## EMPLOYMENT-UNEMPLOYMENT

# HEARINGS <br> BEFORE THE <br> JOINT ECONOMIC COMMITTEE CONGRESS 0F THE UNITED STATES <br> NINETY-SIXTH CONGRESS <br> SECOND SESSION 

PART 17
AUGUST 1, SEPTEMBER 5, AND DECEMBER 5, 1980
[Hearing days of October 3 and November 7, 1980, of this series, were not held due to Congress not being in session on those respective dates]

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## CONTENTS

# WITNESSES AND STATEMENTS 

## Friday, August 1, 1980

$\begin{array}{rlr}\begin{array}{l}\text { Bentsen, Hon. Lloyd, chairman of the Joint Economic Committee: Opening } \\ \text { statement. }\end{array} & \text { Page } \\ \text { Norwood, Hon. Janet L.-. Commissioner, Bureau of Labor Statistics, } & 1 \\ \text { Department of Labor, accompanied by } & \text { Kenneth Dalton, Assistant }\end{array}$
Friday, September 5, 1980
Bentsen, Hon. Lloyd, chairman of the Joint Economic Committee: Opening statement
Norwood, Hon. Janet L., Commissioner, Bureau of Labor Statistics, Department of Labor, accompanied by W. John Layng, Assistant Commissioner, Office of Prices and Living Conditions; and John E. Bregger, Chief, Division of Current Employment and Unemployment Analysis. .

Friday, December 5, 1980
Bentsen, Hon. Lloyd, chairman of the Joint Economic Committee: Opening statement
Norwood, Hon. Janet L., Commissioner, Bureau of Labor Statistics, Department of Labor, accompanied by W. John Layng, Assistant Commissioner, Office of Prices and Living Conditions; and John E. Bregger, Chief, Division of Current Employment and Unemployment Analysis

## SUBMISSIONS FOR THE RECORD

## Friday, August 1, 1980

Norwood, Hon. Janet L., et al.:
Table reflecting unemployment rates by alternative seasonal adjustment methods
Press release No. 80-477 entitled "The Employment Situation: July 1980," Bureau of Labor Statistics, Department of Labor, August 1, 1980

## Friday, September 5, 1980

Norwood, Hon. Janet L., et al.:
Table reflecting unemployment rates by alternative seasonal adjustment methods32

Press release No. 80-552 entitled "The Employment Situation:
August 1980," Bureau of Labor Statistics, Department of Labor,
September 5, 1980 ..... 33

Press release No. 80-553 entitled "Producer Price Indexes-August 1980," Bureau of Labor Statistics, Department of Labor, September 5, 1980
Response to Senator Proxmire's request to supply information on the number of persons exhausting benefits available under current State unemployment insurance programs

Table reflecting the unemployment rate in the construction industry.
Response to Senator Proxmire's request for an analysis of the effect of the President's economic recommendations75

## Friday, December 5, 1980

Norwood, Hon. Janet L., et al.:Table reflecting unemployment rates by alternative seasonal adjust-Page82November 1980," Bureau of Labor Statistics, Department of Labor,December 5, 1980Press release No. 80-769 entitled "Producer Price Indexes-Novem-ber 1980," Bureau of Labor Statistics, Department of Labor,December 5, 1980102

# EMPLOYMENT-UNEMPLOYMENT 

## FRIDAY, AUGUST 1, 1980 <br> Congress of the United States, Joint Economic Committee, Washington, D.C.

The committee met, pursuant to notice, at 11 a.m., in room 6226, Dirksen Senate Office Building, Hon. Lloyd Bentsen (chairman of the committee) presiding.

Present: Senator Bentsen; and Representatives Brown and Wylie.
Also present: John M. Albertine, executive director; Louis C. Krauthoff II, assistant director-director, SSEC; Charles H. Bradford, minority counsel; Mary E. Eccles, professional staff member; and Stephen J. Entin and Mark R. Policinski, minority professional staff members.

## Opening Statement of Senator Bentsen, Chárman

Senator Bentsen. The hearing will come to order. Our witness this morning will be Janet Norwood, Commissioner of the Bureau of Labor Statistics.

Ms. Norwood. Good morning.
Senator Bentsen. Ms. Norwood, we are very pleased to have you here this morning. I would like to note we certainly miss your valued associate, Mr. Stein, and regret.his passing. We are pleased to have you with us. We want to hear your report on the condition of the labor market in the United States. The figures released this morning are frankly quite puzzling. The overall unemployment rate, 7.8 percent, was essentially unchanged from last month. There were a lot of predictions it was going to be up. The chart here illustrates that the rates for virtually all worker groups are still high. Import of manufactured goods and employment levels in manufacturing industries declined further in July. Since May, the size of the labor force has fluctuated considerably. Last month, it grew again. We are really pleased to have you here, Ms. Norwood, to give us your interpretations.

> STATEMENT OF HON. JANET L. NORWOOD, COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY KENNETH DALTON, ASSISTANT COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND HARVEY R. HAMEL, ECONOMIST, OFFICE OF CURRENT EMPLOYMENT ANALYSIS

Ms. Norwood. Thank you very much, Mr. Chairman and members of the committee. I am pleased to have the opportunity to discuss with you the Employment Situation press release issued this morning by
the Bureau of Labor Statistics. Before doing so, however, I would like to say a few words about BLS Assistant Commissioner Robert Stein, a colleague who usually sat with me at this table. Bob Stein died last Saturday. Recognized as an expert on the Current Population Survey, Bob spent his career working toward a better understanding of the work and income status, especially of the poor, the disadvantaged, and the unemployed. His work reflected his special concern about the social effects of labor market conditions. He was a dedicated and able civil servant and we will miss him very much.

I would like now to introduce to you on my right Harvey Hamelf who is an economist with the Office of Current Employment Analysis. On my left is Ken Dalton, who is an Assistant Commissioner in the Office of Prices and Living Conditions.

The July Employment Situation figures suggest some leveling off in the labor market indicators. Total employment, as measured by the household survey, after declining steadily since February, actually rose by 460,000 . Although the number of nonfarm employees reported in the business survey dropped in July, total payroll employment showed no change over the month once allowance is made for the increased July level of strike activity and the decline in employment of Census Bureau interviewers. Since the July employment increase in the household survey follows a June decrease of the same amount, the payroll survey may well be a better indicator of the employment situation in July.
The number of unemployed workers- 8.2 million-and the unemployment rate- 7.8 percent-were both near their May and June levels, substantially above the figures which prevailed during the first part of this year. Adult men have borne the brunt of the increase in ioblessness since the recession began; their jobless ranks have swelled by over 1 million persons, and their rate of unemployment has risen from 4.7 to 6.7 percent.
Since the start of the recession in January, almost two-thirds of the increase in unemployment has occurred among adult men. Unemployment among adult women and teenagers also has risen, but at a somewhat slower pace. Both white and black workers have experienced substantial increases in unemployment over the period.
Workers in durable goods manufacturing and construction have been hardest hit. The unemployment rate among workers in the primary July, up from 6.3 percent in January. The unemployment rate for automobile workers held about steady in July, but, at almost 25 percent, was still much higher than the levels which prevailed early in the year.

Since the recession began in January, employment declines have been concentrated primarily in the goods-producing industries, with the heaviest declines in construction and durable manufacturing. Employment in the service-producing sector, which is usually less affected by recession than the goods-producing sector, has grown some since January. After some reduction in both May and June, employment in this sector rose 85,000 in July; the largest job gains occurred in services and in retail trade.

The average workweek fell 0.1 hour in July to 35 hours. Hours of work have declined steadily since early this year. However, factory hours were unchanged over the month and factory overtime was up 0.1 hour, at least temporarily halting cutbacks in the manufacturing workweek. The index of aggregate weekly hours for nonagricultural industries declined to 121.8 in July, 4.2 percent below the January level.

The overall labor force rose by 660,000 in July, after showing wide fluctuations in the last few months. The July labor force increase was concentrated disproportionately among young women 16 to 24 years old. As you may recall, the movement of youth-both young men and women-into and out of the labor force was a major element in the substantial May labor force increase and subsequent June decline.

These large movements of persons into and out of the labor force make a single month's numbers especially difficult to gage. Since January, the labor force has increased by nearly 1 million, with adult women accounting for 60 percent of the increase. The participation rate of adult women, at 51.6 percent, is now higher than ever before.
In summary, the severe labor market deterioration which occurred earlier in the year did not accelerate in July. The unemployment rate, while very high, has remained at about the same level for several months. The July data also show a leveling off in the employment declines that began earlier this year, although the signs are not yet strong enough to suggest a new trend. The payroll figures continue to show job cutbacks in key manufacturing industries. However, July showed small employment growth in the retail trade and service industries. Moreover, the BLS diffusion index of employment increases in 172 private nonagricultural industries rose in July.

My colleagues and I will now be glad to answer any questions you may have.
[The table attached to Ms. Norwood's statement, together with the Employment Situation press release referred to, follows:]

UNEMPLOYMENT RATES BY ALTERNATIVE SEASONAL ADJUSTMENT METHODS

| Month and year | UnadJusted rate <br> (1) | X-11 ARIMA method |  |  |  |  |  | $x-11$ <br> method (former official method) <br> (8) | Range (cols. 2-8) <br> (9) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Official | Concurrent | Stable | Total | Residual | $\begin{array}{r} \text { 12-mo } \\ \text { extrapo- } \\ \text { lation } \end{array}$ |  |  |
|  |  | (2) | (3) | (4) | (5) | (6) | (7) |  |  |
| 1979 |  |  |  |  |  |  |  |  |  |
| July | 5.8 | 5.7 | 5.7 | 5.7 | 5.8 | 5.8 | 5.7 | 5.7 | 0.1 |
| August | 5.9 | 5.9 | 5.9 | 6.0 | 5.8 | 5.8 | 5.9 | 5.9 | . 1 |
| September. | 5.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | . 1 |
| October..- | 5.6 | 5.9 | 5.9 | 6.0 | 5.9 | 6.0 | 5.8 | 5. 9 | 1 |
| November- | 5.6 | 5.8 | 5.8 | 5.9 | 5.8 | 5.8 | 5.8 | 5.8 5.8 | 1 |
| December.. | 5.6 | 5.9 | 5.9 | 6.0 | 5.8 | 5.9 | 5.9 | 5.9 | 2 |
| 1980 |  |  |  |  |  |  |  |  |  |
| January | 6.8 | 6.2 | 6.1 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 1 |
| February... | 6.8 | 6. 0 | 6.1 | 6.0 | 6.1 | 5.9 | 6.0 | 6.0 | 2 |
| March..- | 6.6 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 2 |
| April. | 6.6 | 7.0 | 6.8 | 6.9 | 7.0 | 7.0 | 7.0 | 7.0 | 2 |
| May-- | 7.0 | 7.8 | 7.6 | 7.8 | 7.8 | 7.7 | 7.8 | 7.8 | 2 |
| June. | 7.8 | 7.7 | 7.6 | 7.4 | 7.5 | 7.5 | 7.7 | 7.6 | 3 |
| July.-.----- | 7.9 | 7.8 | 7.8 | 7.8 | 7.7 | 7.8 | 7.9 | 7.9 | 2 |

## EXPLANATION OF COLUMN HEADS

(1) Unadjusted rate.-Unemployment rate not seasonally adjusted
(2). Official rate (X-11 ARIMA method). -The published seasonally adjusted rate. Each of the 3 major labor force com-ponents-agricultural employmient, nonagricultural employment and unemployment-for 4 age-sex groups-males and females, ages 16 to 19 and 20 yr and over-are seasonally adjusted independently using data from January 1967 forward. The data series for each of these 12 components are extended by a year at each end of the original series using ARIMA (auto-regressive, integrated, moving average) models chosen specifically for each series. Each extended series is then seasonally adjusted with the X-11 portion of the X-11 ARIMA program. The 4 teenage unemployment and nonagricultural employment components are adjusted with the additive adjustment model, while the other components are adjusted with the multiplicative model. A prior adjustment for trend is applied to the extended series for adult male unemployment before seasonal adjustment. The unemployment rate is computed by summing the 4 seasonally adjusted unemployment components and calculating that total as a percent of the civilian labor force total derived by summing all 12 seasonally adiusted components. All the seasonally adjusted series are revised at the end of each year. Extrapolated factors for January-June are computed at the beginning of each year; extrapolated factors for July-December are computed in the middle of the year, after the June data become available. Each, set of 6 -mo. factors are published in advance, in the January and July issues, respectively, of "Employment and Earnings.'
(3) Concurrent ( X -11 ARIMA method). -The procedure for computation of the official rate using the 12 components is followed except that extrapolated factors are not used at all. Each component is seasonally adjusted with the X-11 ARIMA program each month as the most recent data become available. Rates for each month of the current year are shown as first computed; they are revised only once each year, at the end of the year when data for the full year become available. For example, the rate for January 1980 would be based, during 1980, on the adjustment of data from the period January 1967 through January 1980. Since the revision pattern and procedure for computation of the rate are identical to the official procedure, the results of this method will be identical to the official rate at the end of each year when the most recent observation is December.
(4) Stable (X-11 ARIMA method).-Each of the 12 labor force components is extended using ARIMA models as in the official procedure and then run through the $X-11$ part of the program using the stable option. This option assumes that seasonal patterns are basically constant from year-to-year and computes final seasonal factors as unweighted averages of all the seasonal-irregular components for each month across the entire span of the period adjusted. As in the official procedure, factors are extrapolated in 6 -mo. intervals and the series are revised at the end of each year. The procedure for computation of the rate from the seasonally adjusted components is also identical to the official procedure.
(5) Total (X-11 ARIMA method).-This is one alternative aggregation procedure, in which total unemployment and labor force levels are extended with ARIMA models and directly adjusted with multiplicative adjustment models in the X-11 part of the program. The rate is computed by taking seasonally adjusted total unemployment as a percent of seasonally adjusted total civilian labor force. Factors are extrapolated in 6 -mo. intervals and the series revised at the end of each year.
(6) Residual (X-11 ARIMA method).-This is another alternative aggregation methods, in which total employment and civilian labor force levels are extended using ARIMA models and then directly adjusted with multiplicative adjustment models. The seasonally adjusted unemployment level is derived by subtracting seasonally adjusted employment from seasonally adjusted labor force. The rate is then computed by taking the derived unemployment level as a percent of the labor force level. Factors are extrapolated in 6 -mo. intervals and the series revised at the end of each year.
(7) 12 -mo extrapolation (X-11 ARIMA method). -This approach is the same as the official procedure except that the factors are extrapolated in 12 -mo. intervals. The factors for January-December of the current year are computed at the beginning of the year based on data through the preceding year. The values for January through June of the current year are the same as the official values since they reflect the same factors.
(8) $\mathrm{X}-11$ method (former official method). - The procedure for computation of the official rate is used except that the series are not extended with ARIMA models and the factors are projected in 12 -mo. intervals. The standard X-11 program is used to perform the seasonal adjustment.
Methods of adjustment. - The X-11 ARIMA method was developed at Statistics Canada by the Seasonal Adjustment and Time Series staff under the direction of Estela Bee Dagum. The method is described in the X-11 ARIMA Seasonal Adjustment Method, by Estela Bee Dagum, Statistics Canada Catalog No. 12-564E, February 1980.
The standard X-11 method is described in X-11 Variant of the Census 'Method il Seasonal Adjustment Program, by Julius Shiskin, Alan Young and John Musgrave (Technical Paper No. 15, Bureau of the Census, 1967).
Source: U.S. Department of Labor, Bureau of Labor Statistics, August 1980.

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transmission of material in this release is EMBARGOED UNTIL 9:00 A.M. (EDT), FRIDAY, AUGUST 1, 1980

THE EmPLOYment Situation: july 1980

- Unemployment was about unchanged in July, while there were contrasting movements in the two major employment series, the Bureau of Labor Statistics of the U.S. Departaent of Labor reported today. The Nation's unemployment rate was 7.8 percent, little different from the May and June rates.

Total employment-as measured by the monthly gurvey of households-rose by 460,000 in July, following 4 consecutive monthly declines.

Nonfarm payroll employment-as measured by the monthly survey of establishments--fell by 240,000 in July. An increase in strike activity contributed to the drop. Like total employment, payroll jobs declined during the February-June period.

## Unemployment

The unemployment rate was 7.8 percent in July, about unchanged from the May and June rates of 7.8 . and 7.7 percent, respectively, and substantially above the levele which prevailed earlifer this year. There was little or no over-the-month change in the rate for adult men (6.7 percent), adult women ( 6.7 percent), and teenagers ( 19.0 percent). Jobless ratea for most other worker categoriea also remained near their May and June levels. (See tables A-l and A-S.)

The number of unemployed persons, at 8.2 milifon in July, was similar to the levels registered in May and June but was up about 2 million since the turn of the year. The median duration of unemployment increased for the second month in a row. In July, it reached 7.1 weeks, as the number of persons unemployed 27 weeks or more rose substantially. About 1 of every 9 jobseekers had been out of work at least half a year. (See tables A-1 and A-6.)

## Total Employment and the Labor Force

Employment (as measured by the household survey) increased by 460,000 in July, following a decline of about the same magnitude in June. (See cable A-1.) Since the February employment peak, the total number of jobholders has dropped by about 950,000 to 97.0 million. The July
increase took place among both men and women; however, a diaproportionately large share of the overall growth occurred among $16-24$ year old women.

The employment-population ratio edged up over the month, but was about a point below its year-eariler level. All of the over-the-year decilne in the ratio took place among men.

The civilian labor force increased about 650,000 in $J u l y$, following 2 months of large swings (up 725,000 in May and down 600,000 in June). On an over-the-year basia, the labor force increased by 2.0 million, about in line with growth of the working-age population. Accordingly, the labor force participation rate was about unchanged between July 1979 and July 1980.

Table A. Major indicators of labor market activity, seasonaliy adjusted


The number of employees on nonagricultural payrolls fell by 240,000 to 89.7 million in July. A large net increage in strike activity contributed to this decline. (In contrast to their treatment in the household survey, workers on strike are not included in the payroll job count.) The continued drop in nonfarm payroll employaent left the serfes 1.5 milion lower than the February peak. (See table B-l.)

Nearly all of the over-the-month decline occurred in the goods-producing sector, as both mining and construction waze affected by major work stoppages. Manufacturing, which continued to suffer severe job cutbacks, lost an additional $\mathbf{2 5 5 , 0 0 0}$ jobs in July; both durable and nondurable goods manufacturers reported fewer employees. In durables, the most seriously affected industries were primary metals and fabricated metals, in both of which employment fell by 50, 000; sizable job losaes also occurred in machinery, electrical equipment, and furniture. In the nondurable goods industries, declines were most visible in apparel, food, and rextiles.

After 2 months of decline, employment in the gerviceproducing sector rose slightly in July. The AS, no o over the-month incresse was the result of divergent movements within the sector. Services and retail trade were the largest contributors to the sector's employment. growth. (The gain in retail trade followed 4 consecutive monthly declines.) Federal government employment, on the other hand, fell sharply, as the number of temporary employees engaged in the 1980 Decennial Census was reduced.

## Hours of Work

The average workweek for production or nonsupervisory workers on private nonagricultural payrolls edged down to 35.0 hours in July. The manufacturing workweck remained at 39.1 hours. Manufacturing overtime was up 0.1 hour after 3 consecutive montha of decline. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls fell 0.6 percent in July to 121.8 (1967-100) as a result of the drops in employment and hours. The index has declined 4.2 percent since the receasion began in January, The manufacturing index was down 1.5 percent over the month, reflecting the drop factory employment. (See table B-5.)

Average hourly earnings of production or nonsuperviaory workers on private nonfart payrolls rose 0.3 percent over the month and 7.8 percent over the year (seasonally adjusted). Average weekly earnings were unchanged in July, but were up 6.0 percent over the year.

Before adjustment for seasonality, average hourly earnings rose 1 cent in July to $\$ 6.62$ and have risen 46 cents over the year. Average weekly earnings fell 30 centa over the month to \$277.69 in july, but were up $\$ 11.93$ over the year. (See table B-3.)

The Hourly Farnings Index
The Hourly Farnings Index--earnings adjusted for overtime in manufacturing, seasonality, and the effects of changes in the proportion of workets in high-wage and low-wage industries-was 251.3 ( $1967=100$ ) in July, 0.2 percent higher than in June. The Index was 8.9 percent above July a year ago. In dollars of constant purchasing power, the Index decreased 4.2 percent during the 12-month period ended in June. (See table B-4.)

Chart 1. Clvilian labor force and employment
(Seasonally adjusted)


Chart 2. Unemployment rate--all civillan workers


Chart 3. Civillan labor force participation rate and total omploymant-population ratlo (Seasonally adjusted)


## Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment. Statistics Survey (establishment survey). The household survey provides the information on the labor force, total employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 65,000 households that is conducted by the Bureau of the Census with most of the findings analyzed and published by the Bureau of Labor Statistics (BLS).
The establishment survey provides the information on the employment, hours, and earnings of workers on nonagricultural payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. The sample includes approximately 166,000 establishments employing about 35 million people.

For both surveys, the data for a given month are actually collected for and relate to a particular week. In the household survey, uniess otherwise indicated, it is the calendar week that contains the 12th day of the month, which is called the survey week. In the establishment survey, the reference week is the pay period including the 12 th, which may or may not correspond directly to the calendar week.
The data in this release are affected by a number of technical factors, including definitions, survey differences, seasonal adjustments, and the inevitable variance in results between a survey of a sample and a census of the entire population. Each of these factors is explained below.

## Coverage, deflialtions and differences between surveys

The sample households in the household survey are selected so as to reflect the entire civilian noninstitutional population 16 years of age and older. Each person in a household is classified as employed, unemployed, or not in the labor force. Those who hold more than one job are classified according to the job at which they worked the most hours.

People are classified as employed if they did any work at all as paid civilians; worked in their own business or profession or on their own farm; or worked 15 hours or more in an enterprise operated by a member of their family, whether they were paid or not. People are also counted as employed if they were on unpaid leave because of illness, bad weather, disputes between labor and management, or personal reasons.
People are classified as unemployed, regardless of their eligibility for unemployment benefits or public assistance, if they mest all of the following criteria: They had no employment during the survey week; they were available for work at that time; and they made specific efforts to find employment sometime during the prior 4 weeks. Also included among the unemployed are persons not looking for work because they were laid off
and waiting to be recalled and those expecting to report to a job within 30 days.

The civilian labor force equals the sum of the number employed and the number unemployed. The unemployment rate is the percentage of unemployed people in the civilian labor force. Table A-4 presents a special grouping of seven measures of unemployment based on varying definitions of unemployment and the labor force. The definitions are provided in the table. The most restrictive definition yields $\mathrm{U}-1$, and the most comprehensive yields U-7. The official unemployment rate is U-S.

Unlike the household survey, the establishment survey only counts wage and salary employees whose names appear on the payroll records of nonagricultural firms. As a result, there are many differences between the two surveys, among which are the following:
----The household survey, although based on a smaller sample, reflects a larger segment of the population; the establishment survey excludes agriculture, the self-employed, unpaid family workers, and private household workers;
----The household survey includes people on unpaid leave among the employed; the establishment survey does not;
---The household survey is limited to those 16 years of age and older; the establishment survey is not limited by age;
---The household survey has no duplication of individuals, because each individual is counted only once; in the establishment survey, employees working at more than one job or otherwise appearing on more than one payroll would be counted separately for each appearance.
Other differences between the two surveys are described in "Comparing Employment Estimates from Household and Payroll Surveys," which may be obtained from the BLS upon request.

## Seasonal adjustment

Over a course of a year, the size of the Nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. For example, the labor force increases by a large number each June, when schools close and many young people enter the job market. The effect of such seasonal variation can be very large; over the course of a year, for example, seasonality may account for as much as 95 percent of the month-to-month changes in unemployment.
Because these seasonal events foilow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or
increases in the participation of women in the labor force, easier to spot. To return to the school's-out example, the large number of people entering the labor force each June is likely to obscure any other changes that have taken place since May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

Measures of civilian labor force, employment, and unemployment contain compcinents such as age and sex. Statistics for all employees, production workers, average weekly hours, and average hourly earnings include components based on the employer's industry. All these statistics can be seasonally adjusted either by adjusting the total or by adjusting each of the components and combining them. The second procedure usually yields more accurate information and is therefore followed by BLS. For example, the seasonally adjusted figure for the civilian labor force is the sum of eight seasonally adjusted employment components and four seasonally adjusted unemployment components; the total for unemployment is the sum of the four unemployment components; and the official unemployment rate is derived by dividing the resulting estimate of total unemployment by the estimate of the civilian labor force.
The numerical factors used to make the seasonal adjustments are recalculated regularly. For the household survey, the factors are calculated for the January-June period and again for the July-December period. The January revision is applied to data that have been published over the previous 5 years. For the establishment survey, updated factors for seasonal adjustment are calculated only once a year, along with the introduction of new benchmarks which are discussed at the end of the next section.

## Sampling variability

Statistics based on the household and establishment surveys are subject to sampling error, that is, the estimate of the number of people employed and the other estimates drawn from these surveys probably differ from the figures that would be obtained from a complete census, even if the same questionnaires and procedures were used. In the household survey, the amount of the differences can be expressed in terms of standard errors. The numerical value of a standard error depends upon the size of the sample, the results of the survey, and other factors. However, the numerical value is always such that the chances are 68 out of 100 that an estimate based on the sample will differ by no more than the standard error from the results of a complete census. The chances are 90 out of 100 that an estimate based on the sample will differ by no more than 1.6 times the
standard error from the results of a complete census. At the 90 -persent level of confidence-the confidence limits used by BLS in its analyses-the error for the monthly change in total employment is on the order of plus or minus 293,000; for total unemployment, it is 185,000 ; and, for the overall unemployment rate, it is 0.19 . percentage point. These figures do not mean that the sample results are off by these magnitudes but, rather, that the chances are 90 out of 100 that the "true" level or rate would not be expected to differ from the estimates by more than these amounts.
Sampling errors for monthly surveys are reduced when the data are cumulated for several months, such as quarterly or annually. Also, as ä general rule, the smaller the estimate, the larger the sampling error. Therefore, relatively speaking, the estimate of the size of the labor force is subject to less error than is the estimate of the number unemployed. And, among the unemployed, the sampling error for the jobless rate of adult men, for example, is much smaller than is the error for the jobless rate of teenagers. Specifically, the error on monthly change in the jobless rate for men is .23 percentage point; for teenagers, it is 1.06 percentage points.

In the establishment survey, estimates for the 2 most current months are based on incomplete returns; for this reason, these estimates are labeled preliminary in the tables. When all the returns in the sample have been received, the estimates are revised. In other words, data for the month of September are published in preliminary form in October and November and in final form in December. To remove errors that build up over time, a comprehensive count of the employed is conducted each year. The results of this survey are used to establish new benchmarks-comprehensive counts of employment-against which month-to-month changes can be measured. The new benchmarks also incorporate changes in the classification of industries and allow for the formation of new establishments.

## Additional statistics and other information

In order to provide a broad view of the Nation's employment situation, BLS regularly publishes a wide variety of data in this news release. More comprehensive statistics are contained in Employment and Earnings, published each month by BLS. It is available for $\mathbf{\$ 2 . 7 5}$ per issue or $\$ 22.00$ per year from the U.S. Government Printing Office, Washington, D.C. 20204. A check or money order made out to the Superintendent of Documents must accompany all orders.

Employment and Earnings also provides approximations of the standard errors for the household survey data published in this release. For unemployment and other labor force categories, the standard errors appear in tables A through I of its "Explanatory Notes." Measures of the reliability of the data drawn from the establishment survey and the actual amounts of revision due to benchmark adjustments are provided in tables $\mathbf{K}$ through $P$ of that publication.

Table A.1. Employment status of the population by sex and age

|  | Not menenily matyed |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\dot{1913}$ | $\begin{aligned} & \text { Juke: } \\ & 1900 \end{aligned}$ | $\begin{gathered} \mathrm{JW} 1 \dot{1} \\ \mathrm{Kg} 9 \end{gathered}$ | $\begin{aligned} & \text { July } \\ & 1079 \end{aligned}$ | $\operatorname{Mar}_{1980}$ | $\begin{gathered} \text { Apro } \\ 1980 \end{gathered}$ | $\begin{aligned} & \text { Hay } \end{aligned}$ | $\begin{aligned} & \text { Iune } \\ & 1920 \end{aligned}$ | $\begin{aligned} & \mathrm{July} \\ & 1980 \end{aligned}$ |
| total |  |  |  |  |  |  |  |  |  |
| Total inonimatititionel posviaston'. | 102.635 | 166, 105 | 166.391 | 16.3.685 | 165.506 | 165,693 | 165,886 | 116, 105 | 166,391 |
| Ammed Forcus' . . . . . . . . . | 2,082 | 2,092 | 2.099 | 2,082 | 2,090 | 2,092 | 2,088 | 2,092 | 2,099 |
|  | 161,604 | 164.013 | ${ }^{164.29 .3}$ | 161.604 | 163.416 | 163,601 | 163,799 | 16,4,013 | 164,293 |
| Cluilime lesoor force. Partictretion at | 104.795 | 106,067 | 106,697 | 103.093 | 104.094 | 104.419 | 105,142 | 104,542 | 105.203 |
|  | 55.0 | 54.7 | 65.7 | 63.8 | 62.7 | 63.8 | 64.2 | 63.7 | 64.0 |
|  | 98,829 ¢0.4 | 27.776 58.9 | 90,58? | ¢7.184 | 97. 656 | ${ }^{47.154}$ | 96,988 | 96,537 | 96,996 |
| Aaciadsura. . . . . . . . . . | 3.957 | 3,737 | 3.951 | 3,267 | . 9.358 | 58.6 3,292 | 3.379 | 58.1 3.191 | 58.3 3.257 |
| Nongeriadidurel houtris | $95 . c 34$ | 94.039 | 94, 124 | 32.917 | 90.298 | 93,912 | 93,609 | ¢ 3, 346 | 93,739 |
| Unemplored. | 6.104 | 8,291 | 2,410 | 5.909 | 6.438 | 7.265 | 8,154 | 8,006 | 8,207 |
| Not in in mor force ...... | 5.8 56.69 | 57, 7.8 | 57.708 | 58.7 |  | 7.0 | 7.8 | 7.7 | 7.8 |
|  | 56.69 | 57,946 | 37.20n | 58,517 | 59,322 | 59.182 | 58.657 | 59,471 | 59,09 |
| Men. 14 yume and own |  |  |  |  |  |  |  |  |  |
|  | 78,427 | 79.575 | 79,710 | 78,427 | 79, 295 | 79,382 |  |  |  |
| ArmedFercen' | 1.943 | 1.935 | 1,937 | 1,943 | 17,934 | 1.935 | 1.931 | 1,935 | 1,937 |
| Civilien nonimatiartional poouletiont | 76.484 | 77.641 | 77.773 | 76,484 | 77,361 | 77.447 | 77,541 | 77,641 | 77.773 |
| Crilimen lebot force. | 61.422 | 61.440 | 62.096 | -9,547 | 60, 642 | 69.037 | 60,479 | 60, 127 | 60,333 |
| Perricipation rate. | 80.3 | 79.1 | 79. ${ }^{\text {a }}$ | 77.9 | 77.6 | 77.5 | 78.0 | 77.4 | 77.6 |
| Emplorved . . . . . . . . . . . . . | 58,350 | 56,803 | 57, 362 | 56,570 | 56,601 | 55,998 | 55.823 | 55,457 | 55, 529 |
| Employment-posetation rutio | 74.4 | 71.4 | 72.0 | 72.1 | 71.4 | 70.5 | 70.2 | 559.7 | 69.8 |
| Unamolorvd. ......... | 3.072 5.0 | 0.637 7.5 | 4.732 7.6 | 3.027 5.1 | 3.441 .5 .7 | 4.040 6.7 | 4.656 7.7 | 4.669 7.8 | 4.703 7.8 |
| Men, 20 yeme and own |  |  |  |  |  |  |  |  |  |
|  | 69,995 | 71,190 | 71,326 | 69,995 | 70,896 | 70.988 | 71,083 | 71,190 | 71.326 |
| Arnod Forces', . . . . . . . . . . . | 1,675 | 1,658 | 1.662 | 1,676 | 1,657 | 1.659 | 1,655 | 1.650 1.658 | 1,662 |
| Cistion monimuthetionel pepulation ${ }^{\text {a }}$ | 68,319 | 69,532 | 69,664 | -8,319 | 69,23日 | 69,329 | 69.428 | 69,532 | 69,664 |
| Cinfiom liser tores. | 55,101 | 55,570 | 55,831 | -4,579 | 54, 996 | 55, 114 | 55,467 | 55,220 | 55.398 |
| Perteipotion | 89.7 | 79.9 | $5{ }^{50.1}$ | 70.9 | 79.4 | 79.5 | 79.9 | 79.4 | 29,5 |
| Erptoyrd . . . . . . . . . . . . . . ${ }_{\text {and }}$ | 57,966 75.7 | 52,153 73.3 | 52.2478 | 52, 325 | 52,300 73.8 | 51,860 | 51,796 | 51.510 | 51.668 |
| Apterimen . . . . . . . . . . . . | 2.520 | 2,470 | 2,475 | 2,327 | 2,394 | 2,320 | 72.9 2.384 | 72.4 2.270 | 72.4 |
| Nonsapleilaral Industien | 50,446 | 49,683 | 49,771 | 43,998 | 49,906 | 49,548. | 49.412 | 49,240 | 49,392 |
| Unemployed. | 2,134 | 3,417 | 3.595 | 2,254 | 2,696 | 3,246 | 3.671 | -9,240 | 4,370 $3,7 \pm 0$ |
| Unempleymant itut. | 3.9 | 6.1 | 0.4 | 4. 4 | 4.9 | .5.9 | 6.6 | 6.7 | 6.7 |
| Wemmer, 15 meneme eme |  |  |  |  |  |  |  |  |  |
| Toen monimutition pogulition'. | 85,259 | 66, 530 | 86,681 | 85.259 | 86,231 | 86,311 | 86,414 | 86,530 | 06,681 |
| Armed forcen'. | 139 | 157 | 161 | 139 | 157 | + 157 | 156 | 157 | 161 |
| Cration nonitutiotenal poseletion: | 85, 120 | 96, 373 | 86,520 | 85,120 | 86, 054 | 26.154 | 86, 258 | 86, 373 | 86,520 |
| Ovation liber flore . . . . . | 43,573 | 49,627 | 44,901 | 43,496 | 44,052 | 44,181 | 44,663 | 44.416 | 44, 870 |
| Ertuction rat. | 51.2 | 51.7 | 51.9 | 51.1 | 51.2 | 51.5 | 41.8 | 51.4 | 51.9 |
|  | 40,541 47.6 | 40,973 47.4 | 41.224 47.6 | 43,614 47.6 | 47,054 47.6 | 11.156 47.7 | 41,165 47.6 | 41.079 47.5 | 11,367 47.7 |
| unmploved. . . . . . . . . . . . . | 47.6 3.032 | 47.4 3.654 | 47.6 3,677 | 47.6 2,802 | 47.6 7.497 | 47.7 3.225 | 3.4.6 | 47.5 3.337 | 47.7 3,503 |
| Unempioyman ne. | 7.0 | 8.2 | 8.2 | 6.6 | 6.8 | 7.3 | 7.8 | 7+5 | 7.8 |
|  |  |  |  |  |  |  |  |  |  |
|  | 77.014 | 78, 340 | 78,493 | 77.014 | 78,005 | 78. 110 | 78,219 | 78,340 | 70.493 |
| Armad Forren' . . . . . . . . | 117 | 129 | 133 | 117 | . 129 | 129 | 129 | 129 | ${ }^{1} 133$ |
| Contion manimatiortional population' Chrition luber toree | 76.897 38.214 | 78,211 39888 | 78.360 39.602 | 76,897 | 77,876 | 77.981 | 78,090 | 78, 211 | 78, 360 |
| Prisumperion | 38.214 49.7 | 39,688 50.7 | 39.602 50.5 | 39.033 50.8 | 39,751 51.0 | 40,137 | 40,246 | 00, 125 | 40,471 |
| Emploved | 36,045 | 37,087 | 36,881 | 36,873 | 37,496 | 37.602 | 37,576 | 37,530 | 37, 76.6 |
| Employmmant-pouulsition rato ${ }^{2}$ | 46.8 | 47.3 | 47.0 | 47.9 | 48.1 | 48.1 | 48.0 | 47.9 | 4 A .1 |
| Aprastum. | 748 | 689 | 719 | 585 | 582 | 552 | 616 | 541 | 565 |
| Unemotoryodtural Incturtime. | 35,297 | . 36, 397 | 36. 162 | 36,288 | 36,914 | 37,051 | 36,960 | 36,989 | 37,204 |
| Unemploved. . . . . . . . Unemplo | 2, 169 | 2,601 | 2,721 |  | 2,255 | 2,534 | 2,670 | 2,596 | 2,702 |
| Unemployment rate. | 5.7 | 6.6 | 69 | 5.5 | 5.7 | 6.3 | 6.6 | 6.5 | 6.7 |
| Eoch mien, 16-13 ymer |  |  |  |  |  |  |  |  |  |
|  | 16.677 | 16.575 | 16.572 | 16,677 | 16,606 | 16,595 | 16,584 | 16,575 | 16,572 |
| Arod forcm' . . . . . . | 16.289 | +304 | . 364 | - 289 | 16, 300 | 16, 304 | W, 304 | , 304 | 6.572 304 |
| Cwillem nonimitartons populutien ${ }^{1}$ | 16,387 | 16.271 | 16,268 | 16.387 | 16,302 | 16, 291 | 16,281 | 16, 271 | 16,268 |
| Culilum insor torse ..... | 11,680 71.3 | 10,809 66.4 | 11,563 | 9,481 | 9.346 | 9.168 |  | 9.197 | 9.334 |
| Emploped .......... | 9.879 | 66.4 8,536 | 71.1 9,459 | 51.9 7.986 | 57.3 7.859 | 56.3 7,683 | 57.9 7,616 | 56.5 7.497 | 77.480 |
| Employmenrpopulaton revio' | 59.2 | 51.5 | 57.1 | 47.9 | 47.3 | 46.3 | 45.9 | 45.2 | 45.6 |
|  | 589 | 577 | 659 | 355 | 381 | 370 | 379 | 380 | 401 |
| Unmmploved . . . . . . . . . . | 9.290 1.801 | 7,959 2.273 | 3,801 2,104 | 7.631 1,495 | 7,478 1,487 | 7.313 1.485 | 7,237 1,83 | 7. 117 | 7.159 |
| Unemplopmwe rat. | 15.4 | 21.0 | 18.2 | $\begin{array}{r}\text { 15.8 } \\ \hline 18\end{array}$ | 18.487 15.9 | 1.485 16.2 | $\begin{array}{r} 1,013 \\ 19.2 \end{array}$ | 'ifor | 19.0980 |
|  <br>  |  |  |  |  |  |  |  |  |  |

Table A-2. Enrployment itatua of the popciation by race, eax, and age


HOUSEHOLD DATA
Table A-3. selected employment indicators

| Cruory | Mor moonily |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \mathrm{Jal} \\ & 1979 \end{aligned}$ | $\begin{aligned} & J 119 \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 1079 \end{aligned}$ | $\begin{aligned} & \text { Yar. } \\ & 1980 \end{aligned}$ | ${ }_{1980}{ }^{\text {Apt }}$ | May 1980 | $\begin{aligned} & \text { Jung } \\ & 1980 \end{aligned}$ | Jy 17 1980 |
| cmaracterastic |  |  |  |  |  |  |  |  |
| Toud mmeloved, 30 venr und ower. | 98,891 | 98,367 | 27.184 | 37.656 | 97, 154 | 96.988 | 96,537 | 96.936 |
| Harited men, spoins prover . | 39,320 | 38, 113 | 29,17t | 38,745 | 38,342 | . 36.147 | 38, 93 | 37.999 |
|  | 22,020 | 22,219 | 27.908 | 23,202 | 23,080 | 23,155 | 23,144 | 23.097 |
| Wormen whomeintain tumile . | 4.554 | 4,584 | 4,618 | 4,656 | 4.645 | 4.637 | 4.671 | 4,649 |
| cecupathow |  |  |  |  |  |  |  | 1 |
| Whibreoller morken | 49.155 | 50,718 | 49.536 | 50.302 | 50,405 | 50,606 | 30,361 | 51.114 |
| Protmenal end utirical. | 14.431 | 15, 143 | 13.057 | 15,397 | 15,542 | 15,531 | 15,712 | 15.791 |
|  | 10,696 | 11, 145 | 13.61? | 10,755 | 10.745 | 10.8 ez | 10.911 | 11.046 |
| stum marters. | 6,223 | 6, 177 | 6. 163 | 6,113 | 5,938 | 6.022 | 5.981 | 6.128 |
| Centat morken | 47,744 | 18,254 | 17,704 | 18,037 | 18, 129 | 18, 152 | 18.256 | 18.199 |
| Bhercols morters. | 33,534 | 31.89 | 32,051 | 31,670 | 31.127 | 30.681 | 30.243 | 30,149 |
| Crat end indrad worken. | 13,397 | 12,815 | 12.876 | 12,767 | 12,773 | 12,523 | 12,301 | 12.382 |
| Opuntive, excopt trinmort | 11,038 | 10,235 | 13,884 | 10,579 | 10.408 | 10.336 | 10,131 | 10.134 |
| Tramport saulomert cowethen. | 3,614 | 3.318 | 3.627 | 3. 558 | 3,483 | 3,421 | 3.395 | 3.335 |
| Mantamm leboren | 5,485 | 5.043 | 4.664 | 4.767 | 4.463 | 4.402 | 4,416 | 4.299 |
| Sumica morters. | 13,032 | 13,295 | 12,766 | 12,961 | 13,036 | 12.932 | 12,930 | 13,045 |
| Futs workes. | 3,170 | 3. 164 | 2,678 | 2,733 | 2,658 | 2.745 | 2,606 | 2.689 |
| MaOM ImDUSTRY AMD CLAEAOF WORKEA |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Wuat and alery worken. sadi employed werkers. | 1,752 | 1,664 | 1,419 1,558 | 1,449 1,600 | 1,370 1,591 | 1,405 | 1,765 | 1.352 1.631 |
| Unewal terily markas. | 420 | 424 | ${ }^{291}$ | 300 | 281 | ${ }^{289}$ | +269 | + 292 |
| Nonearlaiturel Indestris: |  |  |  |  |  |  |  |  |
| Wrap end meray morkers. | 87.561 | 87,343 | 36.454 | 97.221 | 96,741 | 86,631 | et. 257 | 86,407 |
| Gournment. | 14.844 | 15.208 | 13,393 | 15,622 | 15,668 | 15,799 | 15,891 | 15,760 |
| Atrest inderim. . . | 72.719 | 72, 135 | 71.061 | 71, 399 | 71.072 | 70,832 | 70.365 | 70,647 |
| Atroto trowethith. | 1.278 | 1.309 | - 1,219 | 1,115 | 1.123 | 1,206 | 1,219 | 1,245 |
| Other indestries | 71.447 | 70.826 | 57.842 | 70,424 | 63.943 | 69.625 | 69.147 | 69.402 |
| Saltemptornal morkers. | 6.935 | 6,934 | 6,75,2 | 6.825 | 6,813 | 6,64. | 6.666 | 6,765 |
| Unoed family morkers. | 536 | 457 | 519 | 376 | 363 | 411 | 445 | 441 |
| Mersons at moak |  |  |  |  |  |  |  |  |
| Moneartatural hincusitio. | 83.558 | 82.349 | 7a, 769 | 98,535 | 87.660 | 87.680 | 67. 310 | 67.454 |
| Futhtidme chaties. | 70,066 | 67.752 | 72,915 | 72.749 | 71,807 | 71.224 | 71,206 | 70,649 |
| Pran tima for ceonomic fumors | 3, 317 | 4.913 | 3,274 | 3.418 | 3,816 | 4,349 | 3,999 | 4.113 |
| Ureolly wort holl thme | 1,296 | 1.329 | 1.334 | 1.463 | 1,709 | 2,064 | 1,781 | 1.847 |
| Urually mork pert thru. | 2,635 | 3.084 9.684 | 1,940 | 1,755 | 2.107 | 2,285 | 2.217 | 2.266 |
| Pert time for noreconomice rumom. | 9,561 | 9,684 | 12,560 | 12,418 | 12,037 | 12,106 | 12,706 | 12,692 |


