

## A Look Behind the Unemployment Rate

The employment situation in the United States has deteriorated for many months. The most widely-noted indicator of the employment situation, the unemployment rate,\* reached an apparent cyclical trough at a level of 4.6 percent during October 1973. During the following 10 months, the unemployment rate increased, with some interruptions, at an average rate of less than 0.1 percentage point per month. As a result of large numbers of layoffs in many industries, particularly construction and durable goods manufacturing, the autumn increases in the unemployment rate were marked: 0.4 percentage point during September, 0.2 percentage point during October, 0.5 percentage point during November, and 0.6 percentage point during December. As reported by the Department of Labor, the December unemployment rate was 7.1 percent of the civilian labor force.

An unemployment rate of 7.1 percent has been equaled or exceeded during only 8 months since the end of World War II. Most analysts expect that the unemployment rate will reach new postwar records during the next few months. The number of unemployed persons during December was an estimated 6.5 million. Many commentators have noted that there have not been as many as 6.5 million unemployed persons in the United States since 1940.

The purpose of this article is to describe the nature of the data on employment and unemployment in order that readers may increase their understanding of the present situation and of the significance, or lack of significance, of comparisons with the employment situation during other periods.

### *The Monthly Survey*

Each month the Department of Labor publishes extensive data on the employment situation. These data are based on monthly surveys of households and of employers. The household survey is the basis for the computation of unemployment statistics; the survey of employers covers only persons working for wages or salaries.

The household survey is conducted with a sample number of households designed to represent the entire U.S. population. These households are contacted each month during the week that includes the 12th day, and members of each household are classified into several categories, according to their activities during the survey week. The various tabulations from the survey are used to estimate the activities of the entire U.S. population. Although this survey is necessarily conducted with a relatively small number of persons, the procedures used

incorporate techniques of modern, scientific statistical analysis, and there is little reason to doubt the general accuracy of the data so derived.

However, as with any complex phenomenon, great care is needed in evaluating and using the data to reach warranted conclusions. An understanding of the phenomena that the survey is attempting to describe is a necessary place to begin. Unfortunately, such understanding apparently is lacking in much popular comment on the employment situation.

### *Some Definitions*

Because the household survey is used to estimate the activities of the whole U.S. population, the estimates are partly dependent on demographic data estimated by the Bureau of the Census. The portion of the population that is considered relevant to the employment situation includes all persons old enough to work who are not confined in prisons, mental hospitals, nursing homes, or similar institutions. This portion is called the *noninstitutional population*. Prior to 1967, the Department of Labor reported estimates for the noninstitutional population age 14 and over. Subsequently, the data were given for the noninstitutional population age 16 and over. Monthly data on the latter basis are available from 1966 to the present, and annual averages are available for the years since 1947. For convenience we shall use "population" to refer to the noninstitutional population age 16 and over. Each month the numbers of persons in various employment categories are estimated. For the purposes of this discussion, the most important categories are employed persons and persons who are not employed.

Employed persons include self-employed persons, full-time workers, and part-time workers. Employed persons are broadly classified between agricultural and non-agricultural industries.

Those who were not working are divided into 2 groups: those who sought work during the month preceding the survey week and those who did not. The *unemployed persons* category includes those and only those who sought work.

The number of employed persons plus the number of unemployed persons is called the *civilian labor force*.

The number of persons in the armed forces is obtained from the Department of Defense and is reported separately each month. The total of the civilian labor force plus the number of persons in the armed forces is called the *total labor force*.

The *participation rate* is the total labor force divided by the "population," expressed as a percentage.

The percentages of the "population" estimated to have been in the total labor force, in the civilian labor force, employed, and employed in non-agricultural industries are shown in the accompanying chart, annually for the years

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\*All data used in this article are adjusted for seasonal variation, except data for the population and for annual averages, which, by definition, are not subject to such variation.

1947 to 1965 and on a monthly basis for the years 1966 to 1974. For comparative purposes, the unemployment rate is shown on the separate chart, drawn to the same time scale.

