or are beyond reasonable control, or are the result of other desirable goals of public policy. In other cases, the original cause occurred so long ago that the question is not why the jobs were lost but why other jobs were not found and filled.

Practical employment policies may therefore call mainly for (*a*) studying the adequacy of overall demand and, to the extent that demand is or can be made adequate, (*b*) comparing the industrial-occupational qualities in current demand with the characteristics of unemployed workers, giving special consideration to the duration criteria.

From the standpoint, then, of choice of instruments, policymakers could develop from the two proposed sets—the statistical and the demand classifications—policies (*a*) which could affect unemployment through increasing demand and (*b*) which could reduce the structural or frictional maladjustments. The former would involve fiscal and monetary actions; the second would call for attempts to increase mobility, such as better labor market organization, better education, and retraining.

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APPENDIX I

GLOSSARY OF UNEMPLOYMENT TERMINOLOGY

This glossary results from analysis of the definitions and current uses of some 70 terms and classifications which have appeared either in specific classification systems or in other publications cited in the bibliography.

In the first section, the terms are arranged so as to distinguish between those which imply lack of aggregate demand and those which deal with other causes of unemployment; the latter are divided on the basis of their long- or short-run significance. Within each of these groupings, the uses of the major terms are discussed in some detail, followed by an alphabetical listing of other terms.

In the second section, specific classifications are listed, according to author.

A. TERMS

1. Terms implying lack of aggregate demand

(1) *Unemployment engendered by the insufficiency and instability of effective demand.*—According to the United Nations' 1949 report on full employment:

> * * * under normal conditions, any unemployment exceeding the amount which is due to * * * frictional and seasonal factors * * * is a clear indication of a deficiency in effective demand.

(2) *Unemployment arising from deficiency in aggregate demand.*—This term was one of the three types of unemployment identified by the International Labor Office in its 1950 study, "Action Against Unemployment."

(3) *Unemployment caused by deficiencies in total demand.*—The Council of Economic Advisers in 1961 largely attributed the growth of unemployment in recent years to deficiencies in total demand. They stated:

> Economic recovery in 1961 is far more than a cyclical problem. It is also a problem of chronic slack in the economy—the growing gap between what we *can* produce and what we *do* produce.

(4) *Cyclical unemployment.*—This term is used in two ways, to refer to the effects of the business cycle and to a general lack of demand. Usually the term has been restricted to nationwide unemployment, although it is recognized that many industries have distinct cycles which diverge from the pattern of the economy as a whole.

The report of the U.S. Senate Special Committee on Unemployment Problems used both meanings:

> Cyclical unemployment is unemployment which results from a general deficiency of demand for workers throughout the economy. As the term suggests, it is unemployment which develops during a downswing of the business cycle and tends to disappear during an upswing.

Charles D. Stewart defined this type as unemployment "resulting from lack of demand." According to Albert Rees—

> cyclical unemployment occurs when there are fewer vacant jobs than unemployed workers, so that the national demand for labor may be considered inadequate * * * there can be unemployment arising from inadequate demand even at the peak of a business cycle * * *

William McChesney Martin's definition simply referred to "contraction of overall demand."

Many (including Neil Chamberlain, Clyde Dankert, and Lloyd Reynolds) have defined "cyclical" unemployment in terms of employment declines accompanying business recessions or depressions, without specifying in their definitions the cause or causes of these business declines. Schumpeter, on the other hand, equates cyclical unemployment and technological unemployment; he views innovations which alter production functions as major disturbances accounting for phenomena of the business cycle. (See App. II.)

(5) *Involuntary unemployment.*—According to Keynes:

> men are involuntarily unemployed if, in the event of a small rise in the price of wage-goods relatively to the money-wage, both the aggregate supply of labor willing to work for the current money-wage and the aggregate demand for it at that wage would be greater than the existing volume of employment.

In Keynes' view, "involuntary" unemployment resulted from deficiency of effective demand.

Lloyd Reynolds defined "involuntary unemployment" as "the difference between the amount of labor offered *at present levels of wages and working conditions* and the amount of labor hired at those levels." He divided this into three types: *Full-time unemployment*, "people willing and able to work who have no jobs at all;" *part-time idleness*, covering "partially employed people [who] would have worked longer hours if they could;" and *disguised unemployment* (such as downgrading of skilled workers during a depression).

(6) *Secondary unemployment.*—Schumpeter, acknowledging R. F. Kahn's work, held that—

> Since every kind of unemployment will induce further unemployment, secondary unemployment * * * must be added to each.

(7) *Secondary structural unemployment.*—Philip Taft has identified this type of unemployment in trade and service industries, which in depressed areas have been affected adversely by "structural changes" in basic industries.

2. Terms referring to causes other than lack of demand

(*a*) Short-term causes:

(1) *Seasonal unemployment.*—This term is usually defined in terms of employment variations caused by climatic or weather changes and by temporary but recurrent demand factors such as holiday buying and annual model changes. As the term implies, seasonal unemployment tends to reappear annually and has relatively short duration. Some authors (including Beveridge and Florence Peterson) consider seasonal unemployment to be a form of frictional unemployment.

Casselman and Dankert, among other authorities, have recognized that levels of seasonal unemployment in an economy also are influenced by certain structural factors, such as market size and the degree of industrial specialization. Schumpeter observed that technological changes and changes in consumers' tastes may generate trends in seasonal unemployment.

Labor force entries and exits, which tend to concentrate at certain times each year, also have been frequently cited (by Wolfbein and Fackler, for example) as important sources of seasonal unemployment.

(2) *Frictional unemployment.*—This type of unemployment usually is attributed to "frictions" (immobilities or institutional resistances) in the labor market, which impede or prevent adjustments of labor supply to changes in the character, location, or timing of demand. Most frequently, the term refers to relatively short periods of unemployment occurring between jobs or upon entering the labor force. Certain amounts of frictional unemployment are considered by most authorities to be inevitable consequences of economic change, but they differ on the amount. Authorities also disagree as to the maximum length of these relatively short or temporary periods of unemployment; Bloom and Northrup's text speaks of 3 or 4 months, for example, while Garbarino limits this period to 1 month.

Beveridge and other authorities (including Albert Rees and Charles D. Stewart) have limited the concept to unemployment occurring when there are unfilled job vacancies, that is, when there are unsatisfied demands for labor somewhere in the economy.

There are considerable differences among the definitions as to the scope of frictional unemployment, especially as compared with structural unemployment. The majority report of the U.S. Senate Special Committee on Unemployment Problems in 1960 included seasonal unemployment in the category of frictional unemployment, but distinguished both from structural unemployment. On the other hand, Albert Rees has grouped both seasonal and structural (depressed areas) unemployment under the same category of frictional unemployment. Herbert Parnes, Walter Fackler, and Chairman Walter Heller have treated structural unemployment as differing from frictional unemployment only in degrees; they consider structural unemployment a particularly stubborn variety of frictional unemployment. The Council of Economic Advisers in 1961 said:

> * * * a certain amount of frictional unemployment caused by changes in the structure of industry and manpower is unavoidable.

Beveridge considered technological, seasonal, and structural unemployment all to be forms of frictional unemployment, in those cases where they resulted from changes or shifts—but not drops—in the character or location of demand.

Schumpeter does not explicitly refer to frictional unemployment as a major category. Any unemployment in his terminology could be called frictional in the sense that "instantaneous adaptation of the system would kill it at birth."

(3) *Unemployment due to such accidents as will ordinarily occur.*—This term is a component of Schumpeter's classification "normal unemployment."

(4) *Casual unemployment.*—This term refers to periods of unemployment experienced by longshoremen, farmworkers, and other casual workers who are employed irregularly for relatively short periods; used by Paul Casselman and Philip Taft.

(5) *Unemployment due to change of residence, occupation, or jobs.*—This term is a component of Schumpeter's classification "normal unemployment."

(6) *Initial unemployment.*—This term refers to the period which elapses before new entrants to the labor market find their first job; used by Neil Chamberlain.

(7) *Unemployment arising from irregular employment.*—According to Fichandler's discussion, this term covers "partially unemployed workers."

(8) *Miscellaneous unemployment.*—This term was a residual category in Clyde Dankert's classification, including "all the unemployment that is not placed in the seasonal, technological, and cyclical categories." It comprises frictional unemployment and unemployment associated with a drop in the demand for a particular good, as well as with "minor causes" such as bankruptcies and fires.

(9) *Normal unemployment.*—This is Schumpeter's broad classification covering "the unemployment that would at any point of time exist if the system had already reached the neighborhood of equilibrium toward which it is tending." He included in this classification: seasonal unemployment; unemployment due to such accidents as will ordinarily occur (e.g., fires); unemployability; unemployment due to change of residence, occupation, or jobs; and structural unemployment (i.e., unemployment caused by imperfections of competition or equilibrium which prevent full employment). Philip Taft used the term similarly, referring to usual turnover, uneven demands, and industrial shifts. Florence Peterson stated that normal unemployment represents "the *minimum* idleness that is required to keep a dynamic industrial system in operation," and cited estimates of this level that ranged from 1 to 6 percent.

(10) *Short-period unemployment.*—Beveridge included frictional and seasonal unemployment in this classification.

(11) *Short-term unemployment.*—As used by Garbarino, this term referred to unemployment from 1 month to 1 year in duration; hence in his study, it included all of seasonal unemployment, as well as workers whose unemployment represented "cyclical and structural maladjustments in their early stages."

(12) *So-called transitional or turnover unemployment.*—Fichandler defined this term as "brief unemployment occurring between jobs."

(13) *Terminal unemployment.*—This term refers to unemployment preceding retirement from the labor force; used by Neil Chamberlain.

(14) *Transitional unemployment.*—Under this term Neil Chamberlain includes workers who lose jobs because of failures in individual firms, when other firms and the economy as a whole are enjoying prosperity. The term implies that these workers will soon find other jobs.

(15) *Unemployment among job changers.*—This term was used by Robert L. Stein as an aspect of frictional unemployment.

(16) *Unemployment of new labor force entrants.*—Fichandler defined this term as unemployment caused by delay in getting first jobs, or by job shifts associated with initial adjustments to job requirements.

(17) *Volitional unemployed.*—Neil Chamberlain applied this label to "the individuals who on their own initiative leave a job because they are unhappy with it or hope to find something better."

(*b*) Long-term causes without periodicity:

(1) *Structural unemployment.*—Discussions of structural unemployment usually refer to the effects of "structural changes," a broad term covering a large variety of more specific economic trends and

developments. In many cases, however, the term refers not to *changes* in the economic or institutional structure, but to certain *characteristics* of the structure, especially the inability or reluctance of individuals, communities, or industries to make adequate and relatively quick adjustments to changing economic conditions. In this latter sense, the term is almost interchangeable with "frictional" and one may be considered as a part of the other.

Technological changes, productivity gains, changes in production techniques, the development of substitute materials, changes in consumers' tastes or types of goods demanded, changes in the location of industry, shifts in resource use and resource depletion, are all commonly cited today.

Frequently recognized characteristics of structural unemployment include: persistent, recalcitrant, hard to get rid of, stubborn, chronic, persisting through good times and bad. Many believe structural unemployment can be recognized by its concentration in particular industries and regions, where unemployment remains high when the nationwide rate declines. There is also agreement among many (for example, Wolfbein, Chamberlain, Martin, and Beveridge) that structural unemployment is most easily discerned in the unemployment representing particular occupations, industries, or population groups, such as the unskilled workers, coal miners, youths, older workers, and Negroes.

Alvin Hansen in 1932 cited not only geographic movements of industry, but also appreciation of the monetary unit, uneconomic wage levels, overpopulation, and scarcity of capital as causes of structural unemployment. Other theoretical writers (for example, Bertil Ohlin, J. A. Schumpeter, and J. M. Clark) have referred to monopolistic price policies and price-wage maladjustments as causes. Clark further listed unfavorable tax structures, affecting income distribution and investment, as possibly contributing to structural unemployment. Other sources of structural unemployment are identified as foreign competition (mentioned by William McC. Martin, Jr.); shifts in the composition or structure of the labor force (Senator McCarthy and Representative Curtis, for example); war or the threat of war (noted by Paul Casselman); and even seasonal fluctuations in economic activity (see United Nations' report on full employment by J. M. Clark, N. Kaldor, et al.).

The difficulty of separating structural unemployment from the total was emphasized by Philip Taft for the Joint Economic Committee in 1959:

> The volume of structural unemployment is not easily determined. Structural unemployment is not distinguishable from cyclical and seasonal unemployment, nor are the various types of unemployment independent. Structural unemployment may intensify seasonal or cyclical variations in employment and, conversely, structural unemployment may be deepened by changes in aggregate demand.

The Council of Economic Advisers, in 1961 testimony before the Joint Economic Committee, held that recent increases in unemployment largely resulted from chronic deficiency of demand. Structural or technological changes, they maintained further, would not create unemployment if job growth were sufficiently great to enable displaced workers to find new jobs. The Council stated:

> In a thriving economy, structural decreases in employment are not the same thing as increases in structural unemployment.

The Chairman of the Board of Governors of the Federal Reserve System emphasized at the same time a different aspect of structural unemployment, giving somewhat greater weight to the adjustment problems of workers who have been displaced by structural changes. As he pointed out:

> A major difficulty in absorbing into other gainful activity workers displaced by such developments is that their skill, education, training, and backgrounds are not generally those required in expanding activities.

(2) *Technological unemployment.*—The basic force implied by this term is stated in Bloom and Northrup's textbook definition as—

> displacement of labor by machinery and improved methods of production which is attributable to advances of the arts and sciences or to improvements in the techniques of management.

Several authorities (including Philip Taft, Clyde Dankert, and Paul Casselman) have recognized that the duration of unemployment initiated by technological displacement is partly determined by general business conditions and partly by the state of specific demands for the skills of the displaced workers. Where jobs are readily available and where the displaced workers possess skills still in demand, the period of unemployment initiated by technological change will be relatively short. Moreover, the net employment effect of introducing any technological innovation reflects gains in new skills or jobs, as well as possible obsolescence of certain skills.

As will be discussed in Appendix II, Schumpeter made technological unemployment synonymous with cyclical unemployment (the amount by which unemployment varies in the course of business cycles), and accordingly stressed periodicity.

(3) *Area unemployment.*—This term refers to unemployment in depressed (chronic unemployment) areas; used by William Batt, Jr.

(4) *Chronic unemployment.*—This is unemployment which lasts more than 15 weeks, according to Senator Eugene McCarthy, Chairman of the U.S. Senate Special Committee on Unemployment Problems.

(5) *Cultural unemployment.*—Dale Yoder used this term to refer to unemployment caused by—

> changes in the customs current in various groups * * * [for example] changes in fashion and services * * * [and] traditional modes of living.

(6) *Hard-core unemployment.*—As used by the Council of Economic Advisers in 1961, this term referred to "unemployables" and "unemployment pockets that now seem intractable."

(7) *Unemployment caused by imperfections of competition or equilibrium.*—Schumpeter used this phrase, and further identified it as "structural unemployment." (See above.)

(8) *Long-period unemployment.*—This term was applied by Beveridge to the "industrial" and "personal hard-core" of unemployment in various regions of Great Britain during the 1930's. His illustration referred to persons "unemployed continuously for 9 months or more."

(9) *Unemployment resulting from a lack of capital equipment or other complementary resources required to keep the wage earners at work.*—This term was mentioned in the United Nations' report on full employment and in the International Labor Office publication "Action Against Unemployment."

(10) *Long-term unemployment.*—Garbarino has given a definition which specifies a duration of unemployment extending beyond 1 year.

The Council of Economic Advisers used the term to mean unemployment of 15 weeks or more. (See No. 8.)

(11) *Unemployment of marginal workers.*—Fichandler used this expression in referring to "the less adaptable, less efficient workers who are hired during severe labor shortages and let out when the need for labor slackens."

(12) *Nonindustrial unemployment.*—Florence Peterson used this label for idleness of unemployables.

(13) *Personal unemployment.*—Dale Yoder defined this as follows:

> Some unemployment is *personal* in that individuals involved are prevented by their personal characteristics from finding satisfactory work. * * * Personal unemployment may reflect physical or mental characteristics or those that must be described as temperamental or attitudinal. * * * Perhaps more frequent is the situation in which job opportunities of the particular type sought by the wage earner are not available. * * * A considerable volume of personal unemployment reflects unsatisfactory vocational guidance.

(14) *Persistent unemployment.*—Andrew Biemiller of the AFL–CIO defined this as unemployment which continues even during prosperity.

(15) *Prosperity unemployment.*—Wilhelm Röpke used this term in discussing unemployment present during business booms; he attributed it to "excessive wage demands."

(16) *So-called normal unemployment.*—Andrew Biemiller used this label for high unemployment rates extending from recessions into otherwise prosperous periods.

(17) *"Social" unemployment.*—Senator Eugene McCarthy, Chairman of the Special Committee on Unemployment Problems, used this term in discussing differences in unemployment rates by age and other social groups.

(18) *Substitution unemployment.*—This term refers to displacement of labor by machinery induced (or made profitable) by a rise in the price of labor; used by Bloom and Northrup.

(19) *Unemployables.*—This label was applied by Garbarino specifically to persons "who have been without jobs over a span of time long enough to include at least one, or perhaps two, periods of high-level economic activity." Some others, including the Council of Economic Advisers in 1961, recognized the existence of some "unemployables," but do not give criteria for measuring. Schumpeter considered unemployability "one of the most serious of all problems of unemployment," but did not explicitly define it.

(20) *Unemployed Negro workers, older workers, youth, etc.*—These terms are frequently used in specific cases.

(21) *Vicarious unemployment.*—Schumpeter used this term for unemployment "that takes the place of adaptation of wages" to the level "at which normal unemployment would be attained." He considered it an aspect of "structural unemployment."

(22) *Voluntary unemployment.*—In Keynes' model, this term represents unemployment caused by demands for wages greater than those corresponding to marginal productivity. Florence Peterson defined the term simply as "people who do not want to work steadily."

(23) *Wage-distortion unemployment.*—Bloom and Northrup have used this term in referring to unemployment caused by labor demands for noncompetitive wage rates. Casselman, on the other hand, used the term in identifying unemployment caused by "particularly favorable working conditions" that attract a pool of "surplus" workers who remain attached to an industry despite periodic unemployment.

3. Miscellaneous descriptive terms

(1) *Concealed unemployment.*—According to Reuben's definition, English employers responded to wartime labor shortages by hiring workers who were kept idle pending receipt of expected military production orders.

(2) *Disguised unemployment.*—This term refers to unemployment that takes the form of unproductive or relatively inefficient employment; used by Herbert Parnes and Lloyd Reynolds. In Beveridge's "Full Employment in a Free Society" (1945), the term was applied to:

> short-time or lost-time that does not lead to an application for unemployment benefit * * * men slowing down their rate of work for fear of unemployment * * * [and] employers for a variety of motives keeping men though there is not full work for them.

(3) *Hidden unemployment.*—As used in the 1960 report of the U.S. Senate Special Committee on Unemployment Problems (majority), this term covered unemployment not reported in official statistics (for example, the premature withdrawal of older workers from the labor force).

(4) *Industrial unemployment.*—Florence Peterson used this classification for all forms of unemployment other than those representing unemployables or people who do not want steady work.

(5) *Localized unemployment.*—Turnbull used this term in describing labor markets with unemployment rates exceeding 5 or 6 percent.

(6) *Necessary unemployment.*—Walter Fackler considered this to be "a function of economic freedom * * * one of the costs of economic growth and change."

(7) *Noncyclical unemployment.*—This term has been used by Charles D. Stewart and Lloyd Reynolds as a residual classification, including all unemployment not caused by a lack of total demand.

(8) *Primary unemployment.*—As used by Dale Yoder, this term refers to unemployment of a family's principal wage earner.

(9) *Secondary unemployment.*—According to Dale Yoder this is unemployment of persons who are not principal family wage earners.

(10) *Suppressed unemployment.*—Clarence Long used this term for part-time or unproductive employment.

(11) *Unnecessary unemployment.*—Walter Fackler described this as unemployment produced by "unwise" policies and "sociological forces" which reduce flexibility in the economy.

B. CLASSIFICATIONS

Beveridge, William H.:
- 1909: Unemployment caused by changes of industrial structure, fluctuations of industrial activity, and the reserve of labor.[1]
- 1937: Short-period, long-period, and Cyclical.[2]
- 1945: Unemployment caused by Deficiency of demand, Misdirection of demand, and Organizational factors. Also, Frictional, Seasonal, Structural, and Disguised unemployment.[3]

Bloom, Gordon F., and Herbert R. Northrup: [4] Cyclical, Seasonal, Technological, Substitution, Wage distortion, and Frictional.

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[1] W. H. Beveridge, "Unemployment: A Problem of Industry (1909 and 1930)," New York: Longmans, Green and Co. (1930, New Edition), pp. 12–14.
[2] W. H. Beveridge, "An Analysis of Unemployment, III," Economica, May 1937, p. 180.
[3] W. H. Beveridge, "Full Employment in a Free Society," New York: W. W. Norton and Co. (1945), pp. 24–25, p. 129, and pp. 408–410.
[4] Gordon F. Bloom and Herbert R. Northrup; "Economics of Labor Relations," Homewood, Illinois: Richard D. Irwin, Inc. (1958), pp. 358–376.

Casselman, Paul H.: [5] Cyclical, Seasonal, Structural, Technological, Frictional, Casual, and Wage distortion.

Chamberlain, Neil W.: [6] Seasonal, Transitional, Technological, Structural, Cyclical, Initial, Terminal, and the Volitional unemployed.

Chisholm, John W., and Kenneth M. Thompson: [7] Frictional, Technological, Seasonal, and Cyclical.

Clague, Ewan: [8] Unemployment caused by Seasonality, Industrial and technological change, Short-term imbalance of labor demand and supply (excluding seasonal variations), and Business cycles.

Dankert, Clyde: [9] Seasonal, Technological, Cyclical, and Miscellaneous (including Frictional, Structural, and unemployment resulting from minor causes).

Fackler, Walter D.: [10] Involuntary, Seasonal, Frictional and Structural, Cyclical, Necessary and Unnecessary.

Fichandler, Thomas C.: [11] Unemployment in prosperity (including So-called transitional or turnover, Unemployment of new labor force entrants, Unemployment of marginal workers, Seasonal, Technological, and Unemployment arising from irregularity of employment) and unemployment in depression (Cyclical).

Garbarino, Joseph W.: [12] Frictional, Short-term, Long-term, and unemployables.

International Labour Office: [13] Unemployment arising from deficiency in aggregate demand, Unemployment arising from shortage of capital equipment or other complementary resources, and Frictional unemployment.

McCarthy, Senator Eugene: [14] Structural or economic, Chronic, Seasonal, and "Social."

Peterson, Florence: [15] Voluntary, Involuntary (Nonindustrial and Industrial). Industrial unemployment included: Normal or Frictional (Irregular, Occasional, and Seasonal), Cyclical, and Technological.

Rees, Albert: [16] Frictional (Seasonal and Structural) and Cyclical.

Reynolds, Lloyd: [17] Involuntary (Full-time, Part-time, and Disguised). Also, Cyclical and Noncyclical.

Stewart, Charles D.: [18] Cyclical and Noncyclical (Frictional and Structural).

Taft, Philip: [19] Casual, Seasonal, Technological, Normal and Cyclical. Also, Primary and Secondary Structural.[20]

United Nations (John M. Clark, et al.): [21] Unemployment resulting from a lack of capital equipment or other complementary resources required to keep the wage earners at work; Unemployment that arises from certain structural features of the economy; and Unemployment engendered by the insufficiency and instability of effective demand.

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[5] Paul H. Casselman, "The Economics of Employment and Unemployment." Washington: Public Affairs Press (1955).

[6] Neil W. Chamberlain, "Labor," New York: McGraw-Hill Book Co. (1958), pp. 583–586.

[7] John W. Chisholm and Kenneth M. Thompson, "The Louisiana Economy and Unemployment," Louisiana Business Bulletin Volume 18, No. 2, Baton Rouge, La.: Louisiana State University, College of Commerce (1956), pp. 86–87.

[8] Ewan Clague, "Unemployment," in "Encyclopaedia Brittanica," Volume 22, Chicago: Encyclopaedia Brittanica, Inc. (1959), pp. 685–687.

[9] Clyde E. Dankert, "An Introduction to Labor," New York: Prentice-Hall, Inc. (1954), pp. 62–116.

[10] U.S. Senate, 86th Congress, 1st Session, Hearings before the Special Committee on Unemployment Problems, Part I (October 5, 6, 7, 1959), Washington: U.S. Government Printing Office (1959), pp. 44–47.

[11] Thomas C. Fichandler, "Unemployment: Its Composition and Measurement," in W. S. Woytinsky and Associates, "Employment and Wages in the United States," New York: The Twentieth Century Fund (1953), pp. 395–396.

[12] Joseph W. Garbarino, "The Unemployed Worker During a Period of 'Full' Employment," Berkeley, California: University of California Institute of Industrial Relations, Reprint No. 50 (1954), pp. 1–3.

[13] International Labour Office, "Action Against Unemployment," Studies and Reports New Series, No. 20, Geneva, Switzerland: (1950), pp. 205–218.

[14] U.S. Senate, 86th Congress, 1st Session, Hearings before the Special Committee on Unemployment Problems, Part I (October 5, 6, 7, 1959), Washington: U.S. Government Printing Office (1959), pp. 1–3.

[15] Florence Peterson, "Survey of Labor Economics," New York: Harper and Bros. (1951, Revised Edition), pp. 110–132.

[16] Albert Rees, "The Measurement of Unemployment," in United States Senate, Special Committee on Unemployment Problems, 86th Congress, "Studies in Unemployment," Washington: U.S. Government Printing Office (1960), pp 31–32.

[17] Lloyd G. Reynolds, "Labor Economics and Labor Relations," New York: Prentice-Hall, Inc. (1954, Second Edition), pp. 448–464.

[18] U.S. Senate, 86th Congress, 1st Session, Hearings before the Special Committee on Unemployment Problems, Part I (October 5, 6, 7, 1959), Washington: U.S. Government Printing Office (1959), pp. 281–282.

[19] Philip Taft, "Economics and Problems of Labor," Harrisburg, Penn.: The Stackpole Co. (1955, Third Edition), pp. 44–49.

[20] See Employment, Growth, and Price Levels: Hearings before the Joint Economic Committee, Congress of the United States, 86th Congress, First Session (October 2, 1959), Washington: U.S. Government Printing Office (1959), pp. 2707–2711.

[21] United Nations, "National and International Measures for Full Employment," Lake Success, New York (1949), pp. 11–15. Report prepared by John Maurice Clark, Arthur Smithies, Nicholas Kaldo Pierre Uri, and E. Ronald Walker.

United States Senate, Special Committee on Unemployment Problems (Majority):[22] Cyclical, Structural, Frictional (includes Seasonal), and Hidden (Premature withdrawal from the labor force and Underemployment).
United States Senate, Special Committee on Unemployment Problems (Minority):[23] Frictional and Seasonal, Cyclical, and Structural.
Wolfbein, Seymour L.:[24] Frictional, Seasonal, Cyclical, and Structural or Chronic.
Yoder, Dale:[25] Seasonal, Cyclical, Cultural, Unemployment caused by technological change, Personal, Frictional, Primary, and Secondary.

[22] U.S. Senate. Report of the Special Committee on Unemployment Problems, 86th Congress, Report No. 1206, Washington: U.S. Government Printing Office (1960), pp. 6–7.
[23] Ibid., pp. 129–131.
[24] Seymour L. Wolfbein, "Automation and Unemployment," The President's Advisory Committee on Labor-Management Policy, May 1, 1961.
[25] Dale Yoder. "Manpower Economics and Labor Problems," New York: McGraw-Hill Book Co. (1950, Third Edition), pp. 231–246.

APPENDIX II

THEORETICAL APPROACHES TO UNEMPLOYMENT CLASSIFICATIONS

The theoretical models of Pigou, Keynes, and Schumpeter, which are sketched in this appendix, are not the only or even perhaps the most important theoretical influences in present-day unemployment terminology. However, many concepts from these theories play significant roles in popular discussions, particularly in discussions of unemployment policies. Because explicit definitions of these terms have frequently been omitted, even a brief analysis of their origins and initial uses may help illuminate their present meanings.

Familiarity with the divergent, but equally reasonable, choices among varying assumptions and points of view that have been made by economists who have gained wide acceptance is, of course, of interest in its own right. A brief discussion of these theories of unemployment also will demonstrate that definitions and uses of unemployment classifications frequently depend on particular and systematic assumptions about the nature and operation of the economy. More importantly, perhaps, the study of theoretical concepts makes it clear that many unemployment classifications, especially those dependent on simplifying assumptions (such as constant technology, constant tastes, and the like), cannot be measured statistically.

"The Classical View": A. C. Pigou

Pigou's extensive writings[1] on unemployment did not include systematic or explicit classifications of types of unemployment. He recognized certain widely used labels, such as "mass unemployment" and "structural unemployment," but was reluctant to adopt them for his own use.[2] One reason why Pigou did not classify types of unemployment was that he was interested in general diagnosis, rather than in solving particular problems of unemployment.[3] Pigou did not share the interests of many of his contemporaries (for example, Sir William Beveridge) in specific problems and practical government policies, which usually are associated with identification and emphasis of particular kinds of unemployment. Moreover, Pigou's general diagnosis stressed the determinants of employment rather than of unemployment. He defined unemployment as a residual, to be calculated by subtracting employed workers from the number of "would-be wage earners".[4] Generally, he assumed that the number of "would-be wage earners" was constant in a given situation.[5] Thus the amount

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[1] "Employment and Equilibrium," London: Macmillan & Co. (1949). "The Theory of Unemployment," London: Macmillan & Co. (1953). "Lapses From Full Employment," London: Macmillan & Co. (1945). "Industrial Fluctuations," London: Macmillan & Co. (1929, Second Edition). "Unemployment and the Great Slump," reprinted in "Essays in Applied Economics," London: P. S. King & Son (1923).

[2] "Lapses From Full Employment," London: Macmillan & Co. (1945). Pp. 1 and 63.

[3] "The Theory of Unemployment," London: Macmillan & Co. (1933), p. v.

[4] Ibid., p. 4.

[5] "Employment and Equilibrium," London: Macmillan & Co. (1949), p. 14.

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of unemployment could be explained almost wholly in terms of supply and demand factors that influence employment.

Other basic reasons why Pigou did not classify types of unemployment originated in his conceptions of economic causation and the nature of economic theory. He believed that individual economic factors (e.g., labor demand, wages, distribution of labor supply, mobility, etc.) become *causes* of economic events (e.g., unemployment) only in relation to one another; logically, such factors can be separated, but analysis which does so, he argued, is "seriously misleading." [6] In Pigou's thought, factors of supply and demand opposed one another "like the two blades of Marshall's scissors, neither of which can be said in an absolute sense to do the cutting but either of which can be said to do it if we suppose the other to be held steady." Thus, he recognized individual economic factors only in relation to whole economic settings. To emphasize the essential features of these broad settings, Pigou had to construct theoretical models,[7] which were based on certain simplifying assumptions.[8] These assumptions culminated in Pigou's concept of "short-period flow equilibrium," according to which an economic system can be characterized by a "constant rate of purchase and sales, or of hiring and letting." Among other assumptions, of course, this stability implies that tastes and techniques are unchanging; population is stationary; and that capital equipment grows at a constant rate.[9]

Pigou's concept of unemployment evidences the combined effects of his interest in general diagnosis of the determinents of employment, on the one hand, and of his theoretical methods and static assumptions on the other. Emphasis on employment led to treating unemployment as a residual phenomenon, not requiring detailed analysis into types or elements. Reasoning in terms of models led to stressing essentials, rather than details, and for him the essential aspect of unemployment was that its amount varied with the volume of employment. Within Pigou's simplified economic system—which always tended toward "short-period flow equilibrium"—variations became *oscillations*, and employment became a matter of balance or adjustment.[10] Hence, Pigou related unemployment (the complement of employment) to *im*balance or *mal*adjustment within the economic system. He argued:

> With perfectly free competition among work-people and labor perfectly mobile * * *. There will always be at work a strong tendency for wage-rates to be so related to demand that everybody is employed. Hence, in stable conditions every one will actually be employed. The implication is that such unemployment as exists at any time is due wholly to the fact that changes in demand conditions are continually taking place and that frictional resistances prevent the appropriate wage adjustments from being made instantaneously.[11]

Although Pigou apparently did not explicitly define the scope of "frictional unemployment," clearly he used the term "frictional" broadly to refer to both long-run and short-run resistances to adjustment required by economic fluctuations, changes and disturbances.[12]

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[6] Ibid., pp. 1–2.