Table A-4. Range of unemployment measures based on varying dafinitions of unemployment and the labor force, sassonally adjusted

| Mumire | Ourcoily maxem $r$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 |  |  | 1980 |  |  |  |  |
|  | II | III | IV | I | II | $\mathrm{Ha}_{1}$ | June | July |
|  | 1.2 | 1.1 | 1.2 | 1.3 | 1.6 | 1.6 | 1.7 | 1.8 |
|  | 2.4 | 2.5 | 2.85 | 2.9 | 4.0 | 4.1 | 4.4 | 4.3 |
|  | 3.9 | 3.9 | 3.9 | 4.2 | 5.3 | 5.5 | 5.5 | 5.7 |
|  | 5.2 | 5.3 | 5.0 | 5.7 | 7.3 | 3.5 | 7.4 | 7.6 |
|  | 5.9 | 5.9 | 5.9 | 6.1 | 7.5 | 7.8 | 1.7 | 7.8 |
|  <br>  | 7.2 | 7.3 | 7.4 | 3.7 | 9.4 | 9.9 | 9.6 | 9.8 |
|  <br>  <br>  | 2.3 | 8.0 | 8.9 | 8. 7 | 10.3 | H. 1. | M.A. | N. A. |

HOUSEHOLD DATA
Table A-5. Majer unariploymant indicatore, evatonally adjusted

| Cemply |  |  | Unminmont |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }^{\text {Jaly }} 1979$ | $\begin{aligned} & \mathrm{July} \\ & 1980 \end{aligned}$ | Ju1y 1979 | 8, | ${ }^{495}{ }^{49}{ }^{\text {a }}$ | ${ }_{1980}$ | tune 1980 | 3017 1980 |
| Ewanacteneme |  |  |  |  |  |  |  |  |
| Telat til wers ond emer. | 5.909 | ¢, 207 | 5.7 | 6.2 | 7.0 | 7.8 | 7.7 | 7.8 |
|  | 2,254 | 2,736 | 4. 1 | 4.9 | 5.9 | 6.6 | 6.7 | 6.7 |
|  | 2.160 | 2,702 | 5.5 | 5.7 | 6.3 | 6.6 | 6.5 | 6.7 |
| Eon mom, 10.19 ym | 1.495 | 1,774 | 15.8 | 15.9 | 16.2 | 19.2 | 18.5 | 19.0 |
|  | 9. 144 | 2.032 | 2.8 | 3.4 | 4.1 | 4.7 | 4.9 | 5.1 |
|  | 1.179 | 1,535 | a, | 5.3 | 5.7 | 6.3 | 6.1 | 8.2 |
|  | 0.06 | 454 | e. 1 | P. 7 | 9.3 | 8.3 | 8.4 | 8.9 |
| Fuelma worter | 0.617 | 6, 789 | c. 3 | 5.8 | 6.6 | 7.5 | 7.4 | 7.6 |
| Mrestinat miter. | 1,287 | 1,384 | P. 3 | R. 3 | 8.9 | $9-3$ | 8.8 | 8.7 |
| Cowhrotime kan ${ }^{1}$ | 1.207 | ?, | 6.9 | f.e | 7.5 | 8.8 | 8.3 | 8.5 |
| cocurariow ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |
| anemotur motam | 1.565 | 1,976 | 1.3 | 3.3 | 3.7 | 3.9 | 3.7 | 3.7 |
| Animuionel ena memicen. | 390 | 389 | 2.5 | 2.3 | 2.4 | 2.7 | 2. 6 | 2.7 |
|  | 214. | 285 | 2.0 | 2.4 | 2.6 4.7 | 2.7 4.5 | 2.4 4 | 2.5 4.2 |
| Onemorten ...... | 223 838 | 265 1.036 | 3.5 4.5 | 4.0 4.5 | 4.7 | 0.5 5.4 | 4.8 5.3 | 4.2 5.4 |
| Onical movicen . . | 2.349 | 3,932 | 6.8 | 9.0 | 9.7 | 11.3 | 11.5 | 11.5 |
| Gin mod linctux workem. | 595 | 983 | 4.4 | 5.4 | 6.7 | 8.1 | 8.0 | 7.4 |
|  | 981 | 1,336 | 8.3 | 9.3 | 11.6 | 14.0 | 13.8 | 14.6 |
| Tremport agdomont opwitive | 194 | 393 | 5.7 | 6.6 | 8.9 | ${ }^{9.0}$ | 10.5 | 10.5 |
| Mentran uberon . ........ | 579 | 324 | 19.0 | 13.0 | 14.7 | 15.4 | 16.2 |  |
| Sorver worter. | 978 117 | 1.195 | 7.1 | 7.1 4.0 | 8.0 5.0 | 8.8 | 8. 4.2 | 8.4 4 |
| Fumi mortor. | 117 | 134 | 4.2 | 4.0 | 5.0. | 4.8 | 4.2 | 4.8 |
| maverav |  |  |  |  |  |  |  |  |
|  | 4.334 | 5.326 | 5.7 | 6. 2 | 7.1 | 8. 2 | 8.3 | 1. 2 |
| Contrumb | , 508 | 807 | 10.0 | 13.0 | 15.1 | 17.5 | 16.5 | 16.1 |
| Montueriny | 1,315 | 2,376 1,573 | 5.7 | 6.5 | 7.9 8.3 | 9.9 10.5 | 9.9 11.2 | 10.3 |
| Dumaterali.. | 568 | 1,803 | 6.2 | 6.7 | 7.4 | 8.8 | 8.0 | B. 8 |
|  | 208 | 326 | 3.8 | 3.8 | 9.6 | 5.1 | 5.2 | 5.8 |
|  | 1,169 | 1.42 .3 | 6.3 | 6.3 | 7.0 | 7.6 | 8.0 | 7.5 |
|  | 1,987 | 1,327 | 4.9 | 4.9 | 5.1 | 5.7 | 5.7 | 5.7 |
|  | 568 152 | 663 164 | 3.5 9.7 | 10.2 10.2 | 4.4 11.9 | 4.2. ${ }^{4}$ | 3.5 | 10.8 |
| Aplouturat wemer mir metme | 152 | 164 | 9.7 |  | 11.9 |  |  |  |



Table Ace. Durretion of umamployment

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{} \& \multicolumn{2}{|r|}{} \& \multicolumn{6}{|c|}{Mmemer} <br>
\hline \& ${ }^{391} 9$ \& saty
1980 \& ${ }^{5017}$ \& ${ }_{\substack{319 \\ 1980}}$ \&  \& ${ }^{\text {nap }}$ \& Jupe
1980 \& J92y <br>
\hline \multicolumn{9}{|l|}{ounatiom} <br>
\hline Lenten 5 umb. \& 2,979 \& 3,568 \& 2,820 \& 2,993 \& 3.309 \& 3,972 \& 3,333 \& 3,363 <br>
\hline  \& 2,947 \& 3,083

1,758 \& 1,063 \& -2,169 \& 2,391 \& 2,697 \& - | 2,822 |
| :--- |
| 1,766 | \& <br>

\hline  \& S10 \& ${ }^{8659}$ \& 615
652 \& c76

587 \& 953
676 \& (1014 \& -.027 \& -,057 <br>
\hline mom \& 469 \& 089 \& 452 \& 587 \& \& \& \& <br>
\hline - \& 9.6 \& 11.0 \& 10.1 \& 11.0 \& 11.3 \& 10.5 \& 11.7 \& $\stackrel{11.6}{7}$ <br>
\hline \multicolumn{9}{|l|}{macant osathaution} <br>
\hline Tout mimemu. \& 100.0 \& 100.0 \& 100.0 \& 100,0 \& 109.9 \& 100.0 \& 100.9 \& 100, 0 <br>
\hline Itanimis. \& ${ }^{48.6}$ \& 32.7 \& 36.8 \&  \& 35.6
32.6 \& 36.7 \& 31.6 \& 42.2 <br>

\hline T10NTM \& 16.0 \& 20.9 \& 19.3 \& 20.9 \& | 32.6 |
| :--- |
| 12.2 |
| 12 | \& 20.5 \& 22:0 \& 24.0 <br>

\hline  \& 8.7 \& 10.3 \& ${ }_{7}^{10.6}$ \& 11.9 \& 13.0
9.2 \& 12.2
8.5 \& 12.8 \& 13.2
10.8 <br>
\hline
\end{tabular}

HOUSEHOLD DATA
HOUSEHOLD DATA
Table A-7. Reacon for unemployment


Table A-s. Unemployment by sax and age, asasonally adjuated

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multirow{2}{*}{} \& \multicolumn{2}{|l|}{} \& \multicolumn{6}{|c|}{} <br>
\hline \& $$
\begin{aligned}
& \text { Juliz } \\
& 1079
\end{aligned}
$$ \& $$
\begin{aligned}
& 5 \mathrm{sil} \\
& 1980
\end{aligned}
$$ \& $$
\begin{aligned}
& 501 y \\
& 1979
\end{aligned}
$$ \& $$
\begin{aligned}
& \text { Mar. } \\
& 19 g 0
\end{aligned}
$$ \& ${ }^{4} 2{ }^{2} 80$ \& Haj \& $$
\begin{aligned}
& \text { June } \\
& 19 \mathrm{HO}
\end{aligned}
$$ \& 3017
1980 <br>
\hline Tees, 18 vers end owe \& 5,909 \& 8,207 \& 5.7 \& 6.2 \& 7.6 \& 7.8 \& 7.7 \& 7.8 <br>
\hline 14084 rem. \& 2,5a1 \& 3,672 \& 11.6 \& 12.1 \& 13.2 \& 15.2 \& 14.7 \& 14.1 <br>
\hline 16 to 18 vos... \& 1,495 \& 1,774 \& 15.5 \& 15.9 \& 16.2 \& 19.2 \& 18.5 \& 19.0 <br>
\hline  \& 676 \& ${ }_{96}^{809}$ \& 17.3 \& 17.4 \& 18.7 \& 24.7 \& 14.8 \& 20.9 <br>
\hline  \& $\begin{array}{r}\text { 1, } 293 \\ \hline 186\end{array}$ \& 967
1,898 \& 14.5
9.1 \& 18.7

9.7 \& 14.4 11.4 \& 17.7
12.7 \& 18.0
12.4 \& 17.7
12.3 <br>
\hline 25 pera \& 3,541 \& 4,552 \& 3.5 \& 4.9 \& 5.0 \& 5.5 \& 5.5 \& 5.7 <br>
\hline 28 tram \& 2,567 \& 4,032 \& 4.5 \& 4.7 \& 5.4 \& 5.9 \& 8.0 \& 6.1 <br>
\hline  \& 478 \& 528 \& 3.2 \& 2.8 \& 3.4 \& 3.6 \& 3.4 \& 3.5 <br>
\hline  \& 3,027 \& 4.303 \& 5.1 \& 5.7 \& E.) \& 7.7 \& 7.8 \& 7.8 <br>
\hline 10 y 84 man . \& 1.496 \& 2,076 \& 1.3 \& 12.0 \& 13.8 \& 15.9 \& 15.9 \& 15.7 <br>
\hline 16til ram. \& 773 \& 973 \& 15.4 \& 14.3 \& 16.1 \& 19.7 \& 19.5 \& 19.7 <br>
\hline ne 017 ram . \& 334 \& 432 \& 76.1 \& 15.9 \& 18.3 \& 27.0 \& 21.8 \& 20.8 <br>
\hline 10 ml 10 mm \& 437 \& 535 \& 14.8 \& 14.0 \& 14.2 \& 17.9 \& 19.3 \& 18.7 <br>
\hline 20 wrame. \& 723 \& 1,163 \& 8. \& 10.4 \& 12.3 \& 13.7 \& 13.8 \& 13.4 <br>
\hline ${ }^{28}$ wand mowr \& 1.531 \& 2,641 \& 3.3 \& 3.9 \& 4.7
5.0 \& 5.3
5.7 \& 5.5
5.8 \& 5.6
5.1 <br>
\hline 2wommer \& $\begin{array}{r}1.252 \\ \hline 302\end{array}$ \& 2.317
354 \& 3.9
3.3 \& 4.2 \& 5.0
3.4 \& 5.7
3.5 \& 5.8
3.8 \& 6.1
3.9 <br>
\hline Women 16 men end ame. \& 2,882 \& 3.503 \& 6.6 \& 6.8 \& 7.3 \& 7.8 \& 7.5 \& 7.8 <br>
\hline  \& 1. 38.5 \& '. 596 \& 12.0 \& 12.7 \& 12.5 \& 14.3 \& 13.3 \& 13.8 <br>
\hline 10 to 18 ram... \& 722 \& 901 \& 16.2 \& 17.3 \& 16.3 \& 18.7 \& 17.3 \& 18.2 <br>
\hline 10017 mas . \& 342
372 \& 377 \& 18.6 \& 19.2 \& 19.1 \& 21.4 \& 17.6 \& 20.9 <br>
\hline  \& 377
663 \& 432 \& 19.2
9.4 \& 15.6 \& 14.6
10.2 \& 17.5
11.6 \& 16.6
10.8 \& 16.6
11.1 <br>
\hline 25 vin end own \& 1, 510 \& 1.995 \& 9.4 \& 9.0
5.0 \& 10.2
5.5 \& 11.6
5.7 \& 10.8
5.6 \& 11.7 <br>
\hline  \& 1.315 \& 1.715 \& 5.0 \& 5.5 \& 6.0 \& 6.1 \& 6.1 \& 6.2 <br>
\hline
\end{tabular}

## Teble A-: Enmployment ctaticie of tha bleck and Mispanicoriden populetion

| Emoloyemame |  |  | Mremer |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | J01\% 1979 | ${ }^{5017} 1980$ | ${ }_{1979}$ | ${ }_{1980}{ }^{\text {mar }}$ | ${ }_{1980}{ }^{\text {apr }}$ | ${ }^{3} 8989$ | June | ${ }_{1}^{\text {July }}$ |
| amex |  |  |  |  |  |  |  |  |
|  | 17.032 | 17,448 | 17,032 | 17.299 | 47,331 | 17.363 | 17,403 |  |
| Oremitar iove | 10,870 |  |  |  |  |  |  |  |
| Trumbar | 63.8 | -63.7 | 61.5 | ${ }^{60} 0$ | -60.4 | 91.9 | 60.4 |  |
| dover | 9,447 | 9,309 | -9,75 | 9,072 | 9,050 | 9,099 | 8,974 | 9,090 |
|  | ${ }^{13} 1$ | 16.3 | ${ }^{1} 1262$ | 1.3.6 | 2,413 | -1,562 | -1,541 | 1,633 |
|  | 6,162 | 6,331 | 6,555 | 6.916 | 6,868 | 6.707 | 6, 897 | 6, 725 |
| mpanac omax |  |  |  |  |  |  |  |  |
|  | 8.021 | 8,745 | 8,021 | 8,341 | 8,362 | 8.525 | 0,653 | 3, 745 |
|  | 5.178 | 5.747 | 4,991 | 5,336 | 5.347 | 5,472 | 5,424 | 5.53 B |
| Entived | -69.6 | 55.0.7 | ${ }_{6}^{62.2}$ | ${ }^{64.0}$ | 63.9 | 64.2 | 62.7 | 63.3 |
| Unemome |  | $\begin{array}{r}\text { 5.085 } \\ \hline 6.62\end{array}$ | 4, ${ }_{4}$ | 4.838 499 | 4.819 |  | 4,873 | 4.932 |
|  | 9.6 | 11.5 | 8.2 | 3.3 | 9.9 | 10.5 | 10.2 | 10.9 |
| Matimiser | 2,843 | 2,948 | 3.030 | 3.005 | 3.015 | 3.053 | 3.229 | 3,207 |




HOUSEHOLD DATA
HOUSEHOLD DATA


\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{} \& \multicolumn{3}{|c|}{manmery} \& \multicolumn{6}{|c|}{2mantraind} \\
\hline \& J117
1979 \& Jund \& \({ }^{\text {Jaly }}\) 1900 \& Jaly
1979 \& \({ }_{1980}^{198}\) \&  \& \({ }_{\text {lag }}^{\text {190] }}\) \& Sene \& \({ }_{1980}^{301}\) \\
\hline \multicolumn{10}{|l|}{canare} \\
\hline Cinluen isber liece \& 12,127 \& 31. 167 \& 11,357 \& 10, 788 \& 17,007 \& 17, 034 \& 17,062 \& 17.091 \& 17.127 \\
\hline Emporra \& 10,433 \& 10.364 \& 10,555 \& 10, 339 \& 10,441 \& 10, 389 \& 10.332 \& 10,348 \& 10.463 \\
\hline Unematmin \& 6.29 \& 803
7.2 \& . 78.1 \& 519
5.9 \& \({ }_{6}^{62}\) \& 790 \& 793 \& \({ }_{7} 12\) \& \({ }^{754}\) \\
\hline \multicolumn{10}{|r|}{} \\
\hline  \& 6,763 \& 6,955 \& 6,976 \& 6.763 \& 6,904 \& 6,920 \& 6,937 \& 6,955 \& 6,976 \\
\hline Cuinion ibob laca \& \& 3.935 \& \& \& 3, 834 \& 3,915 \& 3,945 \& 3.940 \& 3.948 \\
\hline Envorrd. \& 3,658
350
250 \& 3.722
363 \& \(\begin{array}{r}3.711 \\ 304 \\ \hline\end{array}\) \& 3.598 \& 3.683 \& 3,701 \& \(\begin{array}{r}3.211 \\ \hline 236\end{array}\) \&  \& 3,652 \\
\hline Unempoymet aise \& 238 \& \({ }_{6.6} 26\) \& 304
7.6 \& 255
6.6 \& 5.2 \& 210
5.5 \& 234
5.9 \& 253
6.4 \& 296
7.5 \\
\hline \multicolumn{10}{|l|}{mon} \\
\hline  \& 0.256 \& 8. 314 \& 8,325 \& \({ }^{8.256}\) \& 8.300 \& 8, 305 \& 8,310 \& 8,314 \& 8. 325 \\
\hline Curisen whor lace \& 5.462 \& 5,493 \& \& 5.362 \& 5,431 \& 5,461 \& 5. 500 \& 5. 401 \& 5. 177 \\
\hline \& \({ }^{5} 277\) \& \({ }^{\text {c }}\) 505 \& 5.989 \& 5. 264 \& 5.038 \& 5. 408 \& 5.066 \& \({ }^{4.936}\) \& 4,941 \\
\hline Unemotiommom \& 5.1 \& 9.2 \& 9.9 \& 4.9 \& 6.9 \& 7.4 \& 7.9 \& 8.6 \& 9.8 \\
\hline \multicolumn{10}{|l|}{-} \\
\hline  \& 4,370 \& 4, 111 \& 4,916 \& 8.370 \& 4.400 \& 4,403 \& 4.407 \& 4.411 \& 4.416 \\
\hline Emalow \& 2,797 \& 2,702 \& - 2,749 \& 2,732 \& 2, 2,714 \& 2,888 \& 2,899
2,714 \& 2,032
2,640 \& 2,864 \\
\hline Unomatora \& 166 \& 197 \& 178 \& 145 \& 139 \& 151 \& \(1{ }^{165}\) \& 192 \& 174 \\
\hline unemabommat sta \& 50 \& 6.6 \& 6.1 \& 5.0 \& 4.9 \& 5.3 \& 6.4 \& 6. 8 \& 6.1 \\
\hline \multicolumn{10}{|l|}{matim} \\
\hline Crinum nonimetituranol mewistuon' \& 6,719 \& 6.780 \& 6,804 \& 6.719 \& 6.775 \& 6. 781 \& 6.787 \& 6.794 \& 6. 304 \\
\hline  \& 4.391 \& 4.613 \& 4,373 \& 4.346 \& 4.298 \& -6262 \& 4.336 \& 0,357 \& \\
\hline mmorpervo \& \({ }^{1.053} 3\) \& 3.793
620 \& 3.757
617 \& - \({ }^{1225}\) \& \(\begin{array}{r}3.8148 \\ \hline 434\end{array}\) \& \& 3.711 \& \(\begin{array}{r}3,742 \\ \\ \hline 615\end{array}\) \& \begin{tabular}{l}
3.731 \\
\hline 599
\end{tabular} \\
\hline Unemotorment tat \& 7.7 \& 14.0 \& 14.1 \& 7.4 \& 10.2 \& 12.2 \& 14.4 \& 14.1 \& 13.6 \\
\hline \multicolumn{10}{|l|}{M-3mm} \\
\hline Am nomusturusal poadtrion*. \& 5.507 \& 5,559 \& 5.566 \& 5,507 \& 5.545 \& 5,549 \& 5,554 \& 5.559 \& 5,566 \\
\hline Emplored \& 3,604 \& \& \& \& \& \& \(\begin{array}{r}3.5597 \\ 3,396 \\ \hline\end{array}\) \& 3, 3.614 \& 3,6615 \\
\hline emmonom \& 3,317 \& \(\begin{array}{r}3.351 \\ \\ \\ \\ \hline 94\end{array}\) \& \(\begin{array}{r}3,376 \\ \hline 296\end{array}\) \& \(\begin{array}{r}3.288 \\ \hline 257\end{array}\) \& \(\begin{array}{r}3.339 \\ \hline 249\end{array}\) \& 3,332

234 \& $\begin{array}{r}3.796 \\ \hline 001\end{array}$ \& -3.327 \& $\begin{array}{r}3.351 \\ \hline 260\end{array}$ <br>
\hline chambormem \& 7.9 \& 9.1 \& 0.1 \& 1.2 \& 6.9 \& 6.6 \& 2.4 \& 7.9 \& 7.3 <br>
\hline \multicolumn{10}{|l|}{Nor Yak} <br>
\hline  \& 13. 277 \& 13,310 \& 13,319 \& 13. 277 \& 13,303 \& 13, 304 \& 43,306 \& 13,310 \& 13,319 <br>
\hline  \& 8,201 \& 8.003 \& 3.239
7.570 \& 8, 819 \& 7,936 \& 7,807 \& 7.987 \& 7,323 \& 8,065 <br>
\hline Unemerowed \& 1.610 \& $\begin{array}{r} \\ \hline\end{array}$ \& 76.56 \& 7.830 \& +,3915 \& 7. 24.1 \& ${ }^{7.351}$ \& \& 7.419
646 <br>
\hline Unmemormem tate \& 7.4 \& 7.1 \& d. 1 \& 7.3 \& 6.9 \& 7.2 \& $\theta \cdot 0$ \& 7.3 \& a.0 <br>
\hline \multicolumn{10}{|l|}{$\square$} <br>
\hline  \& 7,914 \& 3, 976 \& 7.985 \& 7,914 \& 7,960 \& 7,962 \& 7,970 \& 7,976 \& 7,985 <br>
\hline Empotiond \& 5.088 \& 3.156 \& 5.240
4.704 \& 4,997 \& 4,991
4.695 \& 5.038 \& 5,080 \& 5.118 \& 5. 137 <br>
\hline unmolow \& \& \& ${ }^{5} \mathbf{5} 36$ \& \& $\begin{array}{r}4.635 \\ \hline 296\end{array}$ \& \& ${ }^{1.602}$ \& +4.624 \& <br>
\hline Unamsoymmitut \& 46 \& 9.7 \& 10:2 \& 6.6 \& 5.9 \& 7.4 \& 9.4 \& 9.7 \& 9.9 <br>
\hline \multicolumn{10}{|l|}{$\cdots$} <br>
\hline Cuilen nommuxtrose posatura' \& 8,894 \& 8,948 \& 8,957 \& 8, 994 \& 8,934 \& 8, 839 \& 0-9422 \& 8.948 \& 8,957 <br>
\hline  \& 5.307 \& S, 388
4.963 \& S.417
4.815 \& 5.317
4.969 \& 5,365 \& 5,381
4
4897 \& 5,379 \& 5. 324 \& 5.34.4 <br>
\hline Unemalover \& S. 340 \& ${ }^{4.383}$ \& 4. 502 \& + ${ }^{548}$ \& ${ }^{\text {- }} 367$ \& ${ }^{4} 9614$ \& ${ }^{4.936}$ \& ${ }^{4} 409$ \& - 510 <br>
\hline Unmotorrent \& 6.3 \& -0 \& 9.3 \& 6.5 \& 600 \& 7.7 \& 4.3 \& 7.7 \& 9.5 <br>
\hline \multicolumn{10}{|l|}{$1=$} <br>
\hline Cumim nenimstutionu mapulation' \& 3, 323 \& 9,738 \& 9.751 \& 9,523 \& 9.673 \& \& 3.703 \& 9, 728 \& 9.751 <br>
\hline Ematerat -.. \& ${ }_{6}^{6359}$ \& 6:489 \& 6,506 \& ${ }_{6}^{6,368}$ \& 6.337 \& 6,333 \& 6;3422 \& 6,336 \& 6,421 <br>
\hline Unomotord \& ${ }^{6} 301$ \& ${ }^{6} 968$ \& ${ }^{6} 145$ \& ${ }^{5} \mathbf{2 7 3}$ \& 59370 \&  \& ${ }_{5}^{5.989}$ \& 5.906 \& 6,030 <br>
\hline Unamporerruet iote \& 4.7 \& ¢00 \& 5.6 \& 4.4 \& 5.8 \& 5.4 \& 5.4 \& 5.5 \& 53 <br>
\hline
\end{tabular}

Teble B-I. Employess on non:egricultural payrolls by industry

| mer | - |  |  |  | - |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3u1\% 1989 | ${ }_{\substack{\text { May } \\ 1980}}$ | ${ }_{\text {June }}{ }_{\text {S }}$ | ${ }_{1981}{ }^{519}$ | suly 1979 | $\begin{gathered} \text { the } \\ \substack{\text { 9月0) }} \end{gathered}$ |  | 19R0\% |  | ${ }^{\text {Ju1y }} 1980$ |
| total | 90.018 | 90,849 | 20,975 | 99,692 | 90.056 | 91,144 | 90,951 | 90,468 | 89.973 | 89,235 |
| coossproducins | 26.766 | 25.765 | 25.036 | 25,324 | 26,582 | 26,476 | 26,121 | 25.765 | 23.396 | 25.075 |
| mining | 979 | 1,024 | 1.046 | 1,030 | 963 | 1.009 | 1.012 | 1.023 | 1,026 | 1.013 |
| Construction | 4,813 | 4.471 | 4.603 | 4.631 | 4.491 | 6.529 | 4.467 | 4.436 | 4,371 | 6.320 |
| manufactuain | 21,054 | $\begin{aligned} & \begin{array}{l} 10,250 \\ 14,172 \end{array} \end{aligned}$ | $\begin{aligned} & 20.187 \\ & 14.080 \end{aligned}$ | $\begin{aligned} & 19,653 \\ & 13.617 \end{aligned}$ | 21,228 | $\begin{aligned} & 20,939 \\ & 14,850 \end{aligned}$ | $\begin{aligned} & 20,642 \\ & 14,550 \end{aligned}$ | $\begin{aligned} & 20,286 \\ & 14: 186 \end{aligned}$ | $\left\lvert\, \begin{aligned} & 19,999 \\ & 13.910 \end{aligned}\right.$ | $\begin{aligned} & 19,742 \\ & 13.722 \end{aligned}$ |
| OURABLE 00003 | 12,797 9,105 785 | 12,150 8,409 | 12,090 8,293 | 41,723 | 12,841 9,173 | 12.707 8.961 | $\begin{array}{r}12,442 \\ 8,686 \\ \hline\end{array}$ | 12.140 8.786 | [11.933 | 11,772 |
| Lumber me mood prosict | 785.4 486.5 | 654.8 469.1 | 669.2 418.8 | 668.2 <br> 132.7 | 756 498 | 737 494 | 689 | 654 612 | 669 6 | 651 |
| Funturus und fixtura ....... | 776.5 | 689.1 668.1 | ${ }_{666.0} 6$ | 659.7 | 309 | 780 | ${ }_{680} 68$ | ${ }_{663} 6$ | 649 | ${ }_{644} 681$ |
|  | 1,267.4 | 1.149 .8 | 1.112.7 | 1.046 .6 | 1,250 | 1.209 | 1.193 | 1.144 | 1,096 | 1.040 |
| Fieriched mrap prodet | 1,111.8 |  | $1,993.1$ $2,487.2$ | $1,315.7$ <br> $2,465.3$ | - 1,726 | 1,711 2,530 | 1,678 | 1.620 2.517 | 1,579 | 1,328 2,454 2,088 |
|  | 2.127 .6 | 2.120 .2 | 2, 1998.2 | 2,058.1 | 2,140 | 2,176 | 2,167 | 2:127 | 2,090 |  |
| Tremponsision savermex ... | 2,063.0 | . 833.1 | 1,843.4 | 1,802.7 | 2,092 | 2,006 | 1,885 | 1,719 | 1,827 | 1,837 |
|  | 691.2 <br> 43.2 | 699.4 424.6 | 762.8 618.9 | 693.8 399.6 | 495 | 705 | ${ }_{4}^{703}$ | ${ }_{4} 120$ | 6966 | 693 411 |
| momouthble gooos | 8,257 | A, 100 | 8,137 | 7.940 | 8,287 | 8.231 | 8,200 | 8.146 | 8,065 | 7.970 |
| Ambecton motar | 3,921 | 5,763 | 5,787 | 5,612 | 3,967 | S,889 | 5.864 | 5,800 | 5.728 | 5,658 |
| Food and kinderd prodact | 1,749.5 | -638.5 | 1,677.3 | 1,682.9 | 1,722 | 1,704 | 1.690 <br> 69 | 1.69170 <br> 0 | 1,677 | 1.656 |
| Totemo meniztwot | 872.3 | 870.6 | 051.4 | 812.9 | B86 | 日 88 | ${ }_{884}$ | 369 | 842 | 825 |
|  | 1.276.0 | 1.259 .0 | 1,314.2 | 1,229.6 | 1.316 | 1,316 | 1,302 | 1,291 | 1,291 | .269 |
| Prow med dies prodets | 11. ${ }^{\text {8 }}$ | 692.4 | 69.6 | ${ }^{676.8}$ | 709 | ${ }^{2} 88$ | ${ }^{02}$ | ${ }^{692}$ | ${ }^{624}$ | ${ }^{674}$ |
|  | 1.242 .3 | $1,267.8$ | 1.271.4 | 1,264.6 | 1,263 | 1,274 | 1,272 | 1.268 | 1,269 | 1,260 |
| Oranciet mo died provet | 1.126 .9 | $1,119.5$ | , 121.5 |  | - | - 1.123 | $\xrightarrow{1,123} \mathbf{1 7 5}$ | $\begin{array}{r}1,120 \\ \\ \hline 120\end{array}$ | 1,111 | 1.099 |
| Mrobut ma mex pmatic proica | ${ }_{776.0}$ | 702.4 | ${ }_{6 \text { 6as. }}$ | 667.3 | 781 | 199 | 760 | ${ }_{703}$ | ${ }_{681}$ | ${ }_{6} 672$ |
|  | 228.8 | 263.2 | 24.3 | 227.5 | 239 | 244 | 243 | 239 | 238 | 238 |
| ERvice-prooucimg | 63,172 | 65.104 | 65.139 | 64,358 | 63,472 | 64,668 | 64,830 | 64,723 | 64,57t | 64,660 |
| trangeortation ano puelic unlities | S.187 | 5,167 | 3.14s | 3,152 | 5,136 | 5,202 | 5.178 | 3,167 | 3,134 | 5,124 |
| WHOLEPALE AND RETALL TRADE | 20,254 | 20,497 | 20.540 | 20,496 | 20,254 | 20,610 | 20,531 | 20,487 | 20,631 | 20,496 |
| mhoreszale triade RETALL TREDE | $\begin{array}{r} 5,24, \\ 15,011 \end{array}$ | $\begin{aligned} & 5,263 \\ & 15,234 \end{aligned}$ | $\begin{array}{r} 5.283 \\ 15.257 \end{array}$ | $\begin{array}{r} 5,275 \\ 15,221 \end{array}$ | $\begin{array}{r} 5.214 \\ 25.040 \end{array}$ | $\begin{array}{r} 5.301 \\ 15.309 \end{array}$ | $\begin{array}{r} 3,286 \\ 13,245 \end{array}$ | $\begin{array}{r} 5.268 \\ 15.219 \end{array}$ | $\begin{gathered} 5,241 \\ 15,196 \end{gathered}$ | $\begin{array}{r} 5,244 \\ 15,252 \end{array}$ |
| FImance imsuanice, and real extate | 3.048 | 1,137 | 5.201 | 5,220 | 6.989 | 3,113 | 5,119 | 5,137 | 3.150 | 5,138 |
| tervices | 17,326 | 17,747 | 17.823 | 17.929 | 17,114 | 17,580 | 17.618 | 17.659 | 17.631 | 17.716 |
| goverimerit | 15,359, | 16.550 | 16,388 | 15,561 | 15,959 | 16.161 | 16.344 | 16.273 | 16.225 | 16.169 |
| meneral <br> state amo local | $\begin{array}{r} 2, A 38 \\ 12,528 \end{array}$ | $\begin{array}{r} 2,963 \\ 13,593 \end{array}$ | $\begin{array}{r} 2,994 \\ 13.394 \end{array}$ | $\begin{gathered} 2,918 \\ 12 ; 643 \end{gathered}$ | 2,784 | $\begin{array}{r} 2 \times 886 \\ 13.275 \end{array}$ | $\begin{aligned} & 3.115 \\ & 13.269 \end{aligned}$ | $\left\lvert\, \begin{gathered} 2.960 \\ 13.313 \end{gathered}\right.$ | $\left\|\begin{array}{r} 2.950 \\ 13,275 \end{array}\right\|$ | $\begin{array}{r} 2,861 \\ 13,308 \end{array}$ |

Table B-2. Average wenkly hours of production or nonmpervisory workers, on private nonegricuttural payrolite by industry


Tande B-3. Average howrty and weekly earnings of production or nonsuppervisory woukwe' on privete nonagricultural payrolls by incustry

| tremery |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { July } \\ & 1979 \end{aligned}$ | $\begin{array}{r} \mathrm{Hay} \\ 1980 \end{array}$ | $\mathrm{Jung}_{1980}$ | July | $\begin{aligned} & \mathrm{J}+1 \mathrm{y} \\ & 1979 \end{aligned}$ |  | June 1980 | Juis ${ }^{\text {S }}$ \% |
| TOTAL maivate | 56.16 | \$6.57 | \$6.61 | \$6.62 | \$221.76 | \$229.95 | \$233.99 | 5233.69 |
| Smowner atrot | 6.17 | 6.57 | 6.63 | 6.65 | 219.65 | 230.61 | 232.71 | 232.75 |
| minimg | 8.34 | 9.08 | 0.11 | 9.08 | 356.12 | 387.72 | 394.46 | 384.99 |
| COnstruction | 9.26 | 9.71 | 9.81 | 9.92 | 330.03 | 360.51 | 371.80 | 372.99 |
| MANUFACTUAING | 6.72 | 7.13 | 2.29. | 7.28 | 268.13 | 280.21 | 283.68 | 283.19 |
| DURAGLE COCDS | 7.15 | 7.60 | $7.69^{\prime}$ | 3.74 | 288.86 | 301.72 | 306.06 | 303.41 |
| Lumber mod wood erodurer | 6.22 | 6.40 | 6.57 | 6.69 | 245.07 | 240.64 | 253.60 | 254.89 |
| Furniture mad fixtere | 5.04 | 5.42 | 5.47 | 5.49 | 192.02 | 202.17 | 205.13 | 204.23 |
| Slomy, disf, end yen product | 6.90 | 7.45 | 7.52 | 7.54 | 286.35 | 302.47 | 308. 32 | 306.12 |
| Primury meral indetrion. | 9.04 | 9.61 | 9.68 | 9.87 | 373.35 | 377.67 | 379.46 | 378.02 |
|  | 6.83 | 7.32 | 3.40 | 7.36 | 275.25 | 292.07 | 297.48 | 290.7 |
| Macrinay, mostep elecriver. | 7.34 | 7.91 | 7.98 | 8.03 | 302.41 | 322.73 | 325.58 | 321.20 |
|  | 6.28 | 6.78 | 6.86 | 6.89 | 248.69 | 266.45 | 270.28 | 265.27 |
| Tromeportation nquipreot | - 8.56 | 9.06 | 9.25 | 9.25 | 350.10 | 361.49 | 369.08 | 367.88 |
|  | 6.17 | 6.72 | 6.78 | 6.82 | 268.65 | 270.82 | 275.27 | 270.07 |
| mermanowe mmutscturicy | 5.01 | 5.40 | 5.44 | 5.49 | 192.89 | 206.28 | 208.35 | 209-17 |
| momputable gooms | 6.03 | 6.42 | 6.48 | 6.61 | 236.3 a | 248.45 | 250.78 | 255.15 |
| Froot met kindedprocurs | 6.28 | 6.82 | 6.85 | 6.95 | 251.63 | 270.73 | 270.58 | 275.22 |
| Tobucre matarumb | 6.83 | 7.64 | 8.07 | 8.27 | 246.56 | 295.67 | 310.70 | 291.93 |
| Trucitre mip proders. | 4.65 | 4.90 | 4.93 | 4.99 | 183.54 | 195.02 | 194.74 | 193.61 |
| Aoprell and othere mexrile proaver | 4.23 | 4.45 | 4.51 | 4.45 | 150.17 | 157.09 | 160.36 | \$36.64 |
| Prow erd altiod product . | 7.18 | 1.65 | 7.77 | 8.00 | 303.15 | 318.24 | 324.01 | 333.60 |
| Priming and Dutiritiong | 6.94 | 7.44 | 7.46 | 7.58 | 259.56 | 276.54 | 274.53 | 278.94 |
| Ownielt end slisd croduct. | 7.61 | 8.17 | 8.22 | 8.35 | 317.34 | 337.42 | 337.84 | 341.52 |
|  | 9.38 | 10.07 | 10.30 | 10.42 | 413.66 | 425.98 | 435.69 | 456.40 |
| Lenthen and lemien prockets. | 4.95 | 6.34 | 6.42 | 6.33 | 239.19 | 247.26 | 252.31 | 254.02 |
|  |  | 4.33 | 4:54 | 4.37 | 154.24 | 167.61 | 169.34 | 167.72 |
| THatcortation and Puslic UTILITIES. | 8.19 | 0.72 | 8.77 | 8.81 | 327.60 | 342.70 | 347.29 | 350.64 |
| mmolesale ano retalz trade. | 5.05 | 5.42 | 5.43 | 5.45 | 168.17 | 172.90 | 175.93 | 177.67 |
| -minesale trum | 6.40 | 6.89 | 6.94 | 6.98 | 249.60 | 265.27 | 267.88 | 268.73 |
| crial mind | 4.51 | 4.82 | 4.82 | 4.05 | 142.07 | 144.12 | 146.53 | 148.90 |
| Fimamet mevanace, and real ertate . | 5.28 | 5.70 | 5.75 | 5.72 | 191.14 | 205.77 | 209.88 | 208.21 |
|  | 5.29 | 5.79 | 5.82 | 5.79 | 126.16 | 187.02 | 190.90 | 191.65 |
|  |  |  | natining. |  |  |  |  | : |

Table B-4. Mourty earnings index for production or nonsupervisory workers' on private nonagricuttural payroils by industry divasion, meanonally adjusted

| thandery | $\begin{aligned} & \text { JULY } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { FEE } \\ & 19: 0 \end{aligned}$ | $\underset{19 B 0}{\operatorname{ITAR} .}$ | $\begin{aligned} & A P 1: . \\ & 1240 \end{aligned}$ | $\begin{gathered} \text { :1AY } \\ 19 \mathrm{BO} \end{gathered}$ | $\begin{aligned} & \text { Jusp F P } \\ & \text { 1980 } \end{aligned}$ | $\begin{aligned} & \text { Jtury p } \\ & 1980 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | $\text { JULY } 1979 .$ $\text { JULY } 1980$ | $\left\lvert\, \begin{array}{ll} \text { JJNE } & 1980- \\ \text { JOLY } & 1980 \end{array}\right.$ |
| TOTAL PRIVATE NONFARM: |  |  |  |  |  |  |  |  |  |
| Correntinas | 230.8 | 242.4 | 245.2 | 246.2 | 248.3 | 250.7 | 251.3 | 8.9 | 0.2 |
| Comen (tientions | 105.5. | 102.2 | 162.0 | 101.4 | 101.4 | 101.5 | N.A. | (2) | (3) |
| mavas | 265.0 | 278.5 | 280.9 | 283.7 | 284.2 | 285.1 | 28.6 | 7.4 | -. 2 |
| cometriction | 222.1 | 229.A | 232.2 | 233.0 | 234.2 | 235.6 | 237.0 | 6.7 | . 7 |
| mambir metumam | 235.5 | 267.8 | 250.2 | 252.4 | 255.0 | 238.? | 260.2 | 10.5 | . |
| transiontatio ano Putlic utilimes ....... | 24.9 .9 | 262.4 | 26.5 .9 | 267.2 | 268.7 | 271.0 | 270.2 | 8. 1 | -. 3 |
| Whotemal mmo netall thape | 223.9 | 235.2 | 237.8 | 238.0 | 239.8 | 241.3 | 242.4 | 8.3 | . 5 |
|  | 210.1 | 221.1 | 225.7 | 224.9 | 225.3 | 229.3 | 227.0 | 8.0 | -1.0 |
| efenvices ................ .............. | 227.5 | 239.7 | 242.7 | 263.0 | 245.7 | 248.5 | 247.7 | 8.9 | -. 4 |



bvia- - nor mulustic.
operatiratury.