### Some Observations

The foregoing discussion should make several aspects of the situation apparent. First, the number of persons in the labor force is largely determined by the wishes of individual members of society. The requirements for joining the labor force are few (either working or looking for work), and no one can be kept out of the labor force except by incarceration. Second, the total number of persons deemed to be unemployed includes not only those who have been fired and laid off, but also those who are looking for work for the first time or after a period of voluntarily not working. Of the 6.5 million persons that sought employment during December, less than half (or 3.2 million persons) had lost their last job. Of the remainder, 0.8 million persons had quit their last job, 1.7 million had re-entered the labor force, and 0.8 million had never worked before.

The unemployment rate is the number of persons looking for work divided by the civilian labor force. The largest component of the denominator, the number of employed persons, is influenced mainly by the rate of general business activity. As discussed below, the level of employment in agricultural industries has decreased for many years. There is some indication that the rate of such decrease has diminished during and immediately after business-cycle contractions and has accelerated during and immediately after expansions of general business activity. In any event, employment in non-agricultural industries is the component that is most subject to cyclical fluctuations. Indeed, the level of such employment is one of the criteria by which business-cycle changes are determined.

However, the numerator of the unemployment rate, the number of persons looking for work, is subject to many influences in addition to business-cycle changes. During the postwar period, there have been several factors that may have tended to increase the number of persons looking for work, not only in absolute numbers but also as a percent of the population. Three such factors are listed below:

1. Increases in population have been reflected in a larger number of young persons entering the labor force each year than the number leaving the labor force through retirement or death. Since 1947, the earliest date for which comparable data are available, the total labor force has increased from about 60 million to nearly 94 million persons, which is an increase of about 57 percent. Because the participation rate increased during the period, the increase in the "population" from which the labor force is drawn was smaller (about 46 percent), from about 104 million during 1947 to 152 million at the end of 1974.

2. Changing farm technology has greatly increased the productivity of farm workers so that the percentage of the "population" engaged in agricultural industries has decreased markedly over the years. In 1947, an average of 7.6 percent of the "population" was engaged in agricultural activities. By 1974, that proportion had decreased to 2.2 percent. This decrease in agricultural employment has contributed to the number of persons seeking employment in other industries.

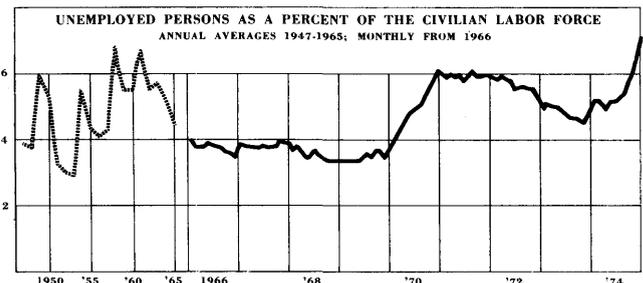
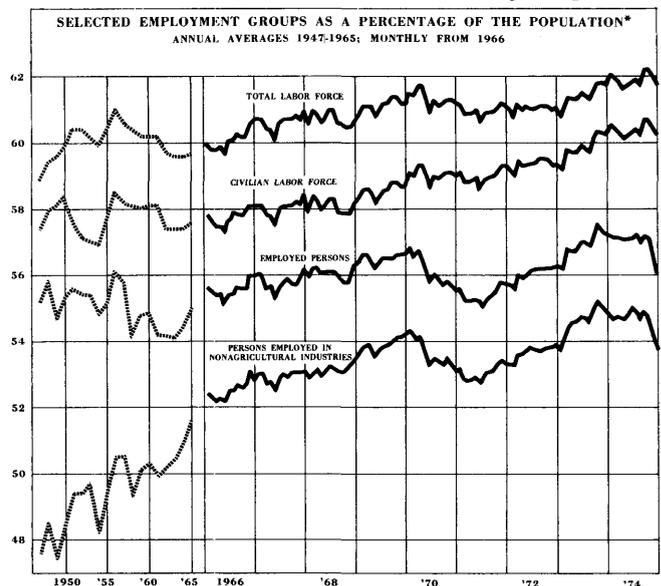
3. The number of persons in the armed forces as a

percentage of the "population" decreased to a postwar low of 1.4 percent during 1948. That proportion increased to 3.3 percent during the Korean War, decreased to 2.1 percent in the early 1960's, but increased to 2.7 percent during the Viet Nam War. Since 1969 that proportion has decreased steadily. During December about 1.5 percent of the "population" was in the armed forces. Mobilization and demobilization presumably have a direct effect on the number of persons looking for work, as members of the armed forces usually seek other work upon discharge.