[7] Pigou asserted this necessity in all of his publications. For example, "The Theory of Unemployment," London: Macmillan & Co. (1933), p. vi; and "Real and Money Wage Rates," Economic Journal, September 1937, p. 406.

[8] "Employment and Equilibrium," London: Macmillan & Co. (1949), pp. 3–5.

[9] Ibid., pp. 42–46 and 66–72.

[10] Ibid., pp. 85–98. See also "The Theory of Unemployment," pp. 252–262, for definition of the term "wage policy" and a discussion of its relation to the "adjustment rate of wage."

[11] "The Theory of Unemployment," London: Macmillan & Co. (1933), p. 252.

[12] Ibid., pp. 255–256 has a discussion of "wage policy as a possible long-run determinant of unemployment * * *."

Two kinds of resistance he repeatedly emphasized were wage-price stickiness and labor immobility. Economic movements to which he related these resistances included fluctuations of the business cycle, "large-scale, once-for-all" structural changes (such as the dislocations caused by war or by the decline of an important industry), as well as temporary changes in labor supply and demand schedules. From the workers' immediate point of view, in Pigou's opinion, unemployment was always involuntary.[13]

Pigou's broad concept of "frictional unemployment"—reinforced by his interpretation of cyclical fluctuations in unemployment as rhythmic deviations from the general trend of labor demand—led him to emphasize the merits of policies directed against the causes of maladjustment between labor supply and demand.[14] It also led him to stress the inflationary consequences of measures which would increase aggregate demand while ignoring the repercussions on prices and wages. He admitted that properly timed Government expenditures could increase employment, perhaps halting a recession.[15] He argued, however, that this advantage would be partially or completely offset by subsequent interaction between wages and prices; he feared that progressive inflation would result from the need to increase money demands continuously "ahead of the pursuing wage rate." [16]

"The New Economics": J. M. Keynes

Keynes grouped unemployment into three categories: frictional, voluntary, and involuntary. His category of "frictional unemployment" included [17] unemployment caused by—

> various inexactnesses of adjustment which stand in the way of continuous full employment: for example, unemployment due to a temporary want of balance between the relative quantities of specialized resources as a result of miscalculation or intermittent demand; or to timelags consequent on unforeseen changes; or to the fact that the changeover from one employment to another cannot be effected without a certain delay, so that there will always exist in a nonstatic society a proportion of resources unemployed "between jobs."

Unemployment which he called "voluntary unemployment" [18] resulted from:

> * * * the refusal or inability of a unit of labor, as a result of legislation or social practices or of a combination for collective bargaining or of slow response to change or of mere human obstinacy, to accept a reward corresponding to the value of the product attributable to its marginal productivity.

Keynes defined "involuntary unemployment" [19] as follows:

> Men are involuntarily unemployed if, in the event of a small rise in the price of wage-goods relatively to the money-wage, both the aggregate supply of labor willing to work for the current money-wage and the aggregate demand for it at that wage would be greater than the existing volume of employment.

In his view, "involuntary unemployment" resulted from deficiency of effective demand, because "there are men unemployed who would be

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[13] "Unemployment and the Great Slump," reprinted in "Essays in Applied Economics," London: P. S. King & Son (1923), pp. 36–37; also, "Lapses From Full Employment," London: Macmillan & Co. (1945), p. 4.

[14] "Lapses From Full Employment," London: Macmillan & Co. (1945), pp. 10–17, 41, and 70–73.

[15] "The Theory of Unemployment," London: Macmillan & Co. (1933), pp. 243 and 313. Also, "Industrial Fluctuations," London: Macmillan & Co. (1929, Second Edition), pp. 320–333.

[16] "Lapses From Full Employment," London: Macmillan & Co. (1945), pp. 38–39. "Keynes' General Theory," London: Macmillan & Co. (1951), pp. 57–60. "Employment Policy and Sir William Beveridge," in Agenda, August 1944, pp. 27-28.

[17] John M. Keynes, "The General Theory of Employment, Interest, and Money," New York: Harcourt, Brace & Co. (1936), p. 6.

[18] Ibid., p. 6.

[19] Ibid., p. 15.

willing to work at less than the existing real wage."[20] According to Keynes' definitions, at the full employment level of economic activity, there could be "frictional" and "voluntary unemployment," but no "involuntary unemployment."[21]

In part, Keynes' three-way classification of unemployment reflected his desire to persuade economists "to reexamine critically certain * * * basic assumptions" underlying what he called the prevailing "classical" theory of unemployment. He believed this objective required "highly abstract argument" and "much controversy," both of which he associated with "the pursuit of sharp distinctions" between his point of view and that of the prevailing theory. The separation of what Keynes called "voluntary unemployment" from the broader category which "classical" economists called "frictional unemployment" is one such sharp distinction.

Another sharp distinction is that between "voluntary unemployment" (said to be recognized by the "prevailing" theory) and "involuntary unemployment" (which was said not to be recognized by "classical economists"). This distinction between "voluntary" and "involuntary" unemployment also has been associated with Keynes' desire to impress upon economists the indirect, unsought-for elements in economic change, which he believed were neglected in the "classical" theory.[22] In a sense, Keynes used the term "involuntary unemployment" to focus the readers' attention on his analysis of an unemployment problem to which—in his opinion—the "classical" theory was irrelevant. He argued:

> * * * if the classical theory is only applicable to the case of full employment, it is fallacious to apply it to the problems of involuntary unemployment * * *. We need to * * * work out the behaviour of a system in which involuntary unemployment in the strict sense is possible.[23]

The "internal logic" of Keynes' theory also can be associated with his classification of unemployment, particularly with his concept of involuntary unemployment.[24] A basic aim in his theory was—

> to discover what determines at any time the national income of a given economic system and (which is almost the same thing) the amount of its employment.[25]

Keynes first took certain important elements in the economic system as given;[26] then he analyzed the remainder into independent and dependent variables. In his system, the independent variables—*as influenced by the given factors*—were regarded as "determining" the dependent variables of employment and income. Briefly, Keynes' independent variables were quantities and psychological relationships capable of changing aggregate consumption and investment spending.[27]

Keynes rejected the "classical" theory of unemployment, which—in his view—asserted (1) that "wage-bargains" between workers and

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[20] Ibid., p. 289.
[21] Ibid., pp. 15–16 and 26.
[22] See Wassily Leontieff, "Postulates: Keynes' General Theory and the Classicists," in S. E. Harris (Editor). The New Economics, New York: Alfred A. Knopf (1947), pp. 241–242.
[23] John M. Keynes, op. cit., pp. 16–17.
[24] Helpful discussions concerning this point can be found in the papers by Seymour Harris, Arthur Smithies, and James Tobin which were published in S. E. Harris (Editor). The New Economics, pp. 541–572.
[25] John M. Keynes, op. cit., p. 247.
[26] Ibid., p. 245. "We take as given the existing skill and quantity of available labour, the existing quality and quantity of available equipment, the existing technique, the degree of competition, the tastes and habits of the consumer, the disutility of different intensities of labour and of the activities of supervision and organisation, as well as the social structure including the forces, other than our variables set forth below, which determine the distribution of the national income. This does not mean that we assume these factors to be constant; but merely that, in this place and context, we are not considering or taking into account the effects and consequences of changes in them."
[27] Ibid., pp. 245–247. A clear, concise outline-summary of these variables may be found in Dudley Dillard, "The Economics of John Maynard Keynes," New York: Prentice-Hall, Inc. (1949), pp. 48–50.

employers determine (real) wages; and (2) that the level of (real) wages thus arrived at determines the amount of employment.[28] He agreed—basically on the assumption of diminishing returns—that—

> an increase in employment can only occur to the accompaniment of a decline in the rate of real wages.[29]

His basic difference with the "classical" theory lay rather in his argument that there was—

> no expedient by which labor as a whole can reduce its *real* wage to a given figure by making revised *money* bargains with the entrepreneurs.[30]

He maintained that aggregate consumption and investment spending—not the "wage-bargain"—determine the levels of employment, output, and real wages. Hence, the portion of unemployment associated with deficiency of demand was aptly described as "involuntary," simply because its incidence was beyond control of the individuals who were unemployed.

Keynes' interests in the extent to which available resources were not being utilized, together with his analysis of involuntary unemployment, led him to advance policies which would expand both private and Government spending for consumption and investment. His theory appeared in 1936, when mass unemployment and unutilized capital made reasonable his emphasis on the elastic supply of labor, his inferences concerning secular stagnation and diminishing investment opportunity, and his support of far-ranging compensatory Government programs.[31] However, the extent to which Keynes' break with "the classical view" was less than complete was evident in his remark that if:

> our central controls succeed in establishing an aggregate volume of output corresponding to full employment as nearly as is practicable, the classical theory comes into its own again from this point onwards.[32]

"Economic Development": J. A. Schumpeter

Schumpeter's definitions of types of unemployment[33] can be grouped into two sets of classifications. The first set includes types of unemployment present when economic systems are in "neighborhoods of equilibrium";[34] the second set includes types of unemployment present during business cycles.

Schumpeter classified unemployment present in "neighborhoods of equilibrium" under the general label "normal unemployment," and included within this category:

(1) Seasonal unemployment;
(2) Unemployment due to "ordinary" accidents (e.g., accidental destruction of factories);
(3) Unemployment related to unemployability;
(4) Unemployment due to change of residence, occupation, or jobs;
(5) Unemployment caused by imperfections of competition or equilibrium (called structural unemployment).

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[28] Ibid., pp. 5 and 11.
[29] Ibid., p. 17.
[30] Ibid., p. 13.
[31] Ibid., pp. 372–378.
[32] Ibid., p. 378.
[33] Joseph A. Schumpeter, "Business Cycles," New York: McGraw-Hill Book Co. (1939), pp. 509–519.
[34] Ibid., pp. 42–43, 70–71, and 149n.

Two additional types of unemployment also believed to be present in "neighborhoods of equilibrium," were:

(1) Vicarious unemployment (i.e., "unemployment that takes the place of adaptation of wages" to the level "at which normal employment would be attained").

(2) Secondary unemployment (unemployment induced by other unemployment).

Schumpeter grouped all these types of unemployment together, but warned against arithmetically adding the resulting quantity or percentage to the unemployment caused by other economic forces. He observed:

> The various sources that contribute to any given sum total of unemployment are not independent and their effects cannot be separated. In particular, the cyclical process affects them all and cyclical variations of unemployment are affected by them all.[35]

Schumpeter dealt with unemployment characteristic of the business cycle under the general label "disturbance unemployment." Schumpeter thought of disturbances as originating either outside or inside an economic system. He called unemployment arising out of innovation-caused *internal* disturbances "technological unemployment," and equated this with cyclical unemployment ("cyclical unemployment *is* technological unemployment"). Also present during business cycles, in Schumpeter's opinion, were vicarious unemployment, depression unemployment, and secondary unemployment—as well as unemployment resulting from external disturbances.

Of the many questions which arise concerning Schumpeter's classifications, two may be emphasized: (1) Why did he distinguish between "normal" and "disturbance" unemployment? (2) Why did he equate "technological" unemployment with "cyclical" unemployment?

Some of the answers to these questions revolve around the source and extent of his interest in unemployment, or, more broadly, the phenomena which mainly held the center of his attention. Quite simply it can be observed that Schumpeter was not interested in unemployment as such; his remarks on unemployment as well as his classifications always were related to his main interests, namely, "analyzing the economic process of the capitalist era," and answering the question: "What is it that makes that process change in historic time?" [36]

Thus, the important reasons for Schumpeter's classifications of unemployment refer to certain general aspects of the theory which resulted from pursuing his interests. First, he was convinced that development and change were the essence of the economic process. His theory emphasized "the mechanism of change"; that is, the way in which change is introduced. He took a long view of economic history and perceived that economic life consisted of cycles or waves; periods of equilibrium or little change were separated by alternating phases of prosperity and recession. Schumpeter's principal "working hypothesis" was that innovation—"the setting up of new production functions"—chiefly produced these interruptions.[37] He argued that clusters of innovation end periods of equilibrium, and combine to generate subsequent large-scale disturbances which cannot be easily or smoothly absorbed. The ensuing "process of creative destruction"

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[35] Ibid., p. 513.
[36] Ibid., pp. v and 72.
[37] Ibid., pp. 87 and 139.

includes the decline and obsolescence of established industries and leaders, and also the rise of new commodities, new technology, and new organizations.[38] Unemployment, for Schumpeter, was only one aspect of this adaptive process.

Schumpeter's two sets of unemployment classifications, one for normal unemployment and one for disturbance unemployment, correspond to the two units into which he analyzed the economic process: neighborhoods of equilibrium separated by business cycles. His identification of technological unemployment with cyclical unemployment derived from his theoretical model which largely explained business cycles in terms of innovation. Schumpeter believed that economists who have distinguished between cyclical and technological unemployment have implicitly limited their conception of "business cycles" to short (40-month) cycles and have overlooked the longer (10-year) cycles in which technological influences are more evident.

This link between unemployment and economic progress greatly influenced Schumpeter's views on what he called "The March Into Socialism." [39] Because the economic system had absorbed all the unemployment created by past development, he minimized the long-run significance of unemployment as such.[40] Apart from concern for relief of unnecessary suffering associated with temporary unemployment, as well as for the more serious problems related to "unemployability," Schumpeter's principal theme was warning against inflationary burdening and useless regulation of the "private enterprise system." [41]

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[38] Joseph A. Schumpeter, "Capitalism, Socialism, and Democracy," New York, Harper & Bros. (1950, Second Edition), pp. 81–86.
[39] Ibid., pp. 415–425.
[40] Ibid., p. 69.
[41] Ibid., pp. 70 and 415–425 (especially p. 422). Also, "Business Cycles," p. 152 and 511n.

SOME ALTERNATIVE INDEXES
OF
EMPLOYMENT AND UNEMPLOYMENT

SOME ALTERNATIVE INDEXES OF EMPLOYMENT AND UNEMPLOYMENT*

In the discussions of the meaning and measurement of employment and unemployment that have taken place in the past, many proposals have been made for discarding or expanding the conventional measures in order to provide more comprehensive, or more limited, or more sensitive indicators. These proposals are usually most numerous in times of high unemployment. Recently, for example, there have been suggestions that the official figure on unemployment be limited to family breadwinners, or to family breadwinners in need. A similar suggestion is to include only regular full-time members of the labor force and to exclude part-time and intermittent workers. On the other hand, there are those who argue that even the present measure of total unemployment (which includes all persons 14 years old and over who are not working but are looking for work) does not tell the whole story. If we want to have a complete count, it is argued, there may be other persons in the labor force, or even outside the labor force, who are not able to work when or as much as they want, and who should be added to the unemployed. Even if the definition is not changed, it has been suggested that new combinations of the data would sharpen the public understanding of the unemployment problem.

A detailed analysis of all these proposals is beyond the scope of this paper. Rather, it is limited to the discussion of several supplementary measures or indexes which have been developed by the Bureau of Labor Statistics as a result of a request by the Joint Economic Committee.

COMBINED IMPACT OF UNEMPLOYMENT AND PART-TIME EMPLOYMENT

The monthly sample survey of households provides, in addition to a measure of totally unemployed persons, counts of two types of underemployed: (1) persons who usually work full time (35 hours a week or more) at their present jobs but who have been cut back to part time because of slack work, or who have been out of work part of the week because of layoffs or the start of a new job; and (2) persons who usually work part time at their present jobs and cannot find full-time work. These two groups of part-time workers are usually described as "working part time for economic reasons," or "economic part-time workers." (There are large numbers of part-time workers who do not want any more work.)

The first group, those who usually work full time, are preponderantly industrial and construction workers. These tend to increase in number early in the downturn of the business cycle, when hours of work are first reduced in preference to layoffs. The second group is more

*This section was prepared in the Bureau of Labor Statistics, U.S. Department of Labor, by Gertrude Bancroft.

diversified. It consists largely of trade and service workers; but as the recession progresses, the group is augmented by industrial workers who move into this category when their reduced hours have persisted for so long that they can no longer say that they usually work full time at their jobs. It also has a marked seasonal increase in the summer months when so many young workers seeking full-time vacation jobs have to settle for part-time work.

Statistics on these part-time workers have been available each month since May 1955, and prior to that on a quarterly basis or less frequently. (The monthly statistics also show the hours they work, their personal characteristics, and their industrial attachment.) In the publications of the survey results, these part-time workers have been counted as employed. However, they are identified separately, the trends in their numbers and characteristics are explained, and from time to time, special analyses of the group are published. The logic of classifying these workers as employed is that they have jobs, and even though their hours are less than they wish, they are quite different from the totally unemployed. Moreover, the public policies designed to create additional jobs for the unemployed might prove very different from the actions necessary to restore these workers to full-time work. Therefore, the two groups have not been added together to compute a combined rate of economic idleness, although anyone who wished to do so has the data at hand every month in the published reports.

For some purposes, a measure of the joint impact of total unemployment and part-time employment would be useful, particularly if it could reflect the differential in the seriousness of the two types of problems. In 1955, the Joint Economic Committee suggested such a measure—basically, the conversion of the hours lost by economic part-time workers into the equivalent of a number of wholly unemployed persons. The standard proposed was 37.5 hours, that is, every 37.5 hours lost was taken to equal one unemployed person. In effect, this computation would count five men, each working 22.5 hours, as equivalent to two unemployed men, since their combined hours lost equalled 75 hours (twice 37.5). These equivalent unemployed persons, it was proposed, would be added to the fully unemployed to give the combined measure of the impact of unemployment and part-time work.

The proposal that the Federal Government should publish this measure, as well as the conventional statistics on unemployed and part-time workers, was reviewed by the Office of Statistical Standards of the Bureau of the Budget in 1955. The office recommended against official publication on the grounds that such a measure, which would be presented in terms of the number of unemployed persons (real and equivalent), would be confusing to the public, that it had certain technical drawbacks, and that it had not been proven useful as a new economic indicator, as a guide to policy, or in manpower analysis. For example, assumption of 37.5 hours as a standard workweek that the economy should provide is an arbitrary one. This type of measure also ignores overtime worked by the employed, which might be regarded as an offset to time lost in assessing the performance of the economy. (See letter and statement of Raymond T. Bowman, Assistant Director, Office of Statistical Standards, to Hon. Richard

Bolling, in hearings before the Subcommittee on Economic Statistics of the Joint Committee on the Economic Report, November 7 and 8, 1955.) Another technical problem arises when the numbers of unemployed and equivalent unemployed persons are related to the labor force in order to calculate a rate of total and partial unemployment. The labor force, the base of the rate, is an unduplicated count of persons, with each part-time worker counted only once, regardless of the number of hours he worked. The numerator is not a count of persons, but of persons plus hours lost converted to persons. The hybrid measure could be misleading as well as confusing.

Although the Census Bureau earlier, and now the Bureau of Labor Statistics, have not published these full-time equivalent unemployment measures, they have computed them each month and furnished them to the Joint Economic Committee and to any other user who requested them. Because of the continuing interest in some composite figure reflecting the severity of both total and partial unemployment, the Bureau of Labor Statistics, at the request of the Joint Economic Committee, has experimented with several different approaches. The most satisfactory approach seems to relate man-hours worked (or lost) to man-hours that could have been worked by the labor force if there were no unemployment or part-time employment due to economic causes. In effect, this ratio would provide a measure of the extent to which the Nation's labor force was being fully utilized at a given point in time. The major advantage this approach has over the "full-time equivalent unemployment" computation is that it is in terms of comparable units, i.e., man-hours, and not a combination of *people* and *hours lost* converted to "people."

As in the "full-time equivalent" computation, some assumption has to be made about how many hours the unemployed and part-time employed would have worked if the labor force were operating fully. Three assumptions have been made in the computations underlying tables 1 and 2 and chart 1. One assumes that they would have worked 37.5 hours, the standard selected by the Joint Economic Committee for the computation of full-time equivalent unemployment. The second assumes 40 hours, the most common scheduled workweek and the standard set by the Fair Labor Standards Act, beyond which workers in covered employment must receive overtime pay. The third assumes that the unemployed and the economic part-time employed would have worked the average hours that were actually worked each month by the "fully employed," that is, the voluntary part-time workers plus the workers who worked 35 hours or more, or who would have worked 35 hours or more except for noneconomic reasons (bad weather, vacation, illness, and the like).

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TABLE 1.—*Percent of available labor force time utilized* [1]

[Unadjusted]

VARIABLE STANDARD

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1955	------	------	------	------	94.3	93.7	93.9	94.1	95.0	95.2	94.7	94.5
1956	93.7	93.6	93.8	94.4	94.2	93.1	93.5	94.3	95.1	95.4	94.6	94.3
1957	93.4	93.5	94.0	94.4	94.4	93.1	93.6	94.2	94.7	94.8	93.7	93.2
1958	91.0	90.1	89.8	90.0	90.5	89.6	90.0	90.6	92.0	92.7	92.6	92.0
1959	91.0	91.2	91.6	92.8	93.5	92.2	92.4	92.9	93.8	93.6	92.9	93.0
1960	92.1	92.4	92.2	92.9	93.4	91.6	92.1	92.3	93.3	93.2	92.4	91.4
1961	90.0	89.6	90.2	90.8	91.2	89.9	90.5	91.1	92.3	------	------	------

37.5 HOURS STANDARD

1955	------	------	------	------	95.1	94.6	94.9	95.1	95.8	95.9	95.2	95.1
1956	94.4	94.3	94.4	95.1	95.0	94.1	94.5	95.3	95.9	96.1	95.1	95.0
1957	94.1	94.2	94.7	95.1	95.1	94.1	94.6	95.1	95.4	95.4	94.2	93.9
1958	91.9	90.9	90.8	91.0	91.7	90.9	91.2	91.9	93.0	93.6	93.3	92.8
1959	91.8	91.9	92.4	93.6	94.3	93.3	93.5	93.9	94.0	94.3	93.5	93.7
1960	92.8	93.0	92.9	93.6	94.1	92.7	93.2	93.4	94.2	94.0	92.9	92.3
1961	91.0	90.5	91.1	91.7	92.2	91.1	91.6	92.2	93.2	------	------	------

40 HOURS STANDARD

1955	------	------	------	------	94.7	94.2	94.5	94.7	95.5	95.6	94.8	94.8
1956	93.9	93.8	94.0	94.7	94.6	93.6	94.1	94.9	95.5	95.8	94.7	94.6
1957	93.6	93.7	94.2	94.7	94.7	93.7	94.2	94.7	95.0	95.0	93.7	93.4
1958	91.2	90.2	90.1	90.3	91.1	90.2	90.6	91.3	92.5	93.1	92.8	92.2
1959	91.2	91.3	91.8	93.1	93.8	92.7	93.0	93.4	93.6	93.8	93.0	93.2
1960	92.2	92.5	92 3	93.1	93.7	92.2	92.7	92.9	93.8	93.5	92.3	91.7
1961	90.3	89.8	90.4	91.1	91.6	90.4	91.0	91.7	92.6	------	------	------

[1] Time worked as percent of available labor force time assuming 3 standards for measuring time lost by unemployed and economic part-time workers: (*a*) Variable standard is average hours worked each month by all workers, excluding economic part time; (*b*) 37.5 hours standard; (*c*) 40 hours standard. Available labor force time equals hours worked plus standard hours imputed to persons with a job but not at work plus hours lost by unemployed and economic part-time workers.

TABLE 2.—*Percent of available labor force time utilized* [1]

[Seasonally adjusted]

VARIABLE STANDARD

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1955	------	------	------	------	94.1	94.5	94.3	93.9	94.1	94.0	94.2	94.2
1956	94.4	94.3	94.3	94.4	94.0	94.0	93.9	94.2	94.2	94.3	94.0	94.0
1957	94.1	94.2	94.5	94.4	94.2	93.9	94.0	94.0	93.7	93.6	93.1	92.8
1958	91.9	91.2	90.7	90.0	90.1	90.8	90.6	90.4	90.5	91.1	91.8	91.6
1959	92.0	92.2	92.3	92.8	93.2	93.1	92.8	92.8	92.7	92.2	92.2	92.7
1960	92.9	93.2	92.9	93.0	93.0	92.5	92.5	92.2	92.1	91.8	91.6	91.1
1961	91.0	90.7	91.1	90.9	90.7	91.0	91.0	91.0	90.9	------	------	------

37.5 HOURS STANDARD

1955	------	------	------	------	94.9	95.2	95.1	94.8	95.0	94.9	94.9	94.9
1956	95.1	95.1	95.0	95.1	94.8	94.7	94.7	95.0	95.1	95.1	94.8	94.8
1957	94.8	95.0	95.2	95.1	94.9	94.7	94.8	94.8	94.6	94.3	93.8	93.7
1958	92.9	92.1	91.8	91.1	91.2	91.8	91.5	91.4	91.7	92.1	92.9	92.6
1959	92.8	93.0	93.2	93.7	93.9	93.9	93.7	93.5	92.9	93.0	93.0	93.5
1960	93.7	94.0	93.7	93.7	93.7	93.3	93.4	93.0	93.2	92.7	92.4	92.1
1961	92.1	91.8	92.0	91.8	91.7	91.8	91.8	91.8	92.0	------	------	------

40 HOURS STANDARD

1955	------	------	------	------	94.5	94.8	94.7	94.3	94.6	94.5	94.5	94.6
1956	94.7	94.6	94.6	94.7	94.4	94.2	94.3	94.6	94.6	94.7	94.4	94.4
1957	94.4	94.6	94.8	94.7	94.4	94.3	94.4	94.3	94.1	93.8	93.3	93.1
1958	92.3	91.5	91.2	90.4	90.6	91.1	90.9	90.7	91.1	91.5	92.3	91.9
1959	92.3	92.5	92.7	93.2	93.4	93.3	93.1	93.0	92.4	92.4	92.5	93.0
1960	93.1	93.5	93.1	93.2	93.3	92.8	92.8	92.5	92.7	92.1	91.8	91.5
1961	91.5	91.2	91.4	91.2	91.0	91.2	91.2	91.2	91.2	------	------	------

[1] Time worked as percent of available labor force time assuming 3 standards for measuring time lost by unemployed and economic part-time workers: (*a*) Variable standard is average hours worked each month by all workers, excluding economic part time; (*b*) 37.5 hours standard; (*c*) 40 hours standard. Available labor force time equals hours worked plus standard hours imputed to persons with a job but not at work plus hours lost by unemployed and economic part-time workers.

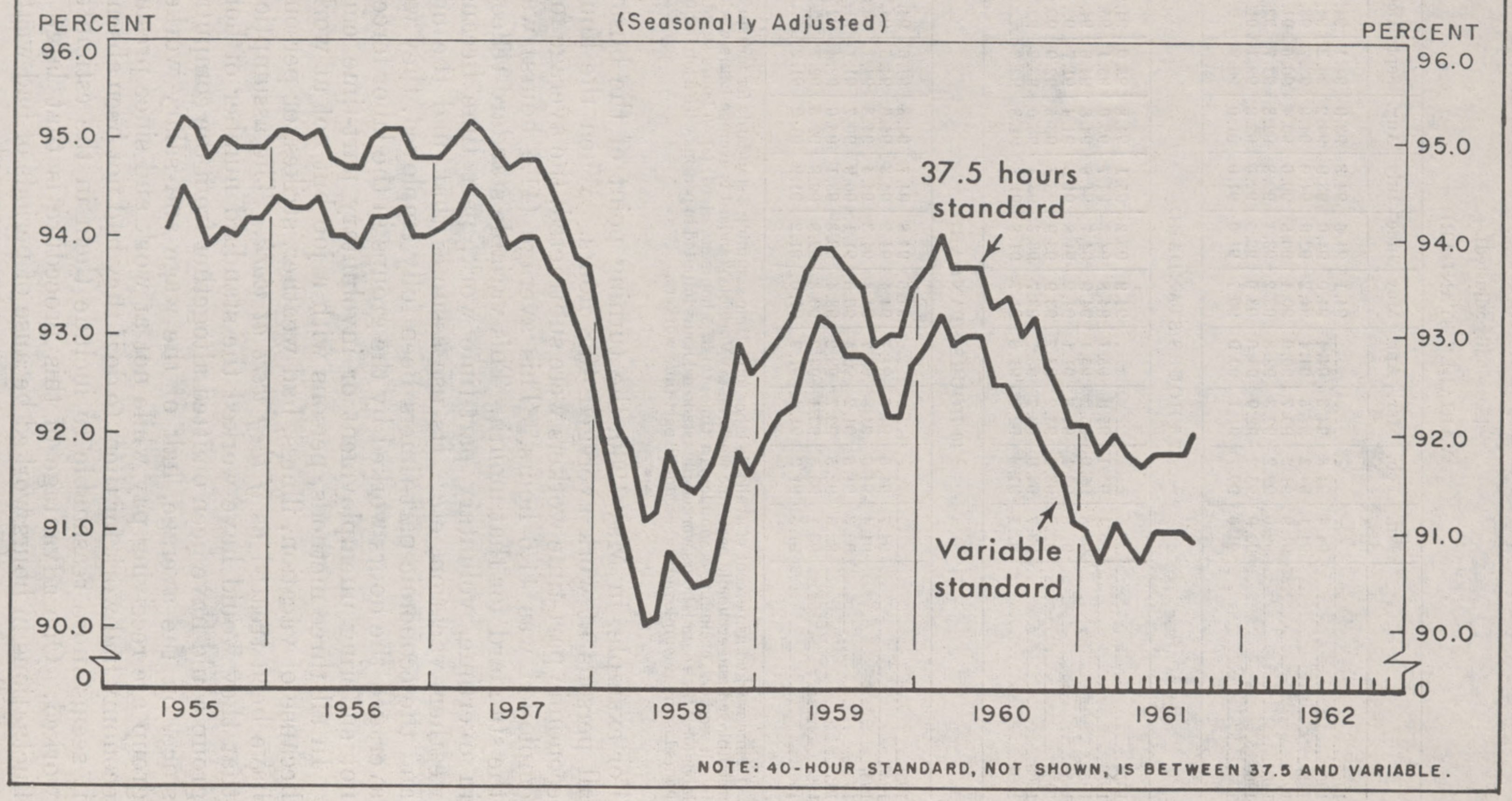
For example, in May 1960, the turning point of the business cycle, all persons at work averaged 40.8 hours. When the hours for the economic part-time workers were subtracted, the average for the fully employed was 41.6 hours. This average (41.6 hours) was used as the standard for that month. This variable standard reflects changes in overtime, voluntary part-time work, part time because of bad weather, vacation, etc. Its use assumes that, had the unemployed and the economic part-timers been fully employed, they would have averaged the hours worked by the groups in the labor force who were not suffering unemployment or involuntary part-time employment.

In all three methods, persons with a job but not at work all week because of vacation, illness, bad weather, strikes, or personal reasons have been treated as *if they were at work*. The assumption is made that they would have worked the standard number of hours. This group could have been omitted altogether from the computations, but since, on the average, half of the wage and salary workers in this group are receiving pay while not at work and since presumably the economy had work for them to do if they had not been absent all week, it seems more reasonable to include them in the estimate of hours worked. One advantage of this procedure is that large accidental fluctuations in hours worked because of periods of bad weather, widespread illness, strikes, or vacation are minimized.

CHART 1

Percent of Available Labor Force Time Utilized, May 1955-September 1961

(Seasonally Adjusted)



NOTE: 40-HOUR STANDARD, NOT SHOWN, IS BETWEEN 37.5 AND VARIABLE.