Table A.5. Indewes of eggregate weakly hourt of production or norsapervisory workert. on priverte
nonagricultural peyrolla by industry, soasonally adjusted


| 1979 |  |  |  |  |  | 1980 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| July | Auk. | Stpt. | oet. | nov. | dec. | 3an. | Feb | Mar. | Apr. | May |  | July |
| 125.8 | 125.9 | 126.0 | 126.1 | 126.4 | 126.A | 127.1 | 126.9 | 126.0 | 124.8 | 123.4 | 122.5 | 121.a |
| 109.4 | 109.3 | 109.5 | 109.1 | 108.7 | 109.4 | 110.1 | 109:1 | 107.3 | 105.2. | 102.2 | 100.2 | 98.4 |
| 150.8 | 157.6 | 159.4 | 160.9 | 160.3 | 162.5 | 162.0 | 162* | 162.9 | 161.7 | 163.2 | 166.2 | 159.5 |
| 128.2 | 129.7 | 130.5 | $12 \mathrm{B.5}$ | 129.7 | 132.8 | 137.7 | 134.7 | 126.9 | 124.7 | 124.3 | 123.4 | 120.1 |
| 104.7 | 104.0 | 104.1 | 103.8 | 103.2 | 103.5 | 103.4 | 102.8 | 101.8 | 99.8 | 96.1 | 93.8 | 92.4 |
| 108.5 | 107.5 | 107.8 | 107.1 | 106.0 | 106.4 | 106.0 | 105.8 | 105.0 | 101.6 | 96.6 | 94.0 | 92.4 |
| 113.7 | 114.4 | 114.7 | 113.9 | 111.0 | 209.4 | 109.8 | 108.9 | 106.5 | 95.3 | 90.4 | 90.2 | 91.2 |
| 108.3 | 108,6. | 108.6 | 109.1 | 109.4 | 109.1 | 109.7 | 108.9 | 106.9 | 106.1 | 99.0 | 94.6 | 92.2 |
| 111.3 | $11: 1.3$ | 111.4 | 110.4 | 110.1 | 110.4 | 110.3 | 109.6 | 108.0 | 103.3 | 99.4 | 96.9 | 96.6 |
| 98.1 | 96.6 | 96.0 | 95.4 | 94.1 | 92.9 | 92.7 | 92.4 | 91.8 | 89.9 | 82.4 | 77.6 | 72.3 |
| 106.2 | 104.7 | 105.8 | 105.9 | 105.6 | 105.7 | 104.8 | 104.9 | 104.6 | 102.1 | 95.3 | 92.4 | 8 Bra |
| 118.8 | 117.4 | 118.5 | 115.7 | 114.9 | 114.4 | 118.5 | 117.5 | 116.9 | 116.1 | 114.1 | 110.9 | 109.2 |
| 109.4 | 106.3 | 109.0 | 109.4 | 109.2 | 110.4 | 110.8 | 109.8 | 109.4 | 108.1 | 103.8 | 100.0 | 98.3 |
| 101.2 | 102.1 | 99.4 | 99,5 | 95.5 | 98.3 | 91.7 | 93.8 | 93.0 | 83.0 | 79.1 | 79.2 | 80.3 |
| 127.8 | 127.5 | 127,5 | 127.8 | 128.2 | 128.5 | 130.0 | 124.1 | 128.7 | 128.4 | 126.0 | 125.4 | 124.1 |
| 99.4 | 99.4 | 99.1 | 98.6 | 98.6 | 99.4 | 99.3 | 98.2 | 96.9 | 95.8 | 91.6 | 88.2 | 88.8 |
| 99.2 | 98.8 | 98.7 | 99.1 | 99.1 | 99.2 | 99.7 | 98.4 | 97.3 | 97.2 | 95.4 | 93.5 | 92.4 |
| 96.9 | 96.8 | 96.5 | 97.3 | 97.5 | 97.6 | 96.9 | 96.2 | 94.6 | 94.4 | 95.1 | 93.1 | 91.2 |
| 74.9 | 73.6 | 75.5 | 75.3 | 65.0 | 70.3 | 71.7 | 70.5 | 70.2 | 72.4 | 73.8 | 72.4 | 68.1 |
| 89.5 | 89.2 | 39.9 | 90.6 | 91.2 | 91.5 | 92.7 | 91.6 | 91.0 | 89.4 | 86.4 | 82,0 | 80.5 |
| 89.6 | 85.3 | 87.7 | 8 E .5 | 87.8 | 88.5 | 90.3 | 90.3 | 99.2 | B9.3 | 87.2 | 87.0 | 85.6 |
| 101.7 | 10.1.8] | 101.5 | 102.0 | 102.0 | 102.1 | 102.9 | 102.5. | 101.6 | 100.4 | 96.7 | 24.5 | 93.9 |
| 104.0 | 104.8 | 104.3 | 204.5 | 105.6 | 105.2 | 106.9 | 105.9 | 105.1 | 104.8 | 103.6 | 103.4 | 102.9 |
| 107.5 | 107.6 | 107.5 | 107.6 | 108.5 | 108.2 | 109.0 | 108.4 | 108.0 | 107.4 | 106.0 | 103.6 | 102.9 |
| 121.2 | 121.2 | 123.2 | 121.9 | 124.4 | 122.4 | 104.9 | 75.7 | 71.4 | 91.6 | 113.8 | 111.6 | 116.0 |
| 151.0 | 147.6 | 142.0 | 146.6 | 144.9 | 143.4 | 145.7 | 142.2 | 141.4 | 139.9 | 128.5 | 123,9 | 122.7 |
| 64.1 | 66.1 | 66.7 | 66.5 | 66.0 | 66.4 | $66_{6} 4$ | $6,6.4$ | 65.6 | 6.6 | 63.6 | 63.5 | 63.* |
| 137.1 | 121.5 | 137.3 | 137.9 | 138.7 | 138.6 | 138.9 | 139.2 | 139.0 | 138.1 | 136.1 | 136.0 | 138.1 |
| 114.7 | 116.1 | 115.0 | 115.8 | -116.6 | 115.8 | 1.14 .0 | 113.7 | 113.9 | 113.5 | 112.6 | 112.5 | 112.8 |
| 130.8 | 131.1 | 131.4 | 131.8 | 132.3 | 132.2 | 132.6 | 132.7 | 131.8. | 130.4 | 430.3 | 129.4 | 129.0 |
| 133.4 | 133.6 | 133.8 | 134.3 | 135.1 | 133.0 | 135.4 | 135.6 | 134.5 | 134.3 | 133.7 | 132.1 | 131.8 |
| 129.7 | 130.1 | 130.4 | 130.9 | 131.2 | 131.0 | 131.5 | 131.5 | 110.7 | 128.9 | 129.0 | 128.3 | 127.9 |
| 146.1 | 146.6 | 146.3 | 147.0 | 147.7. | 148.2 | 148.2 | 149.5. | 149.6 | 149.4 | 149.7 | 151.6 | 151.4 |
| $153.6{ }^{1}$ | 133.4 | .153.8 | 154.0 | 135.0 | 156.0 | 156,4 | 153.2 | 137.6 | 157.6 | 153.4 | 137.5 | 38 |

Table B-8. Indexes of diffusion: Percent of industries in which employment ${ }^{1}$ increased

| $\mathrm{r}=$ men men | Own 1-marth mem | Own 3mome aman | Owa 6 mowth men | O-12 mants spen |
| :---: | :---: | :---: | :---: | :---: |
| 1977 |  |  |  |  |
| Jaquery.......................... | 32.4 | 78.5 | 86.0 |  |
| February.......................... | 66.9 | 84.3 | 85.8 | 89.1 |
| narch............................. | 73.3 | 33.1 | 84.9 | 82.3 |
| Apr11............................. | 72.4 | 83.4 | 80.8 | 83.4 |
| may................................ | 71.2 | 76.2 | 80.2 | 85.2 |
| गчй. . . . . . . . . . . . . . . . . . . . . . . | 65.1 | 71.2 | 77.9 | 86.0 |
| July............................ | 64.0 | 67.7 | 36.1 | 84.9 |
| Aupust............................ | 60.5 | 72.1 | 76.7 | 82.6 |
| September....................... | 70.1 | 72.1 | 79.1 | 82.3 |
| Qetober............................ | 65.1 | 37.6 | 81.4 | 82.6 |
| Movesbri........................... | 71.8 75.0 | 78.5 | 84.6 | 80.8 |
| Deterbr........................ | 75.0 | 78.2 | 82.0 | 81.7 |
| 1978 |  |  |  |  |
| danuery............................ | 68.6 | 80.8 | 82.3 | 39.7 |
|  | 78.6 | 71.3 80.2 | 82.8 79.9 | 82.3 |
|  |  |  | 19.9 | 81.1 |
| Aprit.............................. | 69.8 | 74.7 | 74.7 | 84.6 |
| Mun................................. | 61.9 | 73.0 | 75.3 | 83.7 |
| Suat......................... | 64.2 | 65.6 | 74.7 | 82.6 |
| Juiy.............................. | 61.0 | 68.0 | 73.3 | 81.1 |
| Ausust.......................... | 67.7 67.2 | 70.1 | 77.6 | 79.9 |
| septonber..................... |  | 74.1 | 80.5 | 79.1 |
| October........................... | 68.0 | 78.2 | 82.0 | 74.1 |
| December.......................... | 75.3 | 88.18 | 79.1 | 76.7 |
|  |  | 81.7 | 78.2 | 74.6 |
| 1979 |  |  |  |  |
| Jıaunry . . . . . . . . . . . . . . . . . . . . | 66.9 | 75.9 | 34.7 | 73.3 |
| March................................... | 66.3 62.2 | 70.3 | 71.8 | 70.6 |
| Harch..........................', |  | 64.0 | 64.0 | 69.2 |
| Apri1............................ | 49.7 | 60.2 | 60.5 | 67.7 |
| May................................ | 58.1 | 54.7 | 53.8 | 63.4 |
| June.............................. | 57.8 | 59.9 | 51.5 | 58.4 |
| Jaly.............................. | 57.0 | 53.8 | 58.1 | 39.6 |
| August............................ | 54.4 | \$2.0 | 35.5 | 34.9 |
| Septerbar......................... | 52.9 | 37.6 | 35.2 | 50.6 |
| Oetobar............ . . . . . . . . . . . . | 65.1 | 61.9 | 59.3 | 44.2 |
| novanber.......................... | 55.2 | 61.9 | 63.1 | 40.4 |
| Dacetber........................... | \$3.5 | 37.3 | 56.4 | 36.3p |
| 1980 |  |  |  |  |
| Japurty.......................... | 60.2 | 51.6 | 42.7 |  |
| Pebruary ............................ | 54.9 | 52.6 | 38.1 | 30.2 D |
| March. .......................... | 45.9 | 36.6 | 30.8p |  |
| Apri1................................ | 20.2 | 30.8 | 25.0p |  |
| May............................... | 29.1 | 25.0\% 28.20 |  |  |
| Jury............................. |  |  |  |  |
| August........................... | 37.8. |  |  |  |
| septerber........................ |  |  |  |  |
| Oetober............................ |  |  |  | . |
| Decenber........................ |  |  |  |  |



Senator Bentsen. Commissioner, this week we saw the leading indicators show a $21 / 2$-percent increase. Now we are looking at July unemployment figures. Do they give us some indication that this recession is subsiding?

Are there signs that the economy is going to weaken over the next few months, or does it look like we are bottoming out?

Ms. Norwood. I think that the layoff figures which refer to the month of June were extremely important. Incidentally, they represented more than a third-1 percent of that $21 / 2$-percent-increase in the leading indicators was due to the layoff rate. That is a very important development. Nevertheless, we do have in the payroll survey indications for the month of July of employment reductions still in some industries, especially the primary metals and metal fabrication industry. However, there were increases in employment in the retail trade sector and services. And I think that is extremely important.
The declines we were getting in the last few months in the serviceproducing sector were really quite worrying. If this trend continues, I think that would be very encouraging. But it is only a single month.
Senator Bentsen. Let's see if we can get this down to the individual. Is it easier for the average person to find a job than it was a month or 2 months ago?
Ms. Norwood. Certainly service industries have shown that there is some growth, very small growth. In the month of July, just about all of the individual manufacturing industries had declines in employment. And therefore I think we have not had yet in July any signs that it was much easier to find a job.
Senator Bentsen. Well, I am trying to date these figures. We now have some figures showing an increase in housing starts. Modest increase in automobile sales. Do these unemployment figures still show the slump in the auto and construction industries?
Ms. Norwood. Yes; they certainly do. There are still several hundred thousand workers who are not employed in the automobile industry. What the figures show is that there has been no further deterioration.
Senator Bentsen. One of the interesting things is the large number of women entering the work force. Are they likely to be the wives or the relatives of people who have been laid off, or how do you explain the substantial increase of women coming into the work force?

Ms. Norwood. I think it's entirely consistent with what one would expect during a recession. You and I have discussed many times the changing view of women in the labor force. We have had a lot of women coming into the labor force. During a period of declining real income, during a period of difficulty for all people in the labor market, it would be expected, I think, that other members of the family who had been outside the labor force would enter it. And I think that is what we are seeing here.
Senator Bentsen. Now the June figures showed some steep declines in employment, with job losses spreading from the more cyclical manufacturing industries into the retail and service sectors. What has happended to change that pattern? Do you think the removal of credit controls could have been a factor?

Ms. Norwood. It could well have been. There certainly seems to be evidence that people are continuing to buy, and I think that the figures are beginning to show less of the kind of steep declines that we had had. Housing starts seems to be turning around. So there is some evidence, I think, that the people are beginning to look at their expenditures somewhat differently. And if the increase in the service industries, although quite small, continues, that will be a very encouraging sign I think.

Senator Bentsen. Going into the last recession in 1974, one of the problems was that inventories were too high. But I also recall that going into that recession, that wasn't thought to be the case. Then all of a sudden, inventories were much too high. This time we have heard that manufacturers and retailers learned their lesson and were keeping inventories relatively modest. Has that been the case? Has that proven to be the fact? And, if it is, and if consumer spending has started up, would you expect to see employment react faster than it did before?
Ms. Norwood. Certainly the inventory data are extremely difficult to measure and to interpret. It does appear that inventories in this recession were in a better position at the beginning of the recession than they were in the last recession. Over the last few months there has been some concern about the increase in the inventory/sales ratio. And that has gone up. There seemed to be some evidence a month or 2 ago that employers were beginning to adjust their inventories. There may still be some of that adjustment ahead of us.

Senator Bentsen. Congressman Brown.
Representative Brown. Thank you, Mr. Chairman.
Ms. Norwood, I am also pleased to see you. I, too, regret the passing of your assistant, Mr. Stein. I guess I would ask the questions that I have in a some what different way.

Every once in a while in a stock market analysis, you see the suggestion that a plateau builds up for some kind of a sharp change. Do you see the current 3 -month platean as a base for a sharp change in unemployment, either higher unemployment or lower unemployment? What's the significance of these pauses? We have had some analysis concerning the problems of many of the major corporate enterprises this year. The prevailing thought is business will simply level off in their decisionmaking process, neither cutting back severely nor increasing their anticipation of employment or investment, until we get a resolution of the political situation of the country in November.

I don't want to drag you into a political discussion at all. However, I'd like you to comment on what the plateau might mean in any of these regards?

Ms. Norwood. As you know, the unemployment rate is really neither a leading nor a lagging indicator. It seems to lead at the beginning, and then to lag-lead at the peak and lag somewhat at the trough. We have had situations where there have been plateaus before. The big issue really is what is happening to the labor force, since the unemployment rate is really very much affected by that. We have had a great deal of variability in the labor force. There seems to be evidence in July that the employment declines, even in many of the manufacturing industries, are beginning to level off. There was some slight increase, as I said, in services.

If these employment developments were to continue, then what happened to the labor force would determine where we were going with the unemployment rate itself, because you could have employment increases, and still have changes occurring in the unemployment rate, depending on what happened with the labor force.
Representative Brown. I got into this subject rather inadvertently; the Secretary brought it up in our discussion about something else, and when I look at the statistics-I believe they are for white teenagers in your data on table A-2 of your press release. Your statistics indicate that from July 1979 to July 1980 there has been a rather sharp drop in the civilian labor force from $101 / 4$ million to $81 / 4$ million and the participation rate of teenagers has gone down from 74 percent to about 60 percent.

When the employment population ratio drops from 63 percent to $491 / 2$ percent, what causes that rather startling change? Is that a decline in the number of teenagers in the work force or a decline of the teenagers in the population mix? What does it mean?

Ms. Norwood. I am afraid I am a little confused as to the numbers you are referring to.

Representative Brown. It is in table A-2 of the press release-both sexes 16 to 19 years of age-you will note the table says the civilian labor force for that age group has dropped from $101 / 4$ million to $81 / 4$ million in the last year.
Ms. Norwood. I think the figure you are looking at is for white teenagers and there may be some confusion about comparing seasonally adjusted data and nonseasonally adjustable data.
Representative Brown. Yes. Correct.
Ms. Norwood. The figures for teenagers, for all teenagers, of both sexes and all races show very little change. The civilian labor force for both sexes, not seasonally adjusted, was 11.7 million in July 1979 and 11.6 million in July 1980.
Representative Brown. I must be looking at the impact of the seasonal adjustment on that work force. Are these figures modified by seasonal adjustment?
Ms. Norwood. Yes, certainly.
On the month-to-month figures. The year-to-year figures would not be, however. There has been a change for all teenagers. There has been a drop of a little more than 100,000 over the year from July to July for all teenagers. There has been a larger drop in the employment of teenagers, some 400,000 over the year.
This month there were some slight increases, that is, in the month of July. But there have been and there certainly still are high rates of unemployment for teenagers. There is no question about that.
Representative Brown. My time is up, but I would like to ask one more question if I might on this subject.

Senator Bentsen. Sure.
Representative Brown. Secretary Miller rationalized the history of increasing peaks in unemployment as the demographic impact of teenagers over the last few vears, becanse teenagers are not generally as fully employed as other elements of society. I can understand that historically, but I think we are coming out of that phase now. Is that correct? We are entering a phase where we have less teenagers in the labor mix than we had previously. Isn't that right?

Ms. Norwood. We are coming into the phase where the population of teenagers is declining and, coupled with the current economic situation, the youth labor force is slowly shrinking. Until the summer of 1978, however, teenagers had been an important part of the overall growth of the labor force. I think the bigger issue, however, is the very large number of women who have entered the labor force. So you have both women and teenagers. And they represent two groups which generally have had less experience in the labor market, and, therefore, have more difficulty in finding jobs.
Representative Brown. My final question, and I would ask you to give some thought to it, is whether or not the full employment factor that we used to assume was 4 percent, was increased to 5 or 6 percent, or even 7 percent? I don't know where you would put it. However, I'd like to know the role of the increased participation of women and teenagers in the work force on any modification of the full employment ratio?
Ms. Norwood. I think that question is an extremely good one, and one that has received a great deal of thought.
There is a large literature on it. BLS itself has done a lot of work in that area.
The difficulty really is that we must look not just at the change in composition. but also at the effect of the interaction of that change among the various groups. That is, if you have a large number of young people in the labor force, it is not just the unemployment rate of the young people themselves, but also the effect of that supply of labor upon the adult labor force and upon employers' actions in that situation that is important.

My recollection is that the Council of Economic Advisers has in its report suggested that there needs to be a somewhat higher rate for full employment. My own personal view is that these are all things which ought to be taken into account, and that people who are responsible for policymaking need to understand them, but we also need to recognize that we are facing the current composition of the labor force, and it is these people who are now unemployed who need to find jobs.

Senator Bentsen. Congressman Wylie.
Representative Wylie. Thank you very much, Mr. Chairman.
Ms. Norwood, do the estimates of the Office of Management and Budget that the unemployment figure will hit about 8.5 percent next year and level off seem to be optimistic or pessimistic, or is that about right?
Ms. Norwond. Well, I think that forecasting is an extremely difficult thing to do. Those estimates certainly were based upon the data that were then available to them. It is very hard to tell. As I am sure you are aware, some of the private forecasters are suggesting even higher unemployment rates. What really will tell that, I think, is what happens in the next 2 or 3 months.

Representative Wruse. Do you have any particular event in mind?
Ms. Norwood. No, sir, I do not. I was not suggesting the election. I was thinking really of the economy.
Representative Wycie. OK. I wasn't suggesting it, either. I thought Representative Brown's question with reference to the mix was interesting. I find another factor interesting. That was the fact that you
referred to the change from manufacturing industries to retail industries, service sectors, as being heavy in employment, which meant the unemployment rate remained about the same. Do you think that the fact that the automobile industry seems to be going through a transition period will have a good effect or a bad effect on this? Is most of the unemployment rate now attributable directly to the automobile industry, or indirectly through the ripple effect of the automobile industry? Isn't that a significant factor in this unemployment rate right now?

Ms. Norwood. Certainly declines in employment in the automobile industry have been extremely important. They began, by the way, long before the recession began in January. Some of that has spread into other industries like rubber, the tire industry, glass, and so on. But there has been more than that. There has been a very steep decline in construction and in construction-related industries, like lumber and wood. I think that one of the interesting aspects of the question you raise is the fact that roughly only about a quarter of the employment in this country is in the goods-producing sector, including manufacturing, and so forth. The rest, a very large proportion, is in servicesproducing industries.

Representative Wylie. I think I am almost gratified by the numbers you have reported here today. The recession does not seem to have worsened since your last report. I think that is a fair statement, isn't it?

Ms. Norwood. Absolutely.
Representative Wrise. I hope the economy is going through a transition from recession in the early 1980's to recovery in the fall with housing starts looking better right now and autos being much stronger, or anticipated to be much stronger; is that right?

Ms. Norwood. Yes, sir, certainly. Of course, as the automobile companies retool to produce smaller cars, they will be rehiring some of the workers who have lost their jobs, who are on layoff.

Representative Wylie. So my optimism is consistent with what you are saying today?

Ms. Norwood. This month's figures certainly look a lot better than they have for several months. No question about that.

Representative Wylie. Thank you.
Senator Bentsen. Thank you very much. We appreciate your coming. The committee stands adjourned.
[Whereupon, at 11:46 a.m., the committee adjourned, subject to the call of the Chair.]

# EMPLOYMENT-UNEMPLOYMENT 

> FRIDAY, SEPTEMBER 5, 1980
> CONGRESS of THE UNITEd STATES, JOINT ECONOMIC COMMITTEE, Washington, D.C.

The committee met, pursuant to notice, at $10: 07$ a.m., in room 6226 , Dirksen Senate Office Building, Hon. Lloyd Bentsen (chairman of the committee) presiding.

Present: Senators Bentsen and Proxmire; and Representative Reuss.
Also present: John M. Albertine, executive director; Mary E. Eccles and Mayanne Karmin, professional staff members; Betty Maddox, administrative assistant; and Mark R. Policinski, minority professional staff member.

## Opening Statement of Senator Bentsen, Chairman

Senator Bentsén. Commissioner, we are very pleased to have you this morning. I note that we see some modest improvement in the unemployment rate, which went down from 7.8 in July to 7.6 percent in August. And on the Producer Price Index, despite the horrendous increase in the price of food, the overall increase in August was more modest than in July. And that is somewhat encouraging.

But of course I want to know: Is that really the last rose of summer? Or are we talking about the first robin of spring? Are we talking about a real change in the course of the recession? Is this signal strong enough to tell us the recession is ending? Or are we still looking at some muddled figures, with a lot left to be explained?

Please proceed. We are delighted to have you here.
STATEMENT OF HON. JANET L. NORWOOD, COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY W. JOHN LAYNG, ASSISTANT COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND JOHN E. BREGGER, CHIEF, DIVISION OF CURRENT EMPLOYMENT AND UNEMPLOYMENT ANALYSIS

Ms. Norwood. Thank you, sir.
Mr. Chairman and members of the committee, I am pleased to have this opportunity to provide the Joint Economic Committee with a few brief comments to supplement the Employment Situation and Producer Price Index press releases issued this morning by the Bureau of Labor Statistics at 9:00 a.m.

Today's figures confirm the improvement in labor market indicators which I reported to you on August 1. The labor market deterioration which occurred early this year has, at least temporarily, abated. While total employment was unchanged over the month, payroll employment rose by 200,000 . Moreover, employment rose in nearly three-fifths of the 172 industries that comprise the BLS diffusion index of private nonagricultural employment.

Also encouraging was a sharp rise in the manufacturing workweek and factory overtime hours. Joblessness decreased by almost 200,000 and the unemployment rate for August edged down two-tenths of a point to 7.6 percent.

Total employment-as measured by the household survey-was unchanged over the month. Employment in August was at the same level as in May: 800,000 below the number employed in January when the recession began. On the other hand, payroll employment-as measured by the business survey-which had declined steadily since February, rose by 200,000 in August. Almost half of the August increase occurred in manufacturing, which had been declining steadily in recent months. Increases also occurred throughout most of the service-producing sector, especially in retail trade and services. Most of the improvement in factory jobs was in the nondurable goods industries, but there were also signs of strength in the hard-hit durables sector, particularly in wood products and fabricated metals.

The figures on average hours are probably the most encouraging of the August data. The overall private nonfarm workweek rose by twotenths of an hour in August, the first gain following a steady decline since the beginning of the year. The manufacturing workweek-which as you know is recognized as a major leading indicator of businesscycle development-rebounded sharply in August, rising a full half hour. Factory overtime also rose substantially over the month. Especially important was the large incresse in average hours in the durable goods sector. Increases occurred in all but one of the individual durable manufacturing industries.

As I mentioned earlier, the unemployment rate declined two-tenths of a percentage point in August to 7.6 percent. The overall rate has shown basic stability since May, remaining within the 7.6- to $7.8-\mathrm{per}-$ cent range. It was 6.2 percent in January. Although the rates for most worker groups were about the same as in July, there was a sharp decline in the iobless rate for workers in manufacturing industries who, together with workers in the construction industry, have been the most seriously affected by the current downturn.

The jobless rate for automobile workers, which reached 29 percent in May, dropped from about 25 percent in July to about 21 percent in August. The rate for construction workers, however, rose substantially in August.

## PRICES

The Producer Price Index for August, which was also released this morning, increased sharply for the second month in a row. The 1.5percent rise for August followed a 1.7-percent rise in July and brought the inflation rate at the producer level back to the very high rates of increase recorded in early 1980.

The source of the increase in prices during the last 2 months, however, was very different from the source in early 1980. Early in 1980, food prices were declining and prices for energy and other nonfood items were rising sharply. During the last 2 months, food prices rose sharply, up 62 percent at an annual rate over the 2 -month period. The extreme heat experienced in some parts of the country this summer has clearly added additional upward price pressures in the food sector.
Price increases during July and August of 1.1 and 0.7 percent for nonfood finished goods were substantially less than those we observed during the early months of 1980. The steep rise in finished energy prices ended last spring. Prices of other nonfood consumer goods moved up a sharp 1.5 percent in July, but the August increase was back to 0.7 percent. Capital equipment prices, however, continued to reflect substantial upward price pressures in August, particularly in the area of motor trucks.

At the intermediate and crude stages of production, the upward surge in food prices has also dominated the picture over the last 2 months. Price increases for nonfood semifinished materials have been relatively moderate for several months. At the crude stage of production, however, prices moved up sharply for nonfood crude materials during July and August following a 4-month decline.
In summary, some aspects of the August figures present grounds for cautious optimism. Although the sharp rise in prices for producer consumer foods suggest that retail food prices will be higher in the months ahead, the dampened price increases for finished and intermediate producer nonfood items is encouraging. In fact, at every stage of proc-essing-crude, intermediate, and finished-the August nonfood price increase was lower than in July, and considerably below the levels prevailing at the start of the year.

On the labor front, payroll employment rose in August, and the number of unemployed workers declined by 200,000 . At 7.6 percent, the unemployment rate, while still very high, showed slight improvement. And the increase in average weekly hours, as well as in factory overtime hours, indicates more labor market strength than in previous months.

Mr. Bregger, on my right, who is our employment expert, Mr. Layng, on my left, who is our expert on prices, and I would be glad to try to answer any questions you may have.
[The table attached to Ms. Norwood's statement, together with the press releases referred to, follows:]
unemployment rates by alternative seasonal adjustment methods

| Month and year | Unadjusted rate <br> (1) | X-11 ARIMA method |  |  |  |  |  | X-11 method (former official method) | Range (cols. 2-8) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Official | Concurrent | Stable | Total | Residual | 12-mo extrapolation |  |  |
|  |  | (2) | (3) | (4) | (5) | (6) | (7) |  |  |
| 1979 |  |  |  |  |  |  |  |  |  |
| August.-. | 5.9 | 5.9 | 5.9 | 6.0 | 5.9 | 5.9 | 5.9 | 5.9 | 0.1 |
| September | 5. 6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 0.1 |
| October...- | 5. 6 | 5.9 | 5.9 | 6. 0 | 5.8 | 6. 8 | 5.8 5.9 | 5.8 5.9 |  |
| November- | 5. 6 | 5.8 | 5.8 | 5.9 | 5.8 | 6.8 | 5.8 5.8 | 5.9 5.8 | . 1 |
| December. | 5.6 | 5.9 | 5.9 | 6.0 | 5.8 | 5.9 | 5.8 | 5.8 5.9 | .2 |
| 1980 |  |  |  |  |  |  |  |  |  |
| January---.---.-. | 6.8 | 6.2 | 6.1 | 6.2 | 6.2 |  |  |  |  |
| February.-.- | 6.8 | 6.0 | 6.1 | 6.0 | 6.1 | 6.2 5.9 | 6.2 6.0 | 6.2 | . 2 |
|  | 6.6 | 6.2 | 6.2 | 6.2 | 6.2 | 5.9 6.2 | 6.0 | 6.0 6.2 | . 2 |
| April.-.----...-- | 6.6 | 7.0 | 6.8 | 6.9 | 7.0 | 7.0 | 7.0 | 7.0 | . 2 |
| May | 7.0 | 7.8 | 7.6 | 7.8 | 7.8 | 7.7 | 7.8 | 7.8 | . 2 |
| June | 7.8 | 7.7 | 7.6 | 7.4 | 7.5 | 7.5 | 7.7 | 7.6 | . 3 |
|  | 7.5 | 7.8 | 7.8 | 7.8 | 7.7 | 7.8 | 7.9 | 7.9 | . 2 |
|  | 7.5 | 7.6 | 7.6 | 7.7 | 7.6 | 7.5 | 7.7 | 7.7 | . 2 |

## EXPLANATION OF COLUMN HEADS

(1) Unadjusted rate.-Unemployment rate not seasonally adjusted.
(2) Official rate (X-11 ARIMA method). -The published seasonally adjusted rate. Each of the 3 major labor force com-ponents-agricultural employment, nonagricultural employment and unemployment-for 4 age-sex groups-males and females, ages 16 to 19 and 20 yr and over-are seasonally adjusted independently using data from January 1967 forward. The data series for each of these 12 components are extended by a year at each end of the original series using ARIMA (auto-regressive, integrated, moving average) models chosen specifically for each series. Each extended series is then seasonally adjusted with the X-11 portion of the X-11 ARIMA program. The 4 teenage unemployment and nonagricultural employment components are adjusted with the additive adjustment model, while the other components are adjusted with the multiplicative model. A prior adjustment for trend is applied to the extended series for adult male unemployment before seasonal adjustment. The unemployment rate is computed by summing the 4 seasonally adjusted unemployment components and calculating that total as a percent of the civilian labor force total derived by summing all 12 seasonally adjusted components. All the seasonally adjusted series are revised at the end of each year. Extrapolated factors for January-June are computed at the beginning of each year; extrapolated factors for July-December are computed in the middle of the year after the June data become available. Each set of 6 -mo factors are published in advance, in the January and July issues, respectively, of "Employment and Earnings."
(3) Concurrent (X-11 ARIMA method). - The procedure for computation of the official rate using the 12 components is followed except that extrapolated factors are not used at all. Each component is seasonally adjusted with the X-lI ARIMA program each month as the most recent data become available. Rates for each month of the current year are shown as first computed; they are revised only once each year, at the end of the year when data for the full year become available. For example, the rate for January 1980 would be based, during 1980, on the adjustment of data from the period January 1967 through January 1980. Since the revision pattern and procedure for computation of the rate are identical to the official procedure, the results of this method will be identical to the official rate at the end of each year when the most recent observation is December.
(4) Stable (X-11 ARIMA method).-Each of the 12 labor force components is extended using ARIMA models as in the official procedure and then run through the X-11 part of the program using the stable option. This option assumes that seasonal patterns are basically constant from year-to-year and computes final seasonal factors as unweighted averages of all the seasonal-irregular components for each month across the entire span of the period adjusted. As in the official procedure, factors are extrapolated in $6-m o$ intervals and the series are revised at the end of each year. The procedure for computation of the rate from the seasonally adjusted components is also identical to the official procedure.
(5) Total (X-11 ARIMA method). - This is one alternative aggregation procedure, in which total unemployment and labor force levels are extended with ARIMA models and directly adjusted with multiplicative adjustment models in the X-11 part of the program. The rate is computed by taking seasonally adjusted total unemployment as a percent of seasonally adjusted total civilian labor force. Factors are extrapolated in 6 -mo. Intervals and the series revised at the end of each year.
(6) Residual (X-11 ARIMA method). This is another alternative aggregation method, in which total employment and civilian labor force levels are extended using ARIMA models and then directly adjusted with multiplicative adjustment models. The seasonally adjusted unemployment level is derived by subtracting seasonally adjusted employment from seasonally adjusted labor force. The rate is then computed by taking the derived unemployment level as a percent of the labor force level. Factors are extrapolated in 6-mo intervals and the series revised at the end of each year.
(7) 12 -mo extrapolation (X-11 ARIMA method). This approach is the same as the official procedure except that the factors are extrapolated in 12 -mo intervals. The factors for January-December of the current year are computed at the beginning of the year based on data through the preceding year. The values of January through June of the current year are the same as the official values since they reflect the same factors.
(8) X-11 method (former official method). - The procedure for computation of the official rate is used except that the series are not extended with ARIMA models and the factors are projected in 12 -mo intervals. The standard X-ll program is used to perform the seasonal adjustment.
Methods of adjustment.-The $X$ - 11 ARIMA method was developed at Statistics Canada by the Seasonal Adjustment and Times Series staff under the direction of Estela Bee Dagum. the method is desctibed in the X-ll ARIMA Seasonal Adjustment Method, by Estela Bee Dagum, Statistics Canada Catalog No. 12-564E, February 1980.
the standard X-11 method is described in X-11 Variant of the Census Method If Seasonal Adjustment Program, by Julius Shiskin, Alan Young and John Musgrave (Technical Paper No. 15 Bureau of the Census, 1967).

Source: U.S. Department of Labor, Bureau of Labor Statistics, September 1980.

Bureau of Labor Statistics Washington, D.C. 20212

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## THE EMPLOYMENT SITUATION: AUGUST 1980

The Nation"s employment eituation showed some improvement in August, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The unemployment rate edged down from 7.8 to 7.6 percent, and the number of unemployed persons dropped by nearly 200,000 to 8.0 aillion.

Total employment-as measured by the monthly survey of households-held steady in August at 97.0 million, following a rather sharp increase in July.

Nonfarm payroll employment-as measured by the monthly survey of establishments-orose by 200,000 to 90.1 million. Manufacturing employment, which had been declining steadily through July, was up by 90,000 in August, and the factory workweek registered its first increase since January.

Unemployment
The unemployment rate in August was 7.6 percent, slightly below July a 7.8 percent. Since the sharp unemployment increases in April and May, the overall jobless rate has shown relatively little movement. The major demographic groups experienced iftele or no change in their unemployment rates in August: The rate for adult men stood at 6.6 percent; adult women, 6.5 percent; teenagers, 19.1 percent; whites, 6.8 percent; and blacks, 13.6 percent. The number of unemployed workers, at 8.0 million, was about 200,000 below the July level but still almost 2 million above a year earlier. (See tables A-1 and A-2.)

The jobless rate among workers in manufacturing induatries was down full percentage point to 9.3 percent, with fmprovements shared by workers in both the durable and nondurable goods sectors. The unemployment rate for workers in the construction industry, however, increased $\mathbf{2 . 2}$ points in August. Since February, the fobless rate for construction workers has risen from 10.5 to 19.3 percent. (See table A-5.)

Over the past 2 wonths, the number of unemployed persons on layoff has declined by 425,000 , with twothirds of this reduction occurring in August. Persons on layoff constitured about one-fifth of all unemployed persons. (See table A-7.)

The median duration of unemployment, at 7-1/2 weeks, increased for the third month in a row. This reflected reductions in the number of persons in the short and medium duration categories and increases in long-term unemployment ( 15 weeks and over). (See table A-b.)

Total Employment and the Labor Force
Total employment, which had increased by $460,000 \mathrm{in} \mathrm{July}$, was unchanged in August at 97.0 million, about the same level as a year earlier, An over-the-month gain of wore than 300,000

Table A. Major indicators of labor market activity, beasonally adjusted

among adults was offiet by a decline among teenegers. The employment-population ratio, at 58.2 percent, was about unchanged from July, but was a percentage point below its level of August 1979.

The civilian labor force, at 105.0 million, was little changed from month earlier. The civilian labor force participation rate, at 63.9 percent, was also about unchanged. Over the year, the labor force growth among adult women was about double that for men, while teenage labor market activity decreased. (See table A-1.)
Industry Payroll Emplayment
Nonagricultural payroli employment rose by 200,000 in August, the first increase since February. At 90.1 million, payroll employment was near its year-ago level but was.atill 1.1 million belou the February peak. The employment growth was wideapread, with nearly 60 . percent of the 172 industries in the BLS diffusion index of private nonfarm employment registering gains from July to August. (See tables B-1 and B-6.)

After posing aubstantial cutbacks over the first half of the year, manufacturing employment turned upward in August, as the number of jobs increased by 90,000 . Job gains were concentrated In the nondurable goods sector-princfpally in textiles, apparel, and rubber and plastics--but there was also some improvement in the durable goods industries, particularly fabricated metals and lumber and wood products. Electrical equipment was the only manufacturing industry to register a substantial decline in August. Between Janusry and July, employment in manufacturing had been reduced by nearly 1.2 million jobs, three-fourths of which occurred in the durable goods indugtries.

Elsewhere in the goods-producing sector, mining and construction employment were both up over the month. However, most of the 35,000 increase in construction was accounted for by strikers returning to their jobs; employment in this fndustry was still 390,000 below Januarys peak level.

Employment in the service-producing sector rose slightly for the aecond consecutive month, following declines in both May and June. Retail trade ( 50,000 ) and services ( 25,000 ) were the largest contributors to the sector's over-the-month employment growth. The gain in the servicea fndustry occurred despite a strike among motion picture and television employees. There was,
however, a derilne in Federal government emplovaent, due partly to cortinuating of the phase-out of the 1980 Decennial Census collection operation.

Hours of 'Work
The average workweek for production or nonsupervisory workers on private nonfarm payrolls increased 0.2 hour to 35.1 hours in August. The manufacturing workweek increased 0.5 hour to 39.6 hours; factory hours had been unchanged in July aubsequent to declines dating back to early In the year. Manufacturing overtime was up 0.3 hour over the month. (See tabie B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on gyate nonfarm payrolls roge 0.8 percent in August to 122.8 ( $1967=100$ ) as a result of the rice in both emolovent end hours. The itdex was etill down 3.4 percent from its January peric. The nanufacturing Index was up 1.8 percent over the month. (See table B-5.)

Hourly and Weakly Earnings
Average hourly earnings of production or nonsupervisory workers on private norfarm gayrolls roge 0.6 percent over the month and 7.7 percent over the year (seasonally adjusted). Average weekly earnings were up 1.2 percent from July and 5.9 percent from August 1979.

Before adjustment for seasonality, average hourly earnings rose 2 cents in Aupust to sh. 66 and heve risen 48 cents over the year. Average weekly earnings were $\$ 236.43$, up 52.04 over the month and $\$ 13.95$ over the year. (See table B-3.)

The Hourly Earnings Index
The Hourly Earnings Index--earnings adjusted for overtime in manufacturing, seasonality, end the effects of changes in the proportion of workers in high-wage and low-wage incustrins--vas 253.1 ( $1967-100$ ) in August, 0.5 percent higher than in July. The Index was 9.0 percent ebove August a year ago. In dollars of constant purchasing power, the Index decreafed 3.5 geraent during the 12 -month period ended in July. (See table B-4.)

Chart 1. Clvillan labor force and employment (Seasonally adjusted)


Chart 2. Unemployment rate--all civilian workers


Chart 3. Civillan labor force participation rate and total employment-population ratlo (Seasonally adjusted)


## Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment. Statistics Survey (establishment survey). The household survey provides the information on the labor force, total employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 65,000 households that is conducted by the Bureau of the Census with most of the findings analyzed and published by the Bureau of̂ Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonagricultural payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. The sample includes approximately 166,000 establishments employing about 35 million people.

For both surveys, the data for a given month are actually collected for and relate to a particular week. In the household survey, unless otherwise indicated, it is the calendar week that contains the 12th day of the month, which is called the survey week. In the establishment survey, the reference week is the pay period including the 12 th, which may or may not correspond directly to the calendar week.

The data in this release are affected by a number of technical factors, including definitions, survey differences, seasonal adjustments, and the inevitable variance in results between a survey of a sample and a census of the entire population. Each of these factors is explained below.

## Coverage, definitions and differences between surveys

The sample households in the household survey are selected so as to reflect the entire civilian noninstitutional population 16 years of age and older. Each person in a household is classified as employed, unemployed, or not in the labor force. Those who hold more than one job are classified according to the job at which they worked the most hours.

People are classified as employed if they did any work at all as paid civilians; worked in their own business or profession or on their own farm; or worked 15 hours or more in an enterprise operated by a member of their family, whether they were paid or not. People are also counted as employed if they were on unpaid leave because of illness, bad weather, disputes between labor and management, or personal reasons.

People are classified as unemployed, regardless of their eligibility for unemployment benefits or public assistance, if they meet all of the following criteria: They had no employment during the survey week; they were available for work at that time; and they made specific efforts to find employment sometime during the prior 4 weeks. Also included among the unemployed are persons not looking for work because they were laid off
and waiting to be recalled and those expecting to report to a job within 30 days.

The civilian labor force equals the sum of the number employed and the number unemployed. The unemployment rate is the percentage of unemployed people in the civilian labor force. Table A-4 presents a special grouping of seven measures of unemployment based on varying definitions of unemployment and the labor force. The definitions are provided in the table. The most restrictive definition yields U-1, and the most comprehensive yields $\mathrm{U}-7$. The official unemployment rate is U.S.

Unlike the household survey, the establishment survey only counts wage and salary employees whose names appear on the payroll records of nonagricultural firms. As a result, there are many differences between the two surveys, among which are the following:
----The household survey, although based on a smaller sample, reflects a larger segment of the population; the establishment survey excludes agriculture, the self-employed, unpaid family workers, and private hqusehold workers;
---The household survey includes people on unpaid leave among the employed; the establishment survey does not;
--The houschold survey is limited to those 16 years of age and older; the establishment survey is not limited by age;
---The household survey has no duplication of individuals, because each individual is counted only once; in the establishment survey, employees working at more than one job or otherwise appearing on more than one payroll would be counted separately for each appearance.
Other differences between the two surveys are described in "Comparing Employment Estimates from Household and Payroll Surveys," which may be obtained from the BLS upon request.

## Seasonal adjustment

Over a course of a year, the size of the Nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. For example, the labor force increases by a large number each June, when schools close and many young people enter the job market. The effect of such seasonal variation can be very large; over the course of a year, for example, seasonality may account for as much as 95 percent of the month-to-month changes in unemployment.
Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or
increases in the participation of women in the labor force, easier to spot. To return to the school's-out example, the large number of people entering the labor force each June is likely to obscure any other changes that have taken place since May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

Measures of civilian labor force, employment, and unemployment contain components such as age and sex. Statistics for all employees, production workers, average weekly hours, and average hourly earnings include components based on the employer's industry. All these statistics can be seasonally adjusted either by adjusting the total or by adjusting each of the components and combining them. The second procedure usually yields more accurate information and is therefore followed by BLS. For example, the seasonally adjusted figure for the civilian labor force is the sum of eight seasonally adjusted employment components and four seasonally adjusted unemployment components; the total for unemployment is the sum of the four unemployment components; and the official unemployment rate is derived by dividing the resulting estimate of total unemployment by the estimate of the civilian labor force.
The numerical factors used to make the seasonal adjustments are recalculated regularly. For the household survey, the factors are calculated for the January-June period and again for the July-December period. The January revision is applied to data that have been published over the previous 5 years. For the establishment survey, updated factors for seasonal adjustment are calculated only once a year, along with the introduction of new benchmarks which are discussed at the end of the next section.

## Sampling variability

Statistics based on the household and establishment surveys are subject to sampling error, that is, the estimate of the number of people employed and the other estimates drawn from these surveys probably differ from the figures that would be obtained from a complete census, even if the same questionnaires and procedures were used. In the household survey, the amount of the differences can be expressed in terms of standard errors. The numerical value of a standard error depends upon the size of the sampie, the results of the survey, and other factors. However, the numerical value is always such that the chances are 68 out of 100 that an estimate based on the sample will differ by no more than the standard error from the results of a complete census. The chances are 90 out of 100 that an estimate based on the sample will differ by no more than 1.6 times the
standard error from the results of a complete census. At the 90 -percent level of confidence-the confidence limits used by BLS in its analyses-the error for the monthly change in total employment is on the order of plus or minus 293,000; for total unemployment, it is $\mathbf{1 8 5 , 0 0 0}$; and, for the overall unemployment rate, it is 0.19 percentage point. These figures do not mean that the sample results are off by these magnitudes but, rather, that the chances are 90 out of 100 that the "true" level or rate would not be expected to differ from the estimates by more than these amounts.
Sampling errors for monthly surveys are reduced when the data are cumulated for several months, such as quarterly or annually. Also, as a general rule, the smaller the estimate, the larger the sampling error. Therefore, relatively speaking, the estimate of the size of the labor force is subject to less error than is the estimate of the number unemployed. And, amiong the unemployed, the sampling error for the jobless rate of adult men, for example, is much smaller than is the error for the jobless rate of teenagers. Specifically, the error on monthly change in the jobless rate for men is .23 percentage point; for teenagers, it is 1.06 percentage points.

In the establishment survey, estimates for the $\mathbf{2}$ most current months are based on incomplete returns; for this reason, these estimates are labeled preliminary in the tables. When all the returns in the sample have been received, the estimates are revised. In other words, data for the month of September are published in preliminary form in October and November and in final form in December. To remove errors that build up over time, a comprehensive count of the employed is conducted each year. The results of this survey are used to establish new benchmarks-comprehensive counts of employment-against which month-to-month changes can be measured. The new benchmarks also incorporate changes in the classification of industries and allow for the formation of new establishments.

## Additional statistics and other information

In order to provide a broad view of the Nation's employment situation, BLS regularly publishes a wide variety of data in this news release. More comprehensive statistics are contained in Employment and Earnings, published each month by BLS. It is available for $\$ 2.75$ per issue or $\mathbf{\$ 2 2 . 0 0}$ per year from the U.S. Government Printing Office, Washington, D.C. 20204. A check or money order made out to the Superintendent of Documents must accompany all orders.

Employment and Earnings also provides approximations of the standard errors for the household survey data published in this release. For unemployment and other labor force categories, the standard errors appear in tables A through I of its "Explanatory Notes." Measures of the reliability of the data drawn from the establishment survey and the actual amounts of revision due to benchmark adjustments are provided in tables $K$ through $P$ of that publication.