### Participation Rates

Examination of the chart reveals that the total participation rate tended to increase during most of the postwar period. The total participation rate averaged 58.9 percent during 1947 and increased to 61.0 percent during 1956. This rate contracted 1.4 percentage points during the years 1957 to 1963. Beginning in 1965 the total participation rate resumed an increasing trend, and a postwar record of 62.2 percent was reported during September and October 1974. The participation rates during 1943 and 1944 were 62.3 percent and 63.1 percent, respectively, of the population age 14 and over. The average rate for 1940 was 56.0 percent, and the available evidence suggests that the participation rate for earlier years also was substantially less than 60 percent.

Changes in the participation rate are little understood. Apparently, such changes reflect changes in the age composition of the "population" and shifts in social structures and customs. Among the components of the "population," changes in participation rates have been far larger than the change in the total rate during the postwar



\*Noninstitutional Population, Ages 16 And Over

period. During 1947 the average participation rate for females was 31.8 percent. By 1972, that rate had increased to 43.9 percent. (1972 is the latest year for which comparable data are available.) The participation rate for males decreased from 86.8 percent to 79.7 percent during the same period. The decrease was particularly marked for males aged 65 and older for whom the participation rate averaged 47.8 percent and 24.2 percent during 1947 and 1972, respectively. Presumably this latter decrease reflects the greater availability of pension plans (often involving mandatory retirement) and increased life expectancy during the period.

Note: Because of the length of this article, the remainder of it will be published in a subsequent issue.

### President Ford's Economic Plan

In an address to the Nation on January 13, President Ford provided a broad outline of his plans for "putting our domestic house in order." He said that the Nation must wage a simultaneous campaign against "inflation" (rising prices), recession, and energy dependence. He stated that because we have suffered serious setbacks in sales and employment, we must shift our emphasis from inflation to recession.

In order to reduce dependence on foreign oil, the President said that "we need, within 90 days, the strongest and most far-reaching energy conservation program we have ever had." He announced that he will raise import fees on each barrel of foreign crude oil by \$1 to \$3 during the next 3 months. He said that he would ask Congress for legislation to impose "conservation taxes" on domestic oil and natural gas; to prevent windfall profits by oil producers; to delay for 5 years higher automobile pollution standards; and to speed development of other domestic energy resources.

The interim goals of the President's plan are to reduce imports of foreign oil by 1 million barrels per day by the end of this year and by 2 million barrels per day by the end of 1977. Whether or not higher prices for oil products will restrict consumption enough to meet these goals remains to be seen. The longer-range goal is to make the United States invulnerable to foreign energy disruptions by 1985.

The President noted that his plan would increase gasoline prices, "though not as much as with a 20-cents-a-gallon gas tax." He did not mention that the plan also would result in increases in prices of all other petroleum products, of oil-generated electricity, of nearly all transportation, and therefore of almost everything shipped to markets. Thus, the plan would aggravate the problem of rising prices.

Administration economists apparently have estimated that revenues from energy-conservation and windfall-profits taxes would amount to \$30 billion during the first year. The President said that such revenues would be used for making additional payments and credits to individuals, businesses, and state and local governments, including cash payments to low-income persons who pay no income tax. Therefore, income that would be taken from some citizens in taxes would be redistributed by the Government to others, with no effect on total spending.