Each of these three standards is only an approximation of an ideal standard. To choose the most appropriate standard, additional information would be needed that is not available: (*a*) How many hours of work unemployed workers were looking for; (*b*) how many hours the economic part-time worker wanted; as well as (*c*) the hours that persons absent all week from their jobs usually work at their jobs. The basic assumption underlying the variable standard (in our example, 41.6 hours) is that these three groups would have the same hours as the "fully employed" despite their different occupational or industrial characteristics. Actually a much higher proportion are operatives and laborers, a much smaller proportion are white-collar workers. Nevertheless, tests which have been made indicate that the differences are offsetting as far as hours worked are concerned.

In order to avoid confusion with the present unemployment rate, the index is presented in table 1 and chart 1 not as the percent of time lost, but as a percent of time worked. Thus, these three methods provide measures of the extent to which the available labor force time was being utilized each month since mid-1955. In effect, these measures are derived by comparing the hours actually worked by the labor force (including hours imputed to persons with a job but not at work all week) to the hours that could have been worked (hours worked plus hours lost through unemployment and economic part time). Like the conventional unemployment rate, this measure has a seasonal pattern and has been adjusted for seasonal variation.

(Details of the computations for 2 months are shown in app. A.)

The three measures are close together: the 37.5-hour standard gives a ratio about one percentage point above the variable standard, with the 40-hour in between. Their trends are also identical. In months of high employment, such as July 1955 through July 1957, the measures reached 94 to 95 percent; at the other extreme, in the 1958 recession, they fell to 90 to 91 percent. Since January 1961, they have been running around 91 or 92 percent, and as of September showed no clear sign of improvement. Like the unemployment rate and other indicators, the percent of labor force time utilized shows that recovery from the 1957–58 recession was never complete. It also suggests that the present recession has been more moderate than the previous one, but that recovery in man-hours worked has not been so rapid.

Comparison with the official seasonally adjusted unemployment rate is made in chart 2. In order to facilitate the comparison, the index is shown in terms of percent of available labor force time lost through unemployment and part-time employment. With the exception of mid-1958, the patterns of the two measures are almost parallel; the discrepancy at that time probably reflects the fact that the seasonal adjustment of the unemployment rate is by four age-sex groups, while that of the time lost index is not. The difference between the two rates, shown at the bottom of the chart, increased during the 1958 and 1960 recession, but not until after each recession was several months old. Apparently, as man-hours lost were rising, man-hours provided by the economy for persons with jobs also were adversely affected, and the rate moved up more rapidly than the unemployment rate. There is no evidence in this limited period of years studied that the composite index is more sensitive at turning points in the cycle.

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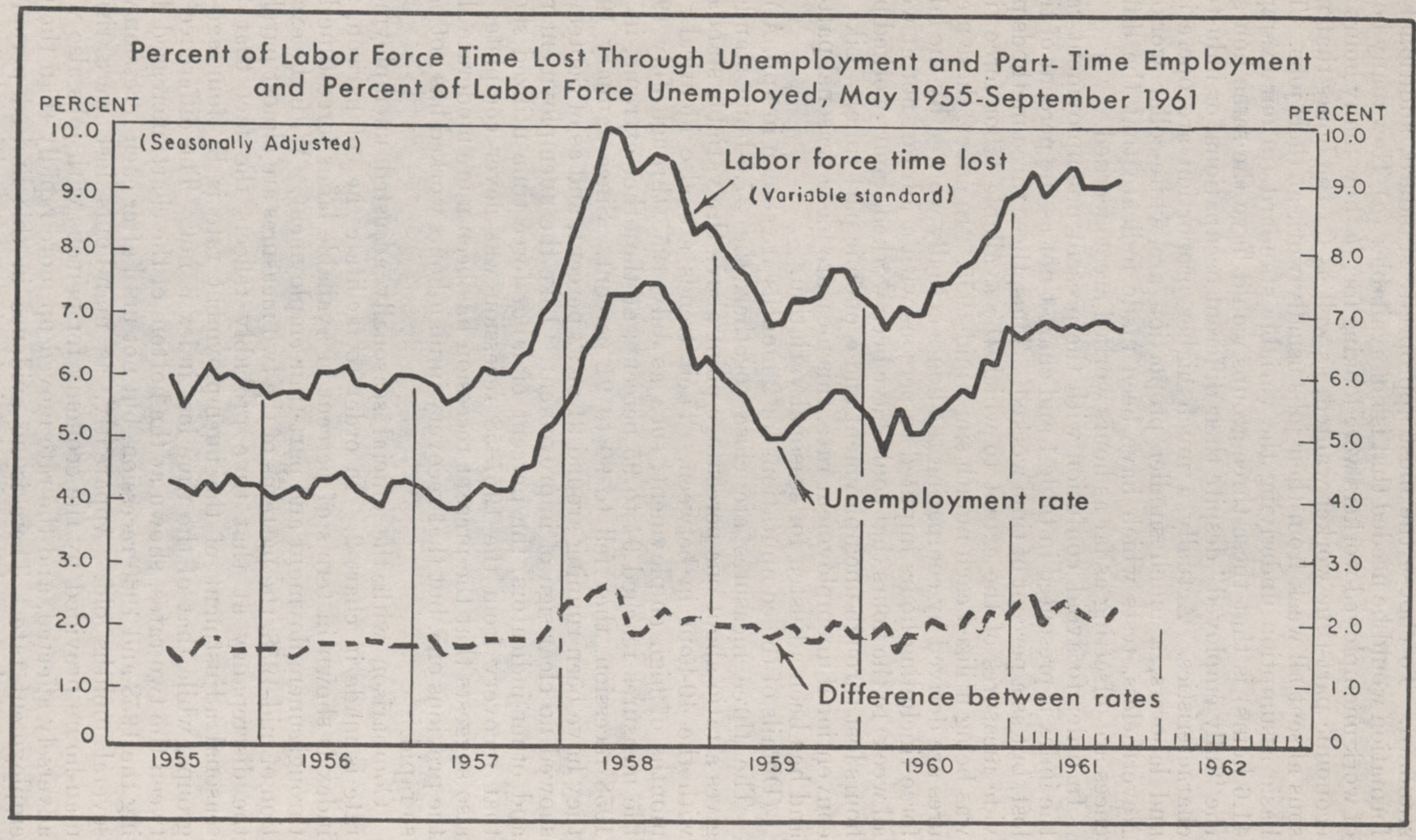
CHART 2


Percent of Labor Force Time Lost Through Unemployment and Part- Time Employment and Percent of Labor Force Unemployed, May 1955-September 1961
PERCENT
PERCENT
(Seasonally Adjusted)
Labor force time lost
(Variable standard)
Unemployment rate
Difference between rates
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0
1955
1956
1957
1958
1959
1960
1961
1962

OVERTIME VERSUS UNDERTIME WORK

It has sometimes been suggested that if time lost through involuntary part-time employment is to be measured, then account should also be taken of time worked above a standard number of hours. Two possible methods of computation are presented below:

One approach is to convert the whole labor force to a full-time equivalent basis. Hours worked, as well as hours lost, can be expressed in full-time equivalents by dividing total man-hours worked (or lost) by 37.5, or 40, or whatever standard is selected. For example, the figures for September 1961 show that there were 4,085,000 unemployed, 2,785,000 part-time workers for economic reasons, and 61,325,000 other persons at work. In addition, there were 2,928,000 employed persons away from their jobs all week. If 37.5 hours is assumed to be the standard workweek for full-time workers—the standard selected by the Joint Economic Committee for the computation of full-time equivalent unemployment—then the time lost because of unemployment and part-time employment amounted to the equivalent of 5,310,000 fully unemployed persons. On the same basis, total man-hours worked (2,719,077,000) can be divided by 37.5 to give the full-time equivalent number of employed persons, or 72,509,000. For the purpose of this calculation, the group absent from their jobs all week for noneconomic reasons were regarded as full-time workers, although some small proportion had part-time jobs.

The effect of converting the labor force to a full-time equivalent basis is shown in table 3. In terms of persons, unemployment affected 5.7 percent of the labor force, and part time for economic reasons, 3.9 percent, together 9.6 percent. The combined rate of unemployment and part-time employment, when converted to the full-time equivalent unemployment of hours lost, amounted to 6.8 percent of the full-time equivalent labor force.

TABLE 3.—*Actual and full-time equivalent labor force, September 1961*

	Actual labor force	Full-time equivalent labor force (assuming full time is 37.5 hours)
Total	71,123,000	77,819,000
Employed	67,038,000	72,509,000
Working part time for economic reasons	2,785,000	----------
All other employed	64,253,000	----------
Unemployed	4,085,000	5,310,000
Percent of labor force unemployed and employed part time	9.6	----------
Percent of full time equivalent labor force affected by unemployment and part-time employment	----------	6.8

Another way of looking at this problem is to measure the extent to which the hours of work provided by the economy would give a full workweek to everyone in the labor force, if hours worked beyond 40 were made available in the form of additional jobs or as additional hours for the underemployed. The substantial number of persons in the American labor force who work more than 40 hours is not generally realized. For example, in September 1961, 21,579,000 worked 41 hours or more, 3,071,000 in agriculture, and 18,508,000 in nonagricul-

tural industries. Not all of this time, of course, is overtime, in the sense of work at premium pay. A small proportion of these 40-plus workers are doubtless persons with more than one job, but annual surveys of multiple jobholders suggest that probably no more than 3 to 3.5 million are working more than 40 hours for this reason. The most recent report covering the month of December 1960 shows that there were 3 million holding more than one job, working, on the average, a combined 50 hours on both jobs, with but 11 hours on the second job.

Estimates of man-hours worked by those at work are compared in table 4 with the man-hours that would have been required, if everyone in the labor force worked 40 hours. Persons working part time for voluntary reasons are assumed to want the hours they actually worked rather than 40 hours in this calculation. An adjustment was also made for the fact that some proportion of the unemployed are looking for part-time jobs; this group, estimated at 10 percent, was assumed to want the average hours actually worked by regular, voluntary part-time workers that month. The ratio of hours worked to hours required (col. 3) ranges from 102.0 in October 1960 to 91.3 in July 1961, and 93.4 in July 1960. Part of the reason for the "deficit" in the month of July is the large number of persons on vacation all week; they do not work at all during the week, but are assumed to require 40 hours. It can be argued that the economy was operating at a level to provide work for these members of the labor force, had they chosen to stay on the job. If this is assumed, then the ratios in column 5 are valid, and show that the hours provided by the economy were sufficient or more than sufficient to meet the requirement of 40 hours per labor force member.

TABLE 4.—*Man-hours worked and man-hours required, for specified months*

[In thousands]

	Man-hours actually worked (1)	Man-hours required if each labor force member worked 40 hours (2)	Ratio of (1) to (2) (3)	Man-hours actually worked plus man-hours imputed to persons absent from job (4)	Ratio of (4) to (2) (5)
1960:					
January	2,467,000	2,513,489	98.2	2,560,720	101.9
April	2,563,032	2,553,628	100.4	2,652,752	103.9
July	2,560,297	2,740,602	93.4	2,851,937	104.1
October	2,669,340	2,616,643	102.0	2,751,860	105.2
1961:					
January	2,496,280	2,581,297	96.7	2,578,080	99.9
April	2,561,303	2,603,675	98.4	2,642,103	101.5
July	2,519,009	2,759,462	91.3	2,813,289	102.0

Some of the workers who put in more than a 40-hour week are in agriculture or are nonfarm self-employed, and are not strictly in the same competitive labor force as most of the unemployed and partially employed. In January 1961, for example, 41 million of the 280 million man-hours worked over 40 were contributed by agricultural workers and another 70 million were by nonfarm self-employed and unpaid family workers; in July, these amounts were somewhat higher.

(See table 5.) A more appropriate segment of hours to be balanced against the hours lost by the unemployed and partially employed is the hours over 40 worked by nonagricultural wage and salary workers; in both January and July 1961, estimated hours lost amounted to 277 million, while hours over 40 were 168 million.

TABLE 5.—*Man-hours balance sheet, January and July 1961*

	January	July
Man-hours lost by unemployed and economic part-time workers (assuming 40-hour standard)	276,994,000	276,917,000
Man-hours worked over 40	279,805,000	322,770,000
Worked by agricultural workers	41,189,000	78,866,000
Worked by nonagricultural workers	238,616,000	243,904,000
Wage and salary workers	168,241,000	168,676,000
Self-employed and unpaid family workers	70,375,000	75,228,000

This comparison of the time worked over 40 hours in relation to the time lost by the unemployed and the partially employed raises a number of questions. It would obviously be difficult to make available to the unemployed and the partially employed the total time now worked over 40 hours. Even if, by Government edict, all persons would be prohibited from working longer than 40 hours, the extent to which this step would increase job opportunities for the partially employed or the unemployed is problematical.

It should be noted that many workers in nonagricultural industries still have standard workweeks of more than 40 hours. The Fair Labor Standards Act extends only to workers in interstate commerce and many groups of workers are specifically excluded from its provisions. There is no legal requirement for the hours over 40 worked by these workers to be paid for at premium rates of pay. All self-employed workers, including farmers, are excluded from hours regulations.

RELATIVE RISK OF UNEMPLOYMENT

The suggestion has been made that the unemployment rate should be reweighted to reflect more adequately the relative risk of unemployment of various segments of the labor force. The total rate, which is most frequently quoted, shows the relationship between the number of unemployed and the total civilian labor force, including self-employed and unpaid family workers who, because they are working in their own or a family enterprise, are not as vulnerable to unemployment as are wage and salary workers. Many other rates, however, are published by the Bureau of Labor Statistics every month—rates for men and women in various age or marital status groups, and rates for various occupation and industry groups. A rate for experienced wage and salary workers is also published monthly; it runs a fraction of a percentage point above the total rate in the fall and winter months but during recent years has averaged out at the same level. For the purposes of this paper, a rate has been computed for wage and salary workers plus new workers (those unemployed who have never held a full-time job lasting 2 weeks or more). This rate, which excludes from both the numerator and denominator the self-employed and unpaid family workers, who constitute about 15 percent

of the labor force, is considered by some to be a more sensitive indicator of the course of unemployment from month to month and over the business cycle.

The rate for wage and salary workers plus new workers is shown on chart 3, seasonally adjusted, together with the rate for the whole labor force. Again, the trends and cyclical patterns of the two rates are almost identical. (Differences in the summer months are due to the composite age-sex seasonal adjustment of the total rate, a refinement that was not incorporated in the alternative rate.) On the average, the rate for wage and salary and new workers exceeded the conventional total rate by about 0.8 percentage points. The difference increases to 1.0 to 1.5 percentage points in recession months because the more sensitive rate rises somewhat faster.

A proposal to reweight the unemployment rate to reflect the uneven risk of unemployment of various occupation groups was also examined. In effect, of course, the unemployment rate as ordinarily computed does just that. Professional and technical workers, for example, who constitute about 10 percent of the experienced labor force, are seldom unemployed, and have about one-third as much weight in the numerator as they do in the denominator of the rate. Nonfarm laborers, on the other hand, make up 15 percent of the experienced unemployed, but constitute only about 6 percent of the labor force. Thus, they have a disproportionate weight in the rate because their risk of unemployment is high.

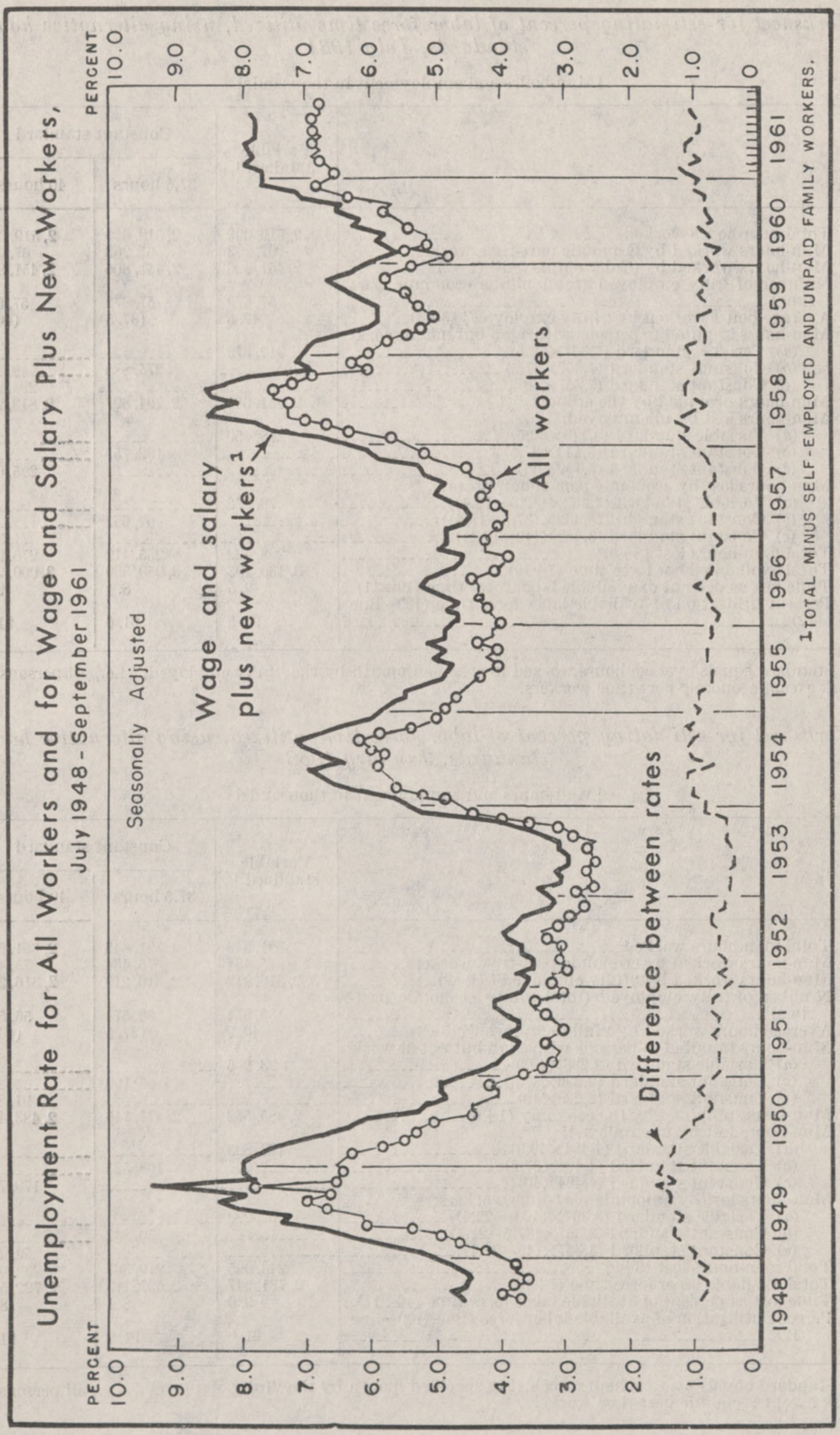
Analysis of the changes in unemployment rates by occupation groups leads to the conclusion that low-risk occupations feel the impact of business recessions in about the same proportions as high-risk occupations. A test was made, using the relationship that prevailed in 1957, a year of moderate unemployment. Ratios of the unemployment rate in each occupation group to that of professional and technical workers, a low-risk occupation, were computed. Using these same ratios for 1958 and 1960, hypothetical total unemployment rates were estimated as follows: The actual unemployment rate for professional and technical workers was used as a base, and the 1957 ratios applied to derive assumed rates for the other occupation groups. A new overall rate was then computed. The hypothetical rate for 1958 was 6.3 percent as compared with an actual 6.2 percent; for 1960 the hypothetical rate was 5.4 percent as compared with an actual 5 percent. The reason for the greater difference in 1960 was that the actual unemployment rate for some high-risk occupations—operatives, service workers, and nonfarm laborers—were not as high relative to that of professional workers as they had been in 1957, and that there were no offsetting changes in the other direction. There is no evidence from this test that the overall unemployment rate as now computed is too low because it fails to reflect adequately the differential risk of unemployment.

CHART 3

Unemployment Rate for All Workers and for Wage and Salary Workers, Plus New Workers

July 1948 - September 1961

Seasonally Adjusted



APPENDIX A

Worksheet for estimating percent of labor force time utilized, using alternative hours standards, July 1961

[Man-hours and employment in thousands]

	Variable standard [1]	Constant standard	
		37.5 hours	40 hours
1. Total man-hours worked	2,519,009	2,519,009	2,519,009
2. Man-hours worked by economic part-time workers	67,203	67,203	67,203
3. Man-hours worked by "fully employed" (1—2)	2,451,806	2,451,806	2,451,806
4. Number of fully employed (total minus economic part time)	57,679	57,679	57,679
5. Average hours worked by "fully employed" (3÷4)	42.5	(37.5)	(40.0)
6. Man-hours imputed to persons with a job but not at work:			
(*a*) Variable standard (7,357×42.5)	312,672	----------	----------
(*b*) Constant standard (7,357×37.5)	----------	275,888	----------
(*c*) Constant standard (7,357×40)	----------	----------	294,280
7. Man-hours provided by the economy (1+6)	2,831.681	2,794,897	2,813,289
8. Man-hours lost by unemployed:			
(*a*) Variable standard (5,140×42.5)	218,450	----------	----------
(*b*) Constant standard (5,140×37.5)	----------	192,750	----------
(*c*) Constant standard (5,140×40)	----------	----------	205,600
9. Man-hours lost by economic part-time workers:			
(*a*) Variable standard (3,462×(42.5—19.4))	79,972	----------	----------
(*b*) Constant standard (3,462×(37.5—19.4))	----------	62,662	----------
(*c*) Constant standard (3,462×(40—19.4))	----------	----------	71,317
10. Total man-hours lost (8+9)	298,422	255,412	276,917
11. Total available labor force time (7+10)	3,130,103	3,050,309	3,090,206
12. Time lost as percent of available labor force time (10÷11)	9.5	8.4	9.0
13. Percent utilization of available labor force time (100—line 12)	90.5	91.6	91.0

[1] Standard equals average hours worked in specified month by the "fully employed," i.e., all persons at work except economic part-time workers.

Worksheet for estimating percent of labor force time utilized, using alternative hours standards, January 1958

[Man-hours and employment in thousands]

	Variable standard [1]	Constant standard	
		37.5 hours	40 hours
1. Total man-hours worked	2,391,646	2,391,646	2,391,646
2. Man-hours worked by economic part-time workers	75,434	75,434	75,434
3. Man-hours worked by "fully employed" (1—2)	2,316,212	2,316,212	2,316,212
4. Number of fully employed (total minus economic part-time)	56,574	56,574	56,574
5. Average hours worked by "fully employed" (3÷4)	40.9	(37.5)	(40.0)
6. Man-hours imputed to persons with a job but not at work:			
(*a*) Variable standard (2,296×40.9)	93,906	----------	----------
(*b*) Constant standard (2,296×37.5)	----------	86,100	----------
(*c*) Constant standard (2,296×40)	----------	----------	91,840
7. Man-hours provided by the economy (1+6)	2,485,552	2.477,746	2,483,486
8. Man-hours lost by unemployed:			
(*a*) Variable standard (4,494×40.9)	183,805	----------	----------
(*b*) Constant standard (4,494×37.5)	----------	168,525	----------
(*c*) Constant standard (4,494×40)	----------	----------	179,760
9. Man-hours lost by economic part-time workers:			
(*a*) Variable standard (3,367×(40.9—22.4))	62,290	----------	----------
(*b*) Constant standard (3,367×(37.5—22.4))	----------	50,842	----------
(*c*) Constant standard (3,367×(40—22.4))	----------	----------	59,259
10. Total man-hours lost (8+9)	246,095	219,367	239,019
11. Total available labor force time (7+10)	2,731,647	2,697,113	2,722,505
12. Time lost as percent of available labor force time (10÷11)	9.0	8.1	8.8
13. Percent utilization of available labor force time (100—line 12)	91.0	91.9	91.2

[1] Standard equals average hours worked in specified month by the "fully employed," i.e., all persons at work except economic part-time workers.

UNEMPLOYMENT IN THE EARLY 1960's

UNEMPLOYMENT IN THE EARLY 1960's *

Introduction

Unemployment in the early 1960's is proving to be one of our most intractable domestic problems. This was apparent even before the most recent business cycle. In the first half of 1960, 2 full years after the 1958 recession, unemployment rates still had not returned to their prerecession levels. Although the economy was rebounding from one of the longest steel strikes in the Nation's history, the seasonally adjusted unemployment rate remained at 5 percent of the labor force as compared with an average rate of 4 percent during the period from mid-1955 to mid-1957.

Thus the recovery in unemployment from the 1958 recession was still incomplete when the fourth business downturn since World War II began around mid-1960. The rate of unemployment reached nearly 7 percent by yearend, and remained at this high level for the first 10 months of 1961 even though the recession reached its trough in February and most other economic indicators began moving upward shortly thereafter.

In terms of employment cutbacks and increases in unemployment, the 1960–61 recession was comparatively mild. However, unemployment started upward from an already high level so that, except for brief intervals in the recession years of 1949 and 1958, the 1961 rates of unemployment were the highest recorded since the early 1940's.

Of equal if not greater importance has been the persistence of these high rates. For the first time in the postwar period, unemployment has remained at its recession peak for nearly a full year. Moreover, the 1961 recovery period was the first in which unemployment showed no improvement for 8 months following the turning point in overall economic activity.

Because of the unusual behavior of unemployment in the 1960–61 business cycle, it was felt that a closer examination of the patterns in each of the four postwar recessions and recoveries might be illuminating. The results of this comparative study are presented in section I below.

The focus of sections II through IV is on the nature of unemployment that cannot be directly attributed to the business cycle. These sections represent an attempt to update and extend some of the findings of an earlier BLS study for the Joint Economic Committee, "The Extent and Nature of Frictional Unemployment," prepared in 1959. They deal in turn with the trend in unemployment from 1948 to 1960 prior to the onset of the recession; the extent and nature of seasonal unemployment; and some of the characteristics of the unemployed.

One major objective in studying past trends in employment and unemployment is to derive some idea of future prospects. Section V is devoted to the problem of forecasting unemployment rates over the short run, given the limitations of available data and the dynamic nature of the American economy.

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I. Unemployment in Four Postwar Business Cycles

A. Overall trends. 1. Introduction

During the 15 years since the end of World War II, there have been four cycles in business activity which have been mirrored by developments in employment, unemployment, and hours of work. In the recession phase of the cycle, unemployment tends to rise quite soon after the turning point in general economic activity. The rate of unemployment rises sharply as the recession deepens, and reaches its peak at about the same time the trough of the recession is reached. In the recovery phase, however, unemployment invariably remains at a recession peak for several months after an improvement in general economic conditions has been underway. In all phases of the cycle, changes in unemployment tend to lag behind changes in the factory workweek, factory employment, and industrial production.

In most respects, developments in the employment situation during 1960 and 1961 followed the usual cyclical pattern. Reductions in the factory workweek occurred early in 1960, closely followed by job cutbacks in hard goods manufacturing. In the early months of 1960, layoffs were concentrated in the steel and machinery industries, but gradually spread throughout manufacturing and to other industries as well. Despite these indications of a downturn, the cyclical peak in economic activity was not reached until May. The rate of unemployment moved up, irregularly but persistently, from May to December.

As usual, an early sign of recovery was the pickup in the factory workweek (seasonally adjusted) which began in January 1961. The index of industrial production turned upward in March and job totals in hard goods manufacturing began to mount by April. The gross national product rose sharply between the first and second quarters of 1961.

During the period from February to October 1961, while unemployment continued unchanged, nonfarm wage and salary employment rose by over 1 million more than seasonally (as measured either by payroll reports or by the labor force survey). It was expected that unemployment would reflect this pickup at some point, although perhaps only after a few months of continued lag at high levels. By the fall months, however, it was clear that the recovery in economic activity in general, and in employment specifically, was not sufficiently vigorous to reduce unemployment (apart from seasonal changes). In this respect, unemployment in the 1961 recovery has diverged sharply from its behavior in earlier cycles.

Table 1.—*Unemployment in 4 postwar business cycles*

[Seasonally adjusted]

Year and month	Number of unemployed (thousands)	Unemployment rate (percent of civilian labor force)	Year and month	Number of unemployed (thousands)	Unemployment rate (percent of civilian labor force)
November 1948	2,308	3.8	July 1957	2,843	4.2
September 1949 [1]	4,129	6.6	April 1958	4,998	7.3
June 1950	3,441	5.4	December 1958	4,318	6.3
July 1953	1,695	2.7	May 1960	3,567	5.1
August 1954	3,863	6.0	February 1961	4,891	6.8
April 1955	3,028	4.6	October 1961	4,831	6.8

[1] Trough was actually in October 1949 but the October figures were affected by occurrence of coal and steel strikes.

Note.—Dates shown represent peak and trough in business activity and 8 months after trough.

Although total payroll employment has virtually returned to its pre-recession level and the general pattern of recovery in employment and hours of work has been similar to that of past cycles, the pickup in a number of sectors has been relatively slow in 1961. On a seasonally adjusted basis, only about 300,000 workers have been added to payrolls in hard goods manufacturing industries since February, about the same as in the first 8 months of the 1958 recovery but appreciably less than in 1954–55 or 1949–50 (table 2). Gains in soft goods manufacturing and in construction have been negligible this year—about 80,000 for the 2 sectors combined as compared with 200,000 in 1958 and over 300,000 in the earlier recoveries. The weak job recovery in manufacturing and construction has been the principal reason for continued high levels of unemployment in 1961 long after the turning point in economic activity. Moreover, as in previous recovery periods, there were no significant job gains in either mining or transportation during 1961.

The only industry division to show stronger employment gains during the 1961 recovery than in previous cycles was government (mainly State and local) which advanced by 300,000. Altogether, over 60 percent of the increase in payroll employment since February 1961 has taken place in the growing sectors of the economy—government, trade, finance, other services, and among nonproduction workers in manufacturing. It is uncertain to what extent these gains reflected the absorption of previously unemployed workers. Except for trade, these sectors had shown continued growth right through the recession phase of the cycle, so that the increases since February probably represented the creation of new job opportunities, many of which were filled by high school and college graduates and women returning to the labor force. Employment did decline in trade during the downturn, but with the high rate of turnover and the relatively weak seniority arrangements in this industry, it is unlikely that the recovery in trade involved the widespread recall of workers dismissed during the downturn.

Many of the kinds of jobs available in trade, service, finance, and government require considerably different qualifications from the jobs eliminated in goods-producing industries. The service industries utilize a much higher proportion of women workers and most of the jobs require different kinds of education, training, and experience. These industries utilize a much smaller proportion of unskilled or semiskilled manual workers than do manufacturing, mining, or construction. It is doubtful, therefore, that many of those who lost industrial jobs during the recession were able to transfer readily to the expanding service-producing industries.