Table A.1. Empioyment status of the population by sex and age

|  | Net monemitr matur |  |  | enematy afuma |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Aug. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \mathrm{J} 1 \mathrm{y} \\ & 1980 \end{aligned}$ | $\begin{aligned} & 4 \mathrm{ug} \\ & 1980 \end{aligned}$ | $1979$ | ${ }_{1980}^{498}$ | $\begin{gathered} \mathrm{HAJ} \\ 1980 \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Ju1 } \\ & 1900 \end{aligned}$ | $\begin{aligned} & \text { Aug. } \\ & 1980 \end{aligned}$ |
| total |  |  |  |  |  |  |  |  |  |
| Tocel noninatiturtonel papulation ${ }^{1}$. | 163,891 | 166. 391 | 166.578 | 163.891 | 165,693 | 165.886 | 166,105 | 166.391 | 166.578 |
|  | 108.090 | 2,099 164.293 | 2,114 164.404 | 161,801 | 2,092 163,601 | 2,088 163,799 | 2.092 | 2.099 | 2,114 |
| Cuvilum lisor foren | 104,363 | 106,997 | 106.126 | 103,128 | 104,419 | 163,799 105,142 | 164.013 104.542 | 104, 293 | 164,464 |
| Participation mita. | 04.5 | 65.1 | 106.126 64.5 | -63.7 | 104\%419 | 105,442 | 104:542 | 105,203 | 105.025 63.9 |
| Enctoved . . . . . . . . . . . . . ${ }^{\text {and }}$, | 98,226 | 98.567 | 90, 115 | 97.004 | 97, 154 | 94.988 | 96,537 | 96,996 | 97,006 |
| Emplormurt-populetion Trito ${ }^{2}$ | 59+9 | 59.3 | 58.9 | 59.2 | 58.6 | 58.5 | 58.1 | 58.3 | 58.2 |
| Aerkaitime. . . . . . . . | 3,795 94.431 | 3.853 | 34,636 | 3.315 | 3.242 | 3,379 | 3.191. | 3,257 | 3.180 |
| Unemploved. . . . . . . . . . | 94.431 6,137 | 94.734 8,470 | 94.480 8.011 | $\begin{array}{r}93.689 \\ 6.124 \\ \hline\end{array}$ | 93,912 7,265 | 93.609 8.154 | 93,346 8,006 | 93,739 8.207 | 93.826 |
| Unemplovment rate. | 5.9 | 7.9 | 7.5 | 5.9 | \%.265 | 8.158 | 8.006 | 8.207 7.8 | 8.039 |
| Not in luber fores | 57.438 | 57,296 | 58,338 | 58.673 | 59, 182 | 58,657 | 59,471 | 59.091 | 59,439 |
| Mand 118 vers ad owr |  |  |  |  |  |  |  |  |  |
| Tosed neninatiersonel poputesion'. | 78,525 | 79, 710 | 79.798 | 78.525 | 19,382 | 29,472 | 79,575 | 79,710 | 79,798 |
| Ammatreen ${ }^{\text {² }}$, $\ldots$....... | 1.946 | 1,937 | 1.951 | 1,946 | 1.935 | 1,931 | 1,935 | 1.937 | 1.951 |
| Curlimen nonimatutional poowlotion ${ }^{1}$ | 76, 579 | 77. 713 | 77.847 | 76.579 | 77.447 | 77.541 | 77,641 | 77, 713 | 77.847 |
| Cuvilem lebor forct ... | 60,77i | 62,096 | 61,350 | 59.491 | 60,037 | 60.479 | 60, 127 | 60,333 | 60, 182 |
| Employrdipl. . . . . | 79.4 57.891 |  | 78.8 5695 | 77.7 | 77.5 | 73.3 | 77.4 | 37.6 | 77.3 |
| Employed . . . . . . . . . . . . . ${ }^{\text {ander }}$ | 57.891 73.7 | 57,363 72.0 | 56.975 71.4 | 56,408 71.8 | 55,998 70.5 | 55,823 | 55.457 | 55,629 | 55,55\% |
| Unminaloved. | 2,8a5 | 4.732 | 4.375 | 3.083 | 4.040 | 4.656 | 69.7 4,669 | 69.8 4.703 | ${ }_{4}^{69.6}$ |
| Unmolopriome row. | 4.7 | 7.6 | 7.1 | 5.2 | 6.7 | 7.7 | 7.8 | 7.8 | . 7.7 |
|  |  |  |  |  |  |  |  |  |  |
|  | 70,099 | 71.326 | 71.430 | 70.099 | 70,988 | 71.083 | 71,190 | 71,326 |  |
| Ammed Forcmi ${ }^{1}$. . . . . . . . . ${ }^{\text {a }}$, | 1,689 | 1,662 | 1.674 | 1.681 | 1.659 | 1,655 | 1,658 | 1,662 | 1,674 |
| Cwilion neninatiutionst posulision | 68,417 56 | 69.664 | 69.756 | 68.417 | 69.329 | 69.428 | 69,532 | 69,664 | 69,756 |
| Crailen intor fores.... | 55,020 | 55,8311 | 55,765 | 54,597 | 55,114 | \$5,467 | 55,220 | 55,398 | 53,474 |
|  | 580.4 | ${ }_{520.1}^{80.1}$ | 79.9 | 79.8 | 79.5 | 79.9 | 79.4 | 79.5 | 79.5 |
| Emptoyed . . . . . . . . . . . . . . Employminion $^{\text {a }}$ | 52,895 75.5 | 52,247 73.3 | 52,308 | 52,311 | 51.868 | 51.796 | 51,510 | 51,668 | 51.792 |
| nelatume . ............... | 2,554 | 2,475 | 2,455 | 74.6 2,375 | 2,320 | 72.9 2.384 | 72.4 2.270 | 72.4 | 72.5 |
| Nonuplatiasal inavisim | 50,341 | 49,771 | 49,853 | 49,936 | 49,548 | 2,384 49.412 | 2,270 49,240 | 2,292 49,376 | 2,286 49506 |
| inmemporas | 2,125 | 3,585 | 3,457 | 2,286 | 3,246 | 3.671 | 3,710 | 3,730 | 3,682 |
| Unmph | 3.9 | 6.4 | 6.2 | 4.2 | 5.9 | 6.0 | 6.7 | 6.7 | 6.6 |
| Howem, 16 your me avor |  |  |  |  |  |  |  |  |  |
| Tocal nonimatartional population' | 85,366 | 96,681 | 86,780 | 85,366 | 86.311 | 86,414 | 86,530 |  |  |
| Ammed Forcmi. | 145 | 161 | 163 | - 145 | -157 | -156 | 86, 157 | $\begin{array}{r}86,681 \\ \hline 161\end{array}$ | $\begin{array}{r}66.780 \\ \hline 163\end{array}$ |
| Crillem noninvirutions popution | 85,222 | 86,520 | 86,617 | 85,222 | 86, 154 | 86,258 | 26,373 | 80,520 | 86,697 |
| Crallis istor tomes. | 43,587 | 44.901 | 44,717 | 43,637 | 44,391 | 44,663 | 4,416 | 44,870 | 44, $\mathrm{BH}^{4}$ |
| Partictanion rato. | 51.1 | 51.9 | 51.7 | 51-2 | 51.5 | 51.8 | - 51.4 | - 51.9 | - ${ }_{\text {S }}^{\text {S } 1.8}$ |
| Emptoyd . . . . . . . . . . . . . | 40.335 | 41,224 | 41,141 | 40,596 | 41,756 | 41,165 | 41.079 | 41.367 | 41,455 |
|  | 47.2 | 47.6 | 47.4 | 47.6 | 47.7 | 477.6 | 47.5 | 47.7 | 47.8 |
| Unamplovec. | 3,252 | 3.677 | 3,636 | 3.041 | 3,225 | 3,498 | 3.337 | 3,503 | 3,387 |
| Unumploy | 7.5 | 8.2 | 8.1 | 7.0 | 7.3 | 7.8 | 7.5 | 7.8 | 7.6 |
| Women, 20 vers mend sum |  |  |  |  |  |  |  |  |  |
| Total moninatitivilonum populetion ${ }^{2}$ Amed Forces' | 77,127 | 78,493 | 78,607 | 77.127 | 78, 110 | 78,219 | 78.340 | 78.493 | 38,607 |
|  | 121 77.006 | 78, 133 | 78.473 | 121 77.006 | 129 77.981 | 78. 129 | 78. 129 | 78. 133 | 18. 134 |
| Clivilen libor torce. | 38,647 | 39,602 | 78,473 39,925 | 77,006 39,304 | 77,981 | 78,090 40,246 | 78,211 40,125 | 78,360 40.471 | 76,473 40.589 |
| Prutciontion rate | 50.2 | 50.5 | 50.9 | 51.0 | 51.5 | 51.5 | - 51.3 | 40.471 51.6 | 40.589 57.7 |
| Employed. | 36,174 | 36,881 | 37.091 | 37,000 | 37,602 | 37.576 | 37,530 | 37.769 | 37,961 |
| Employmmitpopulation ratio ${ }^{2}$ | 46.9 | 47.0 | 47.2 | 48.0 | 48.1 | 48.0 | 47.9 | 48.1 | 48.3 |
| Ariculure | 712 | 719 | 651 | 600 | 552 | 616 | 541 | 565 | 548 |
| Woneskatharel inder | 35,462 | 36, 162 | 36,440 | 36,400 | 37.054 | 36,960 | 36,989 | 37. 204 | 37, 413 |
| Unwmilersed....... | 2,473 | 2,721 | 2.833 | 2,304 | 2.534 | 2.670 | 2.596 | 2,702 | 2,628 |
| Unemplownment isa | 6.4 | 6.9 | 7.1 | 5.9 | 6.3 | 6.6 | 6.5 | 6.7 | 6.5 |
| Both mena, 18.18 yomr |  |  |  |  |  |  |  |  |  |
| Toter nooninutiwition poselastion ${ }^{1}$. | 16,665 | 16,572 | 16.541 | 16,665 | 16.595 | 16.584 | 16.575 |  |  |
| Amed Forses'. | 288 | 304 | 306 | 288 | 304 | 304 | W. 304 | 16.572 | 16.541 |
| Clvillan nominstitut ionel Population ${ }^{1}$ | 16,377 | 16.268 | 16.235 | 16,377 | 16,291 | 16,281 | 16.271 | 16,268 | 16.235 |
| Crutlim tabor forcs. | 10,696 | 11,563 | 10.437 | 9.227 | 9,168 | 9.429 | ${ }^{9}, 197$ | 9,334 | 8,962 |
| Pruticipation nut | 65.3 | 71.1 | 64.3 | 56.3 | 56.3 | 57.9 | 56.5 | 57.4 | 55.2 |
| Employed | 9,157 | 9,459 | 8.716 | 7,693 | 7.683 | 7.616 | 7.497 | 7,500 | 7.253 |
| Emplormemipoputation raio' | 54.9 | 57.1 | 52.7 | 46.2 | 46.3 | 45.9 | 45.2 | 45.6 | 43.8 |
| Aprowiture. | 529 | 659 | 530 | 340 | 370 | 379 | 380 | 401 | 346 |
| Narmeriautural inceust iem. | 8,628 | 9.801 | 8.186 | 7.353 | 7,313 | 7.237 | 7.117 | 7.159 | 6.907 |
| Unemplowed. | 1.539 | 2,104 | 1,720 | 1,534 | 1.485 | 1,813 | 1,700 | 1,774 | 1,709 |
| Unentiopyrnemt rite. | 14.4 | 18.2 | 16.5 | 16.6 | 16.2 | 19.2 | 18.5 | 19.0 | 19.1 |
|  <br>  Forme). |  |  |  |  |  |  |  |  |  |

HOUSEHOLD DATA
Table A-2. Employment status of the population by race, sex, and age

|  | Mat memoly |  |  | gemomily mamed |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Aluy } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 1980 \end{aligned}$ | $\begin{aligned} & 1097 \\ & 1980 \end{aligned}$ | $\begin{aligned} & 4109 . \\ & i 979 \end{aligned}$ | ${ }^{4980}$ | 1930 | $\begin{aligned} & \text { Jube } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \mathrm{Jaly} \\ & \$ 980 \end{aligned}$ | $\begin{aligned} & 409 . \\ & 1980 \end{aligned}$ |
| WRITE |  |  |  |  |  |  |  |  |  |
| Totel nentrutivitionl popalition'. . | 143,461 | 145,380 | 143,530 | 143,461 | 144.870 | 145,016 | 145,181 | 145,388 | 145,530 |
| Armud Forcm'. | 1,639 | 1,619 | 1,630 | 1.639 | 1.616 | 1,613 | 1.616 | 1,619 | 1,630 |
| Civilion nondratiationw popelestion' | 141.822 | 143,770 | 143,900 | +41.822 | 143,254 | 143.403 | 143.565 | 143,770 | 143.900 |
| Cvilimen liber fowe . . . | 41,742 | 93, 821 | 93,208 | 90,759 | 92,083 | 92,535 | 92.096 | 92.456 | 92, 294 |
| Pritatotion cita. | 69.7 869 | [ 65.3 | ${ }^{64.9}$ | ${ }^{64.0}$ | 64.3 | ${ }^{64} 5$ | 94.1 | 64.3 | 64.1 |
| Emplowad Enchoyment-populetion rato ${ }^{1}$ | 86,995 60.6 | 87,400 60.1 | 66,937 59.7 | 35.976 59.6 | 86, 385 | 80, 149 | 85, 792 | 86,063 | 85,981 |
| Unmploprac. . . . . . . . . . . | 4,747 | 6.422 | 59.7 6.272 | 59.9 4.783 | 59.6 5.698 | 59.4 6.386 | 59.1 6.303 | 59.2 6.392 | 59-1 |
| Unmploymate mo. | 5.2 | 6.6 | 6.27 6.7 | 5.7 4.3 | 5.698 6.2 | 6.386 6.9 | 6.303 | 6.392 6.9 | 6.313 6.8 |
| man, 20 ymon mad amm |  |  |  |  |  |  |  |  |  |
| CNilusimber force | 49.058 | 49.74 | 49.686 | 48,646 | 49,201 | 49.525 | 49,323 | 49.38 a | 49,373 |
| Frestelotion rime | $8{ }^{80.9}$ | 80.6 | 80.4 | 80.2 | 80.1 | 60.5 | 80.1 | 80.1 | 79.9 |
| Emploved . . . . . . . . . . . . | 47.390 75.4 | 46,931 74.5 | 46,964 74.5 | 46,833 | 46,610 | 46.597 | 46.366 | 46,420 | 46,453 |
| Emploviment posutation riso | 1,6.48 | 74.5 2.810 | 74.5 2.721 | 75.5 1.813 | 74.3 2.591 | 74.2 2.928 | 73.7 2.957 | 73.7 2.967 | 73.7 2.920 |
| Unemployrsamt row. | 3.4 | 5.6 | 5.5 | ${ }^{3} .7$ | 5.5 | 2.58 | 2.957 | 2.967 6.0 | 2.920 5.9 |
|  |  |  |  |  |  |  |  |  |  |
| Cintion laber ture | 33,249 | 33,993 | 34,203 | 33,879 | 34,668 | 34,650 | 34,589 | 34,785 | 34.916 |
| Putatepion rie. | $3{ }^{49} 940$ | 49.7 | 50.1 | 50.3 | 50.9 | 50.8 | 50.7 | 50.9 | 51.0 |
| Emplowd . . . . . . . . . . | 31,370 | 31,957 | 32.094 | 32,126 | 32, 757 | 32,649 | 32,589 | 32,743 | 32,883 |
| Emplormmempopulerion rotio' | 86.5 | 46.7 | 46.8 | 47.7 | 48.0 | 47.8 | 47.7 | 47.8 | 48.0 |
| Unemployed. . . | 1.879 | 2.036 | 2.189 | 1.753 | 1.911. | 2.001 | 2,000 | 2.042 | 2,012 |
| Unemploymuent rum. | 5.7 | 6.0 | 6.4 | 5.2 | 5.5 | 5.8 | 5.8 | 5.9 | 5.8 |
| Bath mixa 12-19 yom |  |  |  |  |  |  |  |  |  |
|  | 9.486 | $\begin{array}{r}10,007 \\ \hline 3.6\end{array}$ | 9,240 67.6 | 3.234 59.5 | 8.214 59.8 | 8,359 60.9 | 8.183 | 0. 283 | 8,006 |
| Employd. | 8,236 | 8,511 | 7.878 | 7.017 | 7,018 | 0.902 | ${ }_{6.837}$ | 6.900 | 6,645 |
| Employmentacowiletion rutio | 58.6 | 61.1 | 56.6 | 49.9 | 50.2 | 49.5 | 4.89.0 | 6.900 49.5 | 4.68 .8 |
| Unemployed. . . . . . . | 1,200 | 1,576 | 1,361 | 1,217 | 1,196 | 1.457 | 1,346 | 1,383 | 1,361 |
| Unamithermant me. | 12.7 | 15.6 | 14.7 | 14.8 | 14.6 | 17.4 | 16.4 | 16.7 | 17.0 |
| mon | 11.9 | 16.0 | 19.7 | 14.9 | 14.6 | 18.1 | 18.1 | 17.7 | 18.0 |
| Wormen | 13.6 | 15.2 | 14.7 | 14.7 | 14.5 | 16.7 | 14.6 | 15.6 | 15.9 |
| black and otmen |  |  |  |  |  |  |  |  |  |
| Totel inanustiationel populetion'. | 20.431 | 21,003 | 21.048 | 20.431 | 20,822 | 20,870 | 20,924 | 21,003 | 21,048 |
| Armed forcun '...... | 452 | 480 | 484 | 452 | 476 | 475 | 476 | 480 | . 818 |
|  | 19.979 | 20.523 | 20,564 | 19.979 | 20,346 | 20,395 | 20,448 | 20,523 | 20,564 |
| Civilim itisor forse. | 12,621 | 13,175 | 12.918 | 12,343 | 12,319 | 12,559 | 12,446 | 12,739 | 12,650 |
| Pathetration rea. | ${ }^{63} 2$ | $1{ }^{64.2}$ | 82.8 | -61.8 | ${ }^{6} 0.5$ | 61.6 | 60.9 | 62.1 | \$1.5 |
| Emplowed . . . . . . . . . . . ${ }^{\text {a }}$ | 11,231 55.0 | 11, 187 | 11.979 | 10,982 | 10,771 | 10,813 | 10,751 |  | 10,930 |
| Employmemtpepsulution | 55.0 +390 | 53.3 1.982 | 53.1 1.739 | 53.8 1,361 | 51.7 1.549 | 51.8 1.746 | $\begin{array}{r}51.4 \\ \hline 1.695\end{array}$ | 52.0 | +51.9 |
| Unempleved. | 1.390 11.0 | 1,983 | 1,739 | 1,361 | 1,549 | 1.746 | 1,695 | 1,807 | 1,719 |
| Unemploymert row. | 11.0 | 15.1 | 13.5 | 11.0 | 12.6 | 13.9 | 13.6 | 14.2 | 13.6 |
| men, 20 now med evor |  |  |  |  |  |  |  |  |  |
| Perictopation ras. | 77.0 | 76.3 | 6,079 | 76.9 76.9 | 5,897 | 5.922 74.7 | 5,945 74.8 | 6.049 75.8 | 6,084 76.1 |
| Emplowa | 5,505 | 5,315 | 5.343 | 5,471 | 5,254 | 5.211 | 5,195 | 5,278 | 5,311 |
| Employmemrpopularion 1etio ${ }^{2}$ | 68.0 | 63.7 | 63.8 | 67.5 | 63.5 | 62.8 | ¢2.5 | 63.2 | 63.5 |
| Unemplovad. ...... | 457 | 775 | 736 | 485 | 643 | 711 | 750 | 771 | 773 |
| Unmphoymentirta. | 7.7 | 12.7 | 12.1 | 6.1 | 10.9 | 12.0 | 12.6 | 12.7 | 12.7 |
| Wemm, 20 yent und ent |  |  |  |  |  |  |  |  |  |
| Crivilon lebar forct | 5.328 | 5,4009 | 5,642 | 5,395 | 5,477 | 5,577 | 5,500 | 5,633 | 5,636 |
| Prutictonion ratio. | 55.7 | 56.2 | 56.4 | 55.7 | 55.4 | 56.2 | 55.4 | 56.4 | 56.3 |
| Emplorde ....... | 4.804 | 4,924 | 4,997 | 4,842 | 4, 852 | 4.915 | 4,905 | 4,984 | 5,037 |
| Employment tocaderion 1atho ${ }^{2}$ | 49.4 | 49.1 | 49.7 | 49.8 | 48.9 | 49.4 | 49.2 | 49.7 | 50.1 |
| Unemolorved. | 594 | 685 | 645 | 553 | 624 | 661 | 603 | 649 | 598 |
| Unempiormment ratio. | 11.0 | 12.2 | 11.4 | 10.3 | 11.4 | 11.9 | 10.9 | 11.5 | 10.6 |
| Bot meme, 1-19 wens |  |  |  |  |  |  |  |  |  |
| Crillim libor foras .. | 1,261 | 1,476 | 1,197 | 992 | 946 | 1,000 | 993 | 1.057 | 930 |
| Puriteloution rats. | 49.6 | 57.7 | 46.8 | 39.0 | 37.1 | 41.6 | 38.9 | 41.3 | 36.4 |
| Enoloved . . . . . . . . . . . . | 922 | 948 | 838 | 669 | 664 | 697 | $65 \%$ | 670 | 582 |
| Emolovmentsopulation ruto ${ }^{1}$ | 35.3 | 36.0 | 31.8 | 25.6 | 25.3 | 26.2 | 24.8 | 25.4 | 22.1 |
| Unemploval | 339 | 528 | 359 | 323 | 282 | 373 | 342 | 387 | 340 |
| Unamolormeen rite. | 26.9 | 35.8 | 30.0 | 32.6 | 29.8 | 35.2 | 34.4 | 36.6 | 37.4 |
| Mon . . | 22.5 | 34.2 | 29.8 | 28.4 | 28.0 | 32.2 | 32.8 | 34.6 | 39.9 |
| Wommn . . . . . . . . . . . . . | 32.4 | 37.7 | 30.2 | 37.5 | 31.9 | 38.5 | 36.3 | 38.9 | 34.8 |
| 1 The popatation and Armed Forces fiperwes are <br>  |  | lothon: thevit | Forcm | man mplov | nt $\cong$ • perca | of the some | noninutiartion | mopdution | cheatry Amm |

HOUSEHOLD DATA
HOUSEHOLD DATA
Table A-3. Selacted amployment Indieatore

| amor | - |  | - |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $4{ }^{49} 9$ | ${ }^{20960}$ | 1979 |  | ${ }_{\substack{1980}}^{1880}$ | Jugat | 501. | ${ }^{4080}$ |
| сияnatenatic |  |  |  |  |  |  |  |  |
| Toue miveres to rexe |  |  | $\begin{aligned} & 97,004 \\ & 39,189 \\ & 29,899 \\ & 4,633 \end{aligned}$ | $\begin{gathered} 97,154 \\ 38 ; 424 \\ 23,080 \end{gathered}$ |  |  | 36,996 |  |
| \%momer mame |  |  |  |  |  |  |  |  |
| Wrum mion minimin tarim |  |  |  |  |  | 23.64, | 23,097 | 23:162 |
| occumatiom |  |  |  |  |  |  |  |  |
|  |  | 50, 849 | +49,663 | 50,405 | 50,606 | 50, 861 | 51,974 | 51,431 |
| umumemend |  | 11,354 |  | 10,745 | ${ }_{16,882}$ | 10,911 | 11\% 17.7 | 11\%153 |
| San momen.i. | 10, ${ }^{152}$ |  | 17,752 |  | - ${ }^{6,022}$ | 5,981 |  | 18,375 |
| Conter mometion | 313, 122 |  | 11,849 | 边 | 12,523 | ( $\begin{gathered}30,243 \\ 12,309\end{gathered}$ |  |  |
|  |  | 12,637 10,298 |  |  |  |  |  | cer $\begin{gathered}12,233 \\ 10,064\end{gathered}$ |
| Tumper miomme seentis. | ${ }_{\substack{1,174 \\ 3,788}}$ |  | 10,909 | 10,408 | 3:421 | 3,395 | 3,333 |  |
| Nonemisorit |  | $\begin{gathered} 1 ; 1,164 \\ 2,974 \\ \hline, 94 \end{gathered}$ | - |  |  | - $\begin{gathered}12,930 \\ 2,606\end{gathered}$ |  | 4.209 |
| Fumment |  |  | - $\begin{aligned} & 12,621 \\ & 2,707\end{aligned}$ | $\underset{\substack{13,034 \\ 2,658}}{\substack{\text { a }}}$ | 12,934 |  | 13,0452,689 |  |
| MNOO IMDOTRRY NMO CLEAK |  |  |  |  |  |  |  |  |
|  | 1.6551.738401 | 1,507 | \% 17.384 .4 | 1, 1,539 | $\begin{aligned} & 1,405 \\ & i .662 \\ & \hline 269 \end{aligned}$ | 1,365 | $\underset{\substack{1,352 \\ i, 38 \\ 292}}{\substack{\text { a }}}$ |  |
| Unowe mimy memen.. |  |  |  |  |  |  |  |  |
| Nonereatava inaties |  |  |  |  |  |  |  |  |
| nemer | 67,26214,72672.536 | 97, ${ }^{\text {14,937 }}$ | 80642115.279 | 86,741 |  | 86, 25.87 |  | 86,500 |
| Mnmumer |  |  |  | 71,072 |  |  |  |  |
|  | 72.536 71239 7129 |  | 7 71.142 |  | $\begin{aligned} & \begin{array}{l} 0,032 \\ 00,206 \end{array} \\ & \hline 00 \end{aligned}$ | 30,369 16219 50,140 | 70,647 | 71\%94, |
| 2 H moiver notm | $\begin{array}{r} 1,2,27 \\ 697 \\ 640 \\ 440 \end{array}$ | $\begin{gathered} 71,907 \\ \hline 6,990 \\ 399 \end{gathered}$ | ${ }^{6} 6.689$ | $\begin{array}{r} 69.969 \\ 6.913 \\ 683 \end{array}$ | $\begin{array}{r} 69,625 \\ 6.480 \\ 4.11 \end{array}$ | $6,666$ | $\begin{array}{r} 69,402 \\ 69.755 \\ \hline 497 \end{array}$ | $\begin{array}{r} 69,0,59 \\ 6,739 \\ 399 \end{array}$ |
| Unow thar metem. |  |  |  |  |  |  |  |  |
| masona at monk' |  |  |  |  |  |  |  |  |
| Foplituma |  | $\begin{array}{r} 83,445 \\ 9,405 \\ 4,010 \\ 4,890 \\ 1,890 \\ 2,40 \\ 9,230 \\ \hline \end{array}$ |  |  |  |  |  |  |
| \%er |  |  |  |  |  |  |  |  |
| 4mut |  |  |  |  |  |  |  |  |
| Pentimet |  |  |  |  |  |  |  |  |


Table A-4. Range of unemployment measure: bated on varying definltions of unemployment and the labor force, etatonally adjusted


HOUSEHOLD DATA
HOUSEHOLD DATA
Table A-5. Majof unemployment Indicators, seasonally adjusted

| Crusory |  |  | Unamplermart mim |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 10 \cdot j \\ & 1979 \end{aligned}$ | $\begin{aligned} & 21490 \\ & 1980 \end{aligned}$ | $\begin{aligned} & 445 \\ & 1979 \end{aligned}$ | $\begin{aligned} & \mathrm{A}_{175} \\ & 1980 \end{aligned}$ | $\begin{gathered} 194\} \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Juge } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \mathrm{JulJ} \\ & 19 \mathrm{~J} \end{aligned}$ | $\begin{aligned} & 40980 \\ & 1980 \end{aligned}$ |
| Chafacteniste |  |  |  |  |  |  |  |  |
| Totarit 18 y mers mad ome | 6.124 | 4,089 | 5.9 | 7.0 | 7.8 | 7.7 | 7.a | 7.6 |
| Mmen, 20 reme end avr. | 2,286 | 3.682 | 4.2 | 5.9 | 6.6 | 6.7 | 6.7 | 6.6 |
| Wommen. 20 vera asd over. | 2.304 | 2,628 | 5.9 | 6.3 | 6.6 | 6.5 | 6.7 | 6.5 |
| Coth mexa. $16-19 \mathrm{rma}$ | 3,534 | 1.709 | 16.6 | 16.2 | 14.2 | 18.5 | 19.0 | 19.1 |
| Merrided men, yown provit | 1. 175 | 1,970 | 2.9 | 4.1 | 4.7 | 4.9 | 5.1 | 4.9 |
| Murried wormen, pevem prowrt | 1.279 | 1,497 | $5.3 *$ | 5.7 | 6.3 | 6.1 | 6.2 | 0.1 |
| Werman whe maintein turnlime. | 390 | 464 | 7.9 | 9.3 | B. 3 | 6.4 | 8.9 | 8.9 |
| futhime workws | 4,727 | 6.600 | 5.4 | 6.6 | 7.5 | 7.4 | 7.6 | 7.4 |
| Pen-imu wortery | 1,372 | 1,347 | 6.8 | 8. 9 | 9.3 | 8.8 | 8.7 | 8.6 |
| cocupatiow' |  |  |  |  |  |  |  |  |
| Whimeother morken | 1.015 | 1.973 | 3.5 | 3.7 | 3.9 | 3.7 | 3.7 | 3.7 |
| Promaionsw end inctrieal. . | 392 | 378 | 2.5 | 2.4 | 2.7 | 2.6 | 2.4 | 2.3 |
| Mtenupery md edminkticton, axcepr tam | 251 | 272 | 2.3 | 2.6 | 2.7 | 2.4 | 2.5 | 2.4 |
| Sman worken ... | 257 | 264 | 4.0 | 4.7 | 4.5 | 4.4 | 4.2 | 4.1 |
| Elumecoly morkens. | 915 2,510 | 1,059 3,869 | 4.9 | 5.1 9.7 | $\xrightarrow{19.4}$ | 5.3 11.5 | 5.4 11.5 | 5.4.4 |
| Cuat mod kindred morken. | 2. 636 | 1,072 | 4.7 | 6.7 | 8.3 | 8.0 | 7.4 | 8.1 |
| Oporatims. sxapt trampor | 1,060 | 1,581 | 8.9 | 11.6 | 14.0 | 13.8 | 14.6 | 13.6 |
| Tremport equipmert oownive | 237 | 386 | 6.2 | A. 9 | 9.0 | 10.5 | 10.5 | 10.0 |
| Nonturm liborert | 583 | 830 | 11.3 | 14.1 | 15.4 | 16.2 | 16.1 | 16.5 |
| Sarvica morkert | 968 | 1.223 | 7.1 | 8.0 | 8.5 | 8.1 | 8.4 | 4.6 |
| Femm morkers. | 109 | 155 | 3.9 | 5.0 | 4.8 | 4.2 | 4.8 | 5.6 |
| industay ${ }^{2}$ |  |  |  |  |  |  |  |  |
|  | 4, 531 | 6,206 | 6.0 | 7.1 | 8.2 | 6.3 | 8-2 | 8.0 |
| Construction. | 310 | 934 | 10.1 | 15.1 | 17.5 | 16.5 | 16.1 | 18.3 |
| Manutisturing . | 1,376 | 2.124 | 5.9 | 7.9 | 9.9 | 9.9 | 10.3 | 9.3 |
| Durrole poocta. . . | 747 | 1.405 | 5.4 | A. 3 | 10.5 | 11.2 | 11.2 | 10.2 |
| Nonckusblio pooth . . . . . . . . | 629 | 719 | 6.8 | 7.4 | H.8 | 8.0 | 8.8 | 7.9 |
| Trunportation and putdic utlitime. | 208 | 321 | 3.7 | 4.6 | 5.1 | 5.2 | 5.8 | 5.7 |
| Wholesie end ratal tuche.... | 1.222 | 1.456 | 6.5 | 7.0 | 3.6 | 8.0 | 7-5 | 7.6 |
| Coverrmant mortest . . . . . . | 1.157 585 | 1,299 | 5.2 | 5.1 | 5.7 4.2 | 5.7 | 5.7 | 5.6 |
| Apresturas wape mal melor mortert. | 152 | 2.32 | 9.9 | 11.9. | 11.7 | 9.7 | 10.8 | 13.8 |




Inchude mininge. not thown mperrity.

Tabto A-6. Duration of unemployment

| (Numbers in thousands) |
| :--- |

HOUSEHOLD DATA
HOUSEHOLD DATA
Table A.7. Reason for unemployment

| Hemen | Mot moons |  | Amsonely Mefued |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }_{1097}^{40}$ | Aug: <br> 1980 | $\begin{aligned} & 149.0 \\ & 1979 \end{aligned}$ | $\begin{aligned} & 4 \text { 4rg. } \\ & 1980 \end{aligned}$ | $\underset{1980}{8 a y}$ | $\begin{aligned} & \text { Juce } \\ & 19 \otimes 0 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 1990 \end{aligned}$ | $\begin{aligned} & 41990 \\ & 1980 \end{aligned}$ |
| mumer of unemploved |  |  |  |  |  |  |  |  |
| Lent lint iob. On hyoth. | 2.539 879 | 4.104 1.641 | 2.680 915 | 3.611 1.424 | 4,301 | 4,625 2,117 | 4,558 | 4,360 1,692 |
| Otreer pol limes. | 1,660 | 2,523 | 1,765 | 1,424 2,188 | 1,944 | 2,117 2,508 | 1,975 | 1,692 2,668 |
| Lelt ims lot ....... | 993 | 1,023 | . 875 | 2,926 | 2,992 | 2.508 898 | $\begin{array}{r}2,583 \\ \hline 857\end{array}$ | $\begin{array}{r}2.668 \\ \hline 897\end{array}$ |
| Rownmed lior force. | 1.771 | 1,872 | 1,708 | 1,967 | 2,015 | 1,822 | 1,86日 | 1.895 |
| Sudiny firs | ${ }^{3} 3$ | 951 | 745 | 743 | $8 \mathrm{B4}$ | 863 | 930 | 867 |
| Hencent pitargution |  |  |  |  |  |  |  |  |
| Trail unampowe | 100.0 | 10a. 0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| tothomen.... | 41.4 14.3 | 52.0 20.5 | 44.0 | 49.8 | 52.5 | 56.3 | 35.5 | 54.4 |
| Other pot lowi. | 14.3 27.1 | 20.5 31.5 | 15.0 29.0 | 19.6 30.2 | 23.7 28.8 | 25.8 | 24.0 | $2 \mathrm{t}+1$ |
| tothemen. | 16.2 | 12.8 | 12.4 |  | 12.1 | 30.6 10.9 | 31.5 10.4 | 33.3 |
| Remerimit. | 28.9 | 23.4 | 29.4 | 27.1 | 24.6 | 10.9 $-\quad 22.2$ | 10.4 22.7 | 11.2 23.6 |
| Now mamb | 13.6 | 11.9 | 12.2 | 30.3 | 10.8 | 10.5 | 11.3 | 10.8 |
| Ungen LOYED AS A PEficent of TH: ENILIN LAEOM POMCE |  |  |  |  |  |  |  |  |
| tet lowns... | 2.4 | 3.9 | 2.6 | 3.5 | 4.1 | 4.4 | 4.3 | *. 2 |
| Peonturn. | 4.0 | 1.0 | 1.88 | 1.9 | 199 | +97 | ${ }^{-8}$ | . 9 |
| Mow mitrenta . . . | - 8 | 1.8 -9 | 1.7 | . 8 | J.9 .8 | 1.7 | 1.8 .9 | 1.8 .8 |

Table A-s. Unemployment by sex and age, saasonally adjusted

| max | Memine in |  | Unmabramme |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }^{\text {Auy }} 19$ | ${ }_{19}^{24980}$ | 209 1979 | ${ }_{1980}$ | $\underset{\substack{\text { may } \\ 1980}}{ }$ | June 1980 | July 1980 | ${ }_{1980}^{109}$ |
|  | 6.124 | 8,019 | 5.9 | 7.3 | 7.8 | 7.7 | 7.8 | 7.6 |
| 10 10.010 ran | 2,949 1,534 | 3,545 | 12.0 | 13.2 | 15.2 | 14.7 | 14.8 | 14.6 |
|  | 1,534 | 1.709 819 | 16.6 18.5 | ${ }_{\text {18.7 }}^{16.2}$ | 19.2 21.7 | 18.5 19.8 | 19.0 20.9 | 19.1 22.8 |
| 2108078 vern | 841 | 887 | 15.4 | 14.4 | 17.7 | 18.0 | 17.7 | 16.6 |
| a ymond owr | 3,415 | 1.836 | 9.3 4.0 | 11.4.0.0. | 12.7 5.5 | 12.4 5.5 | 12.3 | 11.9 |
|  | 2.697 | 3,905 | 4.2 | 5.4 | 5.5 5.9 | S.0 | 5.7 | 5.5 |
| Wrar mider | 467 | 542 | 3.1 | 3.4 | 3.6 | 3.4 | 3.5 | 3.6 |
| Men, 16 rave und own | 3,083 | 4.632 | 5.2 | 6.7 | 7.7 | 7.8 | 7.8 | 7.7 |
| $18 \pm 10 \mathrm{ram}$. | +. 797 | 2.096 |  | 13.8 <br> 16.1 <br> 1.1 | 15.9 19.7 | 15.9 19.5 | 15.7 19.7 | 16.1 20.2 |
| ${ }^{18} 818017 \mathrm{rax}$ | 358 | 476 | 18.0 | 18.3 | 22.6 | 29.8 | 20.8 | 20.2 24.6 |
|  | 436 724 | +470 | 15.1 | 14.23 | 17.9 | 19.3 | 16.7 | 17.0 |
| 2 ym | 1,524 | 2,146 | 8.88 | 12.3 4.7 | 13.7 <br> 5.3 | 13.8 5.5 | 13.4 5.6 | 13.9 |
|  | 1.299 | 2,183 | 3.5 | 5.0 | 5.7 | 5.8 | 5.6 | 5.7 |
| 65 Yum midow | 283 | 365 | 3.1 | 3.4 | 3.5 | 3.8 | 3.9 | 4.0 |
| Wamen. 10 veen ad our. | 3,041 | 3,387 | 7.0 | 7.3 | 7.8 | 7.5 | 7.8 | 7.6 |
| 10 10.048 ram | 1,428 | 1.449 | 12.6 | 12.5 | 14.3 | 13.3 | 13.3 | 12.8 |
| 180177 mm | 332 | 369 | 19.0 | 16.3 19.1 | 18.7 <br> 21.4 <br>  <br> 18 | 177.3 | 18.2 20.9 | 17.8 20.7 |
| 88 tap rem | 405 | 417 | 15.7 | 14.6 | 17.5 | 16.6 | 16.6 | 16.1 |
|  |  | 690 1,912 | 9.8 | 10.2 5.5 | 11.6 5.7 | $\stackrel{10.8}{108}$ | 11.1 | 9.7 |
|  | 1,398 | 1,722 | 4.3 3.3 | 5.0 | S.7 6. | S. 6.1 | 5.7 6.2 | 5.7 6.2 |
| St men und ow | 184 | 178 | 3.2 | 3.4 | 3.6 | 2.8 | 3.0 | 3.0 |

Teble A-9. Employment status of the black and Hispanic-origin poputation

| Employmer rum | Nont |  | Unemely 0 cimer |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Aus. } \\ & 1279 \end{aligned}$ | $\begin{aligned} & \text { Aug. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & 419 . \\ & 1979 \end{aligned}$ | $\begin{gathered} { }_{1}^{1} \cdot \underline{E} \\ 1980 \end{gathered}$ | ${ }_{1980}^{\text {nay }}$ | June <br> 1980 | $\begin{aligned} & \text { Jul } j \\ & 1980 \end{aligned}$ | ${ }_{1980}^{4.490}$ |
| ELACK' |  |  |  |  |  |  |  |  |
|  | 17.056 | 17.477 | 17.056 | 17.331 | 17,363 | 17.403 | 17.448 | 17.477 |
| Cirtiien Itbor force | 10.672 | 10, 375 | 10,453 | 10.463 | 10.656 | 10,516 | 10,723 | 10,672 |
| Periktpmion rat. | 02.6 | 62.4 | -1.3 | 60.4 | 61.4 | 60.4 | 61.5 | 61.1 |
| Emplovid. | 9,373 | 9.304 | 9,176 | 9,050 | 9.094 | 8.974 | 9,090 | 9,104 |
| Unemelorad. | 1,293 | 1,572 | 1,277 | 1.413 | 1,562 | 1,541 | 1.633 | 1.560 |
| Unemolownemt ret. | 12.1 | 14.5 | 12.2 | 13.5 | 14.7 | 14.7 | 15.2 | 14.7 |
| Wer in indor fors | 6,385 | 6,602 | 6,603 | 6, 868 | 6.707 | 6.887 | 6.725 | 0,805 |
| mispanic origin' |  |  |  |  |  |  |  |  |
|  | 0.115 | 8,839 | 6,115 | 8,362 | 6, 525 | 0,653 | 8.745 | 8,839 |
| Cultionites trace .... | 5. 198 | 5.745 | 5,010 | 5.347 | 5,472 | 5.424 | 5.538 | 5. 516 |
|  | 64.1 | 65.0 | 61.7 | 63.9 | 64.2 | 62.7 | 63.3 | 62.7 |
| Emplona .......... | 4.747 | 5.134 | 4.573 | 4.819 | 4.898 | 4.873 | 4,932 | 4.956 |
| Unenporvod. ......... | 452 8.7 | 611 10.6 | 437 8.7 | 528 | 574 10.5 | 552 | 600 | 590 |
| Notis in intor torce | 2.917 | 3.095 | 8.7 3.105 | 3.015 | 10.5 3.053 | 10.2 3.229 | 10.9 3.207 | 10.6 3.293 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

Table A-10. Employmeit states of mato Votram-ers veterants and norveterens by age, not seasonaly adkusted

| Votiven retaran | Crilem |  | Cration laber fores |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Teer |  | Ematow |  | Unomatored |  |  |  |
|  |  |  | Number | $\begin{aligned} & \hline \text { Pergit } \\ & \text { of } \\ & \text { nhor } \\ & \text { thene } \end{aligned}$ |  |
|  | $\begin{aligned} & \text { Aug. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { Auy- } \\ & 1980 \end{aligned}$ |  |  | Aus. <br> 1979 | $\begin{aligned} & \text { Auy- } \\ & 1980 \end{aligned}$ | $\begin{aligned} & 1 \text { us. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { Ary. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { ang. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { Luy- } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Auc. } \\ & 1979 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { nug- } \\ & \text { 19660 } \end{aligned}$ |
| VETERANG |  |  |  |  |  |  |  |  |  |  |
| Totel, 20 yours and evin 20 to 24 y 4\% | 8,551 530 | 8,620 309 | 8,165 486 | $\begin{array}{r}3.228 \\ \hline 294\end{array}$ |  |  | 7.826 455 | 7.706 242 | 339 33 | 522 52 | 4.2 | 6.7.7 |
|  | 3,157 | 7.297 | 4.934 | 7.047 | 6.650 | 6,609 | 284 | 438 | 4-1 | 6.2 |
|  | 1,916 3.624 | 1,681 | 1.839 | 1,579 | 1,737 | 1, 198 | 102 | 181 | 5.5 | 11.5 |
| 385 to 30 yers. | 3,624 | 3,568 2,043 | 1,512 1.583 | 3,480 $1,98 \mathrm{~B}$ | 3,367 1,506 | 3.303 $\mathbf{i} .908$ | 145 37 | 177 80 | 4.1 | 5.1 |
| 40 yeers mad own | ${ }^{864}$ | 1,049 | ${ }^{7} 743$ | ${ }^{887}$ | -721 | -655 | 22 | 32 | 3.0 | 4.6 |
| nowveterans |  |  |  |  |  |  |  |  |  |  |
| Toted. 23 to 30 vers | 14.683 | 15,590 | 13.965 | 16, 812 | 13,432 | 13, 837 | 533 | 975 | 3.8 | 6.6 |
| 25 to 29 ram | 6,729 | 7.139 | - , 396 | 6,756 | 6,122 | 6,205 | 274 | 551 | 4.3 | 8.2 |
| 30 to 34 reme | 4.208 | 4,647 | 3.994 | 4,440 | 3.853 | $\bullet .200$ | 141 | 240 | 3.5 | 5.4 |
| 350590 rmm. . . . . . . . . . | 3,746 | 3,804 | 3,575 | 3,676 | 3,457 | 3,432 | 118 | 184. | 3.3 | 5.1 |
|  <br>  <br>  papuletion. |  |  |  |  |  |  |  |  |  |  |