The President proposed that Congress enact a reduction of Federal income taxes totaling \$16 billion. One-quarter of this reduction would be in the form of an increase in the investment tax credit for businesses and farmers to 12 percent for 1 year, in order to encourage spending for

plant and equipment. The remainder of the proposed reduction would involve a 12-percent rebate of 1974 income taxes to individuals, limited to a maximum of \$1,000. The President said that if Congress acts by April 1, taxpayers would receive checks for half of their rebates in May and for the remainder by September.

The intended purpose of the proposed rebate of some taxes to individuals is to encourage more spending by consumers, which Administration officials hope will reverse the contraction of business activity and of employment. However, many consumers who are concerned about the future might save the rebated funds or use them to repay debts. If so, the rebating of taxes would not have the stimulative effect on economic activity hoped for by Administration officials.

The President ruefully acknowledged that the tax reduction that he proposed would increase the Federal budget deficit. He suggested that this deficit might be from \$30 billion to \$50 billion not only during the current fiscal year but also during the next. In order to avoid even larger deficits, the President urged that Congress enact no new spending programs for a year. He also proposed a 5-percent limit this year on Federal pay increases and on cost-of-living increases in Social Security and Federal retiree payments.

The magnitude of the Federal deficits envisioned by the President is unprecedented in peacetime. They will involve greatly increased borrowing by the Treasury and the diversion of more funds from capital formation to consumption. Some part of these deficits presumably will be financed by purchasing media created by the banking system. Thus, the President's proposal to reduce taxes and increase Federal deficits is basically an attempt to stimulate economic activity by fostering more inflating. More inflating would result in worsening economic maladjustments, including more rapidly rising prices.

The President provided more detailed information about his economic plan in his State of the Union message to Congress on January 15. We shall discuss significant aspects of this information in the next issue of these reports.

### STATISTICAL INDICATORS

Among the primary leading indicators of business-cycle changes, the average workweek of production workers in manufacturing decreased during December and continued to contract cyclically then. Revised data for inverted initial claims for unemployment insurance indicate that this series decreased during November. This series continued to contract cyclically then. The percentage of primary leading indicators appraised as expanding cyclically remains at 25.

Employment in nonagricultural establishments decreased during December, but the cyclical status of this series remains indeterminate. Retail sales increased slightly during December, but the moving average of this series has decreased for 4 consecutive months. The cyclical status of retail sales has become indeterminate. Thus, the percentage of primary roughly coincident indicators appraised as expanding cyclically decreased from 43 to 29.

No additional data were received for any of the primary lagging indicators. The percentage of this group appraised as expanding cyclically remains at 67.

*The apparent cyclical expansion of only one-quarter of the primary leading indicators suggests that the contraction of general business activity will not soon reverse.*

## SUPPLY INDUSTRIAL PRODUCTION

Production of steel, automobiles, electric power, and lumber (1) in the 1- and 4-week periods ended on the indicated dates in the current year and (2) in the corresponding periods of earlier years was as follows:

<i>Steel</i>	1929	1932	1957	1961	1974	1975
Ingots - million tons						
1 week: January 11	1.16	0.38	2.52	1.48	2.84	2.59
4 weeks: January 11	3.58	1.17	10.05	5.28	11.43	10.04
<i>Automobiles</i>						
Vehicles - thousands						
1 week: January 11	78	25	154	98	130	112p
4 weeks: January 11	220	82	497	377	348	277p
<i>Electric Power</i>						
Kilowatt-hours - billions						
1 week: January 11	1.7	1.6	12.3	14.7	36.6	36.4
4 weeks: January 11	7.7	7.5	47.4	58.0	140.1	140.9
Percent change from 4 weeks a year earlier: +0.6						
<i>Lumber</i>						
Board feet - billions						
1 week: January 4	0.59	0.25	0.52	0.46	0.36	n.a.
4 weeks: January 4	2.55	1.16	2.28	1.93	2.40	n.a.

p Preliminary. n.a. Not available.

## DEMAND CONSUMER INSTALLMENT DEBT

Note: Data other than the total amount outstanding are seasonally adjusted.