TABLE 2.—*Changes in nonfarm payroll employment in 4 business cycles*

[Seasonally adjusted; in thousands]

Year and month	Total	Manufacturing			Mining	Construction	Transportation and public utilities	Trade	Finance, insurance, and real estate	Service and miscellaneous	Government
		Total	Durables	Nondurables							
Number of workers:											
November 1948	45,138	15,534	8,311	7,223	1,008	2,219	4,181	9,339	1,840	5,248	5,769
September 1949 [1]	43,681	14,327	7,389	6,938	935	2,169	3.941	9,259	1,865	5,293	5,892
June 1950	45,049	15,157	8,071	7,086	934	2,328	4,016	9,368	1,917	5,389	5,940
July 1953	50,449	17,782	10,275	7,507	863	2,578	4,323	10,265	2,150	5,887	6,601
August 1954	48,738	16,018	8,884	7,134	780	2,597	4,055	10,226	2,237	6,044	6,795
April 1955	50,143	16,731	9,424	7,307	784	2,791	4,064	10,399	2,309	6,207	6,858
July 1957	53,077	17,240	9,902	7,338	833	2,923	4,252	10,922	2,483	6,772	7,652
April 1958	50,901	15,762	8,705	7,057	751	2,728	3,974	10,604	2,508	6,764	7,810
December 1958	52,092	16,197	9,032	7,165	749	2,831	3,954	10,858	2,538	6,922	8,043
May 1960	54,584	16,985	9,608	7,377	725	2,921	4,040	11,442	2,670	7,326	8,475
February 1961	53,485	15,962	8,797	7,165	667	2,765	3,922	11,296	2,731	7,460	8,682
October 1961	54,576	16,352	9,128	7,224	663	2,788	3,958	11,471	2,770	7,604	8,970
Net changes:											
November 1948 to September 1949	−1,457	−1,207	−922	−285	−73	−50	−240	−80	25	45	123
September 1949 to June 1950	1,368	830	682	148	−1	159	75	109	52	96	48
July 1953 to August 1954	−1,711	−1,764	−1,391	−373	−83	19	−268	−39	87	157	194
August 1954 to April 1955	1,405	713	540	173	4	194	9	173	72	163	63
July 1957 to April 1958	−2,176	−1,478	−1,197	−281	−82	−195	−278	−318	25	−8	158
April 1958 to December 1958	1,191	434	327	108	−2	103	−20	254	30	158	233
May 1960 to February 1961	−1,099	−1,023	−811	−212	−58	−156	−118	−146	61	134	207
February 1961 to October 1961	1,091	390	331	59	−4	23	36	175	39	144	288

[1] Trough actually was in October but the employment figures were strongly affected by coal and steel strikes in that month.

NOTE.—Dates shown represent peak and trough in business activity and 8 months after trough.

2. Labor force growth

One further reason for the continuing high level of unemployment in 1961 has been the pressure on the labor market exerted by the growing number of young people looking for jobs. Altogether, the labor force has expanded by more than 1 million between 1960 and 1961 (average levels), with well over half the increase among young persons under 25 years of age. The expansion of the labor force in 1961 was at a more rapid rate than in 1949, 1954, or 1958.

Actually, there had been a fairly substantial recovery in unemployment both in 1950 and 1955 despite growth in the labor force of over a million. However, the expansion in 1955 did not move into high gear until the second quarter of that year, a later stage in the recovery. Moreover, it may be significant that only in 1961 was there a sizable increase among young persons. On one hand, the college graduates, and to a lesser extent the high school graduates, tend to move readily into the white-collar jobs which are opening up and for which many of the unemployed are not qualified. On the other hand, the school dropouts swell the ranks of the unemployed, competing for a shrinking supply of unskilled and semiskilled jobs. Although they may be relatively inexperienced and untrained, these youngsters (especially the young men 18 to 24) are likely to be in the labor force on a year-round basis, and to be seeking permanent jobs.

TABLE 3.—*The civilian labor force by age and sex, annual averages, selected years*

[In millions]

Year	Total	14 to 19 years	20 to 24 years	Men, 25 years and over	Women, 25 years and over
1948	61.4	5.3	7.4	36.0	12.8
1949	62.1	5.1	7.3	36.3	13.3
1950	63.1	5.1	7.3	36.7	14.0
1953	63.8	4.8	5.5	38.3	15.2
1954	64.5	4.8	5.5	38.6	15.6
1955	65.8	4.9	5.7	38.9	16.4
1957	67.9	5.3	6.1	39.2	17.4
1958	68.6	5.3	6.3	39.3	17.8
1959	69.4	5.5	6.4	39.3	18.1
1960	70.6	5.8	6.7	39.5	18.6
1961 [1]	71.7	6.2	7.0	39.6	19.0

[1] 10-month average.

Unfortunately, it is extremely difficult to pinpoint the exact timing and magnitude of labor force increases during the various phases of the business cycle. The reason is that the monthly aggregates, and even the quarterly averages, are subject to fairly large fluctuations because of sampling variability and other temporary factors such as extremely bad weather. On a percentage basis, the sampling error in the estimates of the total civilian labor force is very small (about 0.4 percent of the level).[1] But the absolute amount of error on such large aggregates (over 70 million in 1961) is enough to make any precise cyclical analysis virtually impossible. For most analytical purposes, annual averages are highly satisfactory because they reduce

[1] This means that the chances are 2 out of 3 that the sample estimate would differ from a complete count (using the same procedures) by less than 0.4 percent.

the sampling variability considerably and smooth out erratic movements, but annual averages are too broad for cyclical analysis.

Moreover, there are no precise figures on the gross flows from outside the labor force into different types of employment, into unemployment, and between employment and unemployment during the course of the cycle. There is indirect evidence, however, that the movement from out of the labor force into unemployment was on the high side for a recession year, and partly offset a moderate decline in unemployment among hard goods factory workers. The data on unemployment of less than 5 weeks, which represent in effect new spells of unemployment of all types, lend some support to the hypothesis. From the recession trough in the first quarter of 1961, the level of new unemployment has come down by only 100,000. In 1958, it had fallen by 200,000 over a comparable period in the cycle; in 1954–55 and in 1949–50, it fell by 300,000–400,000. In addition, data presented later (see tables 7–10) show that while there has been some decline in unemployment among workers most severely affected by the recession (e.g., blue-collar workers, hard goods factory workers), unemployment rates have been holding up or even rising among groups that probably include higher proportions of reentrants to the labor market (e.g., clerical, sales, and service workers, workers last employed in trade and service industries).

3. Shifts in the composition of employment

There can be a certain amount of elasticity in nonfarm wage and salary employment during the business cycle as a result of shifts into and out of other types of employment. In the early stages of a recession, the displacement of industrial workers may be reflected in various forms of underemployment as well as in unemployment. For example, some of the workers displaced from their regular jobs may drift back to the farms they originally migrated from; other workers may undertake some marginal type of self-employment; still others may perform odd jobs for private families. Subsequently, as the recovery gets underway, these workers return to their regular, better-paying jobs. So nonfarm wage and salary employment can decline and recover without a commensurate change in unemployment because of these shifts into and out of marginal types of employment.

The data in table 4 below suggest that this kind of shifting into temporary, fill-in jobs, was not very pronounced in the three earlier postwar cycles. This is not to say that it did not occur in many individual cases, but only that the shift was not extensive enough to show up in the aggregate figures. In the 1960–61 cycle, however, there was a substantial increase in marginal types of employment—agriculture, domestic service, nonfarm self-employment, and unpaid family work—from the prerecession period to the recession trough in the first quarter of 1961. These sectors of employment were reduced sharply by the second quarter of 1961, coincident with a sizable gain in nonfarm payroll employment. In this respect, the 1960–61 cycle also diverged sharply from its predecessors.

As in the case of labor force growth, however, it is impossible to quantify the impact of employment redistribution. The difficulties are the same as those mentioned earlier: (1) the sampling error associated with quarterly changes, and (2) the absence of highly accurate gross flow data which would reveal the extent of shifting between one type of employment and another.

TABLE 4.—*Marginal types of employment in 4 business cycles*

[Seasonally adjusted quarterly averages; in millions]

Year and quarter	Total	Agriculture	Selected nonagricultural activities			
			Total	Private household service [1]	Self-employment	Unpaid family work
1948–50:						
4th quarter, 1948	16.3	8.1	8.2	1.7	6.1	0.4
4th quarter, 1949	16.1	7.5	8.6	1.9	6.3	.4
2d quarter, 1950	16.1	7.6	8.5	2.0	6.1	.4
1953–55:						
3d quarter, 1953	14.7	6.5	8.2	2.0	5.8	.4
3d quarter, 1954	14.7	6.5	8.2	1.9	5.9	.4
1st quarter, 1955	15.0	6.4	8.6	2.1	6.0	.5
1957–58:						
3d quarter, 1957	15.3	6.2	9.1	2.3	6.1	.7
2d quarter, 1958	15.0	5.8	9.2	2.5	6.1	.6
4th quarter, 1958	15.1	5.8	9.3	2.5	6.2	.6
1960–61:						
2d quarter, 1960	15.1	5.6	9.5	2.5	6.4	.6
1st quarter, 1961	15.8	5.8	10.0	2.7	6.6	.7
3d quarter, 1961	14.7	5.4	9.3	2.5	6.2	.6

[1] Mainly domestic service workers.

During the postwar period as a whole, these very sectors of employment—agriculture, domestic service, etc.—have shown rather erratic movements over the short run. Another consideration is that part of the first quarter 1961 increase in these groups appeared to reflect an abnormally large upsurge in the labor force rather than shifts in composition. Moreover, on the way into the recession, the decline in nonfarm wage and salary employment did seem to be reflected fully in increases in unemployment rather than in underemployment. For these reasons, we cannot attribute a great deal of significance to the movements in these sectors during 1961, but it is possible that they accounted for some of the rise in wage and salary employment during the recovery.

4. Seasonal adjustment

One perennial problem that besets almost any analysis of economic developments is the adequacy of seasonal adjustment. In recent years, the techniques for seasonal adjustment have been greatly refined and the extent of research in this area has been greatly extended, stimulated in part by the availability of electronic computers. Nevertheless, seasonal adjustment is at best an approximation based on the average of past experience. The seasonal pattern for the current year will generally differ somewhat from the average of past years.

In the case of unemployment, there are a number of factors that accentuate the general problem. First, the seasonal amplitude of unemployment is so large, ranging from approximately 120 percent of the annual average in February to 80 percent in October. Second, the cyclical amplitude is also relatively large. When both these influences converge, as they did in 1954, 1958, and 1961, the level of unemployment increases by more than 2 million in a span of 4 months. In 1954 and 1958, this represented an increase of more than 100 percent in the level of the series. A third problem is that the unemployment

estimates are subject to relatively large irregular movements, resulting from sampling variability and indirectly from temporary factors such as strikes, hurricanes, etc. Thus it is a formidable task to decompose the unemployment series in order to remove its seasonal component with absolute precision.

The method of seasonal adjustment used in the official series is a ratio method which includes many refinements, such as the separate adjustment of age-sex components. According to this method, the decline of 1.8 million in unemployment from February to October 1961 was just about seasonal (even though it was the largest absolute decline in the postwar period) because unemployment is expected to drop seasonally by one-third between those months regardless of the level in February.

The 1960–61 recession was the first in which the cyclical trough in the recession coincided with the seasonal peak in unemployment (February 1961). Moreover, the February 1961 level was the highest in nearly 20 years. Other methods of seasonal adjustment which have been proposed as possible alternatives to the official method (such as the residual method [2]) indicate that there has been a slight improvement from the first to the third quarter of 1961 on the order of 0.4 percent in the seasonally adjusted rate of unemployment, and about 300,000 in the level. These changes are just about on the borderline of statistical significance. Moreover, even this alternative method shows that we still had a very high rate of unemployment in the third quarter of 1961 (6.7 percent) and the only reason for the improvement was a somewhat higher seasonally adjusted rate in the first quarter of the year.

SUMMARY

The 1960–61 cycle has moved through its various phases in a fairly normal way except for the failure of unemployment to drop significantly even after 8 months of economic recovery. Although they cannot be quantified, there were at least three patterns during the latest cycle which differed significantly from earlier cycles and which might help to explain the unusual behavior of unemployment in 1961:

1. The pickup in payroll employment, although sufficient to restore it to May 1960 levels on an overall basis, was comparatively weak in manufacturing and construction which were the principal sectors from which the unemployed came early in the recession. Over three-fifths of the rise in payroll employment since February 1961 took place in sectors which have shown steady long-term growth—government, trade, finance, and other services—and which could not reasonably be expected to absorb any substantial proportion of the unemployed.

2. There was an unusually large growth in the labor force compared to other recent recovery periods, especially among young persons; they apparently filled many of the new job openings that opened up and also boosted the total number of jobseekers. Despite this growth, the labor force remains some half million short of its long-term growth trend, largely because of the greater-than-anticipated decline in the labor force participation of men 65 and over, and of women 25 to 34 years of age.

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[2] In this method, seasonally adjusted unemployment is the result of seasonally adjusted employment subtracted from seasonally adjusted civilian labor force.

3. There was an unusually large contracyclical increase in the more marginal sectors of employment (agriculture, domestic service, self-employment) in the first quarter of 1961. These groups increased sharply at the same time that nonfarm wage and salary employment reached its low point; they declined in the second quarter when wage and salary employment was rising. Thus there may have been some shifting into and out of temporary replacement jobs, accounting for some of the increase in payroll employment during 1961.

B. Characteristics of the unemployed in four business cycles

Some further insight into the behavior of unemployment during 1961 can be derived by examining the trends in the various characteristics of the unemployed in each of the four business cycles. The discussion below is based mainly on trends and patterns depicted by the seasonally adjusted quarterly averages, supplemented by seasonally adjusted monthly data.

1. The duration of unemployment

Monthly data show that short duration unemployment (1 to 4 weeks) rises in the early stages of a recession, reflecting a rise in the rate of new layoffs. The layoff rate levels off after just a few months of increases and short duration unemployment starts downward even before the trough in economic activity is reached. On the other hand, long-duration unemployment (15 weeks or longer) starts up later but it remains close to or even above its recession peak for several months after the trough in economic activity. This is because the reemployment of previously laid-off workers is one of the slowest developments during the recovery phase of the cycle.

When the 1960–61 downturn started, both short- and long-term unemployment were at relatively high levels, and neither rose as much as in previous cycles (table 5). At the same time, short-duration unemployment as a percent of the labor force did not come down as much as in previous cycles and long-term unemployment kept rising for a longer period after the trough in economic activity (5 months). From July to September, unemployment of 15 weeks or longer has improved more than seasonally while the level of new unemployment remained close to its recession high.

Whether one compares cyclical peaks, recession troughs, or recovery periods, it is clear that the uptrend in unemployment for the postwar period as a whole has been heavily concentrated in long-term unemployment.

TABLE 5.—*Short and long duration unemployment in 4 business cycles*

[Seasonally adjusted quarterly averages; in thousands]

Year and quarter	Short term (less than 5 weeks)			Long term (15 weeks and over)			Very long term (27 weeks and over)		
	Number	As a percent of—		Number	As a percent of—		Number	As a percent of—	
		Unemployment	Civilian labor force		Unemployment	Civilian labor force		Unemployment	Civilian labor force
1948–50:									
4th quarter, 1948	1,293	56.7	2.1	299	13.4	0.5	107	4.7	0.2
4th quarter, 1949	1,949	45.8	3.2	988	23.7	1.6	399	9.3	.6
2d quarter, 1950	1,554	43.5	2.4	902	25.1	1.4	429	11.9	.7
1953–55:									
3d quarter, 1953	1,096	63.2	1.7	178	10.4	.3	70	4.0	.1
3d quarter, 1954	1,670	43.9	2.6	995	26.4	1.5	400	10.4	.6
1st quarter, 1955	1,349	44.1	2.1	837	26.5	1.3	414	13.5	.6
1957–58:									
3d quarter, 1957	1,505	51.4	2.2	544	18.8	.8	231	7.9	.3
2d quarter, 1958	1,892	38.1	2.8	1,526	30.9	2.2	607	12.0	.9
4th quarter, 1958	1,688	38.7	2.5	1,587	36.0	2.3	831	18.9	1.2
1960–61:									
2d quarter, 1960	1,808	48.7	2.6	848	22.9	1.2	416	11.3	.6
1st quarter, 1961	2,020	41.9	2.8	1,412	28.8	2.0	686	14.0	1.0
3d quarter, 1961	1,897	38.8	2.7	1,635	33.7	2.3	894	18.5	1.3

2. The Negro worker

It has often been asserted that when business activity declines, the Negro worker is generally the first to be laid off, and when business activity picks up again he is the last to be rehired. The data on unemployment rates by color in four postwar business cycles do not entirely support the popular belief that the Negro is more adversely affected by recessions than is the white worker. The data invariably show a larger absolute rise in the unemployment rate for Negroes as the economy moves into a recession, but not necessarily a larger relative rise (table 6). In fact, in 1961 the rate for Negro male workers did not rise as sharply, on a percentage basis, as that for white workers; but it kept edging upward after the trough in February whereas that for white workers leveled off.

The Negro worker's unemployment rate has always been much higher than that of the white worker and it has remained so throughout the postwar period. Before the 1954 recession, the rate for Negro males was 67 percent higher than that for white males in the civilian labor force; after that recession, in 1955, Negro workers emerged with an unemployment rate about 130 percent higher and that differential has persisted until the present day. The trend for Negro women workers has been similar. Their unemployment rate in 1953 was 40 percent higher than that of white women labor force members; in the recovery in early 1955, it was 80 percent higher and that's where it stands today.

TABLE 6.—*Unemployment rates by color and sex in 4 business cycles*

[Seasonally adjusted quarterly averages]

Year and quarter	All workers	Male, white	Male, nonwhite	Female, white	Female, nonwhite
1948–50:					
4th quarter, 1948	3.7	3.2	5.4	3.2	4.8
4th quarter, 1949	6.8	6.2	11.6	5.6	9.1
2d quarter, 1950	5.7	4.9	9.2	5.0	7.7
1953–55:					
3d quarter, 1953	2.7	2.1	3.5	2.4	3.4
3d quarter, 1954	6.0	5.0	9.8	5.1	8.9
1st quarter, 1955	4.7	3.8	9.1	4.0	7.1
1957–58:					
3d quarter, 1957	4.3	3.7	8.5	4.3	8.0
2d quarter, 1958	7.3	6.5	14.8	6.6	11.3
4th quarter, 1958	6.4	5.7	13.5	5.8	10.2
1960–61:					
2d quarter, 1960	5.2	4.5	10.5	5.0	9.2
1st quarter, 1961	6.8	5.8	12.7	6.4	11.3
3d quarter, 1961	6.8	5.8	13.2	6.9	12.3

NOTE.—Pre-1957 rates by color based on old definitions of unemployment.

3. Age-sex patterns

On the way into a recession, men between the ages of 20 and 54 are most severely affected by rising unemployment. Similarly, these workers tend to show the sharpest decline in unemployment rates during recovery periods. There are at least two reasons for this: (1) The men in the prime working ages are more heavily concentrated in durable goods manufacturing and other recession-affected industries than are other workers, and (2) these men are nearly all year-round labor force members (except for a few college students and some totally disabled persons) whereas many younger workers, older men, and women workers have the option of leaving the labor force upon losing a job. The unemployment rates in these other groups do show a strong cyclical response, but they are not as sensitive as the rates for men in the central age groups 20 to 54.

In the second quarter of 1960, the unemployment rate for men and women in every age group was higher than in any previous cyclical peak during the postwar period (tables 7 and 8). In every group, the rates rose less than in other recessions. But during the recovery, with very few exceptions, there has been a more prolonged lag during 1961. In the third quarter of 1961, the unemployment rate of men in each age group was higher than in early 1950 or 1955 but about the same as in late 1958. Unemployment of women was even higher than in 1958.

On a quarterly average basis, the recovery for men 20 to 54 has been barely perceptible in 1961. On the basis of monthly data, it shows up a little more clearly, but it is a much weaker recovery than in any of the three previous cycles. This persistently high rate of unemployment for adult men, including family breadwinners, has been an important reason for the sluggishness in the seasonally adjusted unemployment rate in 1961.

TABLE 7.—*Unemployment rates for men, by age in 4 business cycles*

[Seasonally adjusted quarterly averages]

Year and quarter	Total	14 to 19	20 and over	Married wife present (all ages)	Detailed age groups [1]							
					16 and 17	18 and 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
1948–50:												
4th quarter, 1948	3.6	8.2	3.3	(2)	7.7	9.9	5.6	2.6	2.0	2.6	3.4	3.6
4th quarter, 1949	7.0	14.5	6.5	(2)	16.0	16.3	10.7	6.2	4.9	5.1	5.7	4.9
2d quarter, 1950	5.6	12.4	5.0	(2)	14.1	12.2	8.1	4.6	3.7	3.9	5.6	4.6
1953–55:												
3d quarter, 1953	2.6	7.1	2.2	(2)	8.0	6.5	2.9	1.7	1.6	1.8	2.6	1.7
3d quarter, 1954	5.8	12.9	5.3	(2)	15.0	13.9	10.4	5.0	4.3	4.4	4.4	4.8
1st quarter, 1955	4.6	11.3	4.2	3.0	11.0	11.8	7.7	3.7	3.4	3.1	4.1	3.9
1957–58:												
3d quarter, 1957	4.1	11.0	3.6	2.8	12.4	11.6	7.8	3.5	2.7	3.4	3.6	3.4
2d quarter, 1958	7.3	15.5	6.8	5.7	17.2	17.7	13.8	7.4	5.6	6.1	5.8	5.0
4th quarter, 1958	6.5	15.2	5.8	4.7	16.3	17.3	11.2	6.0	4.7	4.7	5.8	6.3
1960–61:												
2d quarter, 1960	5.1	14.3	4.3	3.4	16.0	14.3	8.3	4.4	3.6	3.8	4.4	4.1
1st quarter, 1961	6.6	15.9	5.8	4.8	17.9	17.1	10.8	5.9	4.8	5.1	5.4	4.8
3d quarter, 1961	6.6	14.8	5.9	4.7	18.0	15.6	10.9	5.7	4.7	4.8	6.7	6.1

[1] Pre-1957 data based on old definitions of unemployment.
[2] Not available.

TABLE 8.—*Unemployment rates for women, by age in 4 business cycles*

[Seasonally adjusted quarterly averages]

Year and quarter	Total	14 to 19	20 and over	Married, husband present (all ages) [1]
1948–50:				
4th quarter, 1948	4.0	6.9	3.6	(2)
4th quarter, 1949	6.5	12.3	5.8	(2)
2d quarter, 1950	5.9	10.9	5.3	(2)
1953–55:				
3d quarter, 1953	3.1	5.9	2.8	(2)
3d quarter, 1954	6.3	11.7	5.7	(2)
1st quarter, 1955	5.0	9.7	4.5	4.1
1957–58:				
3d quarter, 1957	4.7	10.2	4.1	4.5
2d quarter, 1958	7.2	13.1	6.6	7.2
4th quarter, 1958	6.4	12.6	5.7	6.1
1960–61:				
2d quarter, 1960	5.5	12.0	4.7	4.6
1st quarter, 1961	7.2	15.2	6.2	6.3
3d quarter, 1961	7.4	16.4	6.4	6.5

[1] Pre-1957 date based on old definitions of unemployment.
[2] Not available.

Men 55 years of age and over in the labor force have generally shown less of a cyclical rise in unemployment but have also taken longer to recover. Presumably, on the way into a downturn, they are better protected by seniority, but once they lose a job, they face more serious difficulties in finding another. In the 1961 recovery, the unemployment rate for men 55 to 64 actually continued to rise well after the bottom of the recession had been reached.

It has often been pointed out that older workers who lose jobs tend to remain unemployed longer than younger men. But it should also be recognized that, except in the depth of a recession, men between the ages of 55 and 64 also tend to have a higher rate of unemployment than men in the central age groups 25 to 54.

Unemployment rates are highest among young persons 16 to 19 years of age under all economic conditions. Moreover, there is some evidence that these young workers have fared even worse relative to adults in the more recent years than they did in the earlier postwar period. Concern for the future labor force position of these young persons revolves about two main developments: the vast increase in their numbers expected over the next few years, and the disappearance of the unskilled jobs that many of these youngsters (especially the school dropouts) used to fill. Nevertheless, although a great amount of attention has been focused on these problems, teenagers still account for only a relatively small part of the jobless total. In October 1961, less than one-fifth of all unemployed persons were under 20; less than 2 percent were under 16 years of age.

TABLE 9.—*Unemployment rates by selected major occupation group in 4 business cycles*

[Seasonally adjusted [1]]

Year and month	All workers	Clerical workers	Sales workers	Craftsmen and foremen	Operatives	Nonfarm laborers	Service workers except domestics
1948–50							
October 1948	3.6	2.0	3.1	3.0	3.9	7.0	5.1
October 1949	7.8	4.5	3.8	8.6	10.9	17.7	7.9
July 1950	5.1	3.2	3.5	4.6	6.6	9.4	6.8
1953–55							
July 1953	2.7	1.9	2.9	2.3	3.2	5.7	4.4
July 1954	5.8	3.1	3.4	5.1	7.9	12.1	5.9
April 1955	4.6	2.6	2.1	4.6	5.8	10.7	6.0
1957–58							
July 1957	4.2	2.9	2.3	3.9	6.3	9.8	5.4
April 1958	7.3	5.0	4.1	7.2	12.1	15.7	7.7
January 1959	6.0	3.6	4.3	5.9	9.0	13.6	6.9
1960–61							
April 1960	5.1	3.7	3.4	5.0	7.3	11.1	5.7
January 1961	6.6	3.9	4.4	6.6	10.3	15.8	6.7
October 1961	6.8	4.9	5.9	5.5	9.3	13.8	7.7

[1] Seasonally adjusted occupational data are available only for first month of each quarter.

NOTE.—Pre-1957 data for occupation groups based on old definitions of unemployment.

4. Occupational patterns

No occupation group is entirely immune from the effects of fluctuations in business activity. Each recession has seen some increase in the unemployment rate for all major nonfarm occupation groups (table 9). However, the business cycle affects the various groups unevenly. The sharpest impact is felt by semiskilled operatives, many of whom are production workers on factory assembly lines. Other blue-collar workers—the skilled craftsmen and foremen as well as the unskilled laborers—feel the effects of recession almost as strongly as the semiskilled worker. On the other hand, white-collar and service workers (with the possible exception of clerical workers) register a less-than-average increase in unemployment during recessions.

The 1960–61 recession followed the pattern described above except that, as noted earlier in the discussion of age groups, the rate of unemployment started from a higher level and did not rise as much.

During the recovery phase, there has been some improvement for all major groups of blue-collar workers. In fact, the drop in the rates for skilled craftsmen and unskilled laborers was about equal to or better than that registered in the 1954–55 and the 1958–59 recoveries. However, the drop in unemployment rates among semiskilled workers was comparatively small. At the same time, unemployment rates in clerical, sales, and service occupations rose substantially since the turning point in early 1961. In previous cycles, unemployment among such workers had shown some decline (or at worst a levelling off) during recovery periods.

The data for the postwar period as a whole are fairly consistent in showing a much lower rate for white-collar than for blue-collar workers. Within each of these broad groupings, the level of skill and responsibility is an important factor. The incidence of unemployment is higher among clerical and sales workers than among professional, technical, and managerial workers under any economic conditions. Similarly, among blue-collar workers, the unskilled always have the highest unemployment rate, the skilled craftsmen the lowest, and the semiskilled operatives are somewhere in between. Semiskilled operatives and clerical workers appear to have shown the largest relative increases in unemployment since 1948.

5. Industrial patterns

The data for industry groups show a similar pattern to that revealed by the occupation data. In an economic downturn, unemployment rates move upward in every industry group (table 10). The earliest and sharpest rise is shown by hard-goods factory workers. Following close behind in the timing and relative extent of layoffs are mine workers and transport workers; developments in both of these sectors are closely related to the situation in heavy manufacturing. And after cutbacks become more widespread throughout the durable goods industries, employment also slackens in soft goods manufacturing, construction, and trade. Least affected are such activities as finance, services, agriculture, and public administration, but even among workers in these industries, there is recession-induced unemployment. In the case of finance and services, there may actually be a reduction in the work force in some areas as unemployment compels many workers from primary industries to curtail their expenditures. This would be especially true in depressed areas and other important manufacturing centers. At the same time, the unemployment rates would be pushed up in tertiary industries because in a generally poor labor market, the many persons who quit their jobs or who reenter the labor force (and whose last employment was in finance, service, or public administration) would have greater difficulty in finding new jobs.

TABLE 10.—*Unemployment rates by industry groups in 4 business cycles*

[Seasonally adjusted quarterly averages]

Year and quarter	Agriculture	Mining	Construction	Manufacturing			Transportation and utilities	Wholesale and retail trade	Finance and service [1]	Public administration
				Total	Durable goods	Nondurable goods				
1948–50:										
4th quarter 1948	5.6	3.4	8.2	3.5	3.6	3.4	3.0	4.2	3.3	1.5
4th quarter 1948	8.0	[2] 22.7	13.6	8.0	8.5	7.6	6.6	6.5	5.2	3.3
2d quarter 1950	9.0	5.9	11.6	6.1	5.7	6.5	4.3	6.4	4.6	3.3
1953–55;										
3d quarter 1953	6.2	3.3	6.3	2.1	1.6	2.8	1.8	2.9	2.2	1.3
3d quarter 1954	8.4	16.0	11.3	6.7	6.9	6.4	5.2	5.9	3.9	2.4
1st quarter 1955	7.1	9.5	9.7	4.9	4.7	5.2	4.2	4.7	3.5	1.9
1957–58:										
3d quarter 1957	8.8	5.1	10.0	5.1	4.9	5.5	3.1	4.4	3.2	2.2
2d quarter 1958	12.2	13.5	14.6	10.1	11.5	8.2	6.7	7.2	4.3	3.4
4th quarter 1958	9.1	9.1	14.0	8.1	9.1	6.9	4.6	6.6	4.4	2.6
1960–61:										
2d quarter 1960	8.7	7.9	11.8	5.6	5.8	5.3	3.8	5.8	3.5	2.4
1st quarter 1961	9.2	12.1	14.1	8.5	9.7	7.1	5.1	6.7	4.6	2.6
3d quarter 1961	10.4	10.8	14.3	7.6	8.1	7.1	5.0	7.5	4.7	3.1

[1] Includes domestic service workers.
[2] Unemployment rate exaggerated by misclassification of some workers.

NOTE.—Data relate to experienced wage and salary workers. Pre-1957 data based on old definitions of unemployment.

The 1960–61 cycle began with job reductions in hard goods manufacturing (notably in the steel industry). Employment fell and unemployment rose after February 1960 and this trend continued for 1 full year. The seasonally adjusted unemployment rate for durable goods workers rose from 4.4 percent in February 1960 to 10.7 percent a year later and then came down to 7.5 percent by October 1961. These rates represented a rise from 450,000 to 1,050,000 and a subsequent drop to 750,000. (Of course, the movements in unemployment were smaller than the corresponding changes in employment because some of those who lost their jobs shifted to other industries or left the labor force altogether.) The recovery in hard goods has been a little slower than in previous cycles. And there has been a more widespread and pronounced lag in other industries, none of which had shown any signficant recovery in unemployment 8 months after the turning point, in contrast to the pattern in previous upturns.

6. Part-time employment

One early sign of trouble in the employment stuation is the reduction in hours of work. This is manifested in several ways: cutbacks in overtime and in the average factory workweek, and increases in the number of nonfarm workers on part time because of economic reasons. A particularly sensitive indicator is the number who are usually scheduled for full time but whose hours were reduced below 35 because of slack work, midweek layoffs, or other economic factors. This group began rising in the second quarter of 1960, reached its peak in the first quarter of 1961, and has since come down sharply (table 11). But in September 1961, it was still 1.2 million or about 200,000 above prerecession levels.