Teble A.M1. Emplopment status of the noninstiturional population for the ten lergest States

|  |  |  |  | tmonority miverat |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ang. <br> 4979 | $\begin{aligned} & \text { July } \\ & 1900 \end{aligned}$ | $\begin{aligned} & \text { inq. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \operatorname{Luq}_{*} \\ & 1979 \end{aligned}$ | $\underset{1980}{4 \mathrm{Apr}}$ | $\begin{array}{r} \text { Eay } \\ 1980 \end{array}$ | $\begin{aligned} & \text { Jane } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \mathrm{Jo1y} \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { 40g- } \\ & 1980 \end{aligned}$ |
|  | 16, 807 | 17.127 |  |  |  |  |  |  |  |
|  | 11.170 | 11.357 | 11.484 | 16. 11.068 | 17.179 | 17.062 | 17.091 11.160 | 17.127 11.217 | 17,152 |
|  | 10.461 | 10.555 | 10.641 | 10.367 | 10.389 | 10, 332 | 10.348 | 71.856 | 10.544 |
|  | 709 | 803 | 843 | 701 | 790 | 793 | 812 | 754 | 827 |
|  | 6.3 | 7.1 | 7.3 | 6.3 | 7.1 | 7.1 | 7.3 | 6.7 | 7.3 |
| Forth |  |  |  |  |  |  |  |  |  |
|  | 6.780 | 6.976 | 6.992 | 6.780 | 6. 920 | 6.937 | 6,955 | 6,976 | 6.992 |
| Cuvilian labor form | 3,857 | 4.035 | 3,921 | 3. 829 | 3.915 | 3.945 | 3.940 | 3,948 | 3,894 |
| Emplowed | 3.622 | 3.711 | 3,675 | 3.594 | 3. 701 | 3. 711 | 3.687 | 3.652 | 3.652 |
| Unempoived | 234 | 304 | 246 | 235 | 214 | 234 | 253 | 296 | 242 |
| Unamotiovtill cat | 6.1 | 7.6 | 6.3 | 6.1 | 5.5 | 5.9 | 6.4 | 7.5 | 6.2 |
| mment |  |  |  |  |  |  |  |  |  |
| Orilimn nomintiationsl poovintion' | 9, 261 | 0.325 | 8,327 | 8. 261 | 0. 305 | 8.310 | 日,314 | 8.325 | a,327 |
| Givision laber lorice | 5. 396 | 5. 565 | 5.411 | 5. 325 | 5.461 | 5,500 | 5,401 | 5,477 | 5,348 |
| Emploved | 5. 146 | 5.017 | 4,958 | 5. 075 | 5.057 | 5. 066 | 4,936 | 4.941 | 4.889 |
| Unamplovod | 251 | 549 | 453 | 250 | 404 | 134 | 465 | 536 | 459 |
| Unatileyment isut | 4.6 | 9.9 | B. 4 | 4.7 | 7.4 | 7.9 | 8.6 | 9.8 | 8.6 |
| Memexumb |  |  |  |  |  |  |  |  |  |
| Givilian nominatitutional pooviltion' ${ }^{1}$, | 4.373 | 4.416 | 4.419 | 4.373 | 4.403 | 4.407 | 4.411 | 4.416 | 4.519 |
| Gribion leber force | 2,931 | 2,928 | 2,937 | 2.869 | 2,858 | 2,899 | 2*832 | 2,864 | 2,880 |
| Emoloved | 2.794 | 2,749 | 2,762 | 2,749 | 2.707 | 2.714 | 2.643 | 2,690 | 2,721 |
| Unemplovad | 137 | 178 | 175 | 120 | 15. | 185 | 192 | 174 | 159 |
| Unemplormemt ist | 4.7 | 6.1 | 6.0 | 4.2 | 5.3 | 6.4 | 6.8 | 6.1 | 5.5 |
| Mectume |  |  |  |  |  |  |  |  |  |
|  | 6.725 | 6.804 | 6.810 | 6,725 | 6,781 | 6.787 | 6,794 | 6,80\% | 6,810 |
| Civilisp lesta force ........... | 4.307 | 4.373 | 4.367 | 4,303 | 4.262 | 4,336 | 6.357 | 4.320 | 4.365 |
| Emolowt | 3.983 | 3.757 | 3,820 | 3.978 | 3,741 | 3,711 | 3.742 | 3,731 | 3.823 |
| Unemplored..... | 324 | 617 | 547 | 325 | 521 | 625 | 615 | 589 | 542 |
| Unemplownent rate | 7.5 | 14.1 | 12.5 | 7.6 | 12.2 | 14.4 | 14.1 | 13.6 | 12.4 |
| Un mux |  |  |  |  |  |  |  |  |  |
| Gvidun nonimstivtional poputation'. | 5.511 | 5.566 | 5.569 | 5.511 | 5.549 | 5.554 | 5,559 | S. 566 | 5,569 |
| Cuitiman inter tocet | 3,589 | 3,676 | 3,635 | 3, 537 | 3.566 | 3,597 | 3,614 | 3.615 | 3.556 |
| Emplopeo | 3.330 | 3,376 | 3.353 | 3. 283 | 3.332 | 3. 296 | 3,327 | 3.351 | 3,311 |
| Unemployes | 259 | 299 | 252 | 254 | 236 | 301 | 287 | 264 | 245 |
| unamolorment rix | 7.2 | 8.1 | 7.0 | 7.2 | 6.6 | 6.4 | 7.9 | 3.3 | 6.9 |
| M-Yot |  |  |  |  |  |  |  |  |  |
| Civisisn nanmutitutional peoulticon' | 13.279 | 13.319 | 13,320 | 13,279 | 13,304 | 13,306 | 13,310 | 13,319 | 13.320 |
| Civilun isbor tore | 8, 110 | 8,239 | 8.131 | 9, 304 | 7.837 | 7.987 | 7.925 | 8.065 | 8.725 |
| Emporvor | 7.516 | 7.570 | 7.506 | 7,399 | 7,241 | 7. 351 | 7,344 | 7.419 | 7.391 |
| Unemproved. | 594 | 669 | 625 | 605 | 566 | 636 | 581 | 645 | 634 |
| Unemptoy mani rat | 7.3 | 8.1 | 7.7 | 7.6 | 7.2 | 8.0 | 7.3 | 8.0 | 7.9 |
| Ond |  |  |  |  |  |  |  |  |  |
| Cuvian nommsitutional population' | 7.919 | 7.985 | 7.989 | 7.919 | 7,964 | 7.970 | 7.976 | 7.985 | 7.989 |
| Curium labor tarce | 5.132 | 5.240 | 5.210 | 5.050 | 5,038 | 5,080 | 5,118 | $\stackrel{5}{5} 137$ | 5,140 |
| Emploved | 4.779 | 4.704 | 4.736 | 4.711 | 4,664 | 4.602 | 4.624 | 4,627 | 4,677 |
| Uremaloyrd | 353 | 536 | 474 | 347 | 374 | 478 | 494 | 510 | 463 |
| Unemployment rate | 6.9 | 10.2 | 9.1 | 6.9 | 7.4 | 9.4 | 9.7 | 9.9 | 9.0 |
| nemmptesio |  |  |  |  |  |  |  |  |  |
| Crilean nominstitutional population' | 8.898 | 8.957 | 8.960 | 8.898 | 8. 938 | 8, 942 | 8,948 | 8,957 | 8.960 |
| Cuvilum lober tocet | 5.339 | 5.417 | 5,437 | 5,285 | 5.381 | 5.379 | 5.324 | 5,344 | 5.391 |
| Emploved .. | 4.967 | 4.915 | 4.995 | 4,909 | 4.967 | 4.933 | 4.915 | 4, 034 | 4.945 |
| Unemoloved | 372 | 502 | 442 | . 376 | 414 | 446 | 409 | 510 | 445 |
| Unemolovment rate ............. | 7.0 | 9.3 | 8.1 | 7.1 | 3.7 | 8.3 | 7.7 | 9.5 | 8.3 |
| Taxa |  |  |  |  |  |  |  |  |  |
| Cuiliam nonimututions poputation' | 9.541 | 9.751 | 9,767 | 9.541 | 9.690 | 9.709 | 9,728 | 9.751 |  |
| Cunism lisor liace | 6.252 | 6. 306 | 6.543 | 6. 232 | 6.333 | 6. 342 | 6.336 | 6,421 | 6,527 |
| Emproved. | 5.963 | 6.145 | 6.166 | S.964 | 5,994 | 5.999 | 5.986 | 6,090 | 6,168 |
| Unemplovernimit | 289 | 361 | 377 | 268 | 339 | 343 | 350 | 331 | 359 |
| Lumplovment ras | 4.6 | 5.6 | 5.8 | 4.3 | 5.4 | 5.4 | 5.5 | 5.2 | 5.5 |



Fodrai ford allcewion proprom.

Table B-1. Employess on nonagricultural payrolls by industry

| teneviry | Nore miomally udinuad |  |  |  | smemuly divered |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Aus. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { June } \\ & \text { 19RO } \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Aug. } \\ & 19 \$ 0 \end{aligned}$ | Aus. <br> 1979 | $\begin{aligned} & \text { Apr. } \\ & 19 \text { RO } \end{aligned}$ | $\begin{array}{r} \text { i1ay } \\ 1980 \end{array}$ | $\begin{aligned} & \text { June } \\ & 1980 \end{aligned}$ | $\begin{aligned} & 301 y_{0} \\ & 1980^{\circ} \end{aligned}$ | $\begin{aligned} & 4 \mathrm{~A} \circ^{\circ} \\ & 1980^{\circ} \end{aligned}$ |
| total | 90.043 | 91.049 | 84, A15 | 90,009 | $9 n .222$ | 90.951 | 90,458 | 90,047 | 89.865 | 90.066 |
| GOOOS PREDUCING | 26,948 | 23.461 | 25,395 | 25.762 | 26,528 | 26,121 | 25,765 | 25,422 | 25.142 | 25.275 |
| mining | 989 | 1,049 | 1,028 | 1,033 | 974 | 1,012 | 1.023 | 1,029 | 1,011 | 1.017 |
| CONSTRUCTION | 4, 463 | 4,611 | 4.630 | 4.708 | 4.499 | 4,467 | 4,436 | 4.379 | 4.319 | 4.355 |
| manufacturing. | 21.096 | 20.201 | 19,731 | 20.021 | 21.055 | 20,642 | 20,286 | 20,014 | 19,812 | 19,903 |
| moctetion morkert | 15,048 | 14,093 | 13,653 | 13,939 | 15.046 | 14.550 | 14,186 | 13.931 | 13,757 | 13,846 |
| OUPABLE OOOUS | 12.683 | 12.065 | 11,761 | 11,811 | 12,762 | 12,442 | 12,140 | 11,947 | 11,807 | 11,829 |
| mroukr ion morkm: | 8.979 | 8.307 | 0.022 | A,072 | 9,143 | 8,686 | 8,386 | B,205 | 8,082 | B,201 |
| Lumber and mood procucts | 788.2 | 668.0 | 661.9 | 679.6 | 764 | 689 | 654 | 648 | 645 | 659 |
| Funiture ma tixturer | 497.1 | 460.8 | 437.7 | 446.0 | 499 | 491 | 672 | 461 | 448 | 445 |
| Stome, ctov, and gats probices | 726.5 | 666.2 | 657.5 | 665.1 | 710 | 680 | 663 | 647 | 642 | 650 |
| Primary matal indentriay | 1,250.6 | 1,112.9 | 1,056.7 | 1.055.9 | 1,250 | 1.193 | 1,166 | 1.096 | 1,050 | 1.05s |
| Fabricated motal producti | 1,711.7 | 1,598.6 | 1,535.2 | 1,365.2 | 1;713 | 1,678 | 1,620 | 1,584 | 1,548 | 1,567 |
| Mectirnery, vescept etsctrical | 2,489.7 | 2,486.1 | 2.440.3 | 2.425 .6 | 2,509 | 2,518 | 2.517 | 2, 676 | 2.448 | 2,445 |
| Emerric end eloctronic mevibonmo | 2,105.7 | 2,102.2 | 2.066 .0 | 2.057 .6 | 2.109 | 2.167 | 2,127 | 2.094 | 2,078 | 2,060 |
| Tramsoortation maviprsemt. | 1,969.5 | 1,647.0 | 1,804.0 | 1.802 .4 | 2,089 | 1,485 | 1.819 | 1.83! | 1,836 | 1,842 |
| traturnents and related prockict | 693.7 | 702.9 | 697.9 | 695.9 | 693 | 103 | 700 | 696 | 697 | 695 |
| Hisullarsoun menutatiuring. | 454.5 | 420.1 | 403.9 | 419.4 | 446 | 438 | 424 | 416 | 415 | 411 |
| Monduratle coods | 4.4.13 | 9.136 | ?,976 | 8.210 | 8.273 | 2.200 | 8.146 | 9.067 | 8.005 | 8,074 |
| Prodection morker | 6.069 | 5,786 | 5,631 | 5,1467 | 3,943 | 5.864 | 3,800 | 5,126 | 5,675 | 5,745 |
| Food and kinded prockes | 1.828 .8 73.8 8.8 | $1,676.8$ 64.6 | 1.711 .7 62.5 | 1,703.6 | 1,722 70 | 1,690 69 | 1.691 70 | 1,677 | 1,685 | 1.679 |
| Textion mil prockictat. | n¢5.s | 853.2 | 819.5 | 854.1 | 883 | 884 | 869 | 843 | $\begin{array}{r}68 \\ 832 \\ \hline\end{array}$ | 67 |
| Appewt and other textile prodicti | 1,308.1 | 1,310.5 | 1.234.9 | 1,307.7 | 1,305 | 1,302 | 1,291 | 1,287 | 1,274 | + 858 |
| Prper ond allied procuett | 715.6 | 695.0 | 642.3 | 689.2 | 708 | 702 | 692 | 685 | 680 | ${ }^{6} .682$ |
| Printregand putbiction | 1,242.5 | 1.271.3 | 1,263.4 | 1,262.0 | 1,244 | 1,272 | 1.268 | 1.269 | 1,265 | 1,263 |
| Cremicats and attied protucts | 1,119.0 | 1,122.2 | 1, 109.6 | 1,105.3 | 1,110 | 1,123 | 1,120 | 1,112 | 1,101 | 1,097 |
| Prirchum end comp products | 214.1 | 209.1 | 211.0 | 211.4 | 209 | 175 | 203 | 203 | 206 | 207 |
| Pubber ind mive. plortica products | 774.1 | 688.5 | 639.5 | 682.7 | 174 | 140 | 709 | 681 | 663 | 683 |
| Leather mod lemer products | 250.4 | 244.7 | 220.9 | 243.2 | 248 | 243 | 239 | 237 | 231 | 241 |
| SERVICEPRODUCING. | 63.165 | 65.188 | 64,420 | 64.247 | 63,694 | 64,830 | 64.723 | 64.625 | 64,723 | 64,791 |
| transportation and public UTILITIES | 5.197 | 5,185 | 5.141 | 5.136 | 5,182 | 5,178 | 5.167 | 5.134 | 5,110 | 5,121 |
| wholesale and retail trade | 20,296 | 20,562 | 20.48B | 20.545 | 20,301 | 20,531 | 20,487 | 20.459 | 20,487 | 20.555 |
| Wholesale trade | 5.243 | 5,287 | 5.271 | 5,278 | 5,222 | 5,2R6 | 5,268 | 5.245 | 5.240 | \$,257 |
| metall taide | 15,053 | 15,275 | 15,217 | 15.267 | 15.079 | 15,265 | 15.219 | 15.214 | 15,267 | 15,298 |
| FINANCE, INSURANCE, AND REAL ESTATE | 5.058 | 5,201 | 5,228 | 5,223 | 5.019 | 5.119 | 5.137 | 5.150 | 5,166 | 3,171 |
| SERvices | 17,315 | 17,846 | 17,961 | 17.951 | 17,152 | 17,618 | 17,659 | 17.652 | 17.748 | 17,713 |
| GOVERNMENT | 13,26\% | 16,394 | 15,602 | 15,392 | 16,040 | 16,384 | 16,273 | 16.230 | 16,212 | 16.171 |
| Federal | 2,844 | 2,995 | 2,949 | 2, 774 | 2,8.1 | 3,115 | 2,960 | 2.951 | 2,893 | 2,840 |
| STATE AND LOCAL | 12,425 | 13,399 | 12,653 | 12,518 | 13,229 | 13,269 | 13,313 | 13,279 | 13,319 | 13,331 |
| - |  |  |  |  |  |  |  |  |  |  |

Teble B－2．Average weokly hours of production or nonsupervisory workers，on private nionagricultural payrolls by industry

| tmousty | Mox maxaly midutad |  |  |  | Stemenaly matued |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Aus: } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { Junu } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 1980 \mathrm{D} \end{aligned}$ | $\begin{aligned} & \text { Aus: } \\ & \text { ISBO } \end{aligned}$ | $\begin{aligned} & \text { Aus; } \\ & 1979 \end{aligned}$ | ${ }^{\text {Apr }}$ 1980 | $\begin{gathered} \text { Hay } \\ \text { 19月0 } \end{gathered}$ | $\begin{aligned} & \text { Junc } \\ & \text { 19月0 } \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 19 \text { Ro } \end{aligned}$ | $\begin{aligned} & \text { Aus. } \\ & 1980 \end{aligned}$ |
| TOTAL PRIVATE | 36.0 | 35.3 | 35.3 | 35.5 | 35.7 | 35.3 | 33.1 | 35.0 | 34.9 | 35.1 |
| manumg | 43.1 | 43.2 | 41.6 | 41.4 | （ ${ }^{2}$ | （ ${ }^{2}$ | （ ${ }^{*}$ ） | （ ${ }^{2}$ ） | （2） | （ ${ }^{2}$ ） |
| CONSTRUCTION | 38.1 | 37.9 | 37.7 | 37.2 | 37.3 | 36.7 | 36.8 | 37.1 | 36.8 | 36.4 |
| manuFacturing | 40.0 | 39.6 | 38.9 | 39.5 | 40.1 | 39.8 | 39.3 | 39.1 | 39.1 | 39.6 |
| Owrtime hown | 3.3 | 2.5 | 2.4 | 2.8 | 3.3 | 3.0 | 2.6 | 2.4 | 2.5 | 2．＊ |
| OURABLE COODS | 40.4 | 39.8 | 39.1 | 39.9 | 60.7 | 47.3 | 39.7 | 39.5 | 39.4 | 40.1 |
| Owtime howr | 3.4 | 2.4 | 2.3 | 2.8 | 3.4 | 3.0 | 2.5 | 2.4 | 2.4 | 2.8 |
| Lumber mad mood prosver | 39．\％ | 30.4 | 38.1 | 39.5 | 39.6 | 37.3 | 37.5 | 37.6 | 38.0 | 39.2 |
| Furnurut mad fixturm | 38.8 | 37.3 | 36.5 | 30.1 | 38.6 | 38.5 | 37.6 | 37.0 | 36.9 | 31.9 |
| soma，ty，una gam proder | 41.8 | 41.0 | 40.3 | 40.5 | 41.4 | 40.6 | 40.3 | 40.4 | 40.2 | 60.1 |
| Primery meal inateriom | 40.8 | 39.1 | 38.6 | 39.6 | 41.0 | 40.6 | 39.2 | 38.8 | 38.6 | 39.8 |
| Frubicmed matal procurt | － 40.5 | 40.1 | 39.2 | 40.0 | 40.6 | 40.8 | 39.9 | 39.7 | 39.6 | 40.1 |
| Muchinmy，ampt weetriey | 41.2 | 40.8 | 40.0 | 40.5 | 41.6 | 41.5 | 41.0 | 40.7 | 40.6 | 40.9 |
| fineric and decrronic aquipnomt | 39.7 | 39.4 | 38.7 | 39.5 | 39.9 | 39.9 | 39.5 | 39.2 | 39.2 | 39.7 |
| Trmaporation equipmat | 40.5 | 39.9 | 39.4 | 40.2 | 41.5 | 40.5 | 39.7 | 39.5 | 39.5 | 61.1 |
|  | 40.4 | 40.5 | 39.5 | 40.4 | 40.6 | 40.7 | 40.3 | 40.4 | 40.0 | 40.6 |
| mivodimeocm menutseturing | 38.8 | 38.3 | 37.9 | 38.5 | 38.9 | 38.5 | 38.3 | 38.2 | 38.4 | 38.6 |
| MOMOURAELE COOOS | 39.4 | 38.8 | 38.6 | 38.9 | 39.3 | 39.1 | 38.9 | $3 \mathrm{B.6}$ | 38.6 | 38.8 |
| Owoine houn | 3.2 | 2.5 | 2.6 | 2.8 | 3.1 | 3.0 | 2.6 | 2.5 | 2.6 | 2.7 |
| Food und linded procurn | 40.3 | 39.6 | 40.0 | 40.4 | 39.8 | 39.6 | 39.9 | 99.6 | 39.8 | 39.9 |
| Tobacco muntierturn | 37.6 | 38.3 | 36.7 | 37.2 | 38.1 | 38.2 | 38.2 | 37.3 | 38.8 | 37.7 |
| Toxthe mill prodects | 40.3 | 39.6 | 38.7 | 39.1 | 40.3 | 40.3 | 39.7 | 39.1 | 39.1 | 39.1 |
| Ampred ind other textich probuct | 35.6 | 35.6 | 35.3 | 35.5 | 35.3 | 35.8 | 35.3 | 35.2 | 35.1 | 35.2 |
| Prowent ched product | 42.6 | 41.7 | 41.5 | 41.8 | 42.6 | 42.5 | 41.7 | 41.4 | 41.5 | 41.8 |
| Printing mial pasilunina | 37.9 | 36.7 | 36.8 | 37.1 | 37.8 | 37.2 | 37.1 | 36.8 | 36.9 | 37.0 |
| Cremicoh med wime products | 11.8 | 41.2 | 40.7 | 40.9 | 41.9 | 41.5 | 41.3 | 41.1 | 40.8 | 41.0 |
| Pricoloun md conl procucts | 43.6 | 42.3 | 42.8 | 42.3 ． | 43.6 | 41.1 | 42.5 | 42.3 | 42.3 | 42.3 |
| Rubbor and mils．plastica products | 40.0 | 39.3 | 38.8 | 40.0 | 40.2 | 40.1 | 39.3 | 39.2 | 39.2 | 40.2 |
| Leother and inether prockects | 36.6 | 37.4 | 36.1 | 36.8 | 36.5 | 37.3 | 36.7 | 36.7 | 35.6 | 36.7 |
| TRANSPORTATION AND PUBLIC UTILITIES | 40.3 | 39.6 | 39.9 | 40.1 | ${ }^{2}$ ） | $\left.{ }^{2}\right)$ | （2） | （2） | $\left({ }^{2}\right)$ | （ ${ }^{2}$ ） |
| Wholesale And Retall trade | 33.2 | 32.3 | 32.5 | 32.6 | 32.6 | 32.0 | 32.1 | 31.9 | 31.8 | 31.9 |
| wholesale trade | 39.0 | 38.2 | 38.2 | 38.2 | 3 n .8 | 38.5 | $3 \mathrm{B.6}$ | $3 \mathrm{B.0}$ | 38.0 | 38.0 |
| RETAIL TRADE | 31.4 | 30.4 | 30.7 | 30.8 | 30.6 | 30.0 | 30.1 | 30.0 | 29.4 | 30.0 |
| FIMANCE，INSJPANCE，AND REAL ESTATE ．．．．t：．．．．．．． | 36.1 | 36.4 | 36.2 | 36.4 | （2） | （ ${ }^{(1)}$ | $\left({ }^{2}\right)$ | （2） | （2） | （ ${ }^{2}$ ） |
| services | 33.2 | 32.8 | 33.0 | 33.0 | 32.7 | 32.6 | 32.5 | 32.6 | 32.5 | 32.5 |
| －puta relate to production workers in workete in construation；and to nonbuper undilities；wholsmele and fotall trade；firmance， Theas groupa aceount for approximate private nenegrieuttural payrolis． |  | c；to con rtation a tates and empios | uction <br> prbible vices． nt on | Thls se marated w ＊prallm | sand not sufficien y． | sonally ndior in ractilon． | sted alnc | nts and | compo | 流 small |

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers' on private nonagricultural payrolls by industry


[^0]Table B-4. Hourly earnings indox for production or nonsupervisory workers on privite nonegricuttural payrolts by industry diviaion, saatonally adjusted
(12097 $10 \times 1$


NA. $=$ nor mathbe

Table B-5. Indexes of eggregate weekly hours of production of nonaupervisory workere,' on private
nonagricuitural peyrolla by induatry, seasonally edfusted

|  | 1979 |  |  |  |  | " |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 1980 |  |  |  |  |  |  |  |
|  | Aus. | Sept. | Oct. | Nov. | D. | J. | Fab. | nar. | Apr | Hay | Ju | J01 ${ }^{\circ}$ | Aus. |
| TOTAL Phivate | 125.9 | 126.0 | 126.1 | 126.4 | 126.8 | 127.1 | 226.9 | 126.0 | 124.8 | 123.4 | 122.5 | 121.4 | 122.8 |
| COODSPRODUCINS ........................ | 109.3 | 109.5 | 109.1 | 108.7 | 109.4 | 110.1 | 109.1 | 107.3 | 105.2 | 102.2 | 100.3 | 98.5 | 99.9 |
| MINING | 157.6 | 159.4 | 160.9 | 160.8 | 162.3 | 162.0 | 162.1 | 162.9 | 161.7 | 163.2 | 166.4 | 136.5 | 135.4 |
| construction | 129.7 | 130.5 | 128.5 | 129.7 | 132.3 | 137.7 | 134.7 | 126.9 | 124.7 | 124.3 | 123.7 | 120.7 | 120.2 |
| manufacturing | 104.0 | 104.1: | 103. ${ }^{1}$ | 103.2 | 103.5 | 103.4 | 102.8 | 101.8 | 99.8 | 96.4 | 93.8 | 92.6 | 94.3 |
| DUKAELE SDODS | 107.5 | 107.8 | 107.1 | 106.0 | 106.4 | 106.0 | 103-8 | 105.0 | 101.6 | 96.6 | 94.0 | 92.5 | 94.4 |
| Lurtor med mood prodest. | 114.4 108.5 | 1108.6 | 111.9 | 109.4 | 109.1 | 109.8 109.7 | 108.9 | 1206.9 | \| 10.1 | 99.4 | ${ }_{9} 9.6$ | 91.8 | 93.5 |
|  | 111.3 | 111.4 | 110.4 | 110.1 | 110.4 | 110.3 | 109.6 | 108.0 | 103.5 | 99.4 | 96.7 | 95.3 | 96.6 |
| Primery matal indmates. | 96.6 | 96.0 | 95.4 | 94.1 | 92.9 | 92.7 | 92.4 | 91. | ${ }^{89} 9$ | 02.4 | 77.4 | 33.6 | ${ }^{76.4}$ |
|  | 104.2 | 105. 110.3 | 115.9 | 114.6 | 105.7 114.4 | (112.5 | 104.9 | 1116.9 | 116.1 1 | 114.3 | 92.5 <br> 110.8 | $89 . \mathrm{e}$ <br> 108.8 | 92.3 109.1 |
|  | 106.3 | 109.0 | 109.4 | 114.9 | 110.4 | 110.8 | 109.8 | 109.4 | 100.1 | 103.8 | 100.1 | 99.1 | 98.7 |
| Tramportaion nallemmert. | 102.1 | 99, ${ }^{\text {a }}$ | $9 \mathrm{~F}, 5$ | 95-5 | 98.3 | 91.3 | 93.8 | 93.0 | R 5.0 | 79.1 | 72.6 | 79.6 | 83.3 |
|  | 127.3 | 127.5 | 127.8 | 128.2 | 128.8 | 130.0 | 129.1 | 128.7 | 120.4 | 126.0 | 123.1 | 123.5 | 125.3 |
|  | 99.4 | 99.1 | 98.6 | 9 A .6 | 99.4 | 99.3 | 98.2 | 96.9 | 95.8 | 91.6 | 88.3 | 08.9 | 09.1 |
| NONDUAAELS GOCOT. | 98.8 | 98.7 | 99.1 | 99.1 | 99.2 | 99.7 | 98.4 | 97.3 | 97.2 | 95.4 | 93.3 93.2 | 92.7 | 94.3 94.1 |
|  | 96.8 <br> 73.6 | 96.3 | 97.3 75.3 | 97.5 65.0 | 97.6 70.3 | 96.7 | 96.2 70.5 | 90.6 | 72.4 | 73.8 | 3, 2.2 | 73.5 | 6.8 |
| Tobeses manhectwer | ${ }_{99.2}$ | 91.9 | 90.6 | 651.2 | 92.5 | 92.7 | 90.6 | 91.0 | 89.4 | 36.4 | 82.2 | B1.1. | 83.2 |
|  | $8 \mathrm{8B.3}$ | 47.7 | 8 sa .5 | 87.3 | 88.5 | 90.3 | 90.5 | 89.2 | 89.3 | 87.2 | 86.7 | 85.9 | 87.9 |
| mow und mixec jooukt | 101.8 | 101.5 | 102.0 | 102.0 | 102.1 | 102.9 | 102.5 | 101.6 | $100 \cdot 6$ | 96.7 | ${ }^{94.7}$ | 93.8 | ${ }_{103.2} 18$ |
|  | $1{ }^{104.8} 107.6$ | 104.3 <br> 107.5 | 104.5 | 103.6 | 105.2 105.2 | $1 \begin{aligned} & 1069 \\ & 109.0\end{aligned}$ | 103.6 | 108.0 | 107.4 | 106.0 | 104.4 | 101.6 | 102.3 |
| Cramisht und tive prodes | 121.2 10 | 123.3 | 127.6 | 124.4 | 122.4 | 104.9 | 73.7 | 171.4 | 91.6 | 1318 | 113.3 | 115.0 | 115.9 |
| Ructort one mixe plarises probuth | 147.8 | 147.0 | 146.6 | 144.9 | 143.4 | 145.7 | 142.2 | 111.4 | 139.9 | 28.5 | 123.6 | 120.3 | 127.3 |
| Lenther mal lethe probutr | 66.1 | 66.1 | 66.5 | 66.0 | 66.4 | 66.4 | 66.4 | 65.6 | 66.0 | 63.6 | 63.3 | 59.6 | 64.3 |
| SERVICE-PRODUCING | 137.5 | 137.5 | 137.9 | 138.7 | 138.8 | 138.9 | 139.2 | 139.0 | 138.3 | 134.1 | 137.9 | 138.0 | 134.* |
| TRANSTORTATION AND PUBELC UTILITIES | 116.1 | 113.0 | 115.8 | 116.6 | 115.8 | 114.0 | 113.7 | 113.9 | 113.5 | 112.6 | 112.6 | 112.n | 113.9 |
| WHOLEEALE AND RETAIL | 131.1 | 131.4 | 131.8 | 132.3 | 132.2 | 132.6 | 132.7 | 131.5 | 130.4 | 130.3 | 129.1 | 128.7 | 129.? |
| mholegale trade RETAIL TAADE | $\begin{aligned} & 133.6 \\ & 130.1 \end{aligned}$ | $\left\{\left.\begin{array}{l} 1133.8 \\ 130.4 \end{array} \right\rvert\,\right.$ | $\begin{aligned} & 134.3 \\ & 130.9 \end{aligned}$ | $\left\|\begin{array}{l} 133.1 \\ 131.2 \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & 135.0 \\ & 131.0 \end{aligned}\right.$ | 13135 | $1 \begin{aligned} & 135.6 \\ & 131.5 \end{aligned}$ | 134.5 130.7 | $\left\lvert\, \begin{aligned} & 134.1 \\ & 128.9 \end{aligned}\right.$ | $\begin{aligned} & 133.7 \\ & 129.0 \end{aligned}$ | $\begin{aligned} & 130.8 \\ & 128.5 \end{aligned}$ | $\begin{aligned} & 130.7 \\ & 127.9 \end{aligned}$ | $\left\lvert\, \begin{aligned} & 131.2 \\ & 129.1 \end{aligned}\right.$ |
| FINANCE, INSURANCE, AND REAL ESTATE | 146.6 | 146.3 | 147.0 | 147.7 | 148.2 | 148.2 | 145.3 | 149.6 | 149.4 | 149.7 | 151.2 | 150.9 | 152.2 |
| senvices | 153.4 | 1333.0 | 194.0 | 158.0 | 1156.0 | 1136.4 | WS7. 2 | 11376 | S7. 6 | 52 | 1257. | 迷 | Lee |

Table B.6. Indexes of diffusion: Percent of industrias in which employment 'increased


D. artiminury.

## Bureau of Labor Statistics

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## PRODUCER PRICE INDEXES--AUGUST 1980

The Producer Price Index for Finished Goods moved up 1.5 percent from July to August on a seasonally adjusted basis, the Bureau of Labor Statiatics of the U.S. Department of Labor reported coday. This followed a 1.7 percent increase in July. Prices for intermediate (semifinished) goods moved up 1.0 percent, after rising 0.8 percent in both June and July. Grude material prices jumped 5.7 percent, the second consecutive steep monthly rise. (See table A.)

Nearly two-thirds of the August movement in the Finished Goods Price Index was caused by a 4.4 percent climb in food prices, an even sharper advance than in July. In contrast, price increases moderated somewhat for finished goods other than foods, reflecting slower rises for both capital equipment and consumer goods other than foods. Energy prices edged up slightly, following small declines in June and July. (See table B.)

Table A. Percent changes from preceding wonth in selected stage-of-processing price indexes, seasonally adjusted*

| I | Finished goods |  |  | Intermediate goods |  |  | Crude goods |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \| |  |  |  |  | Foods |  |  | Foodstuffi |  |
| 1 | Total | Consumer | Ocher | Total | and | Other | Total | and | locher |
| 1 Month |  | foods I |  |  | feeds $/ 1$ |  |  | feedstuffs |  |
| 1 I | 1 |  |  |  |  |  |  |  | 1 |
|  | 1 |  |  |  |  |  |  |  |  |
| 1__ |  |  |  |  |  |  |  |  |  |
| \|Aug. 1979| | 1.1 | 1.5 | 1.0 | 1.4 | C. 9 | 1.5 | 0.2 | -0.5 | 1.21 |
| \|Sept......| | 1.51 | 1.4 | 1.5 | 1.51 | .51 | 1.5 | 2.2 | 1.4 | 3.2 |
| \|Gct. .....| | 1.1 \| | -. 1 | 1.5 | 1.71 | .31 | 1.81 | 1.1 | . 1 | 2.3 |
| \| Hov . . . . . $\mid$ | 1.2 \| | 1.91 | 1.01 | .91 | -. 31 | .9 | 1.3 | 1.0 | 1.71 |
| \|Dec. ....| | .8 I | .31 | 1.11 | 1.11 | . 31 | 1.2 | 1.1 | . 2 | 2.2 |
| 1 \| |  |  |  |  |  |  |  |  |  |
| \|Jan. 1980| | 1.61 | -. 91 | 2.41 | 2.7 | -2.6 | 3.0 | -. 7 | -3.8 | 3.21 |
| \|Feb. .....| | 1.41 | -. 4 | 2.0 | 2.01 | 5.6 | 1.8 | 2.7 | 2.2 | 3.31 |
| \|Mar. ....| | 1.41 | 1.0 | 1.51 | . 51 | -3.1 | - 7 | -2.1 | -2.7 | -1.4 |
| \|Apr . .....| | .6r1 | -2.8 | $1.6 r 1$ | - \|r| | -2.7 \| | . 3 r 1 | -3.5 | -6.1 | -. 5 rl |
| \|May ....| | Or I | . 1 | . $1 \times 1$ | . 2 rl | 6.2 r 1 | -. 1 l | 1.3 | 2.4 | 0 r |
| \|June . . . . ${ }^{\text {a }}$ | .81 | .7 | . 8 | .81 | 0 | . 8 | . 3 | 1.1 | $-.5$ |
| \|July .....| | 1.71 | 3.8 | 1.11 | . 8 | 3.2 | .7 | 6.3 | 9.0 | 3.2 |
| \|Aug. .... ${ }^{\text {a }}$ | 1.51 | 4.4 | . 7 | 1.0 | 9.7 | . 5 | 5.7 | 9.0 | 1.8 |

1/ Intermediate materials for food manufacturing and feeds.

* Data for April 1980 have been revised to reflect the availability of late reports and corrections by respondents. For this reason, some of the figures shown above and elaewhere in this release may differ fron those previously reported.
r= revised

Before seasonal adjustment, the Finished Goods Price Index moved up 1.0 percent to $249.0(1967-100)$. Over the year, this index rose 14.6 percent. The index for finished consumer foods was up 9.6 percent from August 1979 to August 1980, energy prices climbed 45.8 percent, the index for finished consumer goods other than foods and energy increased 12.3 percent, and capital equipment prices rose 11.7 percent. The Producer Price Index for intermediate goods moved up 14.2 percent over the year, and crude material prices were 16.3 percent higher than a year ago. ,

## Engished goods

Finished consumer, goods. The Producer Price Index for finished consumer goods rose 1.8 percent on a seasonally adjusted basis for the second consecutive month. As in July, the steep advance in August was primarily due to higher prices for consumer foods. Price increases accelerated for pork, beef and veal, and fresh and dried vegetables. Processed poultry prices advanced 7.3 percent, after a 23.5 percent rise in July. Prices rurned up after declining in July for refined sugar, roasted coffee, milled rice, and flour base mixes and doughs. Prices also rose for eggs, vegetable oil end products, and fish.

The index for finished consumer goods other than foods and energy rose 0.7 percent in August, considerably less than in either of the 2 previous months. Prices for apparel,

Table B. Percent changes in finished goods price indexes, selected periods*

|  | Changes from preceding tonth, seasonally adjusted |  |  |  |  |  | Change in |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 I |  |  |  |  |  |  | finished |
| I * I |  |  |  | Finished | consumer goods | excluding foods | goods from |
| 1 \| |  | Capital | \|Finished| |  |  |  | 12 months |
| Month | \|Finished| | equip- | \|consumer| |  |  |  | a 80 |
| 1 | goods | ment | $\mid$ goods $\mid$ | Total | Durables | Nondurables | (unadj.) |
| 11 | 1 \| |  | 1 I |  | 1 I |  |  |
| 1 I | 1 |  | 1 I | , | 1 I |  |  |
|  |  |  |  |  |  |  |  |
| \|Aug. 1979| | 1.1 | -0.1 | 1.6 | 1.7 | 0 | 2.7 | 11.1 |
| \|Sept.....| | 1.51 | 1.7 | 1.8 I | 11.9 | 1.5 | 2.2 | 1 12.0 |
| 10ct. .... 1 | 1.1 | - 9 | 1.2 \| | 1.8 | 1.6 \| | 2.0 | 1 12.3 |
| \|Nov. ....l| | 1.21 | - 7 | 1.4 \| | 11.1 | .9 I | 1.2 | . 13.0 |
| \|Dec. ....| | 1.81 | 1.9 | .91 | 1.2 | 1.2 1 | 1.2 | 12.6 |
| 1 |  | , | 1 I |  | 1 |  |  |
| \|Jan. 1980| | 1.6 | 1.6 | 1.6 | 2.9 | 3.4 I | 2.7 | 13.1 |
| \|Feb. ....| | 1.4 | . 7 | \| 1.7 I | 1 2.8 | 12.01 | 3.2 | 13.5 |
| \|Mar. ....| | 11.4 | - 9 | \| 1.6 | | 11.8 | $1-.8$ | 3.3 | 14.1 |
| \|Apr. .... ${ }^{\text {d }}$ | 1 -6r \| | 1.8 r | .1r | $1.5 r$ | . 3 r | $2.1 r$ | \| 13.8 r |
| \|May .... | 1 Or 1 | - -1.15 | 1.2 r \| | 1 .2r | -. 7 r | .7 r | 13.3 |
| \|June .... | 1.81 | . 9 | .7 I | 1.7 | $11.6 \mid$ | . 2 | 113.5 |
| \|July .... | 1.71 | 1.3 | \| 1.8 | | 1.9 | \| 1.4 | | . 7 | 114.1 |
| \|Aug. .... | 1.5 | .9 | 1.8 | . 6 | . 8 1 | . 4 | 14.6 |
| 1___ |  |  | 1 |  |  |  |  |

* Data for April 1980 have been revised to reflect the availability of late reports and corrections by respondents. For this reason, some of the $£$ igures shown above and elsewhere in this release may differ from those previously reported.
sanitary papers and health products, textile housefuraishings, and nonalcoholic beverages rose much less than in July. Gold jewelry prices turned down, after increasing in the previous month. On the other hand, price increases accelerated for alcoholic beverages, soaps and synthetic detergents, and household flatware. Prices for passenger cars and household furniture rose almost as much as in July.

Prices for energy goods turned up slightly ( 0.2 percent), after declining 0.6 percent in both June and July. Home heating of prices rose 0.8 percent, after 2 months of almost no change. Prices for finished lubricants also advanced. Gasoline prices fell for the third. consecutive month.

Capital equipment. The index for capital equipment advanced 0.9 percent, less than in July and the same as in June. Motor truck prices rose 2.5 percant, compared with a 3.2 percent advance a month earlier. Price increases also slowed for integrating and measuring instruments, power driven hand tools, oilfield machinery, machine tools, and construction machinery. Railroad equipaent prices were unchanged, after rising'rapidly in, July. On the other hand, prices rose faster than in July for fans and blowers, mining machinery, and scales and balances.

## Intermediate materials

The Producer Price Index for Intermediate Materials, Supplies, and Components advanced 1.0 percent from July tu August, seasonally adjusted, following increases of 0.8 percent in each of the 2 prior months. Abour half of the August advance was due to a 9.7 percent jump in the index for foods and feeds, the largest monthly climb afnce October 1974. Nuch of this increase was accounted for by sharply higher prices for feeds. Prices for animal fats and oils and refined sugar used in food manufacturing turned up substantially, after falling sharply in July. Prices also rose for corn syrup, vegetable oila, and flour.

The intermediate energy index moved up 0.4 percent, following a 2.6 percent advance in July and moderate rises in each of the 3 months before that. Price increases slowed considerably for residual fuel and electric power. Liquefied petroleum gas prices declined for the second consecurive month.

The index for intermediate materials other than foods and energy registered a 0.6 percent advance, more than in July but less than in June. The nondurable manufacturing materials index rose 0.9 percent, following 2 months of smaller increases. Prices for inedible fats and oils climbed nearly 25 percent; this index had fallen more than 30 percent from June 1979 to June 1980. Prices also rose for leather, gray fabrics, and phosphates. On the other hand, prices continued to decilne for plastic resins and uitrogenates.

The durable manfacturing materials index edged up 0.2 percent, after turning down in the previous month. Substantial price increases for safety glass, foamed plastic froducts, and lead were partly offset by decreases for jewelers materials, gold, and hardwood lumber. Steel prices were virtually unchanged, following a July decrease.

The index for construction materials rose 0.5 percent, the same as in July, Prices advanced for millwork, plywood, copper wire and cable, and prepared paint. Sof twood lumber prices also rose but far less than in either June or July. Prices for most kinds of nonmetallic mineral products used for conatruction changed very little.

The manufacturing components index advanced 1.3 percent, more than in any of the 5 preceding wonths. This acceleration was largely due to a 2.5 percent increase in
prices for motor vehicle parts, the largest rise since March 1977. Prices also rose for electronic components. Among other intermediate goods, higher prices were registered for unsupported plastic film and nonfarm tractor parts, while mixed fertilizer prices turned down.

## Crude materials

The Producer Price Index for Crude Materials for Further Processiag Increased
5.7 percent in August on a seasonally adjusted basis, following a 6.3 percent rise fo July. Foodstuff prices advanced as sharply as in the preceding month, energy materials rose almost as much as in July, but prices for macerials other chan foods and energy boved up much less.

The index for crude foodstuffs and feedstuffs climbed 9.0 percent in August, the same as in July. Prices for hogs, corn, oflseeds, and live poultry continued co rise rapidly, although not as steeply as in July. Cattle, hay, and whear prices advanced more than in the preceding month. Raw cane sugar prices climbed nearly 27 percent, after falling sharply for 2 monchs. Green coffee prices moved down less than in July, and cocoa bean prices declined for the sixth consecutive month.

Prices for energy materials rose 1.3 percent, about as much as in most recent months. Crude petroleum prices advanced more than in any other month since January, but natural gas prices rose considerably less than in July.

The index for crude nonfood materisls less energy rose 2.9 percent, after climbing 7.1 percent in July. Prices for cotron, nonferrous scrap, and potash moved up much less than in the preceding month, and leaf tobacco prices turned down. In contrast, prices for iron and steel scrap climbed 14.5 percent, after falling at an annual rate of 46.8 percent in the first half of the year. Hides and skins advanced more than 12 percent for the third consecutive month. Wastepaper prices edged up slightly, after falifig substantially for 3 months.

## Brief Explanation of Producer Price Indexes

Producer Price Indexes measure average changes in prices received in primary markets of the United States by producers of commodities in all siages of processing. These data were previously presented as the Wholesale Price Index. The name "Producer Price Indexes" is now being used to reflect more accurately the coverage of the data. The sample used for calculating these indexes continues to contain nearly 2,800 commodities and about 10.000 quotations selected to represent the movement of prices of all commodities produced in the manufacturing, agriculture, forestry, fishing, mining. gas and electricity, and public utilities sectors. The universe includes all commodities produced or imported for sale in commercial transactions in primary markets in the United States.

Producer Price Indexes can be organized by stage of processing or by commodity. The stage of processing structure organizes products by degree of fabrication (i.e.. Finished goods, intermediate or semifinished goods. and crude materials). The commodity structure organizes products by similarity of end-use or material composition.

Finished goods are commodities that will not under go further processing and are ready for sale to the uitimate user. either an individual consumer or a business hirm. Capital equipment (formerly called producer
finished goods) includes commodities such as motor trucks. farm equipment. and machine tools. Finished consumer goods include foods and other types of goods eventually purchased by retailers and used by consumers. Consumer foods include unprocessed foods such as eggs and fresh vegetables. as well as processed foods such as bakery products and meats. Other finished consumer goods include durables such as automobiles. household furniture. and jeweiry, and nondurables such as apparel and gasoline.

Intermediute materials, supplies. and components are commodities that have been processed but require further processing before they become finished goods. Examples of such semifinished goods include four. cotton yarns, steel milt products. beits and belting. lumber, liquefied petroleum gas, paper boxes. and motor vehicle pars.

Crude materials for further processing include products entering the market for the first time which have not been manufactured or fabricated but will be processed betore becoming finished goods. Scrap materials are also included. Crude foodstuffs and feedstuffs in clude tiems such as grains and livestock. Examples of crude nonfood materials include raw cotton, crude petroleum, natural gas; hides and skins, and iron and steel scrap.