Total consumer installment debt, as reported by the Federal Reserve Board, was \$155.2 billion at the end of November. This amount was 6.7 percent more than that a year earlier. During November, the net change (extensions less repayments) in consumer installment debt outstanding was a decrease of \$400 million. This was the first monthly decrease since November 1970 and the largest decrease on record. The net change in consumer installment debt outstanding is a primary leading indicator of business-cycle changes. The marked decrease during November has removed doubt concerning the cyclical status of this series, which now is appraised as contracting cyclically.

Extensions of installment credit to consumers decreased 7.5 percent to \$12.61 billion during November. This amount was 11.7 percent less than that a year earlier, and it was 14.0 percent less than the record amount of such extensions during May 1974. November was the second consecutive month during which extensions of installment credit to consumers were less than those during the year-earlier month. Repayments decreased 1.6 percent to \$13.01 billion during November. This amount was 3.7 percent more than that a year earlier.

Extensions decreased in all 4 categories of consumer installment debt during November. Repayments of previously incurred debt decreased in 2 categories then.

Extensions of installment credit for the purchase of automobiles decreased \$307 million to \$3.06 billion during November. This was the smallest amount of such extensions since December 1972. Total unit sales of new U.S.-model and foreign cars during November were 33.7 percent less than those a year earlier. Repayments of automobile installment debt decreased \$47 million to \$3.42 billion during November. The total of such debt outstanding decreased a marked \$361 million then, which was the second consecutive monthly decrease in that total. The total number of new cars sold during December was 26.7 percent less than the number sold during December 1973 (when such sales were curtailed by consumer uncertainty concerning gasoline supplies) and 40.0 percent less than the number sold during December

1972. These sales data suggest not only that extensions of credit for the purchase of automobiles may have decreased during December, but also that the total of such credit outstanding probably decreased further then. Periods in which extensions of installment credit for the purchase of automobiles have been less than repayments of such loans (as they were during October and November) usually have occurred during cyclical contractions of general business activity.

Extensions of non-automobile installment credit decreased \$710 million to \$9.55 billion during November. Repayments of such credit then decreased \$168 million to \$9.59 billion. The November net change in non-automobile installment credit was a decrease of \$39 million. This was the first such monthly decrease since February 1958.

Among the non-automotive components of consumer installment debt, the November decrease in the total of outstanding loans occurred largely in the total of outstanding personal loans, which decreased \$174 million then. Installment loans outstanding for home repair and modernization, which account for only about 5 percent of total consumer installment indebtedness, decreased \$4 million during November, but the total of outstanding installment loans for the purchase of other consumer goods increased \$139 million then.

Retail sales of durable goods have decreased in terms of current dollars during most recent months. If this trend continues, extensions of consumer installment credit may be expected to continue to decrease. If the total of installment loans outstanding decreases, the level of repayments also may decrease. However, the large burden of consumers' existing installment debts suggests that repayments of such debt will not decrease significantly for several months, at least.

Data for November reveal that the willingness of consumers to borrow to purchase things had diminished to the extent that repayments of installment loans exceeded new commitments by a record amount then.

### RETAIL SALES

Estimates of retail sales for the most recent week and 4 weeks compare with such sales during the corresponding periods a year earlier as follows:

Period	Percent change
Week ended January 11	+7
Four weeks ended January 11	+7

### PRICES COMMODITIES PRICES

Index	1974		1975
	Jan. 6	Dec. 30	Jan. 6
Spot-market, 22 commodities*	543	547	542
Commodity-futures	683	750	727
Steel-scrap	\$76.17	\$76.83	\$76.83

\*For the preceding Tuesday.

Note: The indexes are, respectively, those of the U.S. Bureau of Labor Statistics, Dow-Jones, and *Iron Age*. The spot-market and futures indexes are converted so that their August 1939 daily averages equal 100. The steel-scrap index is a composite price for No. 1 heavy melting scrap.

### PRICE OF GOLD

	1974		1975
	Jan. 17	Jan. 9	Jan. 16
Final fixing in London	\$128.35	\$179.00	\$176.00