TABLE 11.—*Nonfarm workers on full- and part-time schedules in 2 business cycles*

[Seasonally adjusted quarterly averages, in thousands]

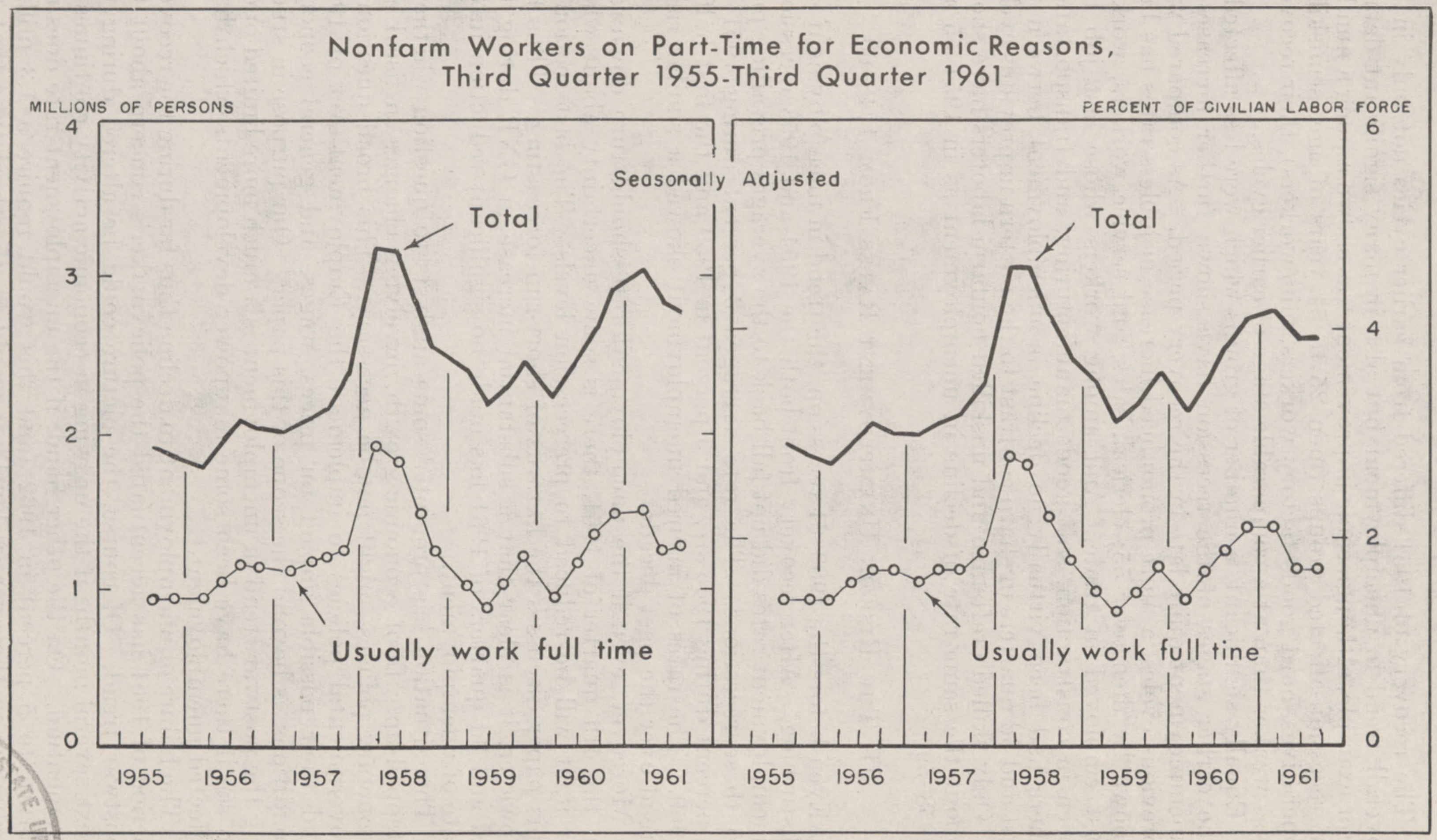
Year and quarter	On full-time schedules [1]	On part-time schedules [2]			
		Economic reasons			Noneconomic reasons, usually work part time
		Total	Usually work full time	Usually work part time	
1957–58:					
3d quarter, 1957	48,699	2,188	1,191	997	5,234
2d quarter, 1958	46,614	3,176	1,826	1,350	5,079
4th quarter, 1958	47,878	2,557	1,227	1,330	5,326
1960–61:					
2d quarter, 1960	49,804	2,455	1,178	1,277	5,875
1st quarter, 1961	49,103	3,056	1,513	1,543	6,063
3d quarter, 1961	49,400	2,784	1,251	1,533	6,263

[1] At work 35 hours or more during survey week plus those who usually work 35 hours or more but worked 1 to 34 hours because of noneconomic reasons (illness, bad weather, holiday, etc.).

[2] At work 1 to 34 hours during survey week for economic reasons plus those who usually work part time for noneconomic reasons.

After the 1958 recession (when these cutbacks to part time rose to much higher peak levels than in 1961), this group of part-time workers numbered about the same as in 1955 and 1956. On the other hand, there is another group of workers on part time for economic reasons—those who wanted full time but could find only part-time work—which rose in the 1958 recession and remained well above the pre-recession level even after recovery. This same pattern appears to be emerging in the 1960–61 cycle. In the 3d quarter of 1961, this group averaged 1.5 million as compared with 900,000 between mid-1955 and mid-1957 (chart 1). There is some indication that part of this rise reflects the downgrading of industrial workers who lost their jobs either in the 1958 or 1961 downturns and then could find only part-time work in some other industry or occupation. The composition of this group has changed so that it now includes relatively more family heads and other men in the prime working ages.

CHART 1



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SUMMARY

The recovery of 1961 differed from earlier cycles not only in the overall trend in unemployment but also in many significant details. For example, although some improvement was shown among a number of recession-affected groups (men 25 to 54 years of age, semiskilled operatives, hard goods factory workers, mineworkers), their recovery was weaker than at a comparable stage of earlier cycles.

Equally significant, a number of groups which were less affected in the earlier stages of the recession have shown further increases in unemployment quite late in the recovery period. As compared with previous cycles, a more pronounced increase in jobless rates has been shown by men over 55; clerical, sales, and service workers, workers last employed in trade. And among workers whose last job had been in construction, soft goods manufacturing, and transportation, there had been virtually no decline in unemployment between the 1st and 3d quarters in sharp contrast to the pattern in previous cycles.

Only skilled craftsmen and unskilled nonfarm laborers have shown about the same rate of decline in unemployment as in 1954–55 and 1958–59.

II. The Rise in Unemployment Rates From 1948–60

Even before the 1960–61 recession, the trend in unemployment was disturbing. After recovery from both the 1954 and 1958 recessions, unemployment rates did not fall back to the averages prevailing prior to these recessions. The rate averaged 3 percent during 1951–53, 4 percent during 1955–57, and 5 percent in 1959 and the first half of 1960. The rates of insured unemployment showed a similar rising trend over the past decade.

Moreover, even if the unemployment rate should turn downward in the 4th quarter of 1961, there is some uncertainty about when, or if, it will be reduced to prerecession levels. The last section of this paper discusses the hazards of short-run forecasting. Thus far, however, it is clear that a substantial increase in GNP during the 2d and 3d quarters of 1961 has made no significant reduction in the rate of unemployment.

This situation has prompted some analysts to question whether a stepped-up rate of economic growth, involving changes in fiscal and monetary policies, might not be necessary. This broad question of governmental policies to implement the Employment Act of 1946, and their possible impact on prices, wages, and general economic conditions, is beyond the scope of this paper. Our purpose in studying the postwar trend in unemployment is a much more limited one—to see if there have been some manpower developments which have affected unemployment.

The failure of unemployment to decline thus far during the recovery period of 1961 has accentuated the policymaker's concern about the postwar trend. Of course, the picture could be altered during the next several months if the upswing in economic activity continues its momentum. On the other hand, if the unemployment rate does not return to 5 percent in 1962 (and this would require a 1.3 million reduction in the average level), it would be the third time that unemployment emerged after a recession at a higher rate than it had been before, despite record levels of economic activity.

The question that is of particular concern is whether there has been an uptrend in "structural unemployment". As defined for purposes of this discussion, structural unemployment is that which arises from the permanent disappearance of existing jobs because of important changes in an entire industry. The kinds of changes that we have in mind here are those with far-reaching consequences and which transcend cyclical or seasonal developments in an industry. One of the most important of these changes is the widespread application of new technology to old processes, whereby fewer workers (or man-hours) are needed to produce the same output. Another important change is the long-range growth in consumer preferences for services and the relative decline in expenditures for commodities. There are also many examples of shifts in consumer tastes away from particular kinds of goods and services and in favor of others (e.g., witness the decline in railroad passenger service and the increase in air travel). Other basic changes that could be cited are the possible decline in an industry because of foreign competition, or the relocation of an industry in a different geographic area.

All of these developments can result in the displacement of workers from their previous jobs, and in many cases their loss of a job altogether, although these outcomes are not inevitable. Nevertheless, to the extent that job loss does occur, and to the extent that mobility of workers to other jobs is incomplete, the result is structural unemployment.

We generally think of structural unemployment as the result of declines in industries, occupations, and areas which were once thriving, and the inability of the workers involved to transfer to other jobs immediately without some period of unemployment. Experience has shown, in fact, that mobility may be exceedingly difficult and this type of unemployment may be of very long duration although this is not necessarily true in all cases.

Another aspect of structural unemployment is the disappearance of opportunities that once existed for workers who are entering the labor force or who lose or leave a job for various reasons. Although there may be no actual displacement, the net effect is a reduction in the number of jobs available, with a probable indirect result of more unemployment somewhere in the labor force. This problem may become acute as we move further into the 1960's with a vastly greater influx of young new workers into the labor market.

With the present state of our knowledge, it has proven impossible to measure structural unemployment directly. Some of the reasons for the difficulty are these:

(1) The effects of broad changes in an industry, such as the introduction of automated equipment, may not become apparent for several years and it may have effects far removed from the site of the innovation. For example, the market position of firms that could not automate may deteriorate.

(2) Displacement caused by changes in the pattern of labor demand may be absorbed by expansion elsewhere in the economy. So the level of structural unemployment may depend not only on the rates of displacement in declining sectors, or in more productive sectors, but also on the rates of growth of expanding industries and on the mobility of the workers affected.

(3) At any given time, such as in the fall of 1961, what may appear to be structural unemployment could disappear under the impetus of a sustained expansion in economic activity. It is difficult to draw the line between structural unemployment and cyclical unemployment, especially when the economy is on the rebound from a recession.

(4) Another serious problem is distinguishing between structural unemployment and that which might be attributed to insufficient economic growth. Perhaps this can be done only if and when the economy's output of goods and services has returned to its long-term trend line (growth had been relatively slow between 1956 and 1960).

(5) The way in which jobs are eliminated may obscure the underlying developments. For example, the size of the employed work force in a firm or an industry may be reduced by (*a*) not replacing workers who die, retire, or quit their jobs for personal reasons; (*b*) not calling back workers who had been laid off in a seasonal lull or during a downswing in business activity. Or, there may be no cutbacks but rather a failure to expand at previous rates, or a leveling off instead of growth. The net effect of all these developments is to reduce the number of job opportunities, but the effect may not become apparent for a long time. And it is exceedingly difficult to locate the workers originally displaced for structural reasons (much less those who would have taken the jobs that disappeared) in order to find out what happened to their employment status.

For these reasons, structural unemployment can be studied only indirectly, and the results of any investigation will probably leave a large degree of uncertainty as to the trend and extent of such unemployment.

It is generally accepted that a certain amount of structural unemployment will always be with us because our economy is always changing. The question that concerns many analysts is whether the pace of change has been speeded up to the point where adjustments by the labor force are increasingly difficult.

Our previous examination of the postwar trend in unemployment, undertaken as part of the 1959 study [3] for the Joint Economic Committee, was based on the period from 1948 to 1956. The main findings of that study were as follows:

(1) Between 1948 and 1956, the rate of unemployment rose by about 10 percent. It was assumed that cyclical unemployment was at a minimum in both those years, so that any increase was due to "structural" factors (broadly defined).

(2) Over this period, there was no increase in the rate at which new spells of unemployment were being generated, but there was a perceptible increase in the rate of continuing unemployment, most notably in long-term unemployment.

(3) Changes in the age-sex, industrial and occupational composition of the labor force had no significant impact on the overall rate of unemployment or on the average duration of unemployment.

(4) The unemployment rate actually rose in goods-producing industries (agriculture, mining, construction, manufacturing) from 4 percent to 5 percent, whereas it declined slightly in the service-producing industries.

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[3] Study Paper No. 6, "The Extent and Nature of Frictional Unemployment" (prepared by BLS for the Joint Economic Committee, 86th Cong., 1st sess., 1959, committee print).

(5) The reasons for the above changes are not entirely clear, but it is possible that the shift from goods to service-producing industries and occupations did not occur without some disequilibrium in labor resource allocation.

In this paper, an attempt will be made to update and extend some of these findings.

CHANGING COMPOSITION OF THE LABOR FORCE

One type of change that might be considered structural, the effects of which can be measured to some extent, is the changing composition of the labor force. This can come about because of changes in the composition of the population of working age and the changing rates of labor force participation within specific groups. The labor force has also shown considerable redistribution by occupation and industry since the early postwar period, as the needs of the economy have shifted. Some of the major changes in the composition of the work force have been (1) a relatively large and persistent increase in the proportion of middle age women and a decline in the proportion of 20 to 34 year olds (both sexes) and older men; (2) a shift from goods-producing to service-producing industries; (3) a shift from farm and other manual occupations to white-collar and service occupations. This story has been told in considerable detail in a number of reports issued by the Department of Labor.[4]

As noted in Study Paper No. 6, these broad changes in labor force composition did not, by themselves, have any significant effect on the overall rate of unemployment for the period 1948–56. In general, the various changes within the labor force tended to be offsetting with respect to unemployment. For example, increases among middle aged women were offset by declines among 20 to 24 year olds; the number of women workers added was much larger than the number of 20 to 24 year olds subtracted, but the latter have much higher unemployment rates.

Computations for the period 1957–60 (2d quarter averages) show much the same picture. Assuming that there were no changes in the 2d quarter 1957 unemployment rates within specific age-sex groups, and assuming that the actual labor force changes occurred, the increase in the overall unemployment rate would have been only 0.1 percent. The actual increase in the unemployment rate was 1.1 percentage points. Making the same assumptions for occupational and industrial groupings yields about the same results.

Thus it would seem that the redistribution of the labor force does not, by itself, result in significant increases in unemployment. However, the early postwar labor force data for occupations and industries are available only in terms of major groups. It is possible that if the computations could have been performed for very detailed groups, a more significant effect would have been shown. Moreover, redistribution by itself is only one limited facet of structural change in the economy and the results do not entirely disprove the case for increases in structural unemployment.

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[4] See, for example, "Manpower Challenge of the 1960's." (U.S. Department of Labor); "The Population and Labor Force Projections for the United States, 1965–75" (BLS Bull. 1242, 1959); and "Special Labor Force Report No. 14, The Labor Force and Employment in 1960," *Monthly Labor Review*, April 1961, pp. 344–354.)

The rate of change in the demand for labor

Another possibility that can be examined is whether the rates of change in the kinds of workers needed in the labor force have speeded up in recent years. If these processes occur too rapidly, it is possible that they would have a differential effect on the unemployment rates among the various industry and occupation groups.

In Study Paper No. 6, unemployment rates by occupation and industry were compared for 1948 and 1956 on an annual average basis. Any attempt to update that comparison runs into difficulty because (1) a large part of the years 1960 and 1961 were affected by the recession, (2) 1959 showed the residual effects of the 1958 recession and was also affected by the 4-month steel strike, (3) even considering only those parts of 1959 and 1960 not affected by recessions or strikes, the rate of overall economic growth since 1956 has been slower than from 1948 to 1956.

Nevertheless, although we cannot quantify the impact of structural changes as distinguished from the effects of insufficient economic growth, a review of the changes in employment and unemployment by occupation and industry from the second quarter 1956 to the second quarter 1960 still proves to be illuminating when compared with similar trends from 1948 to 1956.

Occupational trends

Throughout the postwar period, the occupational composition of the labor force and employment have been changing in the direction of white-collar and service jobs, away from blue-collar and farm jobs. During the period 1956–60,[5] there was an acceleration in the rate of change. Despite a slower rate of overall economic growth, the number of white-collar and service workers added to the labor force averaged 1.1 million a year as compared with 700,000 a year from 1948 to 1956 (table 12).[6] Moreover, this acceleration took place even with a slowdown in the rate of growth in the clerical occupations (table 13).[7] At the same time, the long-term decline in farm employment also speeded up because of gains in productivity, and in spite of a poorer nonfarm job market for those leaving rural areas.

In addition, there was a net drop in the number of blue-collar workers in the labor force, mostly among semiskilled operatives. This drop (averaging 50,000 a year) was not in line with long-term trends; in fact, it contrasted with an average annual gain of 180,000 from 1948 to 1956. As of now, we cannot say whether the blue-collar labor force will resume its previous rate of growth or whether the downtrend of recent years will persist.

Over the postwar period as a whole, there was no significant change in the unemployment rate for white-collar and service workers as a group, although there was a slight dip from 1948 to 1956 and a slight rise thereafter (table 14).

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[5] Prior to 1958, occupational statistics were available only for the first months of each quarter (January, April, July, and October). The discussion of occupational trends that follows relates to April 1948, 1956, and 1960.

[6] Because the figures in tables 11 through 16 are based on a single month or a single quarter, they should be taken as indicative of overall trends rather than as precise measurements.

[7] For a discussion of long-range trends in white-collar employment, see "White-Collar Employment, Part I—Trends and Structure," *Monthly Labor Review*, January 1961, pp. 11–18.

TABLE 12.—*Experienced civilian labor force, by major occupation group, April 1948, 1956, and 1960*

Occupation group	Number of persons (thousands)			Percent distribution			Average annual change	
	1948	1956	1960	1948	1956	1960	1948–56	1956–60
Total	60,381	66,371	69,456	100.0	100.0	100.0	748	771
White-collar and service	28,149	33,665	38,081	46.6	50.7	54.8	690	1,104
White-collar	21,854	25,829	29,302	36.2	38.9	42.2	497	868
Service	6,295	7,836	8,779	10.4	11.8	12.6	193	236
Manual	32,235	32,706	31,374	53.4	49.3	45.2	59	−333
Nonfarm blue-collar	24,928	26,354	26,151	41.3	39.7	37.7	178	−51
Farm	7,307	6,352	5,223	12.1	9.6	7.5	−119	−282

TABLE 13.—*Employment by major occupation group, April 1948, 1956, and 1960*

[Adjusted for new definitions]

Major occupation group	Number of persons (thousands)			Percent distribution			Average annual change	
	1948	1956	1960	1948	1956	1960	1948–56	1956–60
Total	58,079	63,800	66,159	100.0	100.0	100.0	715	590
White-collar and service	27,358	32,790	36,913	47.1	51.4	55.8	679	1,031
White collar	21,386	25,370	28,584	36.4	39.8	43.2	498	804
Professional	4,092	6,049	7,550	7.0	9.5	11.4	245	375
Managerial	6,365	6,283	6,960	11.0	9.8	10.5	−10	169
Clerical	7,323	9,041	9,652	12.6	14.2	14.6	215	153
Sales	3,606	3,997	4,422	6.2	6.3	6.7	49	106
Service	5,972	7,420	8,329	10.3	11.6	12.6	181	227
Domestic	1,799	2,136	2,182	3.1	3.3	3.3	42	12
Other	4,173	5,284	6,147	7.2	8.3	9.3	139	216
Manual	30,723	31,011	29,245	52.9	48.6	44.2	36	−442
Nonfarm blue collar	23,492	24,750	24,156	40.4	38.8	36.5	157	−149
Craftsmen	8,077	8,464	8,591	13.9	13.3	13.0	48	32
Operatives	12,173	12,793	11,995	21.0	20.1	18.1	78	−200
Laborers	3,242	3,493	3,570	5.6	5.5	5.4	31	19
Farm	7,231	6,261	5,089	12.5	9.8	7.7	−121	−293
Farmers	4,662	3,882	2,869	8.0	6.1	4.3	−98	−253
Farm laborers	2,569	2,379	2,220	4.4	3.7	3.4	−24	−40

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TABLE 14.—*Unemployment rates by major occupation group, April 1948, 1956, 1960*

[Adjusted for new definitions]

Major occupation group	1948	1956	1960	Average annual change	
				1948–56	1956–60
Total	4.0	4.1	5.2	0.01	0.28
White collar and service	2.7	2.6	3.1	−.01	.13
White collar	2.1	1.8	2.5	−.04	.18
Professional	1.8	1.2	1.5	−.08	.08
Managerial	1.1	.9	1.2	−.03	.08
Clerical	2.5	2.4	3.6	−.01	.30
Sales	3.3	2.9	3.4	−.05	.13
Service	5.0	5.3	5.1	.04	−.05
Manual	4.8	5.2	6.8	.05	.40
Nonfarm blue collar	5.9	6.1	7.6	.03	.38
Craftsmen	3.7	3.6	5.4	−.01	.45
Operatives	6.2	6.7	8.0	.06	.33
Laborers	9.7	9.7	11.4	-------	.43
Farm	1.0	1.4	2.6	.05	.30
Farmers	.2	.3	.3	.01	0
Farm laborers	2.5	3.3	5.4	.10	.53
Unemployment rate of manual workers as a percent of unemployment rate of white-collar and service workers	178	200	219	3	5

Among the individual occupation groups, clerical workers did show an increase (which occurred between 1956 and 1960), but changes for the other groups were not statistically significant. On the other hand, the unemployment rate for manual workers (farm and nonfarm) rose slightly between 1948 and 1956, and then moved up significantly between 1956 and 1960.

By 1960, the absolute difference between the unemployment rates for white-collar and service workers on the one hand, and manual workers on the other, was much larger than in the early postwar period. Moreover, the relative difference between them had also increased; in 1948, the rates for manual workers had been 80 percent higher, in 1956 they were twice as high and in 1960 they were 120 percent higher than for white-collar and service workers. The difference in 1960 would have been much larger except for a rise in unemployment among clerical workers, which may have been induced by a more extensive use of electronic computers and other labor-saving devices.

Industry trends

According to payroll employment data, the shift in the distribution of nonfarm wage and salary employees from goods-producing to service-producing industries also accelerated in the latter 1950's. These changes resulted both from a slackening in construction and manufacturing employment and from a more rapid advance in government and service employment (table 15). However, among the growing sectors of the economy, trade showed some slowdown in its employment uptrend after 1956.

The picture in unemployment by industry is a mixed one. In goods producing, the rate of unemployment moved up somewhat less on an annual average basis [7a] from 1948 to 1956 than from 1956 to 1960

[7a] Allowing for the fact that we are contrasting a 4-year period with an 8-year period.

(table 16). Unemployment in service-producing industries was virtually unchanged from 1948 to 1956, but it moved up moderately in the latter part of the decade. By 1960, the unemployment rate in goods-producing industries (excluding agriculture) was 2.6 percentage points higher than in service, whereas it had started out 1.1 percentage points higher in 1948. On a relative basis, unemployment was about 60 percent higher in goods than in services in 1956 and 1960, whereas it had been only 30 percent higher in 1948.

The industry data provide virtually no evidence of a further divergence in unemployment rates as between goods- and service-producing industries from 1956 to 1960. However, two limitations of these data should be kept in mind: (1) they are available only for relatively broad groupings of industries, (2) they relate to industry of *last* job; the former industrial worker whose manufacturing job disappeared, who took a poorer job, would be counted as an unemployed trade or service worker rather than as an unemployed factory worker.

The figures do seem to show a relative worsening of the unemployment situation for construction, transportation, and trade employees between 1956 and 1960.

TABLE 15.—*Nonfarm payroll employment, by industry division, 2d quarter 1948, 1956, and 1960*

Industry division	Numbers of employees			Percent distribution			Average annual change	
	1948	1956	1960	1948	1956	1960	1948–56	1956–60
Total	44,438	52,242	54,496	100.0	100.0	100.0	976	564
Goods producing	18,456	20,983	20,470	41.5	40.2	37.6	316	−128
Mining	971	826	723	2.2	1.6	1.3	−18	−26
Construction	2,157	3,030	2,933	4.9	5.8	5.4	109	−24
Manufacturing	15,328	17,127	16,814	34.5	32.8	30.9	225	−78
Durable goods	8,250	9,819	9,548	18.6	18.8	17.5	196	−68
Nondurable goods	7,078	7,308	7,266	15.9	14.0	13.3	29	−11
Service producing	25,982	31,259	34,026	58.5	59.8	62.4	660	692
Transportation	4,166	4,248	4,040	9.4	8.1	7.4	10	−52
Trade	9,115	10,744	11,376	20.5	20.6	20.9	204	158
Finance	1,831	2,426	2,674	4.1	4.6	4.9	74	62
Service	5,236	6,591	7,401	11.8	12.6	13.6	169	203
Government	5,634	7,250	8,535	12.7	13.9	15.7	202	321

Trends in the duration of unemployment

In relative terms, long-term unemployment (15 weeks and over) has risen more sharply than has short-term unemployment (1 to 4 weeks) during the postwar period. The increase in the overall rate of unemployment between 1948 and 1960 has been the result of longer spells of unemployment as well as the occurrence of more new spells of unemployment (see chart 2 and table 17).

CHART 2

Total, Short, and Long-Term Unemployment as Percent of Civilian Labor Force, Third Quarter 1948 - Third Quarter 1961

Seasonally Adjusted

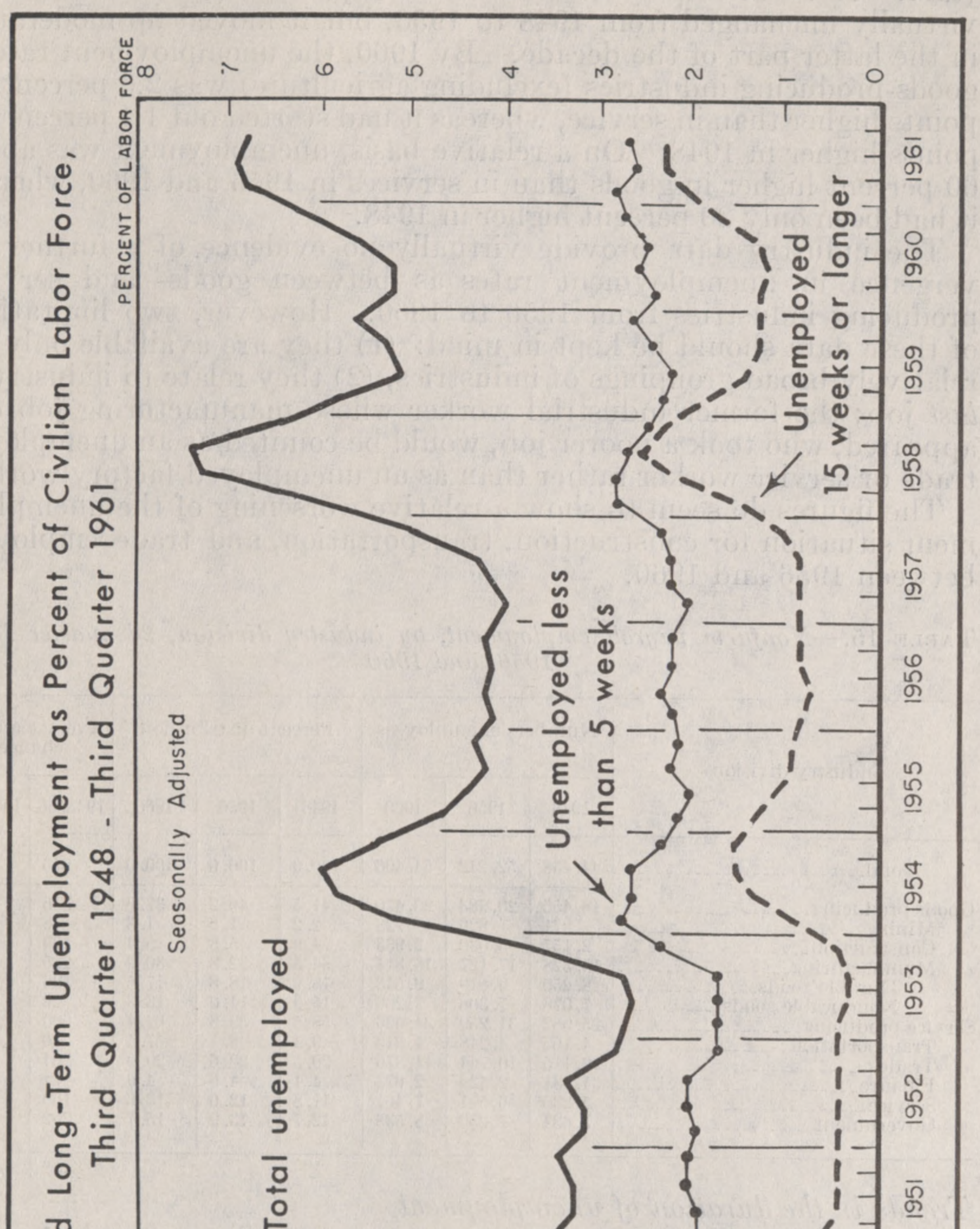

TABLE 16.—*Unemployment rates by major industry group, 2d quarter, 1948, 1956, and 1960*

[Experienced nonfarm wage and salary workers; adjusted for new definitions]

Major industry group	1948	1956	1960	Average annual change	
				1948–56	1956–60
Total	3.8	4.4	5.4	0.18	0.25
Goods producing	4.7	5.9	6.8	.15	.23
Mining	1.2	7.3	8.1	.76	.20
Construction	7.6	8.0	10.6	.05	.65
Manufacturing	4.4	5.4	5.9	.13	.13
Durable goods	4.3	5.0	5.9	.09	.23
Nondurable goods	4.6	5.9	5.8	.16	−.03
Service producing	3.6	3.5	4.2	−.01	.18
Transportation and utilities	3.8	2.6	3.7	−.15	.28
Wholesale and retail trade	4.4	4.5	5.9	.01	.35
Finance and service	3.1	3.6	3.5	.06	−.03
Public administration	1.9	1.2	2.3	−.09	.28
Unemployment rate in goods-producing industries as a percent of unemployment rate in service-producing industries	131.0	169.0	162.0	5.00	−2.00

Of particular significance has been a sharp rise in the rate of very long-term unemployment of 27 weeks or longer.[8] In nonrecession periods, the very long-term unemployed consist in high proportions of workers stranded in depressed areas and others previously employed in industries and occupations which have declined (coal mining, railroading, textiles, steel and autos in more recent years, and semiskilled and unskilled workers from other industries). The group also consists disproportionately of persons who generally have difficulty in obtaining employment, such as nonwhites and workers aged 45 and over. There is a strong presumption that many in the group had skills which became obsolescent and had jobs which disappeared altogether.

The size of the very long-term unemployed is considered to be especially important from a welfare standpoint, in terms of signaling the need for extended unemployment insurance benefits and improved training programs. From the standpoint of economic analysis, it provides at least a rough index of the trend in structural unemployment.

Again, we must remind ourselves that what may appear today as structural unemployment may disappear tomorrow with a strong upsurge in economic activity. The number out of work 6 months or longer came down between July and October 1961 from 1 million to about 700,000 and it seems probable that the group will be reduced further in the coming months. But in October it was still nearly twice its prerecession level. And in two previous postrecession periods, the level of very long-term unemployment remained higher than it had been before the recession.

The extent to which long-term unemployment is a problem of insufficient growth, and the extent to which it is a problem of worker mobility in a rapidly changing economy, should become clearer in

[8] "Long-Term Unemployment in the United States," *Monthly Labor Review*, June 1961, pp. 601–610.

1962. It may never be known precisely. The evidence we have shows that very long-term unemployment rose between 1956 and 1960 in just about every group in the labor force. However, disproportionately large increases were registered by unskilled nonfarm laborers and by nonwhite workers. In general, long-term unemployment rose more sharply in the blue-collar occupations and in the goods-producing industries.