For analysis of general price trends, stage of processing indexes are more useful than commodity grouping indexes. This is because commodity grouping indexes sometimes produce exaggerated or misleading signals of price changes by reflecting the same price movement through various stages of procissing. For example, suppose that a price rise for steel scrap results in an increast in the price of steel sheet and then an advance in prices of automobiles produced from that steel. The All Commodities Price Index and the Industrial Commodities Price Index would reflect the same price movement three times-once for the steel scrap, once for the steel sheet, and once for the automobiles. This multiple counting occurs because the weighting structure for the All Commodities Index uses the total shipment values for all commodities at all stages of processing. On the other hand, the Finished Goods Price Index would reflect the change in automobile prices, the Intermediate Materials Price Index would reflect the steel sheet price change, and the Crude Materials Price Index would reflect the rise in the price of steel scrap. (See illustration.)
To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States, from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Re-
spondents are asked to provide net prices or to provide all applicable discounts. BLS attempts to base Producer Price Indexes on actual transaction prices; however, list or bcok prices are used if -transaction prices are noi available. Most prices are obtained directly front producing companies on a voluntary and confidential basis, but some prices are taken from trade publications or from other Government agencies. Prices generally are reported for the Tuesday of the week containing the .13 th day of the month.

In calculating Producer Price Indexes, price changes for the various commodities are averaged together with weights representing their importance in the total net selling value of all commodities as of 1972. The detailed data are aggregated to obtain indexes for stage of processing groupings, commodity groupings, durability of product groupings, and a number of special composite groupings. Each index measures price changes from a reference period which equals 100.0 (usually 1967, as designated by the Office of Management and Budget). An increase of 85 percent from the reference period in the Finished Goods Price index, for example, is shown as 185.0 . This change can also be expressed in dollars, as follows: "The price of a representative sample of finished goods sold in primary markets in the United States has risen from $\$ 100$ in 1967 to $\$ 185 .{ }^{.}$

## A Note about Calculating Index Changes

Movements of price indexes from one month to another are usually expressed as percent changes rather than changes in index points because index point changes are affected by the level of the index in relation to its base period, while percent changes are not. The box below shows the computation of index point and percent changes.

Percent changes for 3 -month and 6 -month periods are expressed as annual rates that are computed according to the standard formula for compound growth rates. These data indicate what the percent change would be if the current rate were maintained for a 12 -month period.

| Index Point Change |  |
| :---: | :---: |
| Finithed Goods Price Index | 185.5 |
| less previous index | 184.5 |
| equals index point change | 1.0 |
| Index Percent Change |  |
| Index point change | 1.0 |
| divided by the previous index | 184.5 |
| equats | 0.005 |
| result multiplied by 100 | $0.005 \times 100$ |
| equals index percent change | 0.5 |

## A Note on Seasonally Adjusted Data

Because price data are used for different purposes by different groups, the Bureau of Labor Statistics publishes seasonally adjusted as well as unadjusted changes each month.

For analyzing general price trends in the economy, seasonally adjusted data usually are preferred because they eliminate the effect of changes that normally occur at about the same time and in about the same magnitude every year-such as price movements resulting from normal weather patterns, regular production and marketing cycles, model changeovers, seasonal discounts. and holidays. For this reason. seasonally adjusted data more clearly reveal the underlying cyclical trends. Seasonally adjusted data are subject to revision when seasonal factors are revised each year.

The unadjusted data are of primary interest to users who need information which can be related to the actual dollar values of transactions. Individuals requiring this information include marketing specialists, purchasing agents, budget and cost analysts, contract specialists, and commodity traders. Unadjusted data generally are used in escalating contracts such as purchase agreements or real estate leases.

Table 1. Producer price indexes and percent changes by stage of processing (1485100)

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Grouping} \& \multirow[t]{2}{*}{} \& \multicolumn{3}{|l|}{Unadjusted index} \& \multicolumn{2}{|l|}{} \& \multicolumn{3}{|l|}{sasionsily sodultad.} \\
\hline \& \&  \& गप76\% 21 \& 1408\% 31 \& 149\% \&  \& Rjevto \& \({ }^{\text {Jonfu }}\) Julv \({ }_{\text {to }}\) \&  \\
\hline \begin{tabular}{l}
Fini shind goods. \\
Fint whad consumer posede.
\end{tabular} \& 749.409 \& 24.5
2.2 .5 \& 246.6
24.6 \& \({ }^{2259} 9\) \& 15.8.8 \& 1:\% \& 0.8 \& 1.7 \& 1:3 \\
\hline \begin{tabular}{l}
Finitated centitiont foodi \\
Crudi.
\end{tabular} \&  \& Stist, \& \(243: 5\)
2350
23 \& 24,89
240, \& 39:8 \& 2.3 \& - 3 \& 3:8, \& 5:48 \\
\hline Printuatioc................. \&  \& 206.2 \& 233:4
231 \& Stis \& 19 \& \(2: 1\) \& - 7 \& 3 \% \& 4.2 \\
\hline  \& 41.553 \& 206.2 \& 251
220.4
20.4 \& 252.73 \& 21:8 \& , 3 \& . 7 \& , \& . 6 \\
\hline Capitar \&  \& 201.2
236.2 \& 206. 20 \& 206:3 \& 13.7 \& : 7 \& 1.6 \& \(1: 3\) \& : 8 \\
\hline Intoraodiate eatertals, mupplioz. and componants: \& '109.099 \& 2276 \% \& 2884.3 \& 282.6 \&  \& - \& 1.2 \& 0 \& \(1: 1\) \\
\hline  \&  \&  \&  \& 218, \({ }^{218}\) \& - \& \(5: 7\) \& 2:4 \& \({ }^{\circ} .3\) \& 7:3 \\
\hline  \&  \& 23, 23.6 \& 251.9

315 \& 238.3. \& it: \& $\therefore ?$ \& 1.2 \& . 4 \& - <br>
\hline  \& - \&  \& 231:2 \& 234.5 \& 12.8 \& ': $\%$ \& 1.3 \& : \& 1.5 <br>
\hline  \&  \& S585:3 \& 397:4 \& spsi. \& 32:5 \& A \& 1. ${ }^{4}$ \& 2:6 \& - 2 <br>
\hline  \& 为 \&  \& 363
867
263 \&  \&  \& -8 \& - 8 \&  \& . 2 <br>
\hline Sumpilar \& , 1.119 \&  \&  \&  \& - 12.28 \& -8 \& 8 \& 1.6 \& <br>
\hline Monuaturine indug \& 4:573 \& 229:3 \& 235.3 \& ${ }^{232} 27$ \& 11.3 \& i. 2 \& - ${ }^{8}$ \& 3.2 \& 2.2 <br>
\hline  \& 1;348 \& 205:8 \& 223.8 \& 2357:6 \& 15.5 \& 5.6 \& -5: \& 9:8 \& 14.9 <br>
\hline Crude matwrinis for furthor procosaing: \& \& \& \& \& \& \& 13 \& 6.3 \& 3. <br>
\hline Monfoed moterial. \& 35.466 \& 23, 3 \&  \& 2764 \& 23.5 \& S. 1.1 \& 1.5 \& 9.0 \& 9:8 <br>
\hline  \& 23: 21.46 \& 33378 \&  \& 340.5 \& 19.6 \& 2.8 \& -1.5 \& 3.8 \& 3:0 <br>
\hline crustruotion ; \&  \& 233: \& 3515 \& ${ }_{713}^{235}$ \& 19:8 \& - ${ }^{2}$ \& \% \& \% 6 \& \% <br>

\hline  \& - 3.48 \& | 74, |
| :--- |
| 741 |
| 4 | \&  \& 71.2

7698

76.5 \&  \& :3 ${ }^{3}$ \& $\stackrel{7}{8}$ \& 2. 2.5 \& | -3 |
| :--- |
|  | <br>

\hline Spaetat groupinge \& \& \& \& \& \& \& \& \& <br>
\hline Finfuhed goodite exeluding foode \& 4, 35.783 \& 2419:7 \& 2826.9 \& 2673:; \& 16.3 \& : 6 \& 8 \& $\because$ \& - 7 <br>
\hline Intarmediste foods and ferd \&  \& 229:3 \& ${ }^{248} 8$ \& 262.3
49.3 \& 20.8 \& 5:6 \& \& 3.2
2.6 \& 9:7 <br>
\hline Finishod enarov goodz...... \&  \&  \&  \&  \& 45.8 \& 9 \& : \& 3: ${ }^{2}$ \& 4.7 <br>
\hline Finizhed goode 1 one foode and engroy............ Conemer noneurabl gionde lass quedt ond untroy. \&  \& 212
208
189
185 \& 216:9 \& 219.3 \& 12: 12 \& S \& $1: 1$ \& 1:\% \& \% <br>

\hline | Intarmediate energy poode. |
| :--- |
| Intermadiate materlisl lesp enirgy........................... | \&  \& 468.8

2651:
25: \& 486,
36:
26: \&  \& 33. 11.4 \& ; \& : ${ }_{6}$ \& 2.\% \& 4 <br>
\hline  \&  \&  \& 1319
255:9
25, \& 434
26.7
263.7 \& 29:8 \& 4:36 \& -1.1 \& - 9 \& 7:3 <br>
\hline
\end{tabular}

[^1][^2]Table 2 Producer price indexes and percent changes for selected commodity groupings by stage of processing

| ${ }_{\text {cosem }}^{\text {comodity }}$ | Groupt na |  | Unodivatad |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | my ${ }^{\text {anem }}$ | Junsto ${ }^{\text {do }}$ |  |
|  |  |  |  |  | $\stackrel{0}{9}$ |  | 1:5 |
| ${ }_{\substack{\text { a }}}^{\substack{1-11 \\ 0 i-7}}$ |  | - ${ }^{3} \mathbf{3}$ |  | cien ${ }^{2}$ | - 4 | \% $\%$ | -3:3 |
| - ${ }^{02}$ |  | 2. 138 | 207.120.7 |  | -3.3 | -3:10 | $\bigcirc$ |
|  |  |  |  | 12, | 3: | \% | 19: |
|  | \%riched pouitity: | (1,675 |  | Sis | -3. ${ }^{2}$ |  | 3:3 |
| - |  | - $3: 623$ |  | 2:3 ${ }^{8}$ | 1.3 | : 3 | . 2 |
| $\xrightarrow{022-55}$ |  | . 138 |  | ${ }^{10} \cdot 5$ | ${ }_{6}^{2.6}$ | f ${ }^{3}$ |  |
|  |  | 1.8.6, |  |  | 2:7 | - ${ }^{-2.8}$ | 1.5 $\frac{1}{2}$ |
|  | FIMSSEED Cons infe goons Excluding foops. | -7.315 |  |  | . 7 | , | . 6 |
| 928-62 |  | 1:639 | 773.6 2789 |  | : | $\therefore 2$ | $3 \cdot \frac{2}{3}$ |
| ${ }^{815-81}$ |  | 3.123 |  | ${ }^{8.8 .3}$ | $\because$ | : $: 6$ | 5 |
| - $80-3$ - 4 , |  | 1:096 |  | 7.3.8 ${ }^{3.8}$ | : 9 | : 6 | , 3 |
| 边 85 |  |  |  | 59,3 | : 2 | - ${ }^{2}$ | . 8 |
| 855-75-02-01 |  | ${ }^{\text {2. }}$ 2061 | 302.6 36.6 | 29.3 1.7 | . 2 |  |  |
| 06-33 |  | 1. 122 | 5.3 | 10.1 . | 1.0 | 1.2 | - |
| - |  | :683 |  |  | $\therefore 3$ | : 3 | 3:2 |
|  | cosetice mo other toito proparstionz. | . 729 | ${ }_{2}^{231} \times 2.023 .68$ | ${ }^{12}$ 12: | : | : |  |
|  |  | :209 | 2316:8 $2176: 4$ | 4 ¢ ${ }^{\text {a }}$ | . 5 | , |  |
| $07-28$ |  | . 36 |  | $\cdots$ |  | 1.6 | 1.6 |
| -9-15-0, | Sanitary pasare ond hasith prosucte | 1.008 | 331.53353 | 16.3 | . | 2.4 | 1.1 |
| - | Housenold furnitu | ${ }^{1} \cdot 6.688$ |  | 19\%8 | 5 | 1:2 |  |
|  |  |  | cin | - ${ }^{\text {5i, }}$ | : | i. ${ }^{\text {\% }}$ | \% |
| 14-1-91 | Pa | 5.708 | 189,3 198.2 | 12.1 | 1.6 | 2.2 | 2.0 |
| 15-2 | Yoye mortina ${ }^{\text {goodx }}$ | 1. 615 |  |  | : ${ }^{2}$ | 1:8 | , |
|  |  | :02\% | \% |  |  |  |  |
| (15-94-939 | ation ond | - 07818 | (2, |  | $4:$ | 5:3 | -3:3 |
|  | cartal equip | 28.368 | 240.2 241, | 11. | , | 1.3 |  |
| :1-42 | Hone tools | . 306 | 281.1 | 13.8 | 2.8 | . 3 |  |
| :1-2 |  | 1.203, |  | 11,9 |  | \% |  |
| , 11 |  | : 173 |  | 112:8 |  | . |  |
| , | notic futing tachina | - 2148 |  | 12, ${ }^{3}$ |  |  | \% |
| , | Incile | \% 3.4 |  | it ${ }^{\text {a }}$ | , |  |  |
| 1i-4\% |  | - 3.742 |  |  | i:3 | : |  |
|  | Soter | - 38.8 | cise | 2i: | 1.3 ${ }^{2}$ | : 4 | 2, ${ }_{1}^{2}$ |
| -itit |  | \% 5.38 |  |  |  | i: | 2:3 |
| -17-9\% |  | 1:739 | 114.4 |  |  |  |  |
| 12-2 | comercial furniture $\mathrm{z}^{\prime}$..................... | 1.191 | 237.4231 .1 | 6.3 |  | . 7 |  |
|  |  | 3,693 |  |  |  |  | 2:90 |
| - |  | - 4.48 |  | $\begin{array}{ll}12.6 & 0 \\ 9.6 \\ 9.6 & 0 .\end{array}$ | $2: 9$ | 3.3 | $0^{1.0}$ |

Sed footnetes at ant of table

Table 2．Continued－Producer price indaxes and percent changes for selected commodity groupings by stage of procassing

| Comendity | Orouping |  | Unatijuted． |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | J，${ }_{1981} 2$ |  | 第； | ${ }^{\text {JuIV }}$ | May tab | June to | July to |
|  |  |  | 280.3 248.7 | 202.6 262.7 | 14.2 17.7 | 0.4 | 0.8 | 6.8 3.2 | 1.0 |
|  |  <br>  Conted futyynd tily： <br> Crud yootsphat oit <br> Rofined vepetable iils， | ｜ 271 | 186.1. | 190.1 | 3.5 | 1.1 | ． | 1.9 | 1.9 |
|  |  | （673 | 205.3 165. 265 | 229.8 <br> 179 <br> 18 | 89．${ }^{3 .}$ | \％ | 2.7 | －7．3 | 8.9 |
|  |  | ${ }^{6} \mathbf{6}$ | ${ }^{234.8 .8}$ | 314．4 | －1．6 |  | － 9 | －6．9 | 22，${ }^{2}$ |
|  |  | － 9778 | 2146：7 |  | －19．9 | 5：3 | －3．9 | 17.7 | 5.8 |
|  | intermediate majerlals less foges and feeds． synthatic fibera（Dec．1 $975=109$ ） <br>  <br>  | 4．939 | 282.3 | 283.9 | 14.0 | ． 6 | 4 | ． 7 | ． 5 |
|  |  |  |  | 137.8 122.6 136 166 3168 | 14.3 10.8 $7: 5$ 7.5 |  | $1:$ $-1: 2$ $-1: 3$ | 1.2 <br> -8 <br> 1.1 <br> 8 | （\％${ }^{9}$ |
| 04－2 | Coke． <br> Lquefied petroieum gas y <br>  <br>  <br>  | 5 | 292.2 | 314. | －4．1 | 7． 5 | ． 6 | 5.7 | 3.8 |
| －03－2 |  | ：155 | 430．6 | ${ }^{4390} 6$ | 4.7 | －1．2 | －． 3 | ． 3 | －1．${ }^{6}$ |
|  |  | ${ }^{4} 8.854$ | － | 343：1 | 919，7 | －1．2 | 1：80 | 2： 2 | 1.6 |
| － |  | \％ 4145 | 679．5 | 309：3 | 36：7 | ． 3 | －1： | i：3 | 3 |
|  |  | 1：970 | 798：${ }^{\text {a }}$ | 8909\％ | －23．6 | \％ | 5： | 12.4 | 4 |
|  | Industrisi chonicals <br> Proparad peint y Poine materials． <br> Drugs and pharmenutioni materisis <br> Mixed fertilizeredible． <br> Nitrogenstory 3 f． <br> Phosphates <br> Pestieides <br> Misceli resins and moterials． <br> Miscellanmous cheaical products $\overline{3}$ i | 4．735 | 327.8 206 | 329，0 | 28．7 | $\therefore 8$ | － |  | ． 0 |
| ${ }^{\text {a }}$ |  | ， 7178 | ${ }^{217}$ | 278．2 | 12．2 |  |  |  |  |
| 近 |  | ． 238 | 208： |  | － 78.3 | 18.3 | －8．88 | 5 | 24．3 |
|  |  | － 28. | 2， | 2418．8 | 21．4 | －i．3 | －1．${ }^{2}$ |  | －． 6 |
|  |  | （387 | 365：6 | 276：3 | 32： | －1． | －1． | $\because 9$ | 3. |
| \％ 46.9 ， |  | 1：97\％ | 286：2 | 252 <br> 259 <br> 8 | ${ }^{12} 8.8$ | ， | 1.4 | －2．0 |  |
| －07－11－92 | sprothetic rubber <br> other ins sedilaneovi rubber products <br>  <br> （Dice．1970 ${ }^{(100)}$ | ${ }^{3185}$ |  |  | 12.5 | 0 | －8， | $\therefore$ | －3 |
| －87－13－ |  | ： 29 |  | 2313：3 | ${ }^{13.1}$ | 1.3 | －${ }^{-1}$ | ： 3 | 1．2 |
| （0）－21 |  |  |  |  |  |  |  |  |  |
| （07－23 |  <br> Foang plastle products（Juni is7s＝100） 3 plastie packporng znd shipping products | ¢ | 173：4 | 123：3 | 15：3 | 4.0 | ． | ． | $\therefore$ |
| 07－25 |  | ． 34 | 123.0 | 123.0 | 7.1 | 0 | －． 3 | － | 0 |
| 07－26 |  | \％ | 125.0 | 125. | 10.1 | ． 2 | 1.2 | ． 2 | ． 2 |
| 88－1 | Lunter． <br> HIllw <br> Plymaod． <br> othar mood produets | 2．780 | 327．3， | 3333．5 | －8．7 | 1.9 | 3．7 | \％${ }^{\text {a }}$ |  |
|  |  | （1372 |  | 206． 280 260.3 | 9．1． | 1.7 4.3 | 1.8 8.8 -1.0 | 退： |  |
| 09\％13 | Moodpulp． <br> Paper <br> Paparbosed <br> Paper boxes and contaliner <br> auliding papar and boerd． | 2． 3174 |  | ${ }^{388} 88.8$ | 2128 |  | $\therefore 1$ |  | ${ }^{8}$ |
|  |  |  |  |  |  |  |  | （i） |  |
| 89－2－93 |  | 2．913 | 2118 | 2299：8 | ${ }^{16} 5$ | － （3）$^{3}$ | 1．88 | ${ }^{16}$ | （4） |
| 10－13－91 | Senifinished stool mill products． <br> Fountry and forpo shop produsti．：． <br> Prifinary and farroalloys． <br> 3econdary nonfer rous metoi and alloy basie shapis <br> Nonfarrous mill shages． <br>  <br> Matal contal nars． <br>  <br> Hupbing fintures and brasi fittiong． <br> Fabricated gtrueturai <br> misceilaneous metal products． | 6． 389 | 329，${ }^{3} 9$ | 3259 29 | 8.4 | ： | $\frac{3}{2}$ | －2．58 | 1 |
| － 18.15 |  | 1．865 | 311．2 |  | 18 | $\because \cdot 1$ | ${ }^{-2}$ | － | ， |
| 边 |  | 2． 3189 | 303： 8.6 | 305．8 | 17.03 |  | ． |  | $2 \cdot 2$ |
|  |  | － 9197 |  | 2385：${ }^{2}$ |  | 5 | － 9 | － |  |
| （100－28 |  | － | 210：7 | ${ }^{2}$ | ${ }^{16} 9$ | $2 \%$ | 5 | 3 | 3： 0 |
|  |  | －1094 | 310， 3 | － 30.2 | 13：3 | ： | － | 9 |  |
| （10－3 |  | （6， 6 |  |  | 12.5 10.6 10 | ， | － 2 |  | $\frac{1}{2}$ |
| （10－6 |  | 3．174 |  | ckis | \％ |  | －${ }^{-\frac{3}{3}}$ | ． 4 |  |
|  |  Prets for montace tract <br>  Abraive products $\frac{1}{3}$ |  |  |  |  |  |  |  |  |
| ${ }^{11} 1212-51$ |  | $1{ }^{163}$ | 299．2 | 290．9 | 180 |  | 8 | $2 \cdot 1$ |  |
| $\mathfrak{l}$ |  | ． 1198 |  | － 2700.3 | 13：4 |  | 8 |  |  |
| 1－36 |  | ： 313 | 237：0 | 236．5 | 13.4 | ： 2 | $1: 2$ |  | ${ }^{3}$ |

[^3]Table 2. Continued - Producer price indexes and percent changes for selacted commodity groupings by stage of processing

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{} \& \multirow[t]{2}{*}{Orouping} \& \multirow[t]{2}{*}{Relative $\left\lvert\, \begin{gathered}\text { Page } \\ \text { pata } \\ 1979\end{gathered}\right.$} \& \multicolumn{2}{|l|}{Unadjusted
index} \& \multicolumn{2}{|l|}{Thadjusted parcent 4u0. 1980 from:} \& \multicolumn{3}{|l|}{Samionally adjusted percent changi from:} <br>
\hline \& \& \& ${ }^{1981}$ \& ${ }^{190980}$ \& ${ }^{197}$ \& judy \& May to
Juna \& $$
\left|\begin{array}{c}
\text { June to to } \\
\text { vily }
\end{array}\right|
$$ \& sulv to <br>
\hline 11-37-51 \& \multirow[t]{5}{*}{} \& \& $$
301 . i
$$ \& \multirow[t]{2}{*}{$$
302.3
$$} \& \multirow[t]{2}{*}{} \& \multirow[t]{2}{*}{$$
0.4
$$} \& \& \& \multirow[t]{2}{*}{} <br>
\hline 11-37-51 \& \& ${ }^{0.142}$ \& \& \& \& \& $\bigcirc$ \& 0.8 \& <br>
\hline $111-42$ \& \& - 109 \& 204.2 \& 2023
20.8
20.8 \& -13.2 \& -. 2 \& 3.3 \& 3. \& <br>
\hline 111045 \& \& -448 \& 264:7 \& 265.5 \& 10. \& 1 \& \% 9 \& ${ }_{6} 6$ \& 1 <br>
\hline \$1-47804 \& \& \multirow[t]{2}{*}{. 189} \& \multirow[t]{3}{*}{$$
\begin{aligned}
& 295.2 \\
& 12221 \\
& 291.1
\end{aligned}
$$} \& \multirow[b]{2}{*}{122.5} \& \multirow[t]{2}{*}{10.6} \& \multirow[t]{2}{*}{} \& . 4 \& \multirow[b]{2}{*}{${ }^{6}$} \& \multirow[t]{2}{*}{1.3
.3} <br>
\hline \&  \& \& \& \& \& \& 0 , \& \& <br>
\hline +11-49-4, \& Y*ives and fittinge.................................. \& \& \& 291.2 \& 112.3 \& 0 \& 1.7 \& . 6 \& 3 <br>
\hline 11-49-06 \& plain baringer........... \& . 20.7 \& 265.2 \& 276.6
27.6 \& 9.1 \& , \& 1.2 \& 6 \& 1.5 <br>
\hline 11-71-61 \& Hiring dovicga.................................... \& -555 \& \& 271.1 \& 1.7 \& . 8 \& 1.1 \& . 3 \& .6 <br>
\hline ${ }_{\substack{11-73-61 \\ 11-75}}^{1}$ \&  \& . 585 \& 232.2 \& 252.
230.9

230, \& 84 \& - \& - $\cdot 1$ \& 2.1 \& <br>
\hline 11-7) \&  \& . 270 \& 260.4 \& 261.7 \& 4.4 \& \& 3.3 \& 2.1 \& <br>
\hline  \& Etectronic component, and accessorie $3 ; \ldots \ldots . .0$, \& 1.688 \& 159.7 \& 158.2 \& 15.8 \& 1.6 \& 3. \& 2.8 \& 1.0 <br>
\hline :1-82-53-9 11 \& Partz for mining maehingry and equipaent. \& . 798 \& 31.8
268.8 \& 311.8
269.3 \& 13.4
12.5 \& . 3 \& 0.8 \& -1.4 \& -. 3 <br>
\hline 13-11 \& F1at giass y \& . 564 \& \multirow[t]{2}{*}{194.3
310.5} \& \multirow[t]{2}{*}{194.5
316.3} \& \multirow[t]{2}{*}{88.4} \& \multirow[t]{2}{*}{2.7} \& \multirow[t]{2}{*}{1.7} \& $-6$ \& <br>
\hline 13-22-01-5: \&  \& . 566 \& \& \& \& \& \& \multirow[t]{2}{*}{-2
-8} \& \multirow[t]{2}{*}{2.7
.2
-2} <br>
\hline ${ }_{13}$ \& Structural elay prood \& 1.782
.234 \& \& \& 12.4 \&  \& . 7 \& \& <br>
\hline $13-3$
13 \& kofretoriem.... \& . 214 \& 259.6 \& 271.4 \& 12.3 \& \multirow[t]{2}{*}{-. 2} \& 1.85 \& 1.0 \& -. 2 <br>
\hline 13-6 \& A zohalt rooting \& . 3192 \& 212.0, \& 231.8 \& 25.4
5.2 \& \& \multirow[t]{2}{*}{} \& -1.4 \& -.
-.2
-.2 <br>
\hline 13-8 \& Giass eontuine \& -626 \& 294:6 \& 294.6 \& 11.1 \& 9.5 \& \& - 8 \& -. 2 <br>
\hline 14-12 \& motor vohiele parts. \& 3.753 \& 245.7 \& 254.4 \& 1.9 \& 3.5 \& . 1 \& . 3 \& 2.5 <br>

\hline \[
$$
\begin{aligned}
& 15-3 \\
& 15-42
\end{aligned}
$$

\] \& | Motitens 3, |
| :--- |
|  | \& . 670 \& \[

$$
\begin{aligned}
& 221.7 \\
& 258.2
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 225.8 \\
& 258.2
\end{aligned}
$$

\] \& \[

16.6
\] \& . ${ }^{\text {. }}$ \& 1.2 \& 2.2 \& 0.9 <br>

\hline \[
$$
\begin{array}{r}
15-71-0: \\
5-71-02
\end{array}
$$

\] \& \multirow[t]{2}{*}{| Respiratory pratective equipant (June $\quad 1978=100$ ) $/ 2$ |
| :--- |
|  |} \& \multirow[t]{2}{*}{. 014} \& 123.6 \& 123.4 \& 13.4 \& - \& 1.1 \& . 2 \& 0 <br>

\hline \& \& \& 114.1 \& 114.1 \& 8.0 \& \& . 1 \& 2 \& <br>
\hline 15-94-0.5 \& Jewelorg' matarislig and findinge (Dac. 1978:100) 3/................ \& . 385 \& 237.8 \& 126.6
227.6 \& 87.8 \& -4.3 \& 16.4 \& .2
3.2 \& -.2
-4.3 <br>
\hline \& \multicolumn{2}{|l|}{crude materials for further processino.............. 180.000} \& 314.3 \& \& 16.3 \& 3.6 \& . 3 \& 6.3 \& 5.7 <br>
\hline \& \multicolumn{2}{|l|}{crude foodstufts and ffedstuffs ................... 59.460} \& 263.3 \& 274.6 \& 13.5 \& 5.1 \& 1.1 \& 9.0 \& 9.0 <br>

\hline 91-1 \& \multirow[t]{6}{*}{| Frash and dried frults and vagetables. |
| :--- |
| Graing 1 |
| Live pouliry |
| flut pulk. |
|  |
| graton coffan: y |
| cocos beanz. |} \& \[

$$
\begin{array}{r}
2.135 \\
\hline
\end{array}
$$

\] \& 247.5 \& \multirow[t]{2}{*}{} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
5.8 \\
12.0
\end{array}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 2.5 \\
& 5.8
\end{aligned}
$$
\]} \& \multirow[t]{2}{*}{-i.j} \& \multirow[t]{2}{*}{3.1} \& \multirow[t]{2}{*}{11.3} <br>

\hline : $1=-2$ \& \& \multirow[t]{2}{*}{\[
\left\lvert\, $$
\begin{aligned}
& 10.052 \\
& 23.16 \\
& 2.290
\end{aligned}
$$\right.

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 244.1 \\
& 260.5
\end{aligned}
$$
\]} \& \& \& \& \& \& <br>

\hline ${ }_{0}^{1 / 2} 12$ \& \& \& \& $255: 3$

27.7 \&  \& $$
\begin{array}{r}
4.8 \\
5.8 \\
-1.2
\end{array}
$$ \& -1.7

-5.7 \& 13.7
37 \& 8.8
8.8
6.8 <br>
\hline 91-6 \& \& \multirow[t]{2}{*}{} \& \multirow[t]{2}{*}{265.2
251.4
251} \&  \&  \& -1.2 \& 2.0 \& 27.4 \& 6.81 <br>

\hline  \& \& \& \& \multirow[t]{2}{*}{$$
\begin{array}{r}
261.5 \\
401.2 \\
421.2
\end{array}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& -3.8 \\
& -20.4 \\
& -20.4
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
4.0 \\
-3.4 \\
-6.7
\end{array}
$$

\]} \& \multirow[t]{2}{*}{-i.3} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 21.2 \\
& -4.6
\end{aligned}
$$
\]} \& \multirow[t]{2}{*}{6.8

-5.4
-5.7} <br>
\hline -1-91-02 \& \& 3.884
2.360

.412 \& $$
\begin{array}{r}
251.4 \\
424.2 \\
452.0
\end{array}
$$ \& \& \& \& \& \& <br>

\hline 02-52-01-4. 1 $^{\text {a }}$ \& Cane sugar, ram 3/... \& 1.650 \& 380.8 \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 482.7 \\
& 424.3
\end{aligned}
$$} \& 123.3 \& 26.8 \& -11.8 \& -5.1 \& 26.8 <br>

\hline \& crude homfod materials \& 144.534 \& 416.8 \& \& 20.9 \& 1.8 \& -. 5 \& 3.2 \& 1.8 <br>

\hline  \& plant and animal fitar Leaf tobsces. \& $$
1.864
$$ \& 267.9 \& \[

$$
\begin{aligned}
& 274.6 \\
& 277.5
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 32.1 \\
& 4: 3
\end{aligned}
$$

\] \& \[

2.8

\] \& \[

-94

\] \& \[

$$
\begin{aligned}
& 8 . \\
& 3
\end{aligned}
$$

\] \& \[

$$
\begin{array}{r}
2.8 \\
-6.6
\end{array}
$$
\] <br>

\hline 04-1 \& Midas and dxins....................................... . \& . 339 \& 356.4 \& 388.4 \& -22.2 \& 11.7 ' \& 15.0 \& 13.6 \& 12.4 <br>
\hline $85-1$

$85-31$ \& Coal..i.... \& \multirow[t]{2}{*}{\[
$$
\begin{aligned}
& 5.880 \\
& 12.527 \\
& 10.861
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{| 467.8 |
| :--- |
| 550.4 |} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 969.0 \\
& 850 . \\
& 564.3
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 3.3 \\
& 28.2 \\
& 46.8
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
.3 \\
2.8
\end{array}
$$
\]} \& \multirow[t]{2}{*}{9.88} \& \multirow[t]{2}{*}{2.8} \& \multirow[t]{2}{*}{:3} <br>

\hline - $\begin{aligned} & 05-31 \\ & 05-61\end{aligned}$ \& Maturai crudt petreation \& \& \& \& \& \& \& \& <br>
\hline 06-52-0.3 \& Potash. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \& . 187 \& 237.3 \& 238.3 \& 25.4 \& . 3 \& 5.8 \& 5.2 \& . 7 <br>
\hline 67-11-41 \& Crude natural rubber. . . . . . . . . . . . . . . . . . . . . . . . . \& .359 \& 326.1 \& 328.) \& 3.0 \& . 9 \& -1.0 \& . 6 \& . 6 <br>
\hline 8-12 \& Wentepaper \& . 724 \& 194.0 \& 193.8 \& -6.2 \& -. 1 \& -8.7 \& -6.1 \& . 6 <br>
\hline \& Iron ore 31. \& \& 248.2 \& \& \& \& \& \& <br>
\hline - $\begin{aligned} & 10-12 \\ & 10-23\end{aligned}$ \& Iran and stael ser \& 3.948 \& 270.0

238.1 \& $$
\begin{aligned}
& 300.2 \\
& 26: 1
\end{aligned}
$$ \& -9.6 \& 11.2 \& -8.0 \& 6.5 \& 14.5

2.6 <br>
\hline 13-21 \& sand, oraval. and eruahed stone. \& 2.417 \& 235.4 \& 233.9 \& 13.0 \& 2 \& , \& . 6 \& 6 <br>
\hline
\end{tabular}











Hot mosonoiliv aduutad.

## not avaliable.

Table 3. Producer price indexixs for seloctod commodity groupings'
(1967=100)

| Grouping |  | Unedjusted index |  |
| :---: | :---: | :---: | :---: |
|  |  | Aoril 9980 2' | AUg. 19802 |
|  |  | 262.8 278.8 | 273.1 289.8 |
| MAJOR COMMODITY GROUPS |  |  |  |
| Farm products and processed foods and faeds Farm produczs. |  | 229.3 | 254.8 |
|  |  | 228.9 | 263.6 |
|  <br> Processed foods and foods. |  | 228.6 | 249.1 |
| Industrial commodities, |  | 271.3 | 277.3 |
|  |  | 181.2 | 185.2 |
| Hides, skins, leather, and r |  | 243.5 | 251.1 |
| Fuels and related products and power |  | 566.6 | 589.5 |
| Chemicals and alliod products 3/... |  | 259.8 | 264.3 |
| Rubber and plastic prod |  | 214.1 | 219.9 |
| Lumber and wood produc |  | 275.6 | 295.3 |
| Pulp, paper, and all |  | 247.8 | 252.2 |
| Motals and matal produ |  | 284.4 | 282.7 |
| Machinery and equipment |  | 236.4 | 242.2. |
| Furniture and hou |  | 184.4 | 187.3 |
| Nonmetalife mineral pradu |  | 283.7 | 284.8 |
| Transportation equipmentMiscellaneous products.. |  | 203.2 | 208.6 |
|  |  | 252.8 | 259:9 |
| Industrial commodities less fuals and related products and powar..................................... |  | 240.5 | 244.8 |
| DTHER COMMODITY GROUPINGS |  |  |  |
| 01-9 | Other farm products. | 304.8 | 282.7 |
| 02-1 | Cereal and bakery product | 232.4 | 235.5 |
| 02-2 | Meats, poultry, and fish. | 226.0 | 259.9 |
| 02-5 | Sugar and confactionery. | 275.0 | 347.1 |
| 02-6 | Beverages and beverage materi | 227.9 | 237.3 |
| 02-63 | Packagod beveraged materials. | 353.2 | 356.2 |
| 02-7 | Fats and oils............ | 214.5 | 236.8 |
| 04-4 | Other laather and related pro | 216.2 | 217.4 |
| 05-3 | Gas fuels 3/................ | 730.1 | 762.3 |
| 05-7 | Refined petrolaum produets \$/ | 678.0 | 697.5 |
| 06-3 | Drugs and oharmacouticals.... | 172.6 | 175.7 |
| 06-5 | Agricultural chemicals and product | 258.5 | 259.6 |
| 06-7 | Other chemicals and allied products | 223.1 | 229.9 |
| 07-1 | Rubber and rubber products... | 233.4 | 240.7 |
| 07-11 | Crude rubber....... | 264.7 | 263.4 |
| 07-13 | Miscellaneous rubber products. . . . . . . . | 222:1 | 234.6 |
| $=^{09-1}$ | Pulp, papar, and products, excluding bui paper and board. | 249.4 | 253.6 |
| 09-15 | Converted paper and paperboard produc | 236.7 | 242.0 |
| 10-1 | Iron and steal.............. | 307.2 | 302.3 |
| 10-13 | Steel midi product | 504.1 | 301.0 |
| 10-2 | Nonferrous metals. | 298.3 | 288.9 |
| 10-4 | Hardware. ${ }^{\text {M }}$. | 257.3 | 262.6 |
| 11-3 | Metalworking machinery and equipment. | 270.2 | 278.9 |
| 11-4 | Generat purpose machinery and equipment | 261.1 | 266.6 |
| 1t-7 | Elactrical machinery and equipment. | 198.9 | 204.7 |
| 11-9 | Miscellaneous machinery and equipment | 227.2 | 231.5 |
| 13-2 | Concrete ingredients.... | 271.7 | 272.7 |
| 14-1 | Motor vahiclos and equipment....... | 205.4 | 211.4 |
| 15-4 | Photographic equipment and supplies | 212.3 340.9 | 202.3 363.3 |
| 15-9 | 0ther mi scellaneous products...... | 340.9 | 363.3 |

1) Indexes for these commodity groupings are not includad in labla 2 becausa thair components aro dividad among diffarent stages of processing.
2) Data for April 1980 have boen revised to roflect the availability of late reports and corrections by
respondents. All data are subject to revision 4 months after original pubilication.
3/ Prices of some items in this grouping ara lagged month.

## Finished Goods Price Index and its components 1970-80 <br> 3-month annual rates of change <br> (Seasonally adjusted)




## Chart 3 <br> Crude Materials Price Indox and its componenta <br> 3-month annual rates of change <br> (Seasonally adiusted)



Senator Bentsen. Thank you very much, Commissioner.
Now, when you add 200,000 jobs, and you see a more modest change in the Producer Price Index, in spite of the fact that food went up over 60 percent on an annualized basis in the 2 months, does that tell you that we are bottoming out on a recession? Are your figures informative enough to tell you that?

Ms. Norwood. I think that the data that we have shown that the deterioration in the labor market has clearly stopped, and that there is some improvement-particularly the increase in factory hours. The producer price data, if you set aside food, I think is encouraging this month, although we do not know what will happen with crude materials prices in the coming months.

There are a series of outside factors-the developments in interest rates; the recessions which appear to be developing in other countries of the world-which could affect these data in the next few months. So I think that there is certainly room for cautious optimism because there are some factors that we cannot be sure about in the next few months.

This situation, it seems to me, is very different from any we have had before.

Senator Bentsen. Tell me what the major differences are in this recession as compared to the last one.

Ms. Norwood. Well, I think we are
Senator Bentsen. At this stage.
Ms. Norwood. I think that we are in a period right now where, with this rather massive increase in food prices, we cannot really be sure how producers and investors will take the price data. Their behavior, therefore, is rather difficult to forecast.
In the employment area, I think clearly the severe deterioration in the automobile industry and in construction seems to be turning somewhat. Some of the automobile workers are being rehired after retooling-

Senator Bentsen. But I am really trying to get a comparison be-tween--you said that this is not like previous recessions. That I want amplified. I do not understand what the major difference is between this recession and the last recession, if you can compare periods in recession.

Ms. Norwood. I think that probably the biggest difference is in the price area, the inflation rate; and the whole approach of consumers to higher prices. Though we had price increases in the last recession, I do not think that consumer behavior was affected to the extent that apparently it has been in this recession.

Senator Bentsen. And you are saying by that, that in this recession the consumer has tended to keep his money in his pocket? Is that right? Has he held back on spending? Is that what you are saying? I am trying to understand this.

Ms. Norwood. No, I think that the inflationary-
Senator Bentsen. Or is the contrary the case?
Ms. Norwood. At the beginning, in the early months of this recession, and last year, I think that inflationary psychology was controlling consumer behavior. Certainly Government policy and a number of other occurrences have changed that.

Now that we are having a resurgence in food prices-caused to a large extent, although not completely, by bad weather-it is difficult to know exactly how people are going to respond to that.

I believe that one should separate the food situation from the nonfood situation, but I can't be sure the other people will react in that way.

Senator Bentsen. I still don't know. I still don't know the difference between the last recession and this recession at this period of time. I want to ask you once more: You said you don't know how the consumer is going to respond, and yet you told me this is not like previous recessions. I understand that part, but what is the difference at this period of time?

Ms. Norwoon. One of the things that is different is that the interest rate market seems to be behaving in a way that is very difficult to forecast.

Another thing that is different is that the rest of the world seems now-many of the developed countries-to be sinking into recession, and we do not know how that will affect our exports.

I believe that the inflationary psychology which has been prevalent during this recession was greater than in the last recession, although that has abated considerably in recent months.

Senator Bentsen. All right. And one of the reasons, of course, interest rates have not behaved the same way-is it that previously the focal point was on the interest rate itself? This time, we know that more attention is being paid to the supply of money, with interest rates left to find their own level more than in the past.

Now we have seen this bouncing up and down of interest rates to a degree we have not seen in the past. In the last few days we have seen some moderation of short-term interest rates, but also gradual increases in long-term rates.

Do you see these developments affecting home building just as it is recovering, or not?

Ms. Norwood. I hope not.
Senator Bentsen. Well, if it was determined by hopes, we would be in a lot better shape than we are.

I defer to my friend, Representative Reuss.
Representative Reuss. Thank you, Mr. Chairman.
Ms. Norwood, you say in your opening statement-and I quote"Since the sharp unemployment increases in April and May, the overall jobless rate has shown relatively little movement." That is exactly right. In January, February, and March, the unemployment rate was 6 percent or a little greater, and then it leaped up in April to 7 percent, and it has been up above 7 percent ever since-although your news this morning is relatively encouraging, and we sure need it.

My question is, What caused those devilishly sharp unemployment increases in April and May?

Ms. Norwood. Basically, the very large deterioration of employment in construction and in automobile manufacturing, as well as in many of the other durable manufacturing industries.

Representative Revss. And wasn't that in turn the result of the Federal Reserve's mid-March dramatic action in (1) putting on consumer credit controls; and (2) slowing dramatically the money supply?

Ms. Norwood. It certainly occurred shortly thereafter, or at about the same time. I don't know about the causal relationship; I will leave that to others to discuss in the years to come. I am sure there will be considerable discussion of that.

Representative Reuss. Well, I have no more sympathy for post hoc; ergo propter hoc than you do. But this seems to me to be more than just coincidence. The Fed was alarmed by what it thought was a big bulge in spending, but what later turned out to be just a big bulge in lending to Bunker Hunt and his pals for silver speculation-that was 19 percent of the new leinding in the United States to big banker Bunker.

The Fed, havirg misinterpreted this signal, jammed on the brakes, and since no other cause is readily apparent, isn't it a pretty safe guess, which even you might venture to adopt, that the Fed's dramatic midMarch action caused the big jump up in unemployment in April and May and thereafter? What else?

Ms. Norwood. Well, it certainly had a very important effect. I don't think there is any doubt about that. I do think that one has to keep in mind the kind of inflationary psychology that those actions were intended to break.

Representative Reuss. Right. But the leading exemplar of the inflationary psychology was none other than Bunker Hunt and his silver speculation. Is that not so?

Ms. Norwood. Yes; of course, we had at that time, too, fairly significant problems in the automobile industry, and we still do.

Representative Reuss. Right. But the consumer credit controls accentuated those.

Ms. Norwood. Sure.
Representative Reuss. Well, I now come to my lesson for the future, formed by the past: Wouldn't it be a nice thing--now that unemployment is improving a little bit-if the Federal Reserve were very careful not to take overheroic actions in tightening money, based upon doubtful signals? They did it once. If they do it again, we will be right back in this very steep recession. Is it not a fair thing to ask them not to repeat the scenario of last March ?

Ms. Norwood. I am sure we can count on the Governors of the Federal Reserve Board to be careful.

Representative Reuss. Yes; but what is to prevent them from being too careful and seizing once again upon a false signal? Would it not, in short, be a good idea to profit by a recent mistake?

Ms. Norwood. Sure.
Representative Redss. Because it does appear that that big leap in the unemployment rate-which put $1,800,000$ men and women out of work in May who had had jobs in March-is rather a hard price that those people had to pay for someone misreading the signals; was it not?

Ms. Norwood. Incidentally, that is a point that I should have made to Senator Bentsen's question. This recession is different from other recessions in that we had such a sharp jump in unemployment within a very short time period.

Representative Reuss. I thoroughly agree with you, and it seems to me it was a man-made recession-a six-man-one-woman-made reces-
sion-and its severity was unnecessary. It did not accomplish any more inflation-tighting than a slow, steady, and controlled growth of the money supply would have done. And one hopes that one learns by experience and will not do that again. Is that not a fair summary of our dialog?
Ms. Norwood. It is certainly a summary of your position. [Laughter.]
Representative Reuss. Well, I know, but do you differ? It takes two to have a dialog, unless you want to monolog it on your own.
Ms. Norwood. No, I think that certainly the events of the spring had a very important effect on the economy. I do think that we had a very strong inflationary psychology. I think that was broken. Whether the medicine was too stiff or not, 1 am not prepared to discuss at this point.
I am certain that people are very concerned about interest rates right now, which I think could well determine whether the economy goes up or goes back down. Either of those is a possibility, depending on whether there is investment, depending upon whether consumer demand continues to innrease-retail sales have increased, factory orders have increased. Depending upon what happens to interest rates, we can see where investment will go, and where industrial production will go.
Representative Reuss. Then in short, and to conclude, you would agree that too tight monev and interest rates raised unnecessarily, because of a signal read falsely, would not be a good idea?
Ms. Norwood. Certainly I think everyone would agree with that statement; and I certainly would.
Representative Reuss. I thank you.
Senator Bentsen. Senator Proxmire.
Senator Proxmite. Ms. Norwood, the figure that really stands out in both the Unemployment and the Producer Price Indexes is the enormous increase in the price of crude goods, foodstuffs and feedstuffs particularly, a 9-percent increase in 1 month in August, preceded by a 9 -percent increase in .July- 18 . percent in 2 months, and more than a 100 -percent increase in prices if this is followed through.

Now the bad news also is that that was not modified very much by what happens at the crude level to other goods-a 3.2-percent increase in July; a 1.8 -percent increase in August-and all together, total, including food and nonfood, an increase for the 2 months of around 12 percent.

How long is that enormous increase in food goods likely to take, to come to first, the finished goods level, the wholesale price level, and second to the consumer price level? And to what extent is it likely to be felt by consumers?

Ms. Norwood. The crude index, first of all, is highly volatile.
Senator Proxmire. Well, can you recall any time in which the foodstuffs have gone up by as much as 9 percent in a single month, except of course in July?
Mr. Layng. August of 1973.
Senator Proxmire. When?
Mr. Layng. August of 1973, or close to that.

Senator Proxmire. 1973? We have to go back 7 years to find a time when you had that big an increase?
Mr. Layng. Yes. By historical standards, it is clear that it is extremely large.

Ms. Norwood. It is very high.
And it will take some time. The passage of these price movements through the economy are extremely hard to quantify. Food seems to get through very quickly. Some of the others can take some considerable period of time. So I cannot give you a specific estimate.
Senator Proxmire. Well, at any rate, it appears that the finished goods, consumer foods, which was up 4.4 percent in August, 3.8 percent in July, that the consumer at the store is likely to have to face a higher price in the coming weeks; right?

Ms. Norwood. Certainly. Yes. I think that is quite clear.
Senator Proxmire. And, of course, this is the inflation we all feel constantly, because we buy food once or twice a week.
Ms. Norwood. I think we have to be very clear that food price increases are very serious and very damaging. The only point that I would make is that the policy actions cannot really affect hot weather or a drought.

Senator Proxmitre. No, but we can recognize that, and recognize the unfortunate effects, of course, of higher prices-
Ms. Norwood. Absolutely.
Senator Proxmire [continuing]. And the effect that that may have on pushing for wage increases, the effect it has obviously in so many prices that are indexed and wages that are indexed.
Ms. Norwood. Yes, sir.
Senator Proxmire. And then in turn, of course, prices go up. So that it will have an inflationary push over the next few weeks-
Ms. Norwood. Very definitely.
Senator Proxmire [continuing]. And months.
Now I notice that we have an improvement, and a welcome improvement, in the unemployment-employment picture. Also, the Department of Commerce-this is not in your statistics-reported that in July for the first month since October of last year, the help-wanted ads rose in this country-meaning that there are more job-seeking people than before. That has dropped precipitously from an index of something like 155 down to 115, and went back up to 118, not a big increase but certainly it seems to reinforce the statistics you have given us here this morning. Is that right?

Ms. Norwood. Yes, sir.
Senator Proxmire. So that it looks as if the job market may be improving.
That would suggest to me that once again our big economic problem is inflation rather than unemployment.
Ms. Norwood. I think certainly it is the most difficult problem for policy action. I would not want to suggest that unemployment is not important; there are a lot of people, millions of people, still unemployed, and I am sure you would agree that this is a difficult problem, just as food prices are a difficult problem.
But in terms of where the economy is going, I think that the problems of inflation are very, very real.

Senator Proxmirie. Now if you hold everything constant, can you give us an idea of what effect on prices and employment the President's economic program would have-particularly these tax reductions that he recommends?

Ms. Norwood. No, sir, I can't. It is very difficult. Most of them-
Senator Proxmire. Why shouldn't we have that? It seems to me that if we are going to make policy sensibly and determine whether or not we should do it, we ought to have the best advice we can get; and you represent the best advice we can get with respect to employment and prices.

Ms. Norwood. I think one of the reasons that you people believe that we provide good advice is that we know when to say we can't do something.
Senator Proxmire. I didn't say it was good; I said it was the best we could get. [Laughter.]
Ms. Norwood. Well, we do indicate when we feel we cannot do something, and I think that it is very difficult to make these estimates.

However, there have been a number made. I think that the Council of Economic Advisers has some very good people, and some good models. There are a number of private forecasting firms which have come up with estimates, and we prefer to leave that work to them.

Senator Proxmire. Well, then, is there any information you can give us on the Kemp-Roth tax reduction on what effect that would have? [No response.] You cannot tell us that.
Now as part of its recovery package, the administration has requested a 13 -week extension in unemployment insurance benefits to bring the maximum up to a year, 52 weeks.

Do you have any information on how many people are exhausting the benefits available under the current program?
Ms. Norwood. I do not have that. Mr. Bregger tells me that it would probably be too early for large numbers to have exhausted their benefits. But I am sure that we can provide a figure for the record from the other part of the Labor Department.

Mr. Bregaer. Senator, with the normal extension, benefits would carry up to about 39 weeks for most workers. Since most of the layoffs were in April and May, it would be much too early for the bulk of the people who have become unemployed and who are staying unemployed to have exhausted their benefits.

Senator Proxmire. Well, can you give us some notion, in view of the fact that the automobile industry and the construction industry are so directly affected, some idea in those industries of whether or not there are problems with people exhausting their 39 weeks?

Ms. Norwood. There certainly are problems in the automobile industry of people having exhausted their benefits, because the drop in automobile employment began occurring long before the beginning of the recession.
Senator Proxmire. Now some were eligible for trade adjustment assistance that extends over a year.

Ms. Norwood. Yes; that's right.
Senator Proxmire. Maybe for the next month, could you give us some analysis of this, so we will have some picture?

Ms. Norwood. Yes; certainly.
[The following information was subsequently supplied for the record:]
The following tabulation shows the number of persons exhausting benefits under State unemployment insurance programs over the period July 1979 to July 1980. The figures, of course, are not cumulative, nor can they be added to give a notion of how many of the unemployed have exhausted benefits as of July 1980, but they do clearly indicate that exhaustions have risen during the current recession.

| July 1979 | 169, 402 | Februar | 202, 146 |
| :---: | :---: | :---: | :---: |
| August | 166, 436 | March | 220, 325 |
| September | 139, 442 | April | 259,386 |
| October | 161, 439 | May | 242, 236 |
| November | 159, 791 | June | 242, 182 |
| December | 164,932 | July | 292, 362 |
| January 1980 | 216, 630 |  |  |

Senator Proxmire. I notice that there is what seems to be a fairly sharp drop in black and other minority unemployment. It falls from 14.2 percent to 13.6 percent. Is this statistically significant?

Mr. Bregger. No, sir.
Ms. Norwood. No, sir.
Senator Proxmire. It is not?
Ms. Norwood. No, sir.
Senator Proxmire. That is more than-well, that is six-tenths of 1 percent, but it is not significant. That means that you cannot tell whether there was an actual drop or not? Is that right? Because the sample was too small?

Mr. Bregger. That's right. It takes a change of at least eight-tenths to be considered statistically significant.

Ms. Norwood. But we do know, of course, two things. One, that the unemployment rate for blacks is at least double that of whites. And second, that there has been very little movement of unemployment among the various groups in the last several months.

Senator Proxmire. In your statement you put a lot of emphasis on "hours worked." You noted that the hours of overtime had increased in manufacturing. Why is this significant?
Ms. Norwood. Well, I think it is the first time that we seem to have had a change in direction in hours of work, and hours frequently are the first inkling of a change. Employers increase hours before they hire more people, or as they are beginning to hire more people.

I might say, this is encouraging from the point of view of employment and unemplovment. I am not so sure that it is so encouraging in terms of productivity.

Senator Proxmire. We have had a big and serious recession-the people in it would call it a depression-in the automobile and construction industries, because there are so many unemployed with unemployment up to 18 percent in the construction industry and up very, very high in the automobile industry. Has there been any evidence that this very deep falloff in jobs and in orders has had any favorable effect on prices? Have price increases moderated?

Ms. Norwood. If you stick to the automobile industry, for example, I think there are two things that can be said. One is that over the year, automobile prices have not gone up as much as other items. However, in the last few months there have been increases in the prices of automobiles and trucks at a time in the business cycle when that seems not necessarily what one would expect.

There also seems to be clearly a difference in pricing practices for large cars and for small cars.

Senator Proxmire. Is this because the automobile industry is so concentrated with three principal producers?
Ms. Norwood. Well, I don't know what the cause is. I can just report on what has happened. Of course, there is a good deal of import competition for automobiles these days.
Senator Proxmire. Well, that's right. That's right. But they don't respond to that with the kind of price behavior that you would normally expect.
Ms. Norwood. I think that clearly the automobile industry has been trying to retool and produce small cars as fast as it can. The prices of those small cars have not been reduced. The prices of larger cars have come down some. So that the gap between the prices of the small car and the larger cars is narrowing.

Senator Proxmire. You seem to have a contradiction in your statistics with your household data and your establishment data. Your household data shows an increase in the unemployment rate in construction from 16.1 to 18.3 ; while your establishment data shows an increase in employment. How do you explain that?

Ms. Norwood. I guess I don't explain that. I think that clearly there has been a change, if one looks at data outside the employment area. There has been an increase in housing permits and an increase in housing starts, which seems to have been concentrated in single-family housing. The multistructures and the business buildings have not really picked up yet. And I would expect that that is the reason for this problem with construction.
Mr. Bregger tells me that I have forgotten about the west coast strike in construction. People who were on strike were off the payrolls of establishments; they were therefore not counted.

Senator Proxmire. Was that a big enough strike to justify that sharp difference?

Mr. Bregerr. It was a very large strike, Senator, and they returned to their jobs in August. So although we cannot be totally certain, most of this increase that was reported, 35,000 , was a result of the strike return rather than any real improvement in the industry for the month.
So in other words, there is not that much inconsistency. Workers are not on payrolls when they are on strike, obviously, so there was a decline in the prior month; and when the strike was over, they went back on the payroll.

Senator Proxmire. My staff people have trouble with that explanation. Would you, for the record, when you have a chance to correct your remarks, go over it a little more carefully and show precisely the effect of the west coast strike?

Ms. Norwood. Yes.
Senator Proxmire. Because they say that the statistics would not justify it, to the extent that it is reflected here.

Ms. Norwood. Even after adjustment for the strike, there may still remain a discrepancy. It is just that it would be less of a discrepancy than appeared originally. That's all. I do not want to give you the wrong impression.
[The information referred to follows:]

The unemployment rate in the construction industry is based on the following data (seasonally adjusted):

|  | July. 1980 | August 1980 |
| :---: | :---: | :---: |
| Civilian labor force. | 5,000,000 | 5,112,000 |
| Employment. Unemployment. | $\begin{array}{r} 4,193,000 \\ 807,000 \end{array}$ | $\begin{array}{r} 4,178,000 \\ 934,000 \end{array}$ |
| Unemployment rate (percent) | 16.1 | 18.3 |

The payroll survey reports construction employment of $4,319,000$ in July and 4,355.000 in August.

The difference between the change in employment between July and August is not statistically significant in either survey. The general conclusion to be drawn is that construction employment showed little change in August.

In addition, it shonld be noted that the increase shown in the payroll survey in August is largely due to the return of persons who were on strike in July.
Senator Proxmire. Well, I just have one other question. Do you have a measure of the underlying rate of increase in producer prices similar to the calculation made for consumer prices? We talk about an underlying inflation rate. Can you give us an underlying inflation rate for producer prices?
Ms. Norwoon. The rate for finished goods, less food and energy, if you want to define it that way, is 0.8 percent this month.
Senator Proxmire. What?
Ms. Norwood. 0.8 .
Senator Proxmire. Can you tell us what the trend shows, adjusting the trend for the intermediate and crude? What does it suggest?
Mr. Layng. Say that again?
Senator Proxmire. Can you give us some notion of where the trend is leading us, taking into account the increases in intermediate and crude prices, which of course would be reflected
Mr. Layng. Taking into account the behavior of them in recent months?
Senator Proxmire. What's that?
Mr. Layng. Taking into account the behavior of intermediate and crude in recent months?

Senator Proxmire. Yes, sir.
Mr. Layng. Less than earlier this year.
Senator Proxmire. What's that?
Ms. Norwood. Less than somewhat earlier this year.
I think there is some improvement, compared to earlier in the year. We are at about 14 percent on a 3 -month basis.

Senator Proxmire. There is some improvement even in spite of the enormons increases in crude prices?
Ms. Norwood. Yes.
Senator Proxmire. For July and August?
Ms. Norwood. Yes.
Senator Proxmire. I realize that is a volatile index and you have to take a number of months and put them together.
Mr. Layng. The intermediate less food index has been particularly well behaved since early this year. That single series is the clearest sign of moderation.

Senator Proxmire. Well, the crude is not well behaved, however, for July and August.

Ms. Norwood. Yes.
Senator Proxmire. Even less food.
Ms. Norwood. That's right.
Mr. Layng. No question about it; But that is a volatile series that usually requires several months of substantial increase to identify a change in trend.

We can get 2 months of increases of 2 to 3 percent, and then turn around-turn negative. It jumps around that much. It is a very sensitive market. You have to be very careful in interpreting it. Where the intermediate-ex-food-is a much more reliable indicator of the underlying trend of those things being used in production.

Senator Proxmire. Mr. Chairman, I just want to be sure that we have from Ms. Norwood and her colleagues, the assurance that they will do their best to give us some analysis of the effect of the President's economic recommendations, and particularly his tax-cut recommendations, on inflation and employment.

Ms. Norwood. We will certainly take a look at it.
Senator Proxmire. Well, you take a look at it and give us your reaction to it. And also on the Kemp-Roth.
Ms. Norwood. We certainly will review what is being done and provide you with whatever we can.
[The following information was subsequently supplied for the record:]
The Burean of Labor Statistics does not have a short-term macroeconomic model which permits an evaluation of the impact of changes in Federal fiscal policy on the economy. However, I understand that Chase Econometrics Associates, Inc. has prepared a simulation of the administration proposal for the 1981-82 period. The attached Table 1 outlines the major differences between this simulation and an alternative which assumes no tax cut in 1981 or 1982.
I am not aware of any simulation done on Ronald Reagan's tax cut program. However, we have received a summary prepared by Chase Econometrics which I attach.
Attached also are summary statements relating the particulars of the two proposals.

TABLE 1.-SUMMARY OF CARTER ECONOMIC PROGRAM SIMULATION

|  | Calendar years |  |
| :---: | :---: | :---: |
|  | 1981 | 1982 |
| Net tax cuts (billions). |  |  |
| Expenditure increases (billions). | -\$21.0 | -\$24.0 |
| Federal deficit (billions)......... | \$3.3 $-\$ 73.5$ | $\$ 7.5$ $-\$ 73.0$ |
| Difference ${ }^{1}$ <br> Unemployment rate | - $\$ 13.5$ $\$ 24.3$ | - $\$ 73.0$ $\$ 31.5$ |
| Unemployment rate. Difference. | $\$ 2.3$ 8.8 | $\$ 1.5$ 8.4 |
| Annual rates of growth: | $-.1$ | -. 4 |
| CPI, all urban.. | 10.3 | 9.2 |
| PPI, finished goods | -. 2 | 9. 2 |
| PP, Difference..-- | 7.5 | 7.1 |
| Productivity, nonfarm business. | -. 1 | 0 |
| Difference. | -. 4 | 1.4 |
| Compensation per hour, nonfarm business. | .5 9.9 | 11.4 |
| Real GNP....-.... | . 6 | 2.7 |
| Difference. | . 2 | 3.5 |

[^4]TABLE 2.-SUMMARY OF REAGAN ECONOMIC PROPOSALS
[Billions of current dollars]


Source: Leon Taub, Chase Econometrics Associates, Inc., based on Ronald Reagan's speech before the International Business Council meeting in Chicago, September 1980.

## Carter Proposals

(1) Federal income tax cuts:
(a) Eight percent credit against Social Security tax payments, expected to offset 12 billion dollar rise.
(b) Increase earned income credit from 10 percent to 12 percent to offset the Social Security increase for workers with incomes low enough that they pay Social Security but no taxes.
(c) Ease the marriage penalty by exempting 10 percent of the first $\$ 30,000$ in income of the lower paid spouse.
(2) Accelerated depreciation:

Forty percent speed up of depreciation write-off time.
(3) Federal spending:
(a) Proposed approximately 4 billion dollars in additional spending over the next two years, anti-recessionary, and reindustrialization.
(b) Increased defense spending.
(4) Reindustrialization:
(a) Payment of up to 30 percent in cash of 10 percent investment tax credit to new or money-losing companies plus another 10 percent to qualifying companies in depressed and declining areas.
(b) 10 million dollars in 1981 and 50 million in 1982 to retain or relocate worker from declining to growth industries.
(c) 600 million dollars over the next 2 years to scientific research and techmological development to increase productivity.
(d) Investment in transportation:
$\$ 200$ million-railroads in midwest;
$\$ 600$ million-highway and mass transit; and
Increase capacity of east coast ports to ship coal to Europe.
(5) Recession:
(a) Extend length of unemployment coverage to 52 weeks.
(b) 600 million dollars for job training of 168,000 low income or disadvantaged workers.
(c) 975 million dollars for insulating low income housing and public buildings-preference in hiring given to long-term unemployed.

## Reagan Proposals

(1) Federal income tax cuts:
(a) Ten percent personal income tax cut for each year for the next three years.
(b) Indexation of personal income taxes.
(2) Accelerated depreciation:

In Reagan's economic speech of September 9, 1980, he used the version set out in the recent Senate bill. It assumes four categories of equipment, depreciated in 10, 7. 4, and 2 years respectively. A business would reduce ran asset's current depreciation time by 40 percent and choose the next lowest period.
(3) Federal spending:
(a) Rate of growth of government spending has to be reduced (contrast with strict Kemp-Roth ).
(b) Cut waste in government.
(c) Tighten eligibility for food stamps and unemployment insurance.
(d) Balanced budget by 1983.
(e) Increase defense spending.
(f) Wants to reduce government spending as a percent of GNP to 18 percent.
(4) Reindustrialization :
(a) Tax credits for firms to locate in inner cities.
(b) Remove disincentives posed by federal regulations.
(5) Recession:

Reagan assumes that the recession will be largely over when he assumes office.
Senator Bentsen. Thank you, Senator.
I have only one question, Ms. Norwood. On the Producer Price Index-and you have worked around the edges of this-which one of those factors will have the most direct and immediate effects on the Consumer Price Index? Which changes-both those that are positive and those that are negative-should we be watching, if we want to anticipate a little of what is going to happen to the CPI?
Ms. Norwood. Consumer food passes through -
Senator Bentsen. Very quickly.
Ms. Norwood. Consumer price increases pass through very, very rapidly, usually.
Senator Bentsen. On food.
Ms. Norwood. Yes.
Senator Bentsen. Do you think that is the component which will have the largest and earliest effect on the CPI?
Ms. Norwood. It certainly will affect the CPI fairly quickly. I think that is safe to say.
Mr. Layng. You are talking about right now, in this situation what is happening?

Senator Bentsen. I am talking about this particular situation.
Mr. Layng. Given the products that are covered by the Producer
Price Index, the food items would have the greatest impact.
Ms. Norwood. Quickly.
Senator Bentsen. That is the point.
Mr. Layng. The other factor, of course, is the mortgage interest rate situation which is not in the Producer Price Index, but which will be reflected in the CPI. The decline in mortgage interest rates will also show up in the CPI.

Senator Bentsen. Will show up as what?
Ms. Norwood. Will show up as a decline.
Senator Bentsen. Yes, I understand that.
Ms. Norwood. In August.
Mr. Layng. And that really dominated the picture in July when you had a zero overall CPI number. A 0.9 -percent rise in food was largely offset by mortgage interest rates dropping by such a large percentage.

Senator Bentsen. Well, are you going to see some more carrythrough on that in the next month's report?

Ms. Norwood. In August; yes.
Senator Bentsen. So that will be substantial.
What I am really trying to understand is: What are the CPI numbers going to be before the election? [Laughter.]

Thank you very much.
[Whereupon, at 10:50 a.m., the committee adjourned, subject to the call of the Ohair.]

# EMPLOYMENT-UNEMPLOYMENT 

## FRIDAY, DECEMBER 5, 1980

## Congress of the United States, Joint Economic Comitttee, <br> Washington, D.C.

The committee met, pursuant to notice, at 10 a.m., in room 5110 , Dirksen Senate Office Building, Hon. Lloyd Bentsen (chairman of the committee) presiding.

Present: Senator Bentsen.
Also present: Mary E. Eccles, professional staff member; and Mark R. Policinski, minority professional staff member.

## Ofening Statement of Senator Bentsen, Charrman

Senator Bentsen. This hearing will come to order.
It's not often that we come to one of these hearings when we're talking about the Consumer Price Index and unemployment figures and find all the news is encouraging. Usually at this time of the month we have had some rather depressing news for quite a period of time. You can almost expect each time to hear the economy has lost some of its steam, that people are losing their jobs, and that prices and the cost of living are increasing.

That's why it's a pleasure today, in this month of November, to say the United States has held its own on the jobs front and has made some measurable progress in the fight against inflation, not as fast as we would like, but headed in the right direction.

Unemployment for the month of November fell to 7.5 percent from 7.6 percent in the month of October. We had a net increase of 220,000 jobs in our economy, and that's healthy.

Wholesale prices for November-as measured by the Producer Price Index-dropped to an annualized rate of 7.9 percent from a double-digit 10.6 percent in October.

I must caution, though, that while these employment and inflation numbers for November are good tidings, there is a disturbing element lurking in the background at this hearing. There is a dark lining in our silver cloud.

Interest rates are high and rising, and just about what they were not too long ago. The prime rate is now 18.5 percent and climbing toward the record-setting 20 -percent rate of earlier this year.

With housing starts coming to a halt, new car sales depressed, and interest rates still on the way up, we can't be too optimistic about the prospects for employment and inflation.

Ms. Norwood, we're very pleased to have you here, and we would like you to give us your interpretation.

# STATEMENT OF HON. JANET L. NORWOOD, COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY W. JOHN LAYNG, ASSISTANT COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND JOHN E. BREGGER, CHIEF, DIVISION OF CURRENT EMPLOYMENT AND ONEMPLOYMENT ANALYSIS 

Ms. Norwood. Thank you very much, Mr. Chairman.
The November data on the unemployment situation provide further evidence of the gradual improvement that has been in effect since late summer. Both the payroll and household surveys registered employment gains in November, and the factory workweek continued to rise.
The overall unemployment rate was 7.5 percent, about the same as in the past several months. Since July, however, the number of unemployed has declined by nearly 300,000 , and the unemployment rate by three-tenths of a percentage point. November declines were registered for married men and married women and for persons who last worked in manufacturing. Moreover, jobless rates for groups which had been hardest hit during the recession continued to edge down. In particular, the unemployment rate for workers in the automobile industry continued to show marked improvement; at 14.9 percent, this rate is about one-half the peak in May. In November, there was also a substantial reduction in the number of unemployed persons who were on layoff.
Labor force growth continued to be sluggish, just barely keeping up with population growth. The proportion of the working-age population with jobs edged up to 58.3 percent; nevertheless, this measure is still a full percentage point below its year-ago level.
Nonfarm payroll employment rose by 270,000 , with gains registered in both the goods- and service-producing sectors. Since July, the number of payroll jobs has grown by more than 1 million, recovering all but 300,000 of the recessionary decline. Employment in construction and manufacturing both continued to rise in November, with particularly strong growth in primary metals, electrical equipment, and transportation equipment. Services also continued to show employment gains.
The factory workweek and factory overtime both edged up in November. The index of aggregate weekly hours also increased; at 125.1, it has risen 2.6 percent since July, but in November was still more than $11 / 2$ percent below its January peak.

The Producer Price Index for November was also released this morning. Prices of producer-finished goods moved up 0.6 percent, on a seasonally adjusted basis. Consumer food prices increased 0.5 percent for the second consecutive month, still less than the extremely large increases of the summer months. Although price increases slowed for motor vehicles and a variety of capital goods, gasoline prices increased for the first time in 6 months. In addition, prices of several other kinds of consumer nonfood items climbed considerably more than in most recent months.
Prices for intermediate or semifinished materials increased 1 percent in November, about the same as in October. Prices of energy products used in goods production rose, as did prices for a wide range of other products used in the manufacturing process.
At the crude stage of production, prices increased 1.1 percent. Although this increase was less than in October, the 1.8 -percent rise in crude, nonfood materials was the fifth consecutive monthly increase.
In summary, the labor market in November continued to show small but steady signs of recovery. The unemployment rate, at 7.5 percent, was down from the July 7.8-percent peak, but still nearly 2 full points above the rates that prevailed throughout 1979. Employment continued to grow in the goods-producing sectors that were hardest hit in the recent recession.

Producer price increases in November decelerated slightly at the finished goods level, as increases slowed for motor vehicles and a broad range of capital goods. Continuation of this moderation at the finished level in the coming months will depend in part on the price behavior of basic materials used in the production process, on the effects of the anticipated shortage of grain and some other food supplies, as well as on the uncertainties surrounding the supply of energy from the Middle East.
These producer price and employment data also affect the performance of earnings and productivity. Over the year, to November, earnings have risen at close to a 10 -percent rate, and real earnings have declined. The Nation's productivity, after six quarters of decline, improved slightly in the third quarter of 1980 . Employment growth in October and November has been moderate, and if accompanied by increases in output, should result in continued improvement in productivity. The November data confirm, however, that the present recovery will probably not bring about the sharp gains in productivity experienced in prior periods of more vigorous economic expansion.
Mr. Bregger, Mr. Layng, and I would now be glad to answer any of your questions.
[The table attached to Ms. Norwood's statement, together with the press releases referred to, follows:]

UNEMPLOYMENT RATES BY ALTERNATIVE SEASONAL ADJUSTMENT METHODS

| Month and year | Unadjusted rate <br> (1) | X-11 ARIMA method |  |  |  |  |  | X-11 method (former official method) <br> (8) | Range (cols. 2-8) <br> (9) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Official <br> (2) | Concurrent (3) | Stable <br> (4) | Total <br> (5) | Residual (6) | 12-mo extrapolation <br> (7) |  |  |
| 1979 |  |  |  |  |  |  |  |  |  |
| November December. | 5.6 5.6 | 5.8 5.9 | 5.8 5.9 | 5.9 6.0 | 5.8 5.8 | 5.8 5.9 | 5.8 5.9 | 5.8 5.9 | 0.1 .2 |
| 1980 |  |  |  |  |  |  |  |  |  |
| January.. <br> February | 6.8 6.8 | 6.2 | 6.1 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | . 1 |
| February March. | 6.8 6.6 | 6. 0 | 6.1 | 6.0 | 6.1 | 5.9 | 6. 0 | 6.0 | . 2 |
| March. April. | 6.6 6.6 | 6.2 7.0 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 2 |
| May.-. | 7.6 | 7.8 | 6.8 7.6 | 6.9 | 7.0 | 7.0 | 7.0 | 7.0 | 2 |
| June.- | 7.8 | 7.7 | 7.6 | 7.4 | 7.8 | 7.5 | 7.8 | 7.8 | . 2 |
| July.---- | 7.9 | 7.8 | 7.8 | 7.8 | 7.7 | 7.8 | 7.7 | 7.6 | - 3 |
| August...- | 7.5 | 7.6 | 7.6 | 7.7 | 7.6 | 7.5 | 7.7 | 7.9 | . 2 |
| September. | 7.1 | 7.5 | 7.5 | 7.4 | 7.3 | 7.2 | 7.5 | 7.7 | .3 |
| October-..- | 7.1 | 7.6 | 7.6 | 7.6 | 7.5 | 7.4 | 7.5 | 7.6 | .2 |
| November.- | 7.1 | 7.5 | 7.6 | 7.5 | 7.5 | 7.4 | 7.5 | 7.4 | . 2 |

## EXPLANATION OF COLUMN HEADS

(1) Unadjusted rate,-Unemployment rate not seasonally adjusted.
(2) Official rate (X-11 ARIMA method). -The published seasonally adjusted rate. Each of the 3 major labor force com-ponents-agricultural emplnvment, nonagricultural employment and unemplovment-for 4 age-sex groups-males and females, ages 16 to 19 and 20 yr and over-are seasonally adjusted independently using data from January 1967 forward The data series for each of these 12 components are extended by a year at each end of the original series using ARIMA (auto-regressive, integrated, moving averaze) models chnsen specificallv for each series. Each extended series is then seasonally adjusted with the X-11 portion of the X-11 ARIMA program. The 4 teenage unemployment and nonagricultural emplovment components are adjusted with the additive adjustment model, while the other components are adjusted with the multiplicative model. A prior adjustment for trend is applied to the extended series for adult male unemployment before seasonal adjustment. The unemployment rate is computed by summing the 4 seasonally adjusted unemplovment components and calculating that total as a percent of the civilian labor force total derived by summing all 12 seasonally adjusted components. All the seasonally adjusted series are revised at the end of each year. Extrapolated factors for January-June are computed at the beginning of each year; extrapolated factors for July-December are computed in the middle of the year after the June data become available. Each set of 6 -mo factors are published in advance, in the January and July
issues, respectively, of "Employment and Earnings."
(3) Concurrent ( $X-11$ ARIMA method). - The procedure for computation of the official rate using the 12 components is followed except that extrapolated factors are not used at all. Each component is seasonally adjusted with the X-11 ARIMA program each month as the most recent data become available. Rates for each month of the current year are shown as first computed; they are revised onlv once each year, at the end of the year when data for the full year become available. For example, the rate for January 1980 would be based, during 1980, on the adjustment of data from the period January 1967 through January 1980. Since the revision pattern and procedure for computation of the rate are identical to the official procedure, the results of this method will be identical to the official rate at the end of each year when the most recent observation is December.
(4) Stable (X-11 ARIMA method).-Each of the 12 labor force components is extended using ARIMA models as in the official procedure and then run through the X-11 part of the program using the stable option. This option assumes that seasonal patterns are basically constant from year-to-vear and computes final seasonal factors as unweighted averages of
all the seasonal-irregular components for each month across the entire span of the period adjusted. As in the official procedure, factors are extrapolated in 6-mo intervals and the series are revised at the end of each year. The procedure for computation of the rate from the seasonally adjusted components is also identical to the official procedure.
(5) Total (X-11 ARIMA method). This is one alternative agreregation orocedure. in which total unemployment and labor force levels are extended with ARIMA models and directly adjusted with multiplicative adjustment models in the X-11 part of the propram. The rate is computed by taking seasonally adjusted total unemployment as a percent of seasonally adjusted total civilian labor force. Factors are extrapolated in 6 -mo. intervals and the series revised at the end of each year
(6) Residual (X-11 ARIMA method). This is another alternative aggreqation method, in which total employment and civilian labor force levels are extended using ARIMA models and then directly adjusted with multiplicative adjustment models. The seasonally adjusted unemployment level is derived by subtracting seasonally adjusted employment from seasonally adjusted labor force. The rate is then computed by taking the derived umenployment level as a percent of the labor force level. Factors are extrapolated in 6-mo. intervals and the series revised at the end of each year.
(7) 12-mo extrapolation (X-11 ARIMA method). -This approach is the same as the official procedure except that the factors are extrapolated in $12-$ mo intervals. The factors for January-December of the current year are computed at the epthe
(8) $X$ same as the official values since they reflect the same factors.
(8) X-11 method (former cfficial method). -The procedure for computation of the official rate is uesd except that the series are not extended with ARIMA medels and the factors are projected in 12-mo. intervals. The standard X-11 program he seasonal adiustment
Methods of Adjustment.- The X-11 ARIMA method was develoned at Statistics Canada by the Seasonal Adiustment and Times Series staff under the direction of Estela Bee Darum. The method is described in the X-lI ARIMA Seasonal Adjustment Method, by Estela Bee Darum. Statistics Canada Catalog No. 12-564E, February 1980.
The standard X-11 method is described in X-11 Variant of the Census Method II Seasonal Adjustment Program, by Jullus Shiskin, Alan Young and John Musgrave (Technical Paper No. 15, Bureau of the Census, 1967).
Source: U.S. Department of Labor, Bureau of Labor Statisties, December 1980.

Contact: Philip Rones Patricia Daly Kathryn Hoyle
$\begin{array}{lr}\text { (202) } & 523-1944 \\ & 523-1371 \\ (202) & 523-1913 \\ & 523-1208\end{array}$

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## THE ERPLOYMENT SITUATION: NOVEMBER 1980

Employment rose in November, and unemplognent was about unchanged, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The unemployment rate was 7.5 percent, litele different from the rates of the prior 3 months.

Total employment-as measured by the wonthly survey of householdg-was up by 220,000 over the month to 97.4 million. The increase was concentrated anong adult women, whose enployment had decilned in the prior 2 months.

Nonfarm payroll employment-aa measured by the monthly curvey of establishaente-advanced by 270,000 in Novenber to 90.9 million. Much of the growth took place in manufacturing jobs, which Increased for the fourth month in a row.

Unemployment
Both the number of unemployed vorkera in November, 7.9 million, and the overall unemployment rate, 7.5 percent, were about unchanged from their October levels and have hown little movement aince August. These levels represented, however, alight improvement from the May to July period. The number of unemployed persons in November was 1.7 million higher than gear earlier. (See table A-1.)

While the number of. jobless workers on layoff decifned by sbout 330,000 over the month, there was an increase of 230,000 in the number whoae jobs had been terminated for other reasons. Also, 150,000 fewer labor force reentrants were looking for work. (See table A-7.)

Unemployment rates for most major worker groups in November were about the same as in the previous month-adult men ( 6.3 percent), adult women ( 6.7 percent), teenagers ( 18.7 percent), whites ( 6.6 pezcent), and blacka ( 14.0 percent). After rising in October, the jobless rate for persons seeking part-time jobe declined in November; the rate for those seeking full-time work
has remained steady for several months. The unemployment rate for workers in manufacturing industries declined by half a percentage point to 8.8 percent. However, the jobless rate for workers in construction was about unchanged over the month, after ahowing inprovement in September and October. The rate for workers in wholesale and retail trade increased 0.6 point to 8.3 percent. (See tables A-2, A-2, and A-5.)

Total Employment and the Labor Force
Total employment increased by 220,000 to 97.4 million in November. This total was atill about 560,000 below the February peak. The employment-population ratio, at 58.3 percent, has been about unchanged since July.

Table A. Hafor indicator of Labor market activity, seasonaliy adfusted


Most of the November gain took place among adult women, whose employment rose by about 200,000, following two consecutive monthly declines. Over the year, employment of adult women has risen by 700,000 , while that for adult men and teenagers has fallen by 290,000 and 560,000 , respectively. (See table A-1.)

The civilian labor force participation rate, at 63.8 percent, was identical to those of the prior 2 months. At 105.3 million, the labor force was 1.6 million above a year earlier but has shown little growth in the past 6 months. Adult women accounted for three-quarters of the over-the-year increase.

Industry Payroll Employment
The number of employees on nonagricultural payrolls rose by 270,000 to 90.9 million in November, the fourth consecutive monthly advance. Since July, the number of payroll jobs has increased by more than 1 million but was atill 300,000 below the February peak. (See table B-1.)

Manufacturing and construction continued to show improvement in November. Factory employment rose by 105,000 , with increases widespread throughout the durable and nondurable goods sectors. In durable goods, the largest gains were registered in primary metals, electic and electronic equipment, and transportation equipment. In nondurables, apparel was the biggest gainer. Despite recent growth, the number of manufacturing jobs was nearly 900,000 below the peak registered in June 1979.

Construction employment rose by 35,000 in November. Although construction jobs have grown steadily since July, the number was 275,000 short of the January peak. An employment increase of about 15,000 in mining was accounted for by the setclement of a labor-management diapute.

Employment growth continued in the service-producing sector, with a November gain of 115,000. Most of this increase occurced in the services industry, which has risen by 330,000 Jobs aince June.

## Houra of Work

The average workweek for production or nonsupervisory workers on private nonfarm payrolls edged up 0.1 hour to 35.3 hours in November. Weekly hours were up 0.4 hour froa July but were atil1 0.4 hour below December's pre-recession high. The manufacturing workweek edged up 0.1 hour over the month and was 0.7 hout above the July level. Factory overtime also roae 0.1 hour In November. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls rose 0.6 percent in November to 125.1 ( $1967=100$ ), following a 0.4 percent increase in October. The index has increased by 2.6 percent since july but was still 1.6 percent below its January peak. The manufacturing inder was ip 1.0 percent over the month. (See table B-5.)

## Hourly and Weekly Earnings

Average hourly earnings of production or nonsupervisory vorkers on private nonfarim payrolls roge 1.2 percent over the month and 8.8 percent over the year (seasonally adjusted). Average weekly earaings were up 1.5 percent fron October and 7.9 percent frca Noveabar 1979.

Before adjustment for seasonality, average hourly earninge roee by 5 cents over the month to $\$ 6.91$ and 57 cents over the year. Average weekly earnings wera $\$ 243.92$, up $\$ 1.76$ over the month and $\$ 18.22$ from a year carlier. (See table B-3.) The Hourly Earnings Index

The Hourly Earninga Index-earnings adjusted for overtime in manufacturing, seasonality, and the effects of changes in the proportion of workera in high-wage and lov-rage Industries-was 260.3 (1967-100) in November, 1.0 percent higher than in October. The Index was 9.7 percent above Novenber a year ago. In dollara of constant purchasing power, the Index decreaged 2.6 percent during the 12 -month period ended in Occober. (See table B-4.)

Chart 1. Civillan labor force and employment
(Seasonally adjusted)


Chart 2. Unemployment rate-all civiltan workers


Chart 3. Civilian labor force participation rate and total employment-population ratlo (Secsonally adjusted)


## Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment. Statistics Survey (establishment survey). The household survey provides the information on the labor force, total employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 69,000 households that is conducted by the Bureau of the Census with most of the findings analyzed and published by the Bureau of Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonagricultural payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. The sample includes approximately 166,000 establishments:employing about 35 millior people.

For both surveys, the data for a given month are actually collected for and relate to a particular week. In the household survey, unless otherwise indicated, it is the calendar week that contains the 12th day of the month, which is calied the survey week. In the establishment survey, the reference week is the pay period including the 12 th, which may or may not correspond directly to the calendar week.

The data in this release are affected by a number of technical factors, including definitions, survey differences, seasonal adjustments, and the inevitable variance in results between a survey of a sample and a census of the entire population. Each of these factors is explained below.

## Coverage, definitions and differences between surveys

The sample households in the household survey are selected so as to reflect the entire civilian noninstitutional population 16 years of age and older. Each person in a household is classified as employed, unemployed, or not in the labor force. Those who hold more than one job are classified according to the job at which they worked the most hours.
People are classified as employed if they did any work at all as paid civilians; worked in their own business or profession or on their own farm; or worked 15 hours or more in an enterprise operated by a member of their family, whether they were paid or not. People are also counted as employed if they were on unpaid leave because of illness, bad weather, disputes between labor and management, or personal reasons.

People are classified as unemployed, regardless of their eligibility for unemployment benefits or public assistance, if they meet all of the following criteria: They had no employment during the survey week; they were available for work at that time; and they made specific efforts to find employment sometime during the prior 4 weeks. Also included among the unemployed are persons not looking for work because they were laid off
and waiting to be recalled and those expecting to report to a job within 30 days.
The civilian labor force equals the sum of the number employed and the number unemployed. The unemployment rate is the percentage of unemployed people in the civilian labor force. Table A-4 presents a special grouping of seven measures of unemployment based on varying definitions of unemployment and the labor force. The definitions are provided in the table. The most restrictive definition yields U-1, and the most comprehensive yields $U-7$. The official unemployment rate is U.S.
Unlike the household survey, the establishment survey only counts wage and salary employees whose names appear on the payroll records of nonagricultural firms. As a result, there are many differences between the two surveys, among which are the following:
----The household survey, although based on a smaller sample, reflects a larger segment of the population; the establishment survey excludes agriculture, the self-employed, unpaid family workers, and private household workers;
...-The household survey includes people on unpaid leave among the employed; the establishment survey does not;
.-.-The household survey is limited to those 16 years of age and older; the establishment survey is not limited by age;
-.-The household survey has no duplication of individuals, because each individual is counted only once; in the establishment survey, employees working at more than one job or otherwise appearing on more than one payroll would be counted separately for each appearance.
Other differences between the two surveys are described in "Comparing Employment Estimates from Household and Payroll Suryeys," which may be obtained from the BLS upon request.

## Seasonal adjustment

Over a course of a year, the size of the Nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. For example, the labor force increases by a large number each June, when schools close and many young people enter the job market. The effect of such seasonal variation can be very large; over the course of a year, for example, seasonality may account for as much as 95 percent of the month-to-month changes in unemployment.
Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eiiminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or
increases in the participation of women in the labor force, easier to spot. To return to the school's-out example, the large number of people entering the labor force each June is likely to obscure any other changes that have taken place since May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

Measures of civilian labor force, employment, and unemployment contain components such as age and sex. Statistics for all employees, production workers, average weekly hours, and average hourly carnings include components based on the employer's industry. All these statistics can be seasonally adjusted either by adjusting the total or by adjusting each of the components and combining them. The second procedure usually yields more accurate information and is therefore followed by BLS. For example, the seasonally adjusted figure for the civilian labor force is the sum of eight seasonally adjusted employment components and four seasonally adjusted unemployment components; the total for unemployment is the sum of the four unemployment components; and the official unemployment rate is derived by dividing the resulting estimate of total unemployment by the estimate of the civilian labor force.
The numerical factors used to make the seasonal adjustments are recalculated regularly. For the household survey, the factors are calculated for the January-June period and again for the July-December period. The January revision is applied to data that have been published over the previous 5 years. For the establishment survey, updated factors for seasonal adjustment are calculated only once a year, along with the introduction of new benchmarks which are discussed at the end of the next section.

## Sampling variability

Statistics based on the household and establishment surveys are subject to sampling error, that is, the estimate of the number of people employed and the other estimates drawn from these surveys probably differ from the figures that would be obtained from a complete census, even if the same questionnaires and procedures were used. In the household survey, the amount of the differences can be expressed in terms of standard errors. The numerical value of a standard error depends upon the size of the sample, the resuits of the survey, and other factors. However, the numerical value is always such that the chances are 68 out of 100 that an estimate based on the sample will differ by no more than the standard error from the results of a complete census. The chances are 90 out of 100 that an estimate based on the sample will differ by no more than 1.6 times the
standard error from the results of a complete census. At the 90 -percent level of confidence-the confidence limits used by BLS in its analyses-the error for the monthly change in total employment is on the order of plus or minus 293,000; for total unemployment, it is 185,000; and, for the overall unemployment rate, it is 0.19 percentage point. These figures do not mean that the sample results are off by these magnitudes but, rather, that the chances are 90 out of 100 that the "true" level or rate would not be expected to differ from the estimates by more than these amounts.

Sampling errors for monthly surveys are reduced when the data are cumulated for several months, such as quarterly or annually. Also, à a general rüe, the smaller the estimate, the larger the sampling error. Therefore, relatively speaking, the estimate of the size of the labor force is subject to less error than is the estimate of the number unemployed. And, among the unemployed, the sampling error for the jobless rate of adult men, for example, is much smaller than is the error for the jobless rate of teenagers. Specifically, the error on monthly change in the jobless rate for men is .23 percentage point; for teenagers, it is 1.06 percentage points.