TABLE 17.—*Duration of unemployment, 2d quarters 1948, 1956, 1960*

[Adjusted to new definitions]

Selected characteristics	As a percent of unemployed in each group			As a percent of labor force in each group			Average duration (weeks)
	1 to 4 weeks	15 weeks and over	27 weeks and over	1 to 4 weeks	15 weeks and over	27 weeks and over	
All workers:							
1948	58.2	16.1	5.1	2.2	0.6	0.2	8.3
1956	53.8	18.7	6.7	2.4	.9	.3	9.9
1960	50.9	25.5	11.3	2.8	1.4	.6	12.3
Construction:							
1956	49.8	28.4	7.4	4.0	2.3	.6	10.7
1960	41.4	37.3	12.9	4.4	3.9	1.4	14.8
Manufacturing:							
1956	44.0	23.0	7.4	2.4	1.2	.4	11.2
1960	43.6	27.3	11.8	2.6	1.6	.7	13.5
Trade:							
1956	53.9	19.1	6.4	2.4	.9	.3	9.3
1960	50.7	24.8	9.5	3.0	1.5	.6	11.5
Finance and service:							
1956	61.0	16.2	7.6	2.2	.6	.3	9.3
1960	58.1	19.4	9.9	2.1	.7	.4	10.4
Operatives:							
1956	39.5	24.7	8.1	2.6	1.6	.5	11.4
1960	45.5	32.7	11.3	3.7	2.6	.9	13.6
Nonfarm laborers:							
1956	41.9	25.3	4.6	4.0	2.4	.4	11.1
1960	44.8	33.8	17.7	4.8	4.8	2.0	18.3
Clerical workers:							
1956	50.9	23.1	11.1	1.2	.5	.3	12.0
1960	41.9	32.9	12.4	1.5	1.2	.4	13.5
Service workers:							
1956	48.9	20.8	11.7	2.7	1.1	.6	11.7
1960	43.6	29.7	16.3	2.5	1.7	.9	14.6
20- to 24-year-olds:							
1956	58.5	15.3	4.5	4.1	1.1	.3	8.1
1960	53.1	22.7	10.9	4.5	1.9	.9	11.3
45- to 64-year-olds:							
1956	35.4	31.1	15.8	1.1	.9	.5	16.4
1960	36.1	41.4	21.0	1.4	1.6	.8	19.4
Nonwhite workers:							
1956	48.5	20.1	6.3	4.0	1.7	.5	10.1
1960	46.4	30.5	14.4	4.6	3.0	1.4	14.7

The problem of mobility for adult men

The figures in table 18 point up the problem of mobility for adult men. Between 1956 and 1960, there was very little increase in their number in the civilian labor force. Within the labor force, there was a substantial net shift out of blue-collar and farm occupations and into white-collar jobs. However, there were not enough white-collar jobs for adult men displaced from blue-collar and farm jobs to prevent their unemployment rate from rising.

Mobility for adult men into the expanding sectors of the economy is not an easy matter even though the number of job vacancies may exceed the number of unemployed. These are some of the problems:

(1) Many of the new white-collar job openings are in the engineering and scientific fields where highly specialized and technical training is necessary.

(2) Many of the white-collar and service occupations which actually face a shortage of qualified workers are ones that have been traditionally staffed by women—teaching, nursing, secretarial work, domestic service. This does not mean that women are competing with men for the same jobs but rather that for a variety of reasons, such jobs are considered suitable only for women.

(3) Adult men may not be geographically, industrially, or occupationally mobile because of the ties they develop with particular communities and companies.

(4) Mobility is reduced because of discriminatory hiring practices on the basis of color or age.

One cannot say whether the problem of worker mobility from declining industries and occupations to expanding ones has become more difficult in recent years. Adult men were actually being absorbed into white-collar occupations at a faster rate between 1956 and 1960 than in the earlier postwar period. But at the same time, there was a net decline in the number of blue-collar jobs in contrast to a moderate increase between 1948 and 1956.

TABLE 18.—*Summary labor force data by age and sex, April 1948, 1956, and 1960*

Year	Civilian labor force	Employed	Unemployed	Employed, by occupation [1]				Employed, by industry [1]	
				White-collar	Service	Blue-collar	Farm	Goods producing	Service producing
Total (number of workers):									
1948	60,524	58,079	2,444	21,436	6,013	23,650	7,234	27,007	31,324
1956	66,555	63,799	2,755	25,406	7,451	24,871	6,263	27,482	36,508
1960	69,819	66,159	3,660	28,583	8,328	24,157	5,089	26,834	39,325
Average annual change:									
1948–56	754	715	39	496	180	153	−121	59	648
1956–60	816	590	226	794	219	−179	−294	−162	704
Men, 25 and over (number of workers):									
1948	35,871	34,753	1,118	11,480	2,140	16,276	4,980	18,004	16,871
1956	39,174	37,934	1,240	13,373	2,289	17,977	4,368	19,003	19,025
1960	39,427	37,772	1,655	14,694	2,419	17,207	3,455	18,465	19,307
Average annual change:									
1948–56	413	398	15	237	19	213	−77	125	87
1956–60	63	−41	104	330	33	−193	−228	−135	71

[1] Data for 1948 and 1956 not adjusted for new definitions.

SUMMARY

The rate of unemployment has been creeping upward during the postwar period. At 5.2 percent in the second quarter of 1960, the seasonally adjusted rate was the highest it had reached during any cyclical peak.

Increases in the rate were not directly the result of changes in the composition of the labor force, either by age and sex, occupation, or industry. This was true both from 1948 to 1956 and from 1957 to 1960. However, it appears likely that the occupational and industrial shifts may have generated some increases in unemployment rates because of the inability of some workers to be reabsorbed into other jobs immediately.

The employment data by occupation and industry show a very pronounced and continuing trend toward fewer jobs in agriculture, and fewer blue-collar jobs in manufacturing, mining, and transportation.

Added to this has been an apparent slowdown in the rate of growth in general clerical occupations, in the construction industry, and in trade. The most rapidly growing sectors have been the professional and technical occupations, the service occupations, and the service-producing industries (notably State and local governments; finance, insurance, and real estate; and other miscellaneous services).

Some of these trends have accelerated in recent years. Of course, the labor force is always in a process of adjustment to underlying structural changes. New workers will tend to train themselves for jobs in the sectors they know are expanding; and to some extent, experienced workers who lose industrial jobs gradually move into other lines of work.

However, the evidence for the period 1948–60 indicates that the adjustment has been less than perfect thus far. Moreover, the immediate future definitely portends a substantially greater influx of young persons into the labor force. In addition, it is possible that there will be a more rapid gain in productivity through wider applications of automation. So there is concern as to whether the necessary labor market adjustment can be accomplished without increases in unemployment.

We know that even now, while there are large numbers of jobless throughout the country, there are also a large number of job vacancies that cannot be filled because suitable candidates cannot be found. It is also obvious that the background, experience, and training of many of the long-term unemployed do not qualify them for the highly technical jobs which are opening up. There is a feeling that this kind of imbalance between labor supply and demand has become more rigid in the 1960's, and is contributing to high unemployment, but this is very difficult to demonstrate conclusively.

The rate of long-term unemployment rose between 1948 and 1956 and again between 1956 and 1960. It is estimated that if (1) the only change between 1948 and 1960 had been an increase in the rate at which new spells of unemployment were developing, and (2) people who became unemployed were finding jobs relatively as fast as they were in 1948, the overall rate of unemployment would have risen from 3.8 percent in the second quarter of 1948 to 4.8 percent in the second quarter of 1960. It actually rose from 3.8 to 5.4 percent of the labor force. So about two-fifths of the 1948–60 increase could be accounted for by longer duration of unemployment.

III. Seasonal Unemployment

Seasonal fluctuations in employment and labor market entry have long been recognized as important contributors to unemployment. The major seasonal developments that generate unemployment are (1) the cutbacks in outdoor work (principally construction and agriculture) which begin in November and last until February or March, and (2) the influx of students and other young jobseekers into the labor market in late spring and early summer. In addition, there are a number of other seasonal changes which have a smaller individual impact but add up to a significant amount of seasonal unemployment in the aggregate—the post-Christmas layoffs in trade; the postvacation reductions in summer resorts and other recreational activities;

the July vacation shutdowns throughout manufacturing; spring cutbacks in apparel production and the early fall shutdowns in the automobile industry for model changeovers, to mention a few.

THE MEASUREMENT OF SEASONAL UNEMPLOYMENT IN 1960

The procedure for estimating the proportion of seasonal to total unemployment in a given year was as follows:

1. The following industrial groupings of the unemployed were seasonally adjusted separately:

Wage and salary workers last employed in—

(1) Agriculture.
(2) Construction.
(3) Durable goods manufacturing.
(4) Nondurable goods manufacturing.
(5) Transportation, other public utilities, and mining.
(6) Wholesale and retail trade.
(7) Finance and services (including domestic service) and persons with no previous work experience.

2. For each of the eight groups, these steps were followed:

(1) For each month of 1960, subtract the seasonally adjusted series from the original series. This gives us a measure of seasonal unemployment (in absolute numbers) in relation to the annual average. Take the construction industry as an example.

Number of unemployed

[In thousands]

	January	February	March	April	May	June	July	August	September	October	November	December
Original series	689	644	743	507	398	348	368	367	296	329	468	637
Seasonal adjusted series	467	419	496	471	467	444	470	506	453	514	548	566
Difference	222	225	247	36	−69	−96	−102	−139	−157	−185	−80	71

For our purposes, we cannot deal with negative seasonality, so we proceed as follows:

(2) Identify the month of minimum seasonal unemployment which, according to the seasonal adjustment factors, would be October for the construction industry. Seasonal unemployment in that month is assumed to be zero.

(3) Compare January, February, March, etc., with the month in which seasonal unemployment is zero (October), in terms of the computations in step 1. The difference between January and October is considered to be the amount of seasonal unemployment in January.

Continuing with the construction industry as an example, seasonal unemployment would be estimated as follows:

January	407	July	83
February	410	August	46
March	432	September	28
April	221	October	0
May	116	November	105
June	89	December	256

(4) To obtain the estimated amount of seasonal unemployment for the entire labor force, cumulate the separate estimates for each industry group and those who never worked. This figure is divided by the cumulation of the number of unemployed in each of the 12 months. In 1960, the result was 21 percent.

The estimate of seasonal unemployment obtained in this way is probably understated for two reasons:

(*a*) There are probably some workers who are seasonally unemployed even in the month of minimum seasonal unemployment.

(*b*) Within the broad industry groupings for which data are available, there are undoubtedly offsetting seasonal movements which cannot be detected. That is, some specific industries may be in a seasonal lull while others are in a seasonal pickup.

Nevertheless, the approach described above provides a great deal of information about seasonal patterns in unemployment even though the estimates may not be entirely precise.

SEASONAL PATTERNS IN 1960

Altogether, seasonal unemployment amounted to about one-fifth of the jobless total in 1960. However, among construction and farm wage workers, and among new labor market entrants with no previous work experience, over a third of all unemployment could be characterized as seasonal (table 19). Groups with relatively small proportions of seasonal unemployment were hard goods factory workers and those workers previously employed in trade, finance and service. The ratio of seasonal to total unemployment was about 10 to 15 percent for these workers.

TABLE 19.—*Seasonal unemployment as a percent of total unemployment, by industry of last full-time job: 1960*

Total [1]	21
Experienced wage and salary workers [1]	19
Agriculture	37
Construction	38
Manufacturing:	
Durable goods	15
Nondurable goods	19
Transportation and other utilities	21
Wholesale and retail trade	11
Finance and service	11
No previous work experience	35

[1] Excludes self-employed and unpaid family workers, and workers in public administrations, for whom no measurement of seasonality in unemployment is available.

NOTE.—Because of changes in definitions, the addition of later data, and revisions in the basic seasonal adjustment procedure, these figures are not comparable with those published in study paper No. 6.

Durable goods manufacturing is relatively little affected by bad weather; there are vacation shutdowns, layoffs for model changeover, and other seasonal influences but the overall amplitude of seasonal variation is small. Trade and service employ a great many seasonal workers, but a large proportion of them are women and teenagers who withdraw from the labor force without seeking other jobs once their seasonal employment is terminated.

1. Farm and construction workers

These workers accounted for about 30 percent of all seasonal unemployment in 1960, and about 40 percent of that among experienced wage and salary workers (table 20). Seasonal unemployment among these outdoor workers was at a peak in the 1st quarter when it was about 50 percent above the annual average. It dropped sharply in April and May, and eventually reached a low for the year in early fall before turning up again sharply in November (table 21). From January through March, these workers accounted for about 40 percent of all seasonal unemployment on the average; but from June through October, they accounted for about 10 percent.

2. Factory workers

Changes in the number of unemployed workers whose last job was in manufacturing also shows a definite seasonal movement but it is much less sharp than among outdoor workers. Altogether, factory workers accounted for 23 percent of seasonal unemployment in 1960 but, unlike outdoor workers, they represented an even higher proportion of nonseasonal unemployment (31 percent).

TABLE 20.—*Distribution of seasonal and nonseasonal unemployment by industry of last full-time job: 1960*

Industry	Seasonal	Nonseasonal
ALL WORKERS		
Total [1]	100	100
Experienced wage and salary workers [1]	80	90
Agriculture	8	4
Construction	23	10
Manufacturing:		
Durable goods	12	18
Nondurable goods	11	13
Transportation and other utilities	7	7
Wholesale and retail trade	9	19
Finance and service	10	18
No previous work experience	20	10
EXCLUDING THOSE WITH NO PREVIOUS WORK EXPERIENCE		
Experienced wage and salary workers [1]	100	100
Agriculture	10	4
Construction	29	11
Manufacturing:		
Durable goods	15	20
Nondurable goods	14	15
Transportation and other utilities	9	8
Wholesale and retail trade	11	22
Finance and service	12	20

[1] See footnote 1, table 19.

NOTE.—See note, table 19.

Seasonal unemployment in the durable goods sector was generally at a seasonal peak from January to April 1960, about two-thirds above the annual average. It moved down in May and June but turned up slightly in July and August because of plant-wide vacation shutdowns and layoffs during the model changeover period (mainly in automobiles). It reached a low for the year in October and November and then began to move up again. The seasonal patterns in transportation, utilities and mining closely resembled those in hard goods.

Soft goods seasonal unemployment, on the other hand, remained above the annual rate from January through July and showed relatively little variation during that period. It dropped sharply between July and August and remained at a low level until November.

3. Trade and service workers

These workers also accounted for a relatively small proportion of seasonal unemployment (19 percent as compared with 37 percent of nonseasonal in 1960). Unemployment in trade was at a peak in the early winter because of post-Christmas layoffs and a general letdown in activity. In January and February, trade accounted for 15 percent of all seasonal unemployment, but its proportion diminished thereafter.

Seasonal unemployment of workers last employed in trade moved down steadily from February through May, jumped back up in June with the reentry of students and other young jobseekers (some of whom held jobs in trade at some time during the school year or the previous summer vacation) and then moved down to a low point in the September–December period. There was a little rise in November as housewives and students sought sales jobs for the Christmas season.

The patterns in finance and service activities were much less clear cut. Seasonal unemployment was high in the summertime, again probably reflecting the influx of many reentrants into the labor force. It was generally below the annual average from September through December.

TABLE 21.—*Total and seasonal unemployment in 1960*

[In thousands]

Industry	January	February	March	April	May	June	July	August	September	October	November	December	Annual average
Total unemployment [1]	3,893	3,680	3,963	3,486	3,278	4,237	3,835	3,624	3,220	3,393	3,817	4,269	3,724
Estimated seasonal [1]	1,220	1,210	1,241	849	695	1,405	1,004	589	230	112	359	615	788
Percent seasonal to total	31.3	32.9	31.3	24.4	21.2	33.2	26.2	16.3	7.1	3.3	9.4	14.4	21.2
INDUSTRY DIVISION													
Total estimated seasonal [1]	100	100	100	100	100	100	100	100	100	100	100	100	100
Agriculture	10	9	9	6	3	3	5	8	4	----	12	20	8
Construction	33	34	35	26	17	6	8	8	12	----	29	42	23
Manufacturing	26	23	25	34	34	15	22	22	17	4	15	24	23
Durables	12	12	15	19	17	5	10	18	17	----	----	13	12
Nondurables	14	11	10	15	17	10	12	4	----	4	15	11	11
Transportation, utilities, and mining	9	10	9	8	6	3	5	7	6	----	4	6	7
Wholesale and retail trade	15	15	13	11	7	8	7	5	----	----	9	----	9
Service and finance, including private household	5	9	9	5	3	13	12	17	17	24	13	4	9
No previous work experience	----	----	2	10	31	51	41	33	44	72	18	5	20

[1] See footnote 1, table 19.

NOTE.—See note, table 19.

4. New workers

Since these are chiefly youngsters coming out of school in search of jobs for the summer vacation period, their number was negligible during the first quarter. The number built up during April and May and then reached a peak in June, more than four times as high as the 1960 annual average. In June, new workers accounted for half of all seasonal unemployment. Their number declined in July but remained quite high as compared with any month but June. New jobseekers declined very sharply in August, moderately in September, and gradually thereafter; the 1960 low point was reached in January and February.

SUMMARY

Among experienced workers. seasonal unemployment was at a peak in the first quarter of 1960 in several major industry divisions—agriculture, construction, transportation, and trade. Altogether, seasonal unemployment represented one-third of the total in the first quarter.

Seasonal improvement occurred in most industries in April and May but this was offset slightly by the influx of some new workers into the labor force. Seasonal unemployment represented less than one-fourth the jobless total in these spring months.

Seasonal unemployment shot up in June, again reaching a third of the jobless total, with the labor force entry of new workers and the reentry of those who had some previous work experience (mostly in trade, service, and agriculture).

Seasonal unemployment dipped in July to one-fourth the jobless total as some new workers found employment and then fell very sharply in August (to one-sixth) as these young jobseekers either got jobs or withdrew from the labor force in large numbers. Among experienced workers, unemployment of hard-goods factory workers was higher in July and August than in June because of seasonal shutdowns.

Every sector showed seasonal improvement between August and September and in most groups, the low point was reached in September or October. In early fall, there are several factors favorable to minimum seasonal unemployment:

(*a*) There are relatively few students and other young persons seeking jobs; moreover, employees of the school systems are back at work.

(*b*) Plants previously closed for vacations or model change are reopened.

(*c*) The spurt in auto production is felt in steel, fabricated metals, and other industries.

(*d*) Activity generally picks up in trade and services after Labor Day and before the Christmas holidays.

(*e*) Outdoor activities are still in full swing.

By November, seasonal unemployment was raised by the start of cutbacks in outdoor activities and by the entry of some seasonal workers in search of trade jobs. In December, seasonal unemployment was back up to 14 percent of the total as layoffs of outdoor workers accelerated, and there was slightly more joblessness in manufacturing and transportation. The cycle started all over again with a much sharper increase in seasonal unemployment in nearly all industry divisions in January.

IV. Some Characteristics of the Unemployed

Each month the Department of Labor publishes a wealth of statistics about the Nation's labor force. Included are many details about the personal and economic characteristics of the unemployed—their age, sex, color, marital status, occupation, and industry of previous employment. To some degree, these characteristics are also cross-classified by duration of unemployment.

One major purpose for issuing these details is to permit a more realistic assessment of unemployment as a problem. The definitions used in measuring unemployment allow for the inclusion of many different kinds of people, so that the total group is inevitably quite heterogeneous. Therefore we need to know a good deal about the characteristics of the unemployed in order to evaluate the seriousness of the problem and in order to devise effective programs to combat it.

A. TEENAGERS, MARRIED WOMEN, AND OLDER MEN AMONG THE UNEMPLOYED

When we actually set about the task of disaggregating the unemployed on the basis of their characteristics, we find that we still do not have any direct information on a regular monthly basis about (1) the strength of their labor force attachment, and (2) their financial needs and resources. (These considerations have no place in the official definition of unemployment, which is essentially a measure of the immediate demand for jobs, but they may be important for policy purposes.) In the absence of such information, it is often assumed that the jobseeking efforts of teenagers, married women, and older semiretired people are of secondary importance because (1) they are not regular labor force members and are mainly looking for only part time or temporary jobs which the Government has no responsibility to provide, and (2) they either have limited financial responsibilities or have little need for employment because they have other resources available. Thus these groups are sometimes referred to as fringe workers.

Whether or not these assumptions are accepted, however, the policymaker is entitled to raise at least two questions: (1) How does the inclusion or exclus on of these groups affect the trends in unemployment; and (2) are there at least some objective data pertaining to their labor force attachment, needs, and resources?

To help answer the first question, the data in table 22 show the unemployment levels and rates with and without the teenagers, married women, and older workers for March or April of each year from 1949 to 1961. The trends in the rates are almost exactly the same on either basis; the levels of the rates are only slightly lower without these so-called fringe workers (by about 0.4 percent on the average). These fringe groups account for between 30 and 40 percent of the unemployed (depending on economic conditions in the particular year) but they also account for over 30 percent of the employed and the civilian labor force. Moreover, the fringe groups show about the same general trend in unemployment shown by the other groups.

Thus we can safely conclude that the inclusion or exclusion of married women, teenagers, and persons over 65 makes virtually no difference with respect to the evaluation of the seriousness of un-

employment. Reducing the present level of unemployment by excluding these groups would not change the basic fact that unemployment in 1961 was almost twice as high as it was 4 or 5 years ago, since, in any such comparisons, these fringe workers would also have to be subtracted from the figures for the earlier years.

TABLE 22.—*Unemployment levels and rates, including and excluding fringe workers: 1949–61*

Year	Number of unemployed (thousands)					Unemployment rate	
	Total	Fringe workers			All others	Total	Excluding fringe workers [2]
		Teenagers	Married women [1]	Persons 65 and over			
1949	3,016	453	322	138	2,103	5.0	4.6
1950	4,123	545	512	164	2,902	6.7	6.3
1951	1,744	263	336	97	1,048	2.8	2.3
1952	1,612	276	266	106	964	2.6	2.1
1953	1,582	242	236	74	1,030	2.5	2.2
1954	3,465	469	535	142	2,319	5.4	5.0
1955	2,962	366	402	102	2,092	4.6	4.5
1956	2,834	433	450	97	1,854	4.3	3.9
1957	2,882	497	493	127	1,765	4.3	3.7
1958	5,198	603	833	164	3,598	7.7	7.5
1959	4,362	606	689	158	2,909	6.4	6.0
1960	4,206	698	666	154	2,688	6.1	5.6
1961	5,495	827	929	181	3,558	7.7	7.2

[1] Includes a relatively small number of teenagers and persons over 65.
[2] Excludes fringe workers from the labor force base as well as from the unemployed.

NOTE.—Data relate to March or April of each year. For the years 1949–56, they are based on the old definitions of unemployment.

The second question is much more complicated. In the final analysis, the weight that is given to the unemployment of teenagers, married women, and older people is a matter of attitude and judgment. But there are a number of facts about the characteristics of these workers which provide some perspective on the meaning of their unemployment. In the aggregate, these facts seem to add up to a pattern of firmer labor force attachment and stronger need for employment than might at first be supposed.

1. Teenagers

It can certainly be assumed that teenagers do not have the same level of responsibility as family heads. Except for a small minority, they have no dependents, do not own homes, and do not have heavy financial burdens. Nevertheless, they may still have a strong need for earnings either to continue their education, to contribute to the support of the household, or even to support themselves. In this connection, it should be noted that only a small proportion of the unemployed teenagers—about 10 percent—are under 16 years of age. About a fifth are from nonwhite families where incomes are typically far below average.

During the school year, one-fourth of the unemployed teenagers are full-time students. Most of the students seek only part-time jobs. Of those not in school, however, the great majority are school dropouts—youngsters who had left before finishing high school. This group is expected to encounter the most difficulty in finding jobs during the next decade because of the growing emphasis on high levels of education, skill, and training for all kinds of employment.

On the average, about 55 percent of teenage unemployment in 1960 was short term (less than 5 weeks) as of the time of the survey. Only

15 percent was long term (15 weeks or longer). This partly reflects the fact that so much of the unemployment of teenagers is frictional. In 1960, about a third was accounted for by new labor market entrants. (See table 23). And earlier data (1955) suggest that roughly 15 percent could be ascribed to voluntary job changing. At the same time, however, charts 3 and 4 show that teenage unemployment is also subject to much the same kind of cyclical variation as is that of other workers, although the relative movements for the teenagers are not as sharp. It also shows the same general secular trends. And the unemployment rates for the teenage boys even seem to reflect the effects of the steel strikes in 1952 and 1959.

TABLE 23.—*New additions to unemployment, by previous status: Annual average, 1960*

[Numbers in thousands]

Selected characteristics	Total unemployed	Unemployed less than 5 weeks (new additions)					Continuing unemployment	
		Total	From outside the labor force (new entrants or reentrants)		From employment (job losers or leavers)			
			Total	As percent of all unemployed	Total	As percent of all unemployed	Total	As percent of all unemployed
All workers	3,931	1,798	703	17.9	1,095	27.9	2,133	54.3
Married women	665	326	196	29.5	130	19.5	339	51.0
Teenagers:								
Total	790	432	271	34.3	161	20.4	358	45.3
14 to 17 years	403	230	163	40.4	67	16.6	173	42.9
18 and 19 years	387	202	108	27.9	94	24.3	185	47.8
Persons 65 and over	121	45	24	19.8	21	17.4	76	62.8

Table 24 below summarizes some of the more significant characteristics of teenage jobseekers.

TABLE 24.—*Characteristics of unemployed teenagers*

Characteristics	Total 14 years and over	Total 14 to 19 years	Boys			Girls		
			14 to 17 years	16 and 17 years	18 and 19 years	14 to 17 years	16 and 17 years	18 and 19 years
SEPTEMBER 1961								
Number (in thousands)	4,085	797	212	179	209	133	114	243
Unemployment rate:								
Total	5.7	13.8	12.1	16.5	13.6	12.0	16.0	17.4
Nonwhite	10.7	19.9	16.6	22.9	18.9	18.6	24.6	26.1
Percent full-time students	6.1	27.6	52.4	44.1	18.2	39.8	40.4	7.4
MAY 1961								
Percent looking for part-time work	11.6	27.1	38.0	(1)	14.0	37.8	(1)	16.2
ANNUAL AVERAGE, 1960								
Percent new labor market entrants since previous month	17.9	34.3	37.3	(1)	22.2	45.9	(1)	35.8
Percent unemployed 1 to 4 weeks	45.7	54.7	54.5	(1)	49.8	61.5	(1)	55.6
Percent unemployed 15 weeks or more	24.3	15.7	15.7	(1)	19.1	10.8	(1)	15.4

[1] Not available.

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CHART 3

Rate of Unemployment for Men, by Age, Third Quarter 1948 - Third Quarter 1961

Seasonally Adjusted

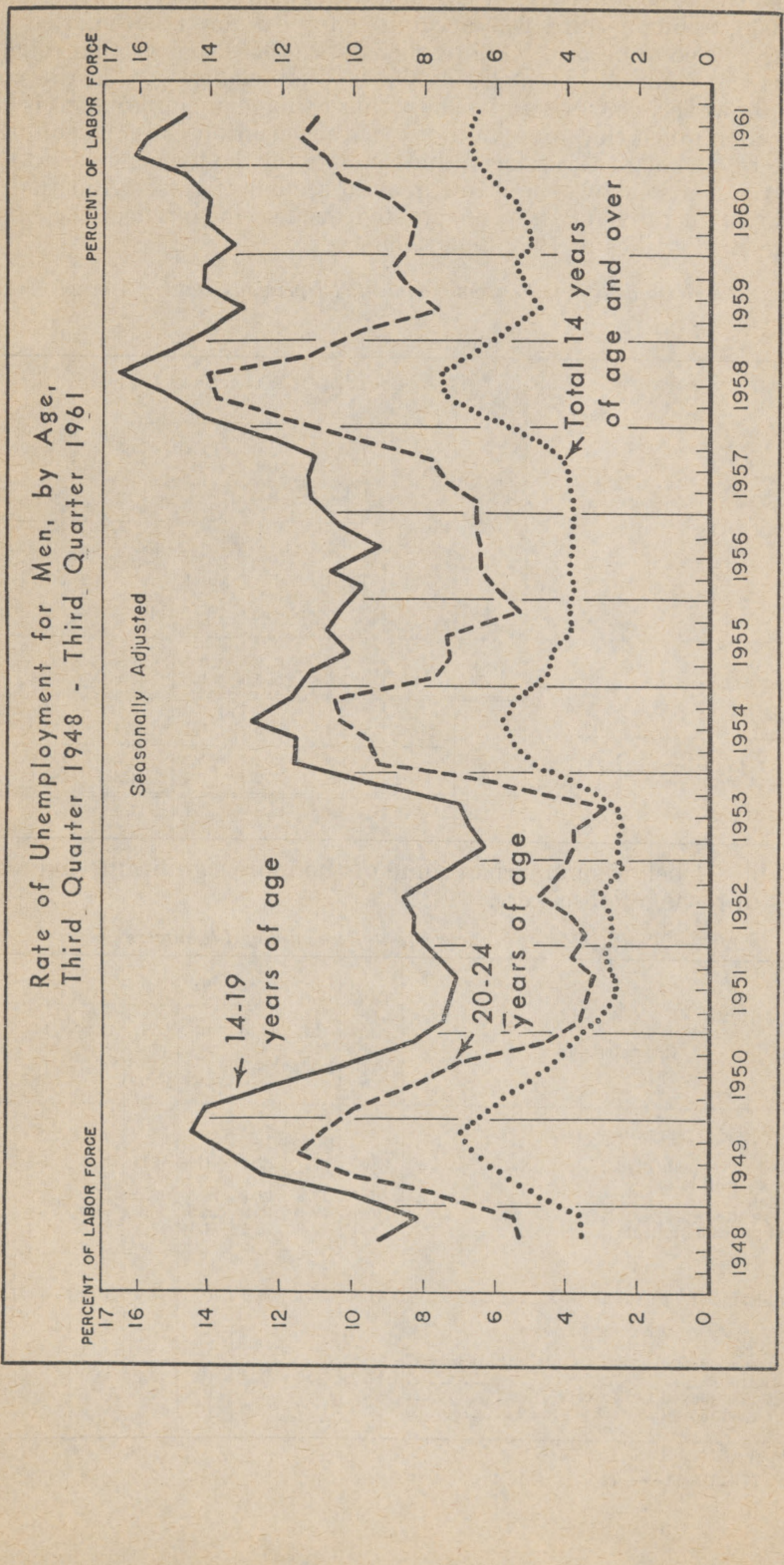
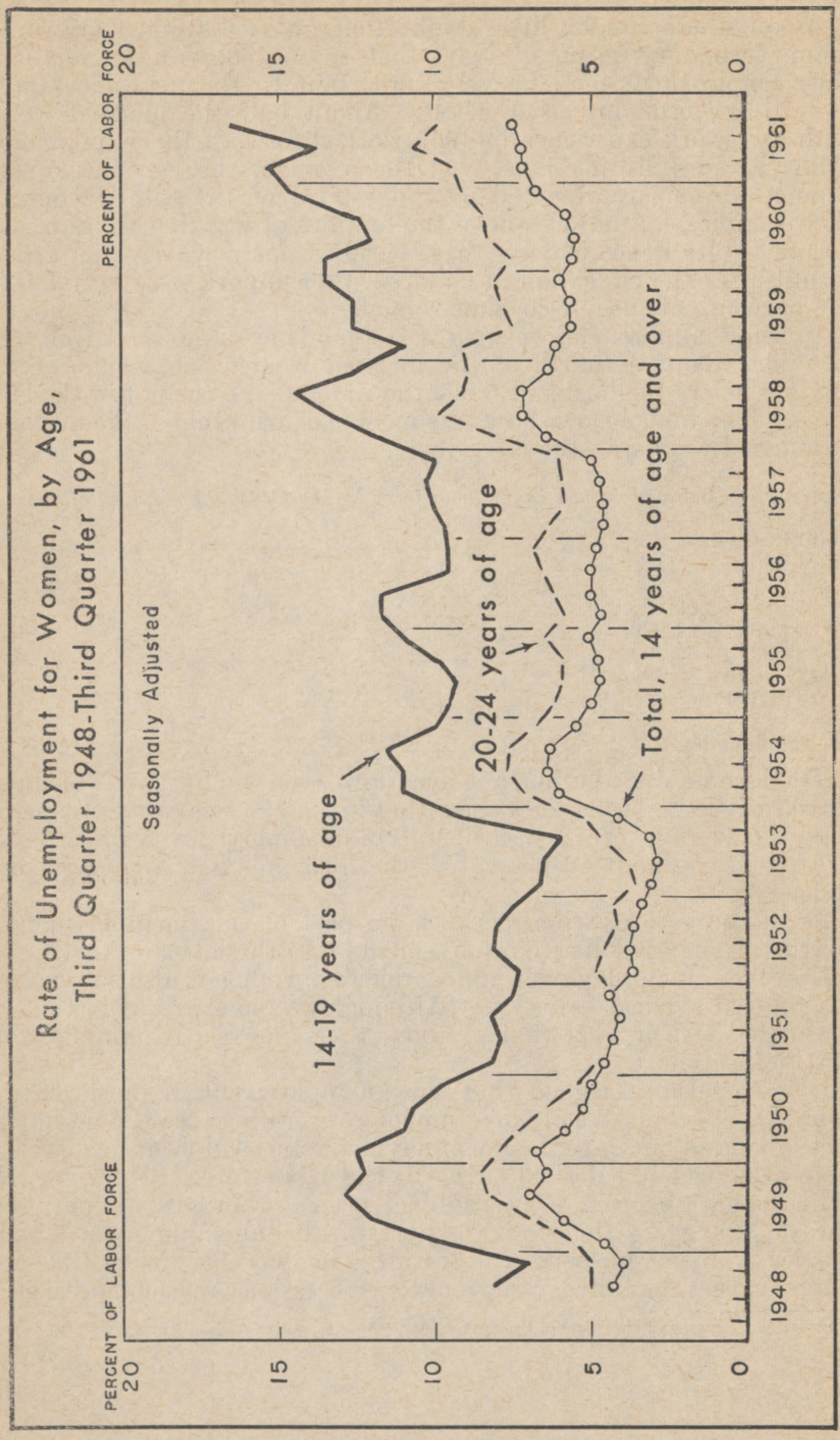


CHART 4

Rate of Unemployment for Women, by Age,
Third Quarter 1948-Third Quarter 1961

Seasonally Adjusted



2. Married women

Again, there can be little doubt that married women are, in the main, secondary earners. Nevertheless, the contribution made by their employment may be very important to their specific families and to the economy as a whole. About half the married women with any work experience in 1959 worked for half the year or more, primarily at full-time jobs. On the average, the earnings of such women workers represented over one-third of the total incomes of their families. And, of course, the families of working wives tend to become quite dependent on these earnings for a wide variety of expenditures—the education of children, the support of aging relatives, the purchase of specific consumer goods.

In some families, the working wife's job is even more critical. For example, about a fourth of the married women jobseekers were in families where the husband was either unemployed or not in the labor force. The table below shows the income distribution of the husbands of married women in the labor force.

TABLE 25.—*Married women in the labor force in March 1960 by income of husbands in 1959*

Total in thousands	12, 253
Total percent	100. 0
Under $3,000	28. 0
$3,000 to $4,999	32. 7
$5,000 to $6,999	25. 2
$7,000 to $9,999	10. 5
$10,000 and over	3. 6
Average income	$4, 339

The income distribution was even lower for the husbands of unemployed wives. Earlier data show that in 1957, a relatively prosperous year, the average income of husbands of unemployed wives was $3,600. In that year, about 40 percent of the husbands had annual incomes under $3,000.

As in the case of teenagers, a large part of the unemployment of married women results from movements into the labor market.

However, unemployment among married women is also subject to a pronounced cyclical variation. Although not so sharp as in the case of married men in 1958, it had about the same relative amplitude in 1961. (See chart 5.)

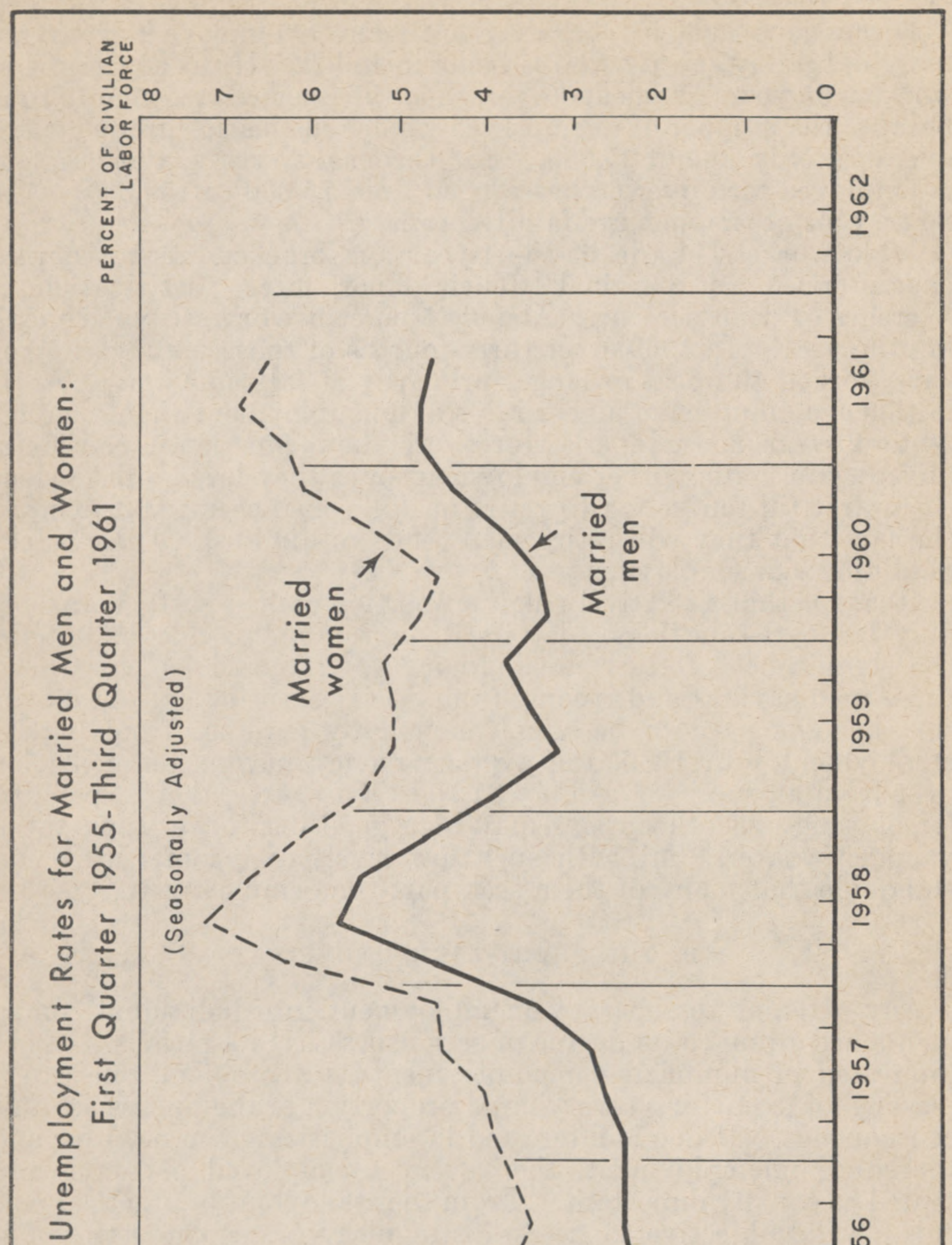
It is sometimes argued that the unemployment of most married women is not a matter of Government concern because it does not reflect job losses but only the unemployment status of their husbands or their own personal desires to be in the labor force. However, the available data bearing on this subject seem to refute this hypothesis.[9] The data suggest that a large part of the unemployment among married women represents the loss of a regular job due to the same general causes that affect other workers (recessions, seasonal lulls, etc.).

[9] "Married Women and the Level of Unemployment," *Monthly Labor Review*, August 1961, pp. 869–870.

CHART 5

Unemployment Rates for Married Men and Women:
First Quarter 1955-Third Quarter 1961

(Seasonally Adjusted)



3. Older workers

Discussions which characterize older unemployed workers as marginal rarely specify who is being included. If the concern is with workers 65 years of age and over, then the issue relates mainly to men because the number of unemployed women in this age group generally averages only about 25,000. For the past 5 years, the number of unemployed men over 65 has ranged from 75,000 to 150,000. About 85 percent of the men are family heads.

Male workers in the 60-to-64-year age bracket are not normally characterized as marginal. Their labor force participation rate averages over 80 percent. About 85 percent work at some time during the year. In 1959, over three-fourths of those with work experience worked 40 weeks or longer primarily at full-time jobs. Workers in this age group have higher rates of unemployment than men in the 30-to-60-year age range. Moreover, they experience considerable difficulty in finding other employment once they lose a job. Most of them are still too young to retire on full social security benefits, but the fact that they will retire soon tends to diminish their chances of obtaining new employment.

It is true that a relatively high proportion of men past 65 are looking only for part-time jobs. By itself, however, this does not indicate the significance of their unemployment. It could well be that for these men savings and income from Social Security and private pension benefits need to be supplemented by earnings from part-time employment. In 1960, the average money income of men 65 and over from all sources was only $1,700. Of course, their expenditures for housing and other items may be a good deal lower than those of younger workers, but with such low levels of income, it is understandable that many of them seek part-time employment.

B. THE SHORT-TERM UNEMPLOYED

Any attempt to separate unemployment into individual compartments according to its degree of seriousness has its pitfalls. If one is interested in minimizing unemployment as a problem, one can find reasons for dismissing a very large proportion of the jobless as of little consequence. If one is interested in emphasizing the need for action to reduce unemployment, then every unemployed person is represented as equally important. From the standpoint of practical policy, it is a valid objective to try to distinguish various categories of seriousness among the unemployed. After all, even a determined attack on unemployment requires some priorities. This concept is implicit in the proposed Manpower Development and Training Act of 1961 which included the requirement that a worker be unemployed for 6 months or longer and gave priority to family heads with at least 3 years of experience in the labor force. Moreover, some unemployment may involve relatively few workers or relatively short spells of idleness so that no major policy measures are necessary to deal with it. This thought underlies the perennial search for estimates of acceptable levels of frictional unemployment.

From the available data on the personal characteristics of the unemployed, there are a number of possible approaches to the grouping of unemployment according to its degree of seriousness. However, as we have noted, these approaches are far from satisfactory.

Perhaps the most objective and significant distinction that can be made with respect to unemployment is that between short term and long term. The dividing lines by duration of unemployment are arbitrary, but the ones most commonly used are less than 5 weeks for short, 5 to 14 weeks for intermediate, and 15 weeks and over for long-term, respectively. With the current interest in long-term unemployment, attention has also been focused on the group unemployed for 6 months or longer.

The distinction between short- and long-term unemployment has both welfare and economic implications. With respect to welfare, the short-term unemployed obviously suffer less loss of wages and are more likely to be compensated by unemployment insurance for the duration of their spell. In addition, their chances of reemployment are greater. From an economic standpoint, the causes of short-term unemployment are considered more likely to be frictional or seasonal, less likely to be structural. Some short-term unemployment is cyclical in the early stages of a recession but presumably not at other times.

There would be more confidence in the use of short-term unemployment as an index of seriousness, if final duration would be virtually the same as current duration. However, we can never be sure of this from 1 month's data since every unemployed person must initially be in the category of unemployed less than 5 weeks (just as anyone who exhausts his unemployment insurance must have once been an initial claim), whatever the ultimate duration of his spell of unemployment.

One modification of the statistics on short-term unemployment that would improve them for our purpose would be to subtract the number still unemployed at the time of the next survey. The latter would show up as unemployed 5 to 8 weeks in the following months. The remainder (those who did not report 5 to 8 weeks of unemployment in the second month) must have ended their spell of unemployment somewhere between 1 and 7 weeks.

For example, there were 4.1 million persons unemployed in September 1961, of whom 1.8 million had been seeking work less than 5 weeks at the time of the September survey (week of September 10–16). By the time the next survey was taken (week of October 8–14), only a part of these 1.8 million were still unemployed. In October, there were 600,000 who were unemployed 5 to 8 weeks and it can be assumed that these were the part of the 1.8 million (who in September had been unemployed 1 to 4 weeks) who were still unemployed. The 1.2 million others (1.8 million minus 600,000) had obviously dropped out of the ranks of the unemployed somewhere between the September and October surveys. Their total duration of unemployment at the time they either found a job or left the labor force would vary from 1 to 7 weeks, depending on (a) how long they had already been unemployed at the time of the September survey, and (b) how many weeks between the September and October surveys they remained unemployed.

This approach has a number of limitations:

(1) It still does not reveal anything directly about the cause of unemployment.

(2) It does not indicate how the spell of unemployment was ended—i.e., recall, job shift, withdrawal from the labor force, etc.

(3) It assumes that 7 weeks is a meaningful cutoff for short-term unemployment (in terms of final duration).

(4) It leaves out a few workers who were counted as unemployed in both months A and B but whose spell of unemployment ended after 5, 6, or 7 weeks.

Table 26 below shows the figures obtained in this way for the period 1948–61. The series is remarkably stable. In the first place, total short-term unemployment (less than 5 weeks) shows much less variability in different periods than does continued unemployment (see chart 2). It ranged from 1.2 million to 2 million whereas continued unemployment (5 weeks or longer) ranged from 700,000 to nearly 3 million. And the variation in short-term unemployment is reduced by deducting those unemployed 5 to 8 weeks, since changes in the latter are correlated with changes in the former. The group we might call the "true" short-term unemployed (see last 3 columns of table 26) fluctuated between 1½ and 2 percent of the civilian labor force from 1948 to 1961.

TABLE 26.—*Short-term unemployment: 1948–61*

[Numbers in thousands]

Year	Civilian labor force	Total unemployed	Unemployed less than 5 weeks	Unemployed 5 to 8 weeks [1]	Unemployed less than 5 weeks in month A but not 5 to 8 weeks in month B		
					Number	As a percent of the—	
						Unemployed	Civilian labor force
1948	61,442	2,325	1,349	347	1,002	43.1	1.6
1949	62,105	3,682	1,803	603	1,200	32.6	1.9
1950	63,099	3,351	1,515	475	1,040	31.0	1.6
1951	62,884	2,099	1,223	275	948	45.2	1.5
1952	62,966	1,932	1,184	255	929	48.1	1.5
1953	63,815	1,870	1,178	266	912	48.8	1.4
1954	64,468	3,578	1,651	537	1,114	31.1	1.7
1955	65,848	2,904	1,388	388	1,000	34.4	1.5
1956	67,530	2,822	1,485	402	1,083	38.4	1.6
1957	67,946	2,936	1,485	455	1,030	35.1	1.5
1958	68,647	4,681	1,833	631	1,202	25.7	1.8
1959	69,394	3,813	1,658	513	1,145	30.0	1.6
1960	70,612	3,931	1,799	568	1,231	31.3	1.7
1961 [2]	71,801	4,893	1,951	652	1,299	26.6	1.8

[1] 12-month average from February of year A through January of year B.
[2] 1st half, seasonally adjusted.

This modified measure of short-term unemployment ranges from 1 million (or 1½ percent of the labor force) in years of low unemployment to 1¼ million (2 percent of the labor force) in years of high unemployment.

To the extent that these are experienced workers who lost their jobs, they were probably covered by unemployment insurance.

To the extent that they were labor market entrants or job changers, they either found new jobs, readily, or, if they withdrew from the labor force after such a short period of jobseeking, they were presumably not strongly attached to the labor market in the first place.

For most of these workers, it seems probable that the cause of their unemployment was either frictional or seasonal, or at least was more likely to be related to personal factors than to basic economic situations.

V. Problems in Forecasting Short-Run Changes in Unemployment

Under the Employment Act of 1946 the Federal Government is directed by the Congress to assume as its continuing policy and responsibility the use of—

> * * * all practicable means consistent with its needs and obligations and other essential considerations of national policy with the assistance and cooperation of industry, agriculture, labor, and State and local governments, to coordinate and utilize all its plans, functions, and resources for the purpose of creating and maintaining, in a manner calculated to foster and promote free competitive enterprise and the general welfare, conditions under which there will be afforded useful employment opportunities, including self-employment, for those able, willing, and seeking to work, and to promote maximum employment, production, and purchasing power. (15 U.S.C. 1021.)

Under section 3(a) of the act the President is directed to include in his annual economic report to Congress "* * * current and foreseeable trends in the levels of employment, production, and purchasing power * * *" along with legislative recommendations which he may deem necessary or desirable.

One of the significant aspects of the Employment Act of 1946 is the formal recognition given to the indispensable need for forecasts as part of the process of formulating effective policies designed to facilitate high levels of economic output and employment. Aside from the obvious need to focus attention on specific areas of policy concern, forecasts serve to anticipate the timing and magnitude of demands to be made on Government programs already in operation. It follows that the sooner unfolding problems can be anticipated, the greater the time available for examining alternative solutions, determining their acceptability through the political process and setting the necessary administrative machinery in operation. The particular concern of this section is with some of the problems of forecasting short-run (6 to 18 months) changes in unemployment.

Model of the Economy

One of the most frequently employed forecasting methods is based on a simple model of the economy which regards changes in unemployment as a function of changes in aggregate supply and demand. Projecting the demand side of the model begins with the analysis of current business developments and Government operations. Usually the forecast benefits from consultations with specialists in the relevant subject matter areas from various Government agencies; this is desirable both in terms of quality of analysis, and efficient utilization of available resources.

The process of arriving at a total demand, or output, estimate for the forecast period necessarily involves examination of trends in major sectors of the economy, in as much detail as time and resources will permit. For example, consumer demand for goods has proven substantially more sensitive to cyclical change than consumer demand for services, especially since durable goods purchases have become more discretionary in recent years with the alleviation of backlogs accumulated during the Great Depression and World War II. Judgment about how much consumer demand is expected to be forthcoming is also dependent upon analysis of resources available to effect that demand, such as disposable personal income, prices, and consumer

credit. Some effort might be made to predict how changes in monetary and/or fiscal policy would affect the ability of consumers, and for that matter businesses, to meet their needs. This same general approach is used to analyze the other major demand sectors; namely, the Federal Government, State, and local governments, business investment, residential construction, and foreign countries. The final product is a total demand picture stated in terms of gross national product. Frequently there are a range of GNP estimates for the forecast period rather than a single fixed projection. This may be done either to allow for differences in individual analyses which were contributed to the forecast, or more often to reflect what might result from the possibility of a small but significant change in one or more of the variables. Somewhere between the upper and lower limits a value may be indicated which represents the majority or consensus judgment.

The demand forecast may be accompanied by a forecast of expected price changes. The demand forecast is intended to reflect expected changes in physical volume, but since GNP is stated in dollar volume, the price forecast serves to indicate the extent to which price changes would affect the dollar valuation of demand.

Development of the input side of the model involves preparing estimates of changes in the labor force, hours of work and productivity, for the purpose of deriving the employment which would be afforded by the levels of economic activity in the forecast period. Unemployment then becomes the residual between estimated employment and labor force. This part of the forecasting process is explored in some detail below.

THE LABOR FORCE

Factors contributing to changes in the size of the labor force fall in two broad categories: those relating to changes in the size, and in the age and sex composition of the working age population, and those which reflect the impact of secular, cyclical, and seasonal developments on the inclination of persons to work or seek work. The secular and demographic factors are generally regarded as being long-term influences, and the cyclical and seasonal factors as short-run and temporary influences.

Those preparing short-run forecasts have two quantitative values at hand to start with. One is a projection of the labor force, based primarily on the long term influences mentioned above, usually covering at least 5 years and expressed in terms of annual changes. The other is a monthly measure, seasonally adjusted, available through the Monthly Report on the Labor Force. Thus it is possible to make a rough comparison between actual developments from month to month, or quarter to quarter, with what was expected to occur on the basis of the long run, and more stable influences. It is important to know whether the labor force is running above or below the long-term trend, and if possible, for what reasons.

A long-term labor force projection prepared in the Bureau of Labor Statistics in 1957 called for annual increases ranging from about 950,000 in 1960 to nearly 1.5 million in 1965. Operating on the assumption that generally high levels of economic activity would persist, the estimates reflected what might be expected to result from population growth, changes in its age-sex composition, and

changes in labor force participation rates for various groups of the working age population.[10]

Long-term trend projections of the labor force do not attempt to allow for cyclical and other short term influences. They are more or less smooth, and the actual year-to-year changes fluctuate above and below the projected trend. In the postwar period, 1948–60, increases in the civilian labor force averaged 800,000 per year. In more than half of those years, the changes were within the relatively narrow range of 650,000 to 1 million—about in line with the magnitude of changes anticipated by long-range projections. However, there were comparatively large variations in some years, such as the lack of a significant change in 1951 because of the Korean mobilization, and increases of 1.4 and 1.7 million in the boom years of 1955 and 1956 respectively.

The knowledge about the relationship between actual trends and the long range projection stated in annual terms serves as the starting point for forecasting short-run changes in the labor force. However, a problem is encountered in translating judgment about future changes into quarterly estimates, which are necessary for the short-term forecast. As can be readily observed from chart 6, the quarterly trend in labor force changes is not easily discernible from the trend stated in annual terms.

The variation in short-run changes in the labor force from what would be expected on the basis of long-run factors, implies that there are labor force responses to temporary factors aside from seasonal fluctuations. Such forces might be either general economic conditions, or short-run changes in the dispositions of persons to work, or actively seek it, or perhaps some combination of the two.

It has often been suggested that either a recession, or the failure of the economy to expand rapidly enough, produces a shortage of job opportunities, which in turn causes people to withdraw, or refrain from entering the labor force. Conversely, unusually sharp increases in economic activity are thought to induce unusually high labor force participation rates.

Several studies have been made in attempts to prove or refute this hypothesis. In a paper presented before the American Economic Association in December 1952, the position was taken that the labor supply curve was relatively inelastic to short-run changes in demand short of those occasioned by mobilization, or other changes of an unusual magnitude.[11] This position has been challenged, largely because it was felt that the labor force is not necessarily identical with the labor supply curve.[12] In short, there are noneconomic considerations attached to labor force status. Participation rates were examined for those age and sex groups where work and income were not, in the main, a necessity. It was found that while rates for some "marginal groups" did fluctuate along cyclical lines, that there were far too many deviations and random fluctuations to permit a concrete inference of a purely cyclical response.

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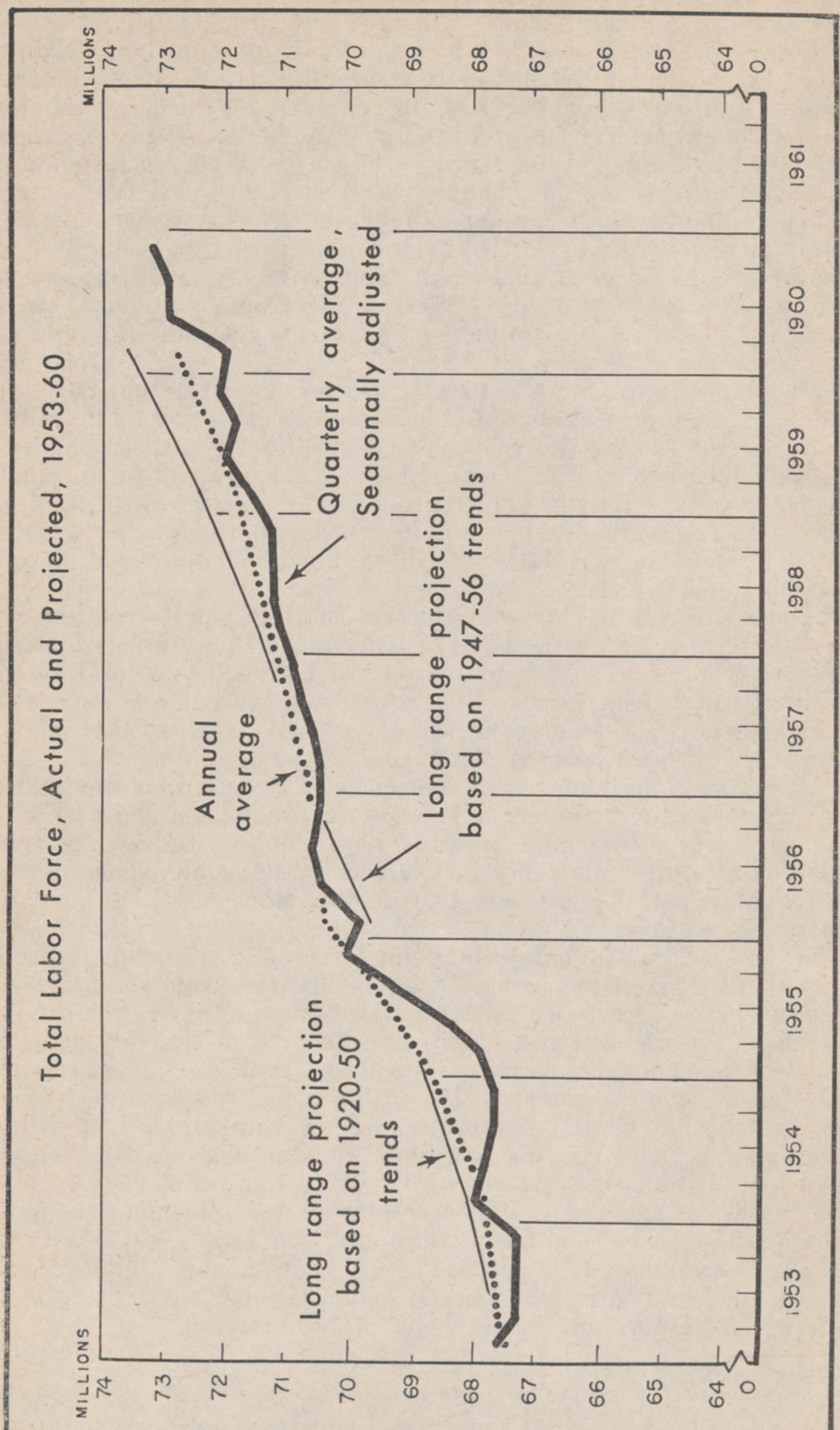
[10] BLS Bull. No. 1242, 1959.

[11] Long, Clarence D., "Impact of Effective Demand on the Labor Supply," *Papers and Proceedings of the American Ecoonmic Association*, May 1953, pp. 458–467.

[12] Bluestone, Abraham, and Cooper, Sophia, "Recent Labor Force Developments and the Concepts of Labor Force Stability." Unpublished paper, mimeographed, pp. 1–7, plus charts.

CHART 6

Total Labor Force, Actual and Projected, 1953-60



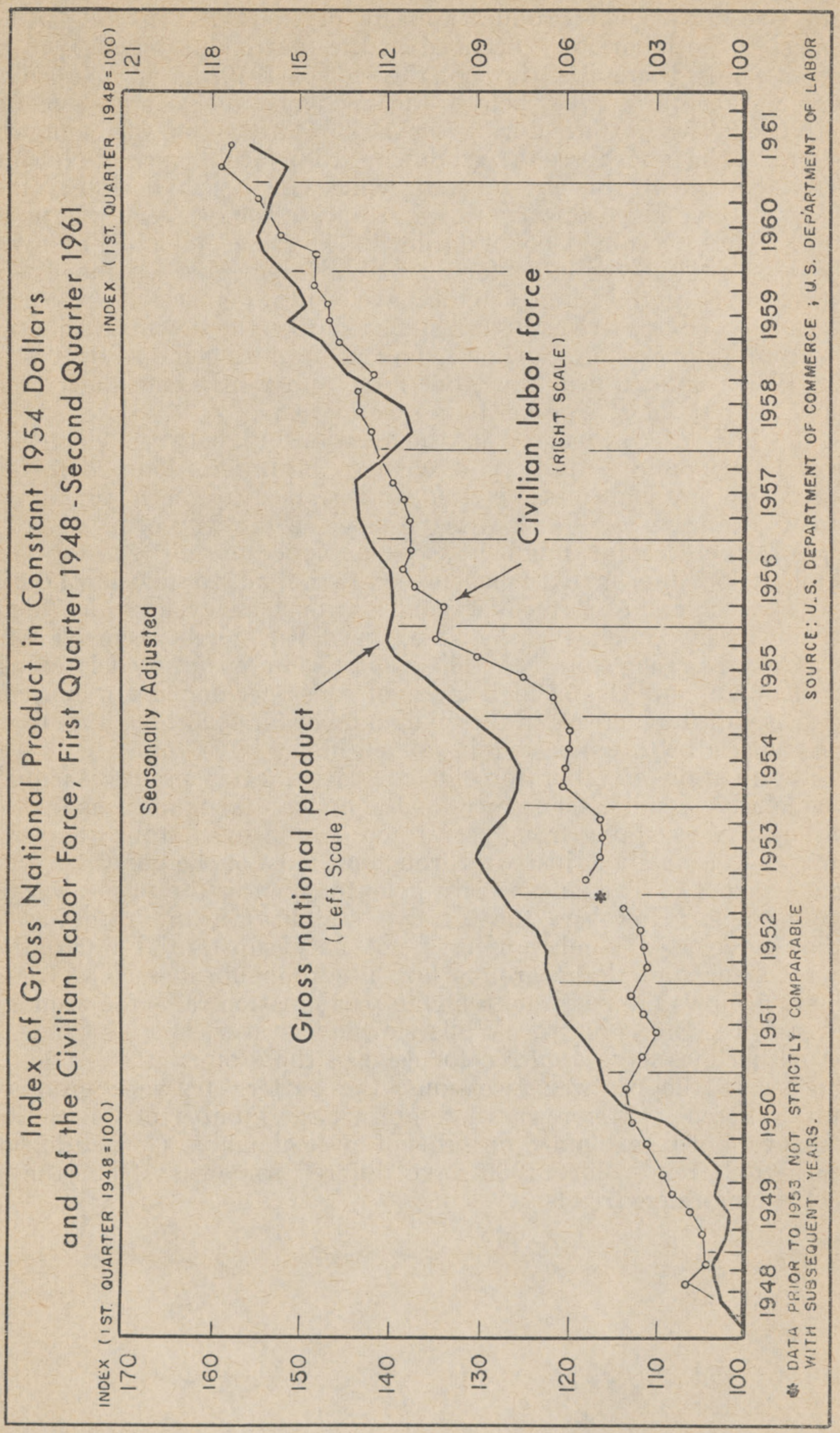
A comparison between the civilian labor force (seasonally adjusted) and Gross National Product appears in chart 7. In the 1948–49 recession the labor force declined in the fourth quarter of 1948 but rose steadily thereafter through the end of 1950, having passed the prerecession peak well before the recovery in general economic activity. The pattern during the 1953–54 recession was somewhat different; the labor force turned downward before the peak in business activity, turned sharply upward while GNP was declining most sharply, then edged downward again until after recovery was underway. The subsequent boom during 1955 was accompanied by a very sharp increase in the labor force. Labor force gains continued while output leveled off during 1956, but leveled off when activity rose again in 1957. Labor force growth resumed during the downturn phase of the 1957–58 recession, but leveled off again during the recovery. In the 1960–61 downturn, the labor force apparently continued to expand, and at the sharpest rate in several years.

The lack of consistency in the relationship between changes in overall economic activity and changes in the civilian labor force during postwar business cycles, with respect to both timing and direction of change, does not leave much in the way of a pattern to serve as the basis for judgment to be employed in short-run forecasts. While it does appear that labor force growth tends to slow down during the recession and early recovery stages of business cycles, the evidence is not really conclusive, because slowdowns have occurred when activity was rising sharply. The rapid rise in output associated with the Korean conflict and high levels of consumer demand was accomplished with no increase in the civilian labor force, although there was continued growth among adult women in the labor force.

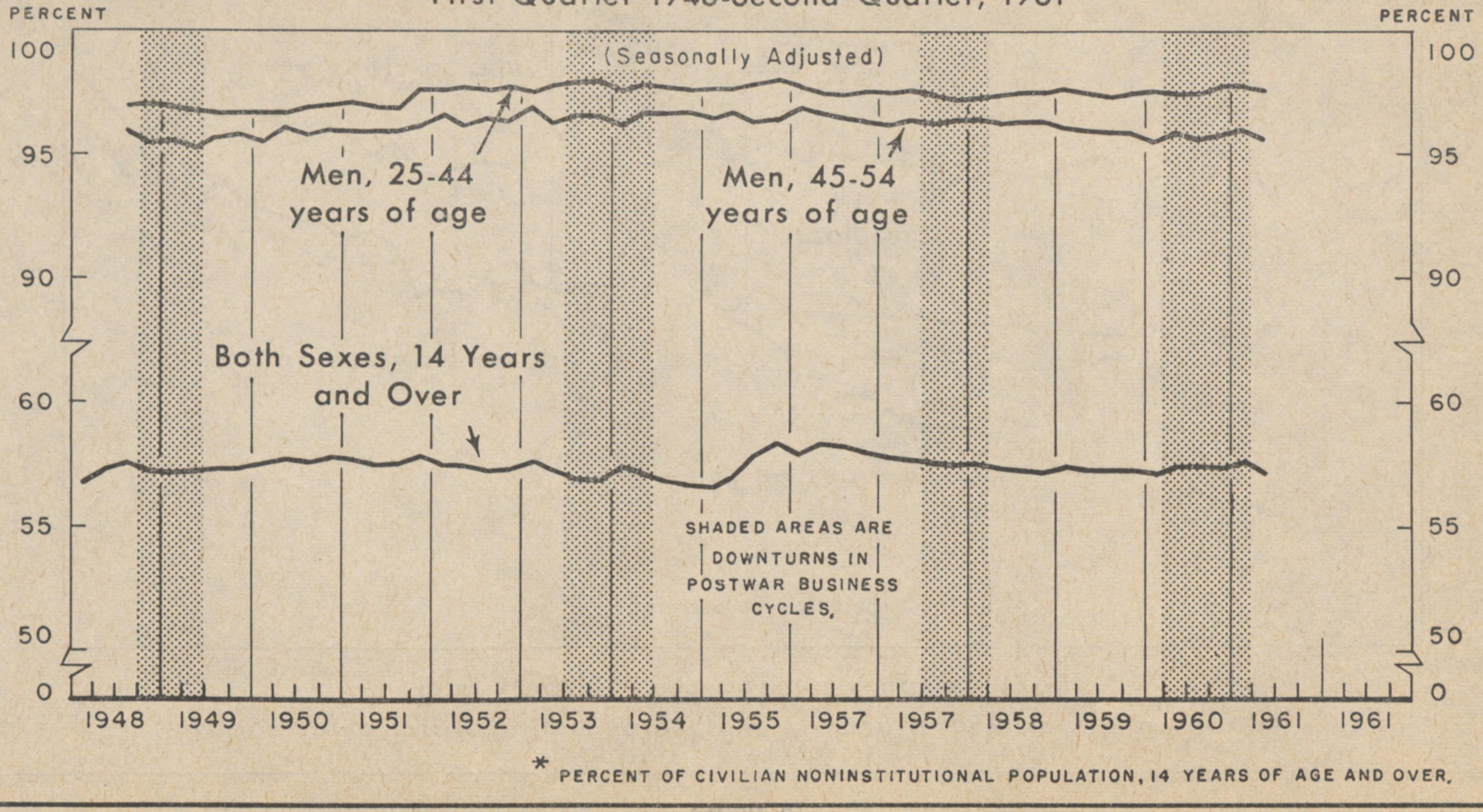
Examination of labor force participation rates produces equally inconclusive results. The rate for the civilian labor force as a whole has been very stable from year to year, and even from quarter to quarter (seasonally adjusted), throughout most of the postwar period. (See chart 8.) This is especially true for men in the prime working age groups. However, the relative stability in the rate for the labor force as a whole obscures not only substantial fluctuations in rates for some large groups but also pronounced secular trends. Chart 9 shows the postwar trends in participation rates for women in several older age groups. While slowdowns in secular uptrends, or actual declines have occurred for each of the groups at one point or another in the postwar recessions, the pattern between groups is quite different. Moreover, there are a large number of fluctuations which cannot be explained in terms of cyclical analysis. In addition, the actual trends since 1955 have differed somewhat from the expected long-range trends.

CHART 7

Index of Gross National Product in Constant 1954 Dollars and of the Civilian Labor Force, First Quarter 1948-Second Quarter 1961

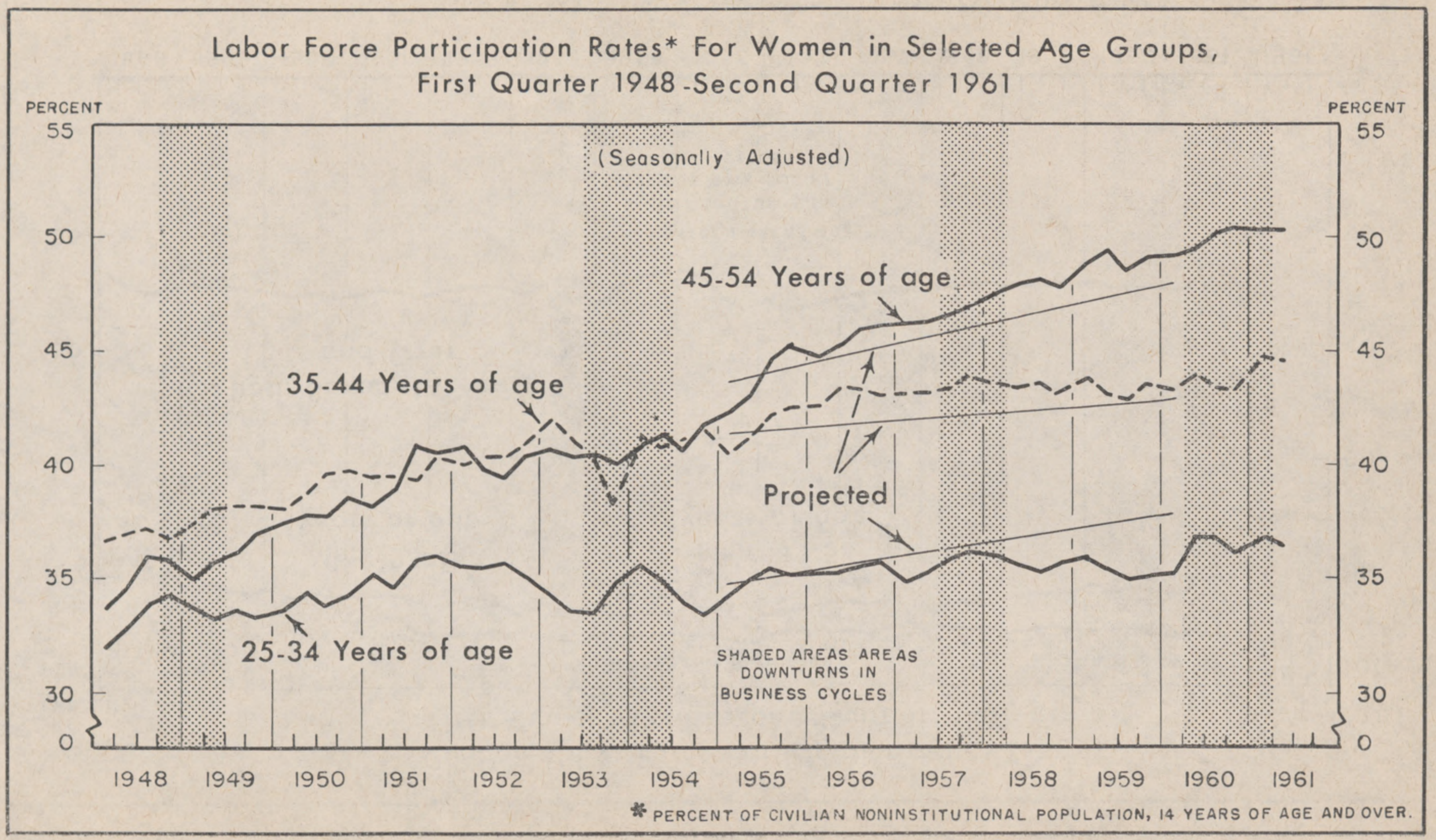


Civilian Labor Force Participation Rates,* First Quarter 1948-Second Quarter, 1961



* PERCENT OF CIVILIAN NONINSTITUTIONAL POPULATION, 14 YEARS OF AGE AND OVER.

CHART 9


Labor Force Participation Rates* For Women in Selected Age Groups,
First Quarter 1948 - Second Quarter 1961
PERCENT
55
50
45
40
35
30
0
(Seasonally Adjusted)
45-54 Years of age
35-44 Years of age
25-34 Years of age
Projected
SHADED AREAS ARE AS DOWNTURNS IN BUSINESS CYCLES
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
* PERCENT OF CIVILIAN NONINSTITUTIONAL POPULATION, 14 YEARS OF AGE AND OVER.

The offset to the secular increase in participation rates for adult women has been the decline in rates of teenagers and older men. Here again, substantial short-term fluctuations have been superimposed on the long range trend with no consistent correlation between changes in economic activity and changes in rates. This is not to deny the possible, or even probable, effect of job opportunities upon the participation rates for some groups in the labor force. It is simply not directly evident as far as the available data have thus far been examined. Job availability is only one of a number of considerations which bear on an individual's decision to seek work, and unfortunately no way has yet been devised to separate what weight it carries in decisions to work, seek work, withdraw from the job market, or refrain from entering the labor force. While it is a simple matter to identify the less stable groups in the labor force, forecasts of their response to changes in demand, particularly for short periods of time may be subject to a wide margin of error. Thus, a short-term forecast of the labor force is made pretty much with judgment based on the long-range projections, and tempered with a subjective qualification with respect to the availability of jobs implicit in the output forecast.

Two points seem worth mentioning in connection with forecasting labor force developments. Comparatively small percentage differences between the projected and observed labor force participation rates can result in fairly large differences in actual numbers. For instance, a difference of 0.2 percent on a base of 125 million (the noninstitutional working age population in 1960) would result in a difference of 250,000 in the labor force. While a variation of this magnitude would not be considered statistically significant in terms of the labor force, it would be considered rather large and not insignificant, if it showed up in the unemployment total. Estimates of 5 million and 5,250,000 unemployed would result in unemployment rates of 7.0 percent and 7.4 percent, assuming a civilian labor force of 71 million. It is thus possible for the labor force forecast to be comparatively accurate in itself, but result at the same time in an unemployment figure of questionable accuracy. On the other hand, the overall projected and actual participation rates could conceivably turn out to be identical, but only because of fortuitously offsetting differences in participation rates among various subgroups of the civilian labor force.

Finally, the labor force statistics are based on a sample of households and may differ from one month to the next by as much as 300,000 because of sampling variability alone.

ESTIMATION OF EMPLOYMENT

It is axiomatic with respect to the operation of the American economy that the employment required to produce a stated output differs over time, and that it differs by virtue of improvements in plant, equipment, methods, and educational achievement of the labor force. Increased productivity permits the output of a given product in a shorter length of time, or in the same length of time, but with fewer workers.

Having estimated the future short-range level, or levels of output, and the expected changes in available labor supply, the forecaster is

faced with the task of estimating what part of the expected change in output will be effected through (1) changes in working time, (2) changes in productivity, and (3) changes in employment.

Short-run forecasts of hours and productivity have to overcome substantial obstacles which derive from the relationship between the nature of the available data and the ways in which they are used. The only measure of hours of work for the economy as a whole is that obtained from the household survey in the Monthly Report on the Labor Force. While this series has the advantage of comprehensiveness, attempts to deseasonalize the data have thus far met with limited success. It is mainly for want of an adequate seasonal adjustment for this series that estimates of productivity are stated in terms of annual changes. On the other hand, seasonally adjusted workweek data for some of the major industry groupings in the BLS nonfarm payroll series officially became available in 1960. However, the payroll data are not representative of the economy as a whole, nor are they intended to be. Moreover, the workweek in this series includes hours paid but not worked, such as vacations, sick leave, and holidays, in constrast to the household series which measures hours actually worked.

Insofar as forecasting the workweek as an independent variable is concerned, the advantages of an adequate seasonal adjustment seem to outweigh considerations of comprehensiveness. The required comprehensiveness for forecasting hours for the economy as a whole can be roughly inferred from the behavior of the seasonally adjusted payroll series for manufacturing. The preference for this approach is justified not only because of the availability of seasonally adjusted data, but also because the manufacturing sector, by virtue of its cyclical volatility, exerts disproportionately heavy weight in the movement of series representing the economy as a whole.

Chart 10 shows the seasonally adjusted manufacturing workweek by quarters for the postwar period. The analytic usefulness of this series, in terms of the cyclical behavior of the workweek, is readily apparent, and even more so when related to employment. An important working concept of the forecaster is derived from this comparison; that changes in the workweek tend to lead those in employment over the course of the business cycle.[13]

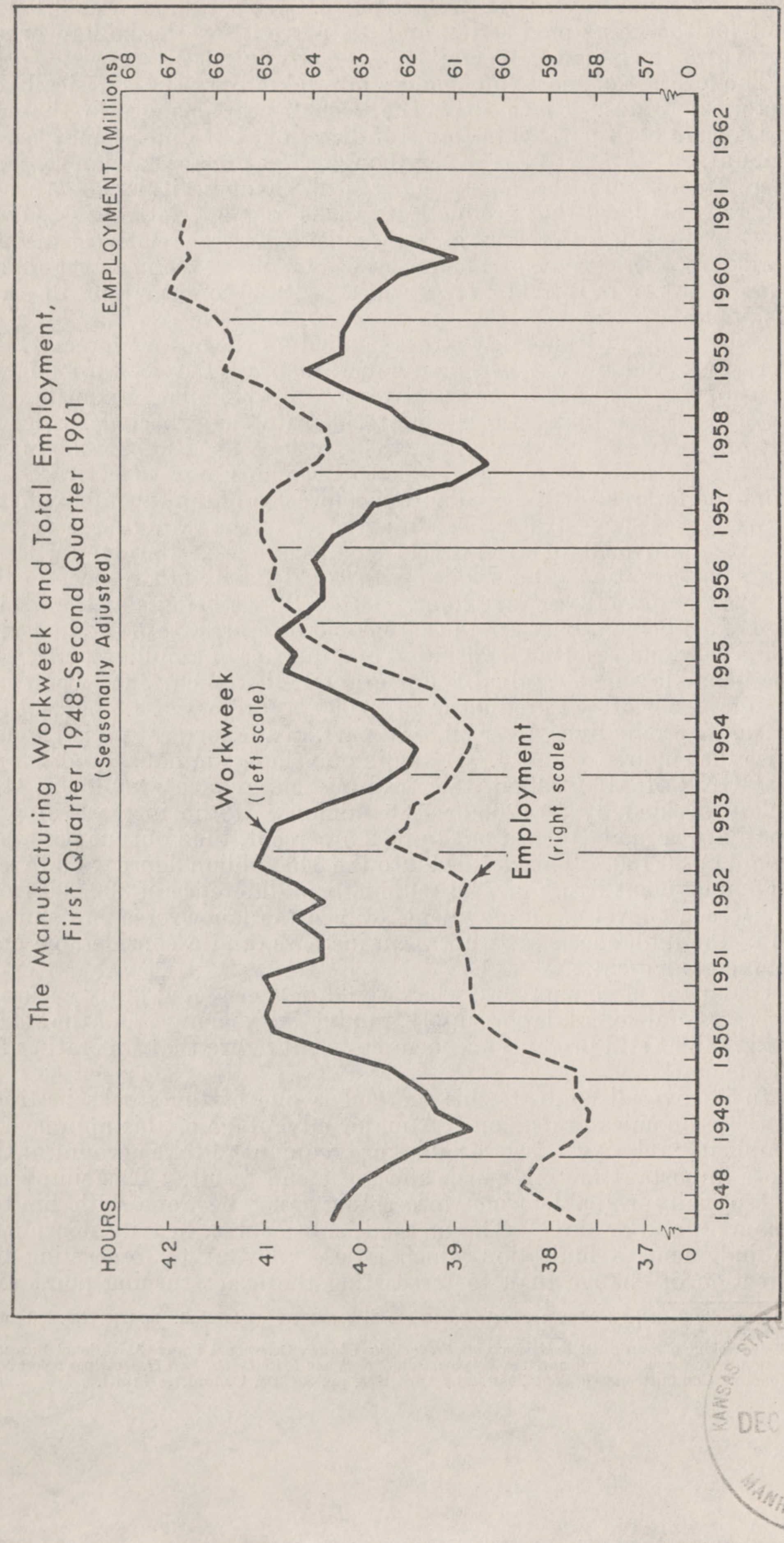
The exercise of inferring something from the seasonally adjusted factory workweek, which is taken to be a rough approximation of what can be expected for the economy as a whole, is based on the knowledge that (1) workers in manufacturing represent about 30 percent of total nonagricultural payroll employment, and (2) that hours in noncommodity producing industries tend to be less volatile cyclically. The forecast of hours for the economy as a whole, is therefore a moderated expression of what is expected to happen to the factory workweek after allowance for seasonal changes.

There are two major Government measures of productivity. Both are annual indexes of output per man-hour, one based on payroll hours and the other on the hours-worked series as shown by the household survey. Both are measures of productivity for the private sector of the economy because no meaningful way has yet been devised to measure productivity in the Government sector. The major differ-

[13] See Rudolph C. Mendelssohn, "Three BLS Series as Business Cycle-Turn Signals," *Monthly Labor Review*, September 1959, pp. 973-975.

CHART 10

The Manufacturing Workweek and Total Employment, First Quarter 1948-Second Quarter 1961
(Seasonally Adjusted)



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ence between the two series in terms of the results produced is that the average annual increase in private output per man-hour was 3.1 percent for the hours-paid series, and 3.4 percent for the hours-worked series over the period 1947–60.[14]

The forecast of short-run changes in productivity turns basically on historical trends. Since 1947, the year-to-year changes in the two series have been parallel in terms of direction, but differ somewhat in amount. (See chart 11.) Even though these are annual indexes, and therefore obscure the effect of cyclical changes, it is nonetheless generally assumed that productivity tends to gain relatively slowly or even decline during a recession, and tends to increase relatively sharply during recoveries. Experimental work in the government and research efforts in private organizations lend confirmation to that assumption.[15]

In light of the economic context implied by the output forecast, the workweek and output per man-hour are projected forward on the basis of the pattern of their past responses to similar circumstances. As a result, the forecaster is able to allocate the expected change in output between productivity, the workweek, and employment. Having the estimate of employment, it remains only to subtract this from the forecast of the civilian labor force to obtain unemployment.

What was suggested earlier with respect to the rather large impact on unemployment of a relatively small change in the overall labor force participation rate, applies with equal force with respect to the forecast of output per man-hour. Other things being equal, a variation of 0.4 percent between the actual and forecast rate of productivity increase would result in a variation of a quarter of a million persons in the unemployment residual. For example, if the current output per man in terms of real product were $6,000, a forecast of 2.1 percent increase in productivity over all, or a part, of the forecast period would raise that figure to $6,126. Assuming no change in hours, and a forecast GNP of $450 billion, the resulting employment would be $450 billion divided by $6,126, or 73.5 million. If the increase in productivity actually turned out to be 2.5 percent, then output per man, would be $6,150. This divided into the $450 billion figure would yield an employment figure of 73.2 million, or a difference of 300,000 from the forecast level of employment. Since the labor force is assumed, all of the difference shows up as an increase, and a considerable one, in unemployment.

Under the circumstances, what would be considered fairly accurate forecasts of demand, labor supply, productivity change, and the workweek, might still produce an unemployment figure that was rather far off the mark.

In its overall context, this method is one of the stocks in trade of the economics profession. A major advantage of this approach is simplicity; relatively few variables are required to take account of the more important factors which affect the end result. This simplicity is especially valuable when forecasting must be done with limited resources and/or time. The method is, of course, heavily dependent on judgment, a limitation which is less relevant to forecasting the direction of change than to forecasting the exact turning point and

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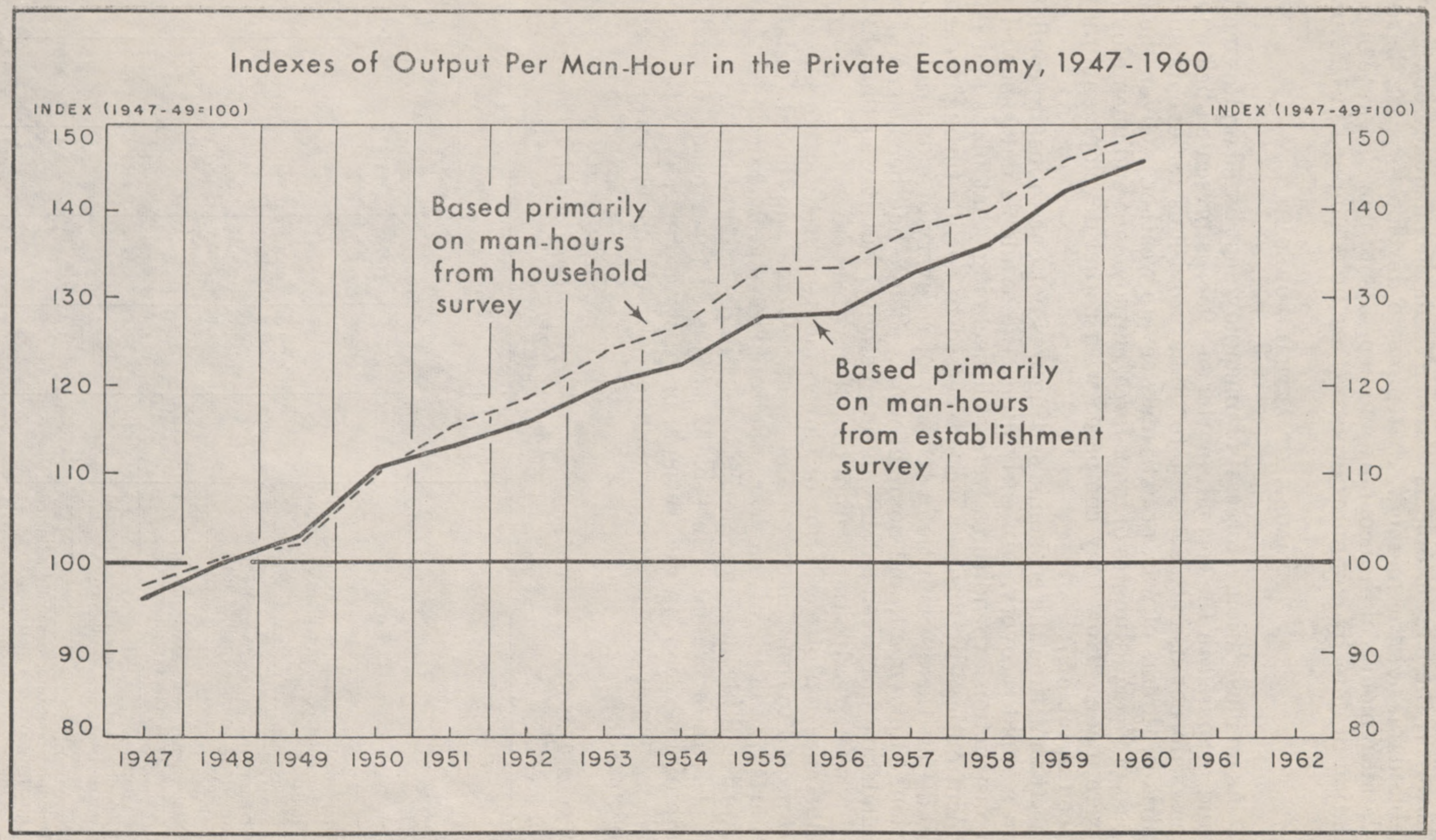
[14] *Trends in Output Per Man-hour in the Private Economy, 1909–58.* (BLS Bull. No. 1249, 1959, and subsequent press releases.)

[15] See Solomon Fabricant, *Basic Facts on Productivity Change*, Occasional Paper 63, National Bureau of Economic Research, 1958 (reprinted in *Employment, Growth and Price Levels, Part II*, Hearings before Joint Economic Committee, 86th Cong., 1st sess., April 1959, pp. 304–305, Committee Print).

CHART 11


Indexes of Output Per Man-Hour in the Private Economy, 1947-1960
INDEX (1947-49=100)
INDEX (1947-49=100)
150
140
130
120
110
100
90
80
Based primarily on man-hours from household survey
Based primarily on man-hours from establishment survey
1947
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962

amount of change with consistent precision. To a large extent, however, these are problems deriving from the adequacy of the available data, not the method. Attempts to develop forecasts based on detailed models of the economy and dependent upon elaborate manipulation of data by computer processes are not examined in this paper.

EXAMPLE OF ACTUAL FORECAST

As an illustration, a forecast of unemployment based on this method, and prepared in the second quarter of 1958, is presented below; forecasts do not usually attempt to make provisions for events such as strikes, threats of war, or extremely severe weather. Given the forecast of GNP, estimates of labor force, employment and unemployment were made. How they compared with actual developments may be seen in table 27.

At that time the economic setting was not one to inspire confidence in a rapid recovery. In early June, the available data showed that construction expenditures were still declining, that plant and equipment outlays by business were expected to decline through year end, and that there was little in the way of recovery of industrial production, employment, and hours of work. There had been signs of some moderate improvement in housing activity, but it was thought that this was a readjustment from the effects of severe winter weather, and liberalization of the terms of Government-insured housing loans was expected to result in only a modest improvement in the rate of housing starts by the end of the year. Personal incomes had declined through April and business inventories were still declining sharply.

The data presented in table 27, adjusted for subsequent and substantial revisions in the National product accounts, show the forecast changes in major variables, compared with the changes which actually occurred.

TABLE 27.—*Comparison of major variables, forecast and actual, 1st quarter 1958—2d quarter 1959*

	Actual	Forecast				
		1958			1959	
	I	II	III	IV	I	II
Gross national product, seasonally adjusted annual rate, in billions of current dollars:						
Forecast	----------	$433.8	$437.0	$441.1	$446.2	$451.4
Actual	$432.9	$437.2	$447.0	$460.6	$472.2	$488.5
Civilian labor force, seasonally adjusted quarterly averages (millions):						
Forecast	----------	[1] 68.9	69.0	69.1	69.2	69.3
Actual	68.5	68.7	68.7	68.6	69.1	69.4
Total employment, seasonally adjusted quarterly averages (millions):						
Forecast	----------	[1] 63.8	63.8	64.0	64.1	64.3
Actual	64.0	63.7	63.8	64.4	65.0	65.9
Unemployment, seasonally adjusted quarterly averages (millions):						
Forecast	----------	[1] 5.1	5.2	5.1	5.1	5.0
Actual	4.3	5.0	5.1	4.4	4.0	3.5
Unemployment rate, seasonally adjusted quarterly averages (percent):						
Forecast	----------	[1] 7.4	7.5	7.4	7.4	7.2
Actual	6.3	7.3	7.4	6.4	5.8	5.1

[1] April and May actual and June estimated.

Among the assumptions implicit in the stated forecast of GNP were:

1. Business plant and equipment expenditures would continue to decline—to the extent of about $10 billion (at a seasonally adjusted annual rate) at the end of the forecast period.

2. A rise of about 12 percent in residential construction expenditures, with nonfarm housing starts rising from a seasonally adjusted annual rate of about 1 million units in the first quarter of 1958 to 1.2 million in the second quarter of 1959.

3. An increase of 8 percent in Government outlays, reflecting an expected moderate pickup in defense outlays, and a continuation of the persistent uptrend in expenditures by State and local governments.

4. An increase of 14 percent in consumer expenditures for durable goods based mainly on expected recovery in auto sales to an annual rate of 5½ million cars.

5. Continued liquidation of business inventories through the first quarter of 1959 and no increase in the second quarter of that year.

6. An increase at the rate of 1.2 percent per year in wages and prices, or roughly 1.5 percent for the forecast period. The allowance for wage rate increases approximates the method used to compute the GNP implicit price deflator.

This was an admittedly conservative judgment about the vitality of recovery, but it is difficult to project optimism from objective information available in the trough of the recession. In this particular case, there was no way of forecasting the sharp response of demand to the impending steel strike in the first half of 1959. Prices actually increased by 2.3 percent, exceeding the forecast increase by 0.8 percentage points. (This would have accounted for $4 billion of the difference between the actual and forecast GNP for the second quarter of 1959.) The estimate for residential housing was far off the mark; nonfarm starts passed the 1.2 million annual rate in the third quarter of 1958 and held between 1.3 and 1.4 million for a year thereafter. Business outlays for new plant and equipment were reduced only moderately further through the third quarter of 1958 and recovery was well underway by mid-1959. Government expenditures rose more sharply than expected in the early part of the recovery, due mainly to expanded outlays for civilian programs, including a wage increase to Federal civilian personnel. Business inventories were reduced further through the third quarter of 1958, but accumulated at a rapid pace thereafter, reaching a rate of nearly $12 billion in the second quarter of 1959 under the stimulus of the impending steel strike. The sharpness of the inventory turnaround alone accounted for nearly a third of the increase in GNP from the first quarter of 1958 through the second quarter of 1959. Consumer spending for nondurables and services continued to expand throughout the recession, and outlays for autos began to rise sharply in the fourth quarter of 1958.

The economic setting implied by the output forecast and experience in the 1953–54 recession were important in the judgments made about some of the variables on the input side of the model. The long-range projections of the labor force then current called for over-the-year

increases averaging 900,000 to 1 million. However, the increase from the second quarter of 1958 through mid-1959 was forecast at 400,000, because (1) the expected moderate recovery and inevitable increase in productivity would dampen the expansion of job opportunities, (2) labor force increases had been above average just before the recession, and (3) the labor force leveled out during the 1954 recession. It was assumed that the slowdown in job opportunities would be reflected in a reduced rate of increase in the proportion of older women in the labor force, a major factor in labor force growth in these years.

The labor force actually rose by 700,000 from the second quarter of 1958 through the second quarter of 1959; this would be considered a quite accurate forecast, especially since part of the difference reflects subsequent revision of seasonal factors. Labor force participation rates for older women actually declined between the first and third quarters of 1958, but rose to prerecession levels again by the first quarter of 1959.

The forecast levels of output called for a rise of 500,000 in employment through mid-1959, with all of the increase in the nonfarm sector. After allowance for the assumed 2 percent productivity gain in the private nonfarm sector, it was estimated that the mid-1959 GNP would require an increase of 1½ percent in man-hours. Roughly half of this was expected to be absorbed by an expected recovery of 0.3 to 0.4 hour in the workweek, leaving an increase of 300,000 in private nonfarm employment. The remaining 200,000 of the increase resulted from carrying forward the persistent uptrend in State and local government. Farm employment was not expected to change. Unemployment would, therefore, decline by only 0.1 million, and the unemployment rate would fall from 7.4 to 7.2 percent. Employment actually increased by 2.2 million from mid-1958 to mid-1959 and unemployment was reduced by 1.5 million, to a rate of 5.1 percent.

Other forecasts have been substantially more accurate than the one reviewed above, primarily because they were closer to the mark on the output side. It should be pointed out that a large part of the usefulness of a forecast lies not in its estimates of the actual number of persons who may become unemployed, but in the tendency toward greater or less unemployment. If the method produces generally acceptable results in this respect, and intelligent use of it usually does, then it must still be considered a valuable aid to the end of public policy formulation. Professionals recognize the crudeness of the tool, and generally treat the validity of the results with appropriate caution. Moreover, no single forecast becomes the final word; revisions are made as new evidence becomes available.

Perhaps the present heavy dependence of forecasting on judgment can be reduced (especially on the input side of the model) by more intensive, and/or selective use of data. A great deal of data from the household survey remains to be analyzed in the context of forecasting short-term unemployment. One of the results of the great progress that has been made in the acquisition and processing of data since World War II has been that the quantity and variety of information produced has advanced faster than the human resources available to study it.

One question in particular suggests itself as a possible fruitful research endeavor: Is the labor force becoming more volatile in terms of response to cyclical influences? In other words, are the apparently volatile groups of the labor force becoming relatively more important in the total, and if so, can the volatility of these groups be ascribed to the business cycle? Labor force data only recently available on a seasonally adjusted basis in terms of detailed age-sex components suggest some hope for success in answering this kind of question.

Finally, the fact that relatively accurate forecasts of most of the variables used in the method described may still result in relatively large errors in estimating the number of unemployed suggests that alternatives to treating unemployment as a residual should be sought.

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