In the establishment survey, estimates for the $\mathbf{2}$ most current months are based on incomplete returns; for this reason, these estimates are labeled preliminary in the tables. When all the returns in the sample have been received, the estimates are revised. In other words, data for the month of September are published in preliminary form in October and November and in final form in December. To remove errors that build up over time, a comprehensive count of the employed is conducted each year. The results of this survey are used to establish new benchmarks-comprehensive counts of employment-against which month-to-month changes can be measured. The new benchmarks also incorporate changes in the classification of industries and allow for the formation of new establishments.

## Additional statistlcs and other information

In order to provide a broad view of the Nation's employment situation, BLS regularly publishes a wide variety of data in this news release. More comprehensive statistics are contained in Employment and Earnings, published each month by BLS. It is available for $\$ \mathbf{2 . 7 5}$ per issue or $\$ 22.00$ per year from the U.S. Government Printing Office, Washington, D.C. 20204. A check or money order made out to the Superintendent of Documents must accompany all orders.
Employment and Earnings also provides approximations of the standard errors for the household survey data published in this release. For unemployment and other labor force categories, the standard errors appear in tables A through I of its "Explanatory Notes." Measures of the reliability of the data drawn from the establishment survey and the actual amounts of revision due to benchmark adjustments are provided in tables $L$ through $Q$ of that publication.

HOUSEHOLD DATA
Table A.1. Employment status of the population by sex and age

| Empopmert, | mit |  |  | Smambly atinex |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { NOY. } \\ & 1979 \end{aligned}$ | $\underset{1980}{\text { OCT. }}$ | $\begin{aligned} & \text { Nov. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { NDV. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & J U L Y \\ & 1980 \end{aligned}$ | $\begin{gathered} 4 \cup U G . \\ 1980^{\circ} \end{gathered}$ | $\begin{aligned} & \text { SEPT. } \\ & 10 \mathrm{ADO} \end{aligned}$ | $\begin{aligned} & \text { OCT. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { NOV. } \\ & 1985 \end{aligned}$ |
| total |  |  |  |  |  |  |  |  |  |
| Tosul nondraturionm pockiotion'. | 164,682 | 167,005 | 167,201 | 164.882 | 165.391 | 166.578 | 166.789 | 167.005 | 167.201 |
| Ammad Forcn'. | 2,092 | 2,121 | 2,119 | 2.092 | 2.099 | 2.114 | 2,121 | 2.121 | 2.119 |
| Clvillen nonimutiutionel popmatriont | 162,589 | 164.884 | 165,002 | 162.589 | 164.293 | 164.464 | 164.657 | 184.884 | 165.082 |
| Crlimintior foren . ....... | 103.719 | 105.415 | 205,281 | 103.652 | 105,203 | 105.025 | 109.034 | 105.180 | 105.320 |
|  | 63.8 | 63.9 | 63.8 | 63.8 | 64.0 | 63.9 | 63.8 | 63.8 | 63.8 |
| Emporva . . . . . . . . . . . . . . ${ }^{\text {a }}$ | 97.943 | 97.933 | 97,801. | 97,608 | 96.996 | 97.006 | 97.207 | 97.178 | 97.396 |
| Employmentpopulucon ratio ${ }^{4}$ | 59.5 | 58.5 | 58.5 | 59.3 | 58.3 | 58.2 | 58.3 | 58.2 | 58.3 |
| Nepreuthers. | 3.257 | 3.501 | 3.214 | 3.385 | 3.257 | 3.180 | 3.442 | 3.324 | 3.342 |
| Mersiptuxany moverm | 94.686 | 94,431 | 94.585 | 94.223 | 93.739 | 93.826 | 93,765 | 93.851 | 04.054 |
| Unmplowa. . . . . | 5.776 | 7.482 | 7,486 | 6.044 | 8.207 | 8.019 | 7.827 | 8.005 | 7.924 |
|  | 5,6 58,870 | 59,469 | 59.795 | 59.938 | 7.8 | 7.6 | 7.5 | 7.6 | 7.5 |
| Mot in intor toens. | 58,870 | 59,469 | 59,795 | 58.937 | 59,091 | 50.439 | 59.633 | 59.704 | 59.762 |
|  |  |  |  |  |  |  |  |  |  |
|  | 78.906 | 80.009 | 80.091 | 78.906 | 79.710 | 79.798 | 79,897 | 80.000 | 80.091 |
| Acmad Forces' . | 1.948 | 1.956 | 1,954 | 1,948 | 1.937 | 1.951 | 1.958 | 1,956 | 1.954 |
|  | 76,959 | 78.044 | 78.137 | 76.959 | 71.773 | 77.847 | 77.935 | 78,044 | 78.137 |
| Crulimin isoor forse | 59,372 | 60.135 | 59,972 | 59,704 | 63.333 | 60.182 | 60,383 | $60: 405$ | C0,441 |
| Priceloritor rate. | 77.1 | 77.1 | 76.8 | 77.6 | 77.6 | 77.3 | 77.5 | 77.4 | 77.4 |
| Employed. | 56, 633 | 56.125 | 55.826 | 56,580 | 55.829 | 55.551 | 55.738 | 55.865 | 55.956 |
|  | 71.5 2.939 | 70.2 | 69.7 | 71.7 | 69.8 | 69.6 | 69.8 | 69.9 | 69.9 |
| Unmplopea. ....) | 2.939 | 4.009 | 4.146 | 3.124 | 4.703 | 4.632 | 4.645 | 4.520 | 4.480 |
| Unemployment trab. | 4.9 | 6.7 | 6.9 | 5.2 | 7.8 | 7.7 | 7.7 | 7.5 | 7.4 |
|  |  |  |  |  |  |  |  |  |  |
| Touel menimoturional pooperation' . | 70.487 | 71.661 | 71,768 | 70,487 | 71.326 | 71.430 | 71.544 | 71.681 | 71.768 |
| Ammat forcm ${ }^{1}$. | 1.683 | 1.674 | 1.673 | 1.683 | 1.662 | 1,674 | 1.680 | 1.674 | 1,673 |
| Chillen nonimatiustonal poputation | 68.804 | 69.987 | 79.095 | 68.804 | 69.664 | 69.756 | 69.864 | 69.987 | 70.095 |
| Crvilim lutor forse | 54,662 | 55.480 | 55.408 | 54.709 | 55.398 | 55,474 | 55.547 | 55,504 | 55.593 |
| Prutidpution rim. | 79.4 | 79.3 | 79.0 | 79.5 | 79.5 | 79.5 | 79.5 | 79.3 | 79.3 |
| Employed | 52,685 | 52.364 | 32.199 | 52,374 | 51.668 | 51.792 | 51,603 | 51,903 | 52.074 |
|  | 74.5 | 73.1 | 72.7 | 74.3 | 12.4 | 72.5 | 12.4 | 72.5 | 12.6 |
| Arrcuitare. | 2.403 | 2.459 | 2.375 | 2,438 | 2.292 | 2.286 | 2.398 | 2.355 | 2.399 |
| Noneorioatural inctartion | 50.062 | 49.905 | 49.824 | 49.936 | 49.376 | 49.508 | 49.405 | 49.607 | 49.675 |
| Unemelorat. | 2.177 | 3.116 | 3.209 | $2: 335$ | 3.730 | 3.682 | 3.744 | 3,541 | 3,519 |
| Unemploymemt rite. | 4.0 | 5.6 | 5.8 | 4.3 | 6.7 | 6.6 | 6.7 | 6.4 | 6.3 |
|  |  |  |  |  |  |  |  |  |  |
| Toenel noninetiturtonel population' | 85.775 | 87.006 | 07.110 | 85,775 | B6.6A1 | A6. 780 | 86.892 | 87.006 | 67.110 |
| Armed Force'... | 145 | 165 | 165 | 145 | 161 | 163 | 163 | 165 | 165 |
| Clysien noninatiartoned papaustion' | 85.631 | 86.841 | 86.945 | 85.631 | 86.520 | 86.617 | 66.728 | 86.841 | 86.945 |
| Corilimen libor forsa | 46.347 | 45.280 | 45.315 | 43.94 B | 46.870 | 46.842 | 44.651 | 44,776 | $4{ }^{4} .879$ |
| Pardicosion rite. | 51.8 | 52.1 | 52.15 | 51.3 | 51.9 | 51.8 | 51.5 | 51.6 | 51.6 |
| Emplowd . . . . . . . | 41,510 | 41.807 | 41.975 | 41,028 | 41.367 | 41.455 | 41.469 | 41.291 | 41.440 |
| Employment poculesion rutio ${ }^{\text {a }}$ | 48.4 | 48.1 | 48.2 | 47.8 | 47.7 | 47.8 | 47.7 | 47.5 | 47.5 |
| Unmalovad. ....... | 2.838 | 3.473 | 3.340 | 2.920 | 3.503 | 3.387 | 3.182 | 3.485 | 3.439 |
| Unmeloymam rim. | 6.4 | 7.7 | 7.4 | 6.6 | 7.8 | 7.6 | 7.1 | 7.8 | 7.7 |
|  |  |  |  |  |  |  |  |  |  |
| Tocel neninatiutiond poputsion'. | 77.547 | 78.860 | 78.979 | 77,547 | 78,403 | 78,607 | 78.732 | 78.860 | 78.979 |
| Armed farcen ' . | 121 | 137 | 137 | 121 | 133 | 134 | 135 | 137 | 137 |
|  | 77.426 | 78.723 | 78,842 | 77.426 | 78.360 | 78,473 | 78.598 | 78.723 | 78.842 |
| Cwilimen inor force | 39,963 | 41.097 | 41.150 | 39.445 | 40.471 | 40.589 | 40.297 | 40,486 | 40.613 |
| Puriciorsion rem. | 51.6 | 52.2 | 52.2 | 50.9 | 51.6 | 51.7 | 31.3 | 51.4 | 51.5 |
| Empored. | 37,799 | 38.318 | 30,497 | 37.248 | 37,769 | 37.961 | 37,824 | 37.716 | 31,912 |
|  | 48.7 | 48.6 | 48.7 | 48.0 | 48.1 | 48.3 | 40.0 | 47.8 | 48.0 |
| Aptoutume.......... | 591 | 655 | 532 | ${ }_{6} 612$ | 565 | 548 | 607 | 572 | 546 |
| Nornaplatiara hatusion. | 37.207 | 37.664 | 37,954 | 36,636 | 37, 204 | 37,413 | 37.216 | 37.144 | 37.368 |
| Unemptovad. | 2,164 | 2.779 | 2,653 | 2.197 | 2,702 | 2,628 | 2,473 | 2.771 | 2.732 |
| Unemploynment im. | 5.4 | 6.8 | .6.4 | 5.6 | 6.7 | b. 5 | 6.1 | 8.8 | 6.7 |
|  |  |  |  |  |  |  |  |  |  |
|  | 16,548 | 16.484 | 16,454 | 18.648 | 10.572 | 16.541 | 16,512 | 16.484 | 16.454 |
| *inmo forcen' . | 288 | 309 | 309 | 288 | 304 | 306 | 307 | 309 | 309 |
| Covilim neninutartional poputasion ${ }^{1}$ | 16.360 | 16.174 | 16.145 | 16,360 | 16.268 | 16.235 | 16.205 | 16,174 | 15.145 |
| Comam imor fore | 9.095 | 0.837 | 0,730 | 9,496 | 9.334 | 8,962 | 9,190 | 9,191 | 9.114 |
| Pruteperion max | 55.6 | 54.8 | 54.1 | 58.1 | 57.4 | 55.2 | 56.7 | 56.8 | 56.5 |
| Emplower . | 7.660 | 7.250 | 7.105 | 7.986 | 7.560 | 7.253 | 7.580 | 7.498 | 7.410 |
| Emplevmantapalicion ratio ${ }^{2}$ | 45.6 | 4.0 | 43.2 | 48.9 | 45.6 | 43.8 | 45.9 | 45.5 | 45.0 |
| Amatame. | 262 | 388 | 300 | 335 | 401 | 346 | 437 | 398 | 397 |
| Momapreculural incoustion. | 7.397 | 0.862 | 6,798 | 7.651 | 7.159 | 6,907 | 7.143 | 7.100 | 7.013 |
| undemeresa. | 1.635 | 1.558 | 1,625 | 1.512 | 1.774 | 1.709 | 1.610 | 1.693 | 1.704 |
| Umomploymem rise. | 15.8 | 18.0 | 18.6 | 15.9 | 19.0 | 19.1 | 17.5 | 18.4 | 18.7 |
| 'The pooviation and Ammed Forcm flipure <br>  |  | winntipe. |  | menployt | m: percm | of mex wan | Hentwicen | veven in | vame Amma |

Table A-2. Empoyment atatus of the population by race, sex, and age


HOUSEHOLD DATA
Table A-3. Selected employment indicators

| cman | "1040x |  | 2mantramemer |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { nov. } \\ \text { che } \end{gathered}$ | n9\% | N0V\% | $\underset{ }{\text { JULY }}$ | $\begin{aligned} & \text { AUG. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { SEPT. } \\ & \text { 19890 } \end{aligned}$ | OCr: | $\underset{1900}{\text { NOV }}$ |
| сеипастепитtic |  |  |  |  |  |  |  |  |
|  | 97,943 | 97, 801 | 97.608 | 96.996 | 97,006 | 97.207 |  |  |
|  | 39,003 | 38.369 | 30.845 | 37,999 | 37.910 | 37, 969 | 38.139 | 38.216 |
|  | 23,533 | 23.637 4.750 | 22.940 4.836 | 23,097 | 23.162 4.744 | 32.017 4.705 | 32.933 22.703 | 23,0 238 4.712 |
| оссиаптот |  |  |  |  |  |  |  |  |
|  | 50,352 | 51.55816.93 | 49.91215.131 | 51.11415.741 | 51.41315.762 | 51.14915.501 | 51.08415.796 | 51.11915.89810.90 |
|  |  |  |  |  |  |  |  |  |
|  | 10,656 |  | 15.131 20.617 | 11.046 |  |  | 10.958 | 10.994 |
| Conted mortem | $\begin{array}{r}6,438 \\ 17.965 \\ \hline 12.95\end{array}$ | +1.826 | -6.362 | ${ }_{\text {cher }}$ |  | ${ }_{0}^{11.347}$ | - 6.317 | 18.90230.678 |
|  |  | 18.755 30,777 | 32.11012.925 | 18.199 <br> 30.149 <br> 10.1 |  |  | 19.013 30.621 |  |
| Corti ex khatro moxter. | 32,084 12.912 1 | 12,469 |  | ${ }_{\text {30. }}$ | 29.983 12.233 | 30,494 12.546 | 30.62 12,545 |  |
| Ocmadme tercot ummean | 11,0813.677 | 10,309 | 10,963 |  | 10.066 | ${ }_{\substack{10.156 \\ 3.436}}$ | 10.244 | 10.313 |
| Tremert teviemmit courth |  |  |  |  | 3.474 4.209 |  |  | 3.453 |
| Smores momem. | 4.415 12,900 | 1,29312,2952,642 |  |  | 12.8172.801 | 12.86812.9172.719 | ( $\begin{array}{r}12,1863 \\ 2,735\end{array}$ | 12.8512.726 |
| 5 Fm momer | 12,900 |  | 12.716-2.118 | 43.895$\mathbf{2}, 689$ |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Arroctam: <br> Whaty ard myry warken <br> cett-mploytind worktin <br> Unpald formily workerl | $\begin{array}{r} 1,370 \\ 1.629 \\ 257 \end{array}$ | 1.3321.602281 | 1.4751.622310 | 1.3521,631292 | 1.2631.648273 | 1.1181.78$\mathbf{3 1 5}$ | 1.3441.643338 | 1.4351.397335 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 87. 58215.62415 | 81.33215.8887 | 87.020 <br> 15.358 <br> 1 | 86,407 <br> 15.760 |  | 86.331 <br> 15.538 | 86.30715.565 | 86.701 <br> 15.638 <br> 1808 |
|  |  |  |  |  |  |  |  |  |
|  | 11.958 <br> 1.235 <br> 0.723 | $\begin{aligned} & 7,44 \\ & 1,186 \end{aligned}$ | 71.6623.241 | 10.647 1.245 | 71.014 1.209 | 70.7931.113 | 70.9421.146 |  |
|  |  |  |  | $\begin{array}{cc} 10,402 \\ 6,765 \end{array}$ | (69.805 |  |  | 69.009 |
|  | $\begin{array}{r}1.235 \\ 70.733 \\ 6.726 \\ \hline\end{array}$ |  | $\begin{array}{r} 7.451 \\ 6.781 \\ 6.17 \end{array}$ |  |  | ${ }_{6}^{69.679} 7.014$ | $\begin{gathered} 69,796 \\ 7.051 \end{gathered}$ |  |
|  | ${ }_{3} 37$ |  |  |  | ${ }^{399}$ | . 423 | 420 | $\begin{array}{r}6.945 \\ \hline .04\end{array}$ |
| Mersona at mork' |  | 365 | 6.417 |  |  |  |  |  |
| Nonempratural Mesutrie |  |  | $\begin{array}{r} 88.617 \\ 72.997 \\ 3.392 \\ 1.413 \\ 1.479 \\ 12.927 \end{array}$ |  |  | $\begin{array}{r} 84.243 \\ 11.269 \\ 4 \because 204 \\ 1,695 \\ 2,509 \\ 12.0069 \\ \hline \end{array}$ | $\begin{array}{r} 88.466 \\ 12+142 \\ 4+261 \\ 1,2667 \\ 2,593 \\ 12.094 \\ \hline \end{array}$ | 88.75172.365 4,160 1.5782.590 |
| Fullitma stravee |  |  |  |  |  |  |  |  |
| Trutime tow eme |  |  |  |  |  |  |  |  |
| Unumily mort peet bex |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |


Table Ach. Range of unemployment measures based on varying definitions of unamployment and the labor toree,
seasonally adjusted

| mm | - |  |  |  |  | - |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 |  | 1980 |  |  | 1989 |  |  |
|  | 111 | iv | 1 | 11 | 111 | SEPT. | oct. | nov. |
|  | 1.1 | 1.2 | 1.3 | 1.6 | 2.0 | 2.2 | 2.2 | 2.2 |
|  | $2: 5$ | 2.6 | 2.9 | 4.0 | 4.2 | 4.3 | 4.0 | 3.9 |
|  | 3.9 | 3.9 | 4.2 | 5.3 | 5.5 | 5.4 | 5.4 | 5.3 |
|  | 5.3 | 3.4 | 5.7 | 7.2 | 7.4 | 7.3 | 7.3 | 7.3 |
|  | 5.6 | 5.9 | 6.1 | 7.5 | 7.6 | 7.5 | 7.6 | 7.5 |
|  <br>  | 7.3 | 7.4 | 7.7 | 9.4 | 9.6 | 9.5 | 9.6 | 9.6 |
|  <br>  <br>  | 0.0 | 8.1 | 8.7 | 10.3 | 10.5 | N.a. | N.A. | M.A. |

HOUSEHOLD DATA
HOUSEHOLD DATA
Table A.E. Major unemployment Indicators, seasonally adjusted

| Cumy |  |  | - ${ }^{\text {c }}$ - |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { NOV. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { NOY. } \\ & \text { 1980 } \end{aligned}$ | $\begin{aligned} & \text { Nov. } \\ & 1979 \\ & \hline \end{aligned}$ | $\begin{array}{r} \text { Jutr } \\ 1980 \\ \hline \end{array}$ | $\begin{aligned} & \text { 4UG. } \\ & 1980 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { SEP1. } \\ & 19800^{2} \end{aligned}$ | $\begin{aligned} & \text { OCT. } \\ & \text { is } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { nov. } \\ & 1980 \\ & \hline \end{aligned}$ |
| CuAnctinimic |  |  |  |  |  |  |  |  |
| Tound 81 | 6.044 | 7.924 | 5.8 | 7.7 | 7.6 | 7.3 | 7.6 | 7.5 |
| Man 20 vorend | 2.315 | 3.319 | 4.3 | 0.7 | 6.6 | 8.7 | 6.4 | 6.3 |
|  | 2.197 | 7.70: | 5.6 | 6.7 | 6.5 | 6.1 | 6.8 | 6.7 |
| noch mime 16.10 mos | 1.512 | 1.704 | 15.9 | 19.0 | 19.1 | 17.5 | 18.4 | 18.7 |
| Marida nem roumprast. | 1+166 | 1.734 | 2.9 | 5.1 | 4.9 | 4.4 | 4.6 | 4.3 |
|  | 1.145 | 1,404 | 4.8 | 6.2 | 6.1 | 5.6 | 6.1 | 5.7 |
| Wemen whe momemin tration | 427 | 313 | 8.4 | 0.9 | 8.9 | 8.5 | 10.4 | 9.9 |
| Pullimumer | 4.780 | 6.611 | 5.4 | 7.6 | 7.4 | 7.3 | 7.3 | 1.3 |
| Pritime miter | 1.252 | 1.306 | 8.3 | 6.7 | 8.6 | 8.6 | 9.6 | 8. |
|  |  | - | 6.4 | 0.5 | 0.3 | 8.7 | 6.4 | 0.3 |
| decuparsow' |  |  |  |  |  |  |  |  |
|  | 1.840 | 2.039 | 3.2 | 3.7 | . 3.7 | 3.7 | 4.0 | 3.9 |
| mamion mex movier . . . . . . . . . | 367 202 | 412 | 2.4 | 2.6 | 2.3 | 2.4 | 2.7 | 2.5 |
| tin mortan . . . . . . . . . . . . . . . | 202 245 | 265 320 | 1.9 3.7 | 2.5 | 2.4 | 2.4 | 2.6 | 2.4 |
| Curical mintar | 826 | 1,058 | 3.7 | 5.2 | 4.1 | 4.2 | 4.6 | 5.7 |
|  | 2.589 | 3. 609 | 7.5 | 11.5 | 11.4 | 10.4 | 10.6 | 10.5 |
| Culh ed uthat worter. | ${ }^{6} 6$ | 918 | 4.9 | 7.4 | 0.1 | 7.7 | 7.0 | 6.9 |
|  | 1.088 | 1,523 | 9.0 | 14.6 | 13.6 | 13.0 | 13.2 | 12.9 |
|  | 200 | 318 | 3.2 | 10.5 | 10.0 | 10.6 | 10.5 | 10.1 |
| -iver motim. | 636 910 | 779 1.156 | 12.2 | 16.1 | 16.5 | 15.1 | 15.3 | 14.9 |
| Finm mitue. | 128 | 1110 | +. 5 | 4.8 | 3.6 | 8.3 | - 4.3 | 8.3 |
| mourtay |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Durster me. | 1.354 +176 | 1.991 1.234 | 5.9 5.6 | 10.3 | 9.3 | 9.1 | 9.3 | 4.8 |
| Membirste poode | 570 | 737 | 6.3 | 8.6 | 7.9 | 7.7 | 9.2 | 8.5 |
|  | 233 | 273 | 4.2 | 5.1 | 5.7 | 5.4 | 3.3 | 4.8 |
|  | 1.230 | 1,392 | 6.5 | 7.5 | 7.6 | 7.6 | 7.7 | 8.3 |
|  | 1.036 | 1.267 | 4.6 | 5.7 | 3.6 | 5.3 | 5.7 | 5.4 |
|  | 516 166 | 678 133 | 3.6 10.1 | 4.1 | 4.0 | 4.1 | 4.6 | 4.2 |
|  | 166 | 133 | 10.1 | 10.8 | 13.6 | 10.9 | 11.8 | 9.7 |

Table AC. Durration of unemployment


Table A.T. Reason for unemployment

| - | Hex mand |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | $\begin{aligned} & \text { Nav. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { NOV. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { NOV. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { JULY Y } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { aug. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { SEPT. } \\ & 1980 \end{aligned}$ | $\begin{gathered} \text { OCT. } \\ 1980 \end{gathered}$ | $\begin{aligned} & \text { NOV. } \\ & 1980 \end{aligned}$ |
| MUMEEA Of UNEMESOTE |  |  |  |  |  |  |  |  |
| Lent leat lot. | 2.589 | 3.900 | 2.129 | 4.558 | 4.360 | 4.473 | 4.237 |  |
| On lavelt. . . . | 855 | 1.217 | 987 | 1,975 | 1.692 | 1.809 | 4.237 1,727 | 4.140 |
| Orver job lomem. | 1.734 | 2.683 | 1.742 | 2.583 | 2,668 | 2.664 | 2,510 |  |
| Left lemt lot... | 840 | 904 | 845 | 657 | 2.689 | 2.064 | 1.510 865 | $\begin{array}{r}1.743 \\ \hline 908\end{array}$ |
| Mumburd lisor force | 1.680 | 1.849 | 1.698 | 1,868 | 1.095 | 1.817 | 2.045 | 1.894 |
|  | 661 | 833 | 736 | 930 | 887 | 858 | 8.86 | 902 |
| menceint datrautiom |  |  |  |  |  |  |  |  |
| Tear unminowa | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| tret lowern. . . . |  | 52.1 | 45.4 | 55.5 | 34.4 | 56.0 | 52.7 | 52.8 |
| On loyen. . . . . . . . . . | 14.8 30.0 | 16.3 3.6 | 16.4 | 24.0 31.5 | 21.1 33.3 | 22.6 33.3 | 21.5 31.3 | 17.6 |
| tot nowis. . . . . . . . . . . . | 14.5 | 12.1 | 28.0 14.1 | 31.5 10.4 | 33.3 11.2 | 33.3 10.5 | 31.2 | 35.0 |
| Amenowra. | 29.1 | 24. 7 | 18.1 28.3 | 22.7 | 23.6 | [ 20.5 | 10.8 25.5 | 11.8 24.2 |
| Now mimex | 11.6 | 11.1 | 12.3 | 11.3 | 10.0 | 10.7 | 11.0 | 11.5 |
| uncumpore as a mencent of Thi CNTLLAN LADOM FOHCE |  |  |  |  |  |  |  |  |
| deth lomer.... | 2.5 | 3.7 | 2.6 | 4.3 | 4.2 | 4.3 | 4.0 | 3.9 |
| Atmitimit. | 1.8 | 1.9 | . 4.6 | . 8 | . 9 | . 8 | . 8 | . 9 |
| Nome merremat. | 1.6 | 1.8 .8 | 1.6 .7 | 1.8 | 1.8 | 1.7 | 1.8 .8 | 1.8 .9 |

Table A.f. Unemployment by sex and age, tansonally adjusted

| 4*mem |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { MOV. } \\ & 1979 \end{aligned}$ | $\begin{gathered} \text { NOV: } \\ 1980 \end{gathered}$ | $\begin{aligned} & \text { MOV. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & 46 \gamma \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { AUG: } \\ & 1986 \end{aligned}$ | $\begin{aligned} & \text { SEPT* } \\ & 1900 \end{aligned}$ | $\begin{aligned} & \text { oc T. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { NOV. } \\ & 19060 \end{aligned}$ |
| Teat, 18 versiendemu. | 6.044 | 7.924 | 5.8 | 1.0 | 7.6 | 7.5 |  |  |
|  | 2.858 | 3.578 | 11.5 | 14.0 | 14.6 | 14.0 | 14.7 | 14.5 |
|  | 1.512 | 1.704 | 15.9 | 19.0 | 19.1 | 17.5 | 10.4 | 18.7 |
|  | 811 | 810 | 17.3 | 20.5 | 22.8 | 19.9 | 20.0 | 21.8 |
| 208034 mms | 1.346 | 1.874 | 18.7 8.8 | 17.7 | 16.8 | 15.8 | 16.8 | 16.4 |
|  | 3,168 | 4.293 | 4.0 | 5.7 | 11.9 | 11.9 | 12.3 | 12.1 |
|  | 2,744 | 3.763 | 4.3 | 6.1 | 5.9 | 3.4 | 5.4 | 5.3. |
|  | 403 | 472 | 2.7 | 3.5 | 3.6 | 3.4 | 3.3 | 3.2 |
| Man tir men end oner. | 3,124 | 4.486 | 5.2 | 7.8 | 7.7 | 7.7 | 7.5 | 7.4 |
|  | 1.481 789 | 2.059 | 11.2 | 15.7 | 16.1 | 15.4 | 16.3 | 15.7 |
|  | 789 380 | 467 | 15.8 | 19.7 | 20.2 | 18.6 | 20.6 | 19.9 |
|  | 402 | 569 | 17.6 | 20.8 | 24.6 | 21.3 | 22.0 | 22.9 |
| 2010934mm. | 692 | 1.092 | 0.4 | 13.4 | 13.9 | 113.6 | 18.4 | 17.7 |
| $25^{20} 50 \mathrm{modem}$ | 1,642 | 2.361 | 3.5 | 5.6 | 5.4 | 13.5 | 14.1 | 13.2 5.0 |
| 250¢myman.. | 1,405 | 2.084 | 3.0 | 6.1 | 5.7 | 6.2 | 5.5 | 3.4 |
|  | 237 | 281 | 2.6 | 3.9 | 4.0 | 3.5 | 3.2 | 3.1 |
|  | 2.920 | 3.439 | 6.6 | 7.8 | 7.6 | 7.1 | 7.8 | 7.7 |
|  | 1.377 | 1.519 | 11.9 | 13.6 | 12.8 | 12.4 | 12.8 | 13.2 |
|  | $\begin{array}{r}723 \\ 312 \\ \hline 18\end{array}$ | 737 | 16.1 | 18.2 | 17.8 | 16.3 | 16.6 | 17.3 |
| 48617 man. | 412 | 347 388 | 16.7 | 20.9 | 20.7 | 18.3 | 19.4 | 20.5 |
|  | 654 | 762 | 15.5 9.3 | 11.1 | $\underline{8.7}$ | 15.0 10.1 | 15.1 | 25.0 |
| 5therendm. | 1.526 | 1.912 | 4.7 | 5.7 | 9.7 | 10.1 | 10.6 | 19.9 |
| Stwormi.. | 1.339 | 1.649 | 5.0 | 6.2 | 6.2 | 5.0 | 6.5 | 8.7 |
| anmmem | 166 | 191 | 2.9 | 3.0 | 3.0 | 3.2 | 3.3 | 3.4 |

Tebie A-R: Employmert surtue of the black and Hispenic-artin poputation





|  | Max momatramme |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $307:$ <br> 1979 | oct. 1980 | Mor 1980 | $\begin{aligned} & 197 \% \\ & 197 \% \end{aligned}$ | 1980 | ${ }_{1480}$ | $\begin{aligned} & \text { Sept. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & 0 c t . \\ & 1980 \end{aligned}$ | Yovis |
|  |  |  |  |  |  |  |  |  |  |
|  | 11,395 | 17,208 | 17.236 | 16,895 | 17.127 | 17.152 | 17.180 | 17.205 | 17.236 |
| Emptoved | 10,459 | 11,245 | 11.35 | 17.115 | 11.217 | 11, 10.17 | 11,217 | 11.243 | 11,329 |
| unamiord |  | 748 | 797 | 677 | $7{ }^{154}$ | -327 | 10,776 | 15,806 | 10,486 |
| Unemetorment tas | 5.7 | 6.7 | 1.0 | 6.1 | 6.7 | 7.3 | 6.9 | 7.2 | 7.4 |
| Hever |  |  |  |  |  |  |  |  |  |
| Orilien nenimstiutuent moadtuion' | 6.734 | 1,020 | 7.044 | 6,834 | 6,976 | 0.992 | 7.009 | 7.026 | 7,064 |
| Cinion lebar lore |  | 3,929 | 3,979 | 3, 783 | 3,968 | 3,894 | 3,849 | 3,923 | 1,014 |
| Empowd | $\begin{array}{r}3.536 \\ \hline 220\end{array}$ | 3,660 268 | 3.760 | $\begin{array}{r}3,570 \\ \hline 213 \\ \hline\end{array}$ |  | 3.652 202 | $\begin{array}{r}3,649 \\ 335 \\ \hline\end{array}$ | 3,674 | 3, 209 |
|  | 5.9 | 6.8 | 5.5 | 5.6 | 7.5 | ${ }_{6.2}^{262}$ | 235 | 24.3 | 5.2 |
| monh |  |  |  |  |  |  |  |  |  |
|  | 8. 279 | 8,340 | 8, 345 | 8.279 | 8.325 | 8.327 | 9,333 | 8,340 | 8,345 |
| Coxim intor tox | 5.404 | 5,495 | 5.512 | 5,395 | 5,477 | 5.348 | 5.435 | 5,469 | 5,500 |
| Unmono | $\begin{array}{r}5.108 \\ \hline 297\end{array}$ | 5,010 485 | 5,066 | 5,078 <br> 317 | 4.941 | 4.889 659 | 4.955 | 4.965 | 5.029 |
| Unameormat itu | 5.5 | 8. ${ }^{\text {a }}$ | 8.1 | 5.9 | 9.9 | d. 6 | 8.8 | 9.2 | ${ }_{0.6}$ |
| mimes |  |  |  |  |  |  |  |  |  |
|  | 4.385 | 4.427 | 4.430 | 9,385 | 4.416 | 4.419 | 4,423 | 4.427 | 9,430 |
| Crumen uber itce | 2,311 | 2,964 | 2,948 | 2,836 | 2,664 | 2,880 | 2.935 | 2,999 | 2,975 |
| Enpoiovo | $\begin{array}{r}2.698 \\ \mathbf{1 3 4} \\ \hline 18\end{array}$ | $\begin{array}{r}2.798 \\ \hline 167\end{array}$ | 2,912 | 2,667 | 2,690 | 2,721 | 2,769 | 2.800 | 2.825 |
| Unombermentisu | -. ${ }^{\text {a }}$ | 5.6 | 4.6 | 5.9 | 179 | 159 5.5 | 171 5.8 | 19.6 | 150 5.0 |
| mover |  |  |  |  |  |  |  |  |  |
| Cwilum nomimitivitional poaitrion' | 0,747 | 6, 824 | 6,830 | 6,747 | 6,804 | 6.810 | 6,817 | 6,824 |  |
| Curion imse faen | 4, 153 | 4.330 | 4.321 | 4.344 | 4.320 | 4,365 | -.331 | 4,335 | 4.304 |
| Emborver ${ }^{\text {a }}$ | 4.309 +364 | $\begin{array}{r}3,805 \\ \hline 525 \\ \hline\end{array}$ | 3.792 | 3, 387 | 3.739 389 | 3, 823 | 3.779 55 58 | 3,755 | 3.742 |
| themeormentas | 7.9 | 12.1 | 12.5 | 8.2 | 13.6 | 12.4 | 12.7 | 13.4 | 13.1 |
| Hmmomb |  |  |  |  |  |  |  |  |  |
|  | 5.526 | 5,579 | 5,584 | 5,52b | 5,566 | 5.569 | 5.574 | 5.579 | 5,584 |
| Civision libar lace | 3.537 | 3.573 | 3,574 | 3,526 | 3,615 | 3.556 | 3.483 | 3,562 | 3,563 |
| Homintored | 3.305 | 3.331 | 3.316 | 3, 279 | 3, 351 | 3. 311 | 3, 234 | 3.301 | 3.269 |
| Unerratormem | 6.6 | 6.9 | 7.2 | 7.6 | 7.3 | 6.9 | 7.9 | 7.3 | 274 |
| noment |  |  |  |  |  |  |  |  |  |
|  | 13.290 |  | 13,328 |  |  | 13,320 |  |  |  |
| Curcion bisee ifice | 8,073 | 7.921 | 7.933 | 3,117 | 8,065 | 8,025 | 7,935 | 7,999 | 1;954 |
| Emdored | 7.513 560 | T.344 | 7.364 | 7.551 | 7.419 | 7.391 | 7.375 | 7.403 | 1.378 |
| Unemotormmi rate | 6.9 | 3.3 | 7.2 | 7.0 | 8.0 | 78 | 560 7.1 | 396 | 576 1.2 |
| $0{ }^{1}$ |  |  |  |  |  |  |  |  |  |
|  | 7.937 | 8,000 | 8,006 |  | 7,985 | 7.989 | 7.994 |  |  |
| Cirutm lesa ticer | 5,070 | 5,210 | 5,126 | 5,033 | 5.137 | 5.140 | \$. 141 | 5,158 | 5,081 |
| Emplowd | 4.302 | 4.794 | 4.673 | 4.743 | 4.627 | 4.677 | 4.675 | 4,723 | 4,600 |
| Unmolover | ${ }_{5}^{268}$ | 121 | 453 | 290 | 59 | 463 | 968 |  | 481 |
| Unmaborma | 5.3 | 8.1 | 8.8 | 5.8 | 9.9 | 9.9 | 9.1 | 0.5 | 9.5 |
| mamomb |  |  |  |  |  |  |  |  |  |
|  |  | 8,970 | 8,974 | 8,915 | 8,957 | 8. 960 | 8,960 | 8,970 | 8,974 |
|  | 5.339 4.390 | 5,460 | 5,448 | 5.337 4.950 | 5.344 4.834 | $\begin{array}{r}5,391 \\ 4.946 \\ \hline\end{array}$ | 5.908 | 5,440 | 5,426 |
| umancoiva | 360 | 5419 |  |  |  |  |  |  |  |
| Unembormen ise | 6.9 | 7.7 | 7.5 | 7.3 | 9.5 | 8.3 | 7.7 | 7.7 | 7.8 |
| Trase |  |  |  |  |  |  |  |  |  |
| Cirius reanstiubond popum | 9.599 |  |  | 9.599 | 9.751 | 9,767 | 9,785 | 9,804 | 9,822 |
|  | 6.340 | 6,504 | 6,527 | 0.389 0.329 0 | 6.9121 | 6. 5127 | 6,522 | 9,8887 | 6,512 |
| uneracorrd | 6.068 | 6. 280 | $\begin{array}{r}6.163 \\ \hline 604\end{array}$ | $\begin{array}{r}60062 \\ \hline 267\end{array}$ |  |  |  | ${ }_{6.180}$ | 6.144 |
| Unemedornemi cie | 4.3 | 4.4 | 5.6 | 4.2 | 5.2 | 5. 5 | 4.7 | 3.7 | 5.7 |




Table B-1. Employees on nonegricuitural payrolis by industry

| matry | Man momaty |  |  |  | Sunomet |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Move } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { Sept. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & 0 \in e . \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Mov: } \\ & \text { 1980 } \end{aligned}$ | $\begin{aligned} & \text { Mov. } \\ & \hline 1979 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Aug } \\ & 1980.4 \end{aligned}$ | $\begin{aligned} & \text { sept. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Oct:p } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Hovio } \\ & 1980^{\circ} \end{aligned}$ |
| TOTAL | 91,288 | 90, 729 | 91,232 | 91,611 | 90,552 | 89.867 | 90.142 | 90,384 | 90.612 | 90,800 |
| gooos-PRODUCING | 26.739 | 25,994 | 26,016 | 25,996 | 26,504 | 25.163 | 25.312 | 23,476 | 25.613 | 25.766 |
| minime | 986 | 1,035 | 1,040 | 1,052 | 985 | 1.013 | 2.013 | 1,028 | 1,038 | 1,051 |
| CONST RUCTION | 4.698 | 4,690 | 4,694 | 4.615 | 4,353 | 4.322 | 4.359 | 4,404 | 4.437 | 4.472 |
| MANUFACTURIMG. | 21,05s | 20,269 | 20,282 | 20,329 | 20,966 | 19.828 | 19,940 | 20,044 | 20,138 | 20,243 |
| Arackerion mutima | 15.034 | 14.182 | 14,188 | 14,237 | 14,948 | 13.759 | 13,872 | 13,972 | 14,048 | 14,156 |
| DURABLE 60003 | 12,74 | 12,028 | 12,087 | 12,150 | 12,693 | 11.819 | 11,860 | 11,955 | 12,03! | 12,100 |
| Mrobuction mortm | 9.054 | 8.281 | 8,336 | 8,396 | 9,001 | 8.084 | 8,123 | 6,212 | 8,279 | 8,346 |
|  | 737.2 | 689.2 | 687.8 | 684.2 | 757 | 650 | 662 | 674 | 678 | 684 |
| Frumienr and fixturw . .......................... | 503.1 | 466.6 | 469.0 | 472.3 | 498 | 669 | 456 | 464 | 465 | 468 |
| Stom, clor, mod drw product . .................. | 710.3 $1,222.6$ | 667.4 1.081 .8 | 667.1 $1,090.9$ | 667.0 1.103 .9 | 104 1.230 | 661 1.069 | 668 1.059 | +655 | 658 1.094 | 661 |
| Primey matel indizrie .. | 1,222.6 | 1.081.8 | 1,090.9 | 1,103.9 | 1.230 | 1,049 | 1.059 | 1,074 | 1.094 | 1,111 |
| Fobricitud putar moder | 1,733.3 | 1,594.5 | 1,604.8 | 1,612.9 | 1.722 2.460 | 1,551 | 1,569 | 1,567 | 1,395 | 1,603 2,667 |
| wechemr, emepre dectica | 2,164.0 | 2,103.5 | 2,110.2 | 2,133.9 | 2,150 | 2,648 | 2,437 2,083 | 2,432 | 1,466 2,106 1,664 | 2,467 |
| Emeric end thetronk aqipment | 2,044.2 | 1.857.9 | 1.876.8 | 1.886.2 | 2,033 | 1,839 | 1,840 | 1,851 | 1,864 | 1,875 |
| Tramportstion axippunt ..... | 694.9 | 695.5 | 695.9 | 700.6 | 695 | 698 | 697 | 697 | 697 | 701 |
|  | 455.5 | 422.2 | 422.7 | 422.1 | 44 | 415 | 409 | 410 | 408 | 411 |
| Mompumarle coocs | 8,311 | 8,241 | 8,195 | 8,179 | 8.273 | 8.009 | 8,080 | 8,089 | 8,107 | 8.143 |
| modevion mortert. | 5,980 | 3,901 | 5, 852 | 5,841 | 5,947 | 5,675 | 3,749 | 5,750 | 5.769 | 3.810 |
| Food and kindred mrodica | 1,736.3 | 1,790.5 | 1,729.7 | 1,684.6 | 1,725 | 1,683 | 1,690 | 1,672 | 1,673 | 1,635 |
| Todmeo mmutatume | 68.6 | 75.5 | 76.7 | 16.1 | 64 | 69 | 67 | 68 | 69 | 71 |
| Texite mild products ........................ | 890.4 | 854.7 | 857.5 | 860.8 | 887 | 833 | 651 | 35 | 857 | 857 |
| Appowi med othere uxtilt prownt | 1,305.4 | 1,309.2 | 1,306.6 | 1,312.8 | 1,294 | 1,276 | 1,296 | 1,299 | 1,291 | 1.301 |
| Proer and attiod prodectr | 707.6 | 668.6 | 691.2 | 697.4 | 708 | 680 | 682 | 686 | 691 | 697 |
| Printing and polirmion . . . . | 1,262.0 | 1,267.9 | 1,272.8 | 1,282.1 | 1.259 | 1,266 | 1,266 | 1,269 | 1,273 | 1,280 |
| Cruricth med elibd provect | 1,113.9 | 1, 106.3 | 1,106.0 | 1.105.4 | 1.116 | 2,103 | 1,100 | 4,104 | 1,106 | 1,108 |
| Petrotion mad emel products | 212.6 | 210.9 | 210.0 | 209.4 | 212 | 207 | 208 | 208 | 208 | 208 |
|  | 763.9 | 683.8 | 703.3 | 709.6 |  | 663 | 680 | 692 | 699 | 706 |
|  | 247.6 | 241.1 | 241.2 | 241.1 | 246 | 229 | 240 | 240 | 240 | 240 |
| SERVICEPAODUCING | 64,549 | 64,735 | 65.216 | 65,615 | 64,048 | 64.704 | 64.830 | 64,908 | 64,999 | 65.114 |
| TRANSPORTATION AND PUBLIC UTILITIES | 5,243 | 5,170 | 5.173 | 3,171 | \$,216 | 3,114 | 5,129 | 5,124 | 5,142 | 5.145 |
| mholesale and retail trand | 20.756 | 20.692 | 20,704 | 20.940 | 20,479 | 20.506 | 20,589 | 20,620 | 20,637 | 20.663 |
| wholesale trade | 3,282 | 3,291 | 5,310 | 5,313 | 3,269 | 5,247 | 5,263 | 5,280 | 3,289 | 3,299 |
| RETAIL TRADE ................................ | 15,474, | 15,401 | 15,394 | 15,625 | 15,210 | 15,259 | 15,326 | 15,340 | 15,348 | 15,364 |
| FIMANCE, INSURANCE, AND REAL ESTATE .. | 5,039 | 9,194 | 3,196 | 5,204 | 3,049 | 5,167 | 5,180 | 3,194 | 3,206 | 3,214 |
| SERVICES ................................... | 17,264. | 17,919 | 17,942 | 17.963 | 17,308 | 17,760 | 17,788 | 17,861 | 17,906 | 17,98: |
| GOVERMDMENT | 16,227 | 15,764 | 16,201 | 16,337 | 15,996 | 16,157 | 16,144 | 16,109 | 16,108 | 16.111 |
| fedinal | 2,760 | 2.754 | 2,756 | 2,762 | 2,773 | 2,893 | 2, 428 | 2,763 | 2.770 | 2.776 |
| State and local | 13,467 | 13,010 | 13,445 | 13,575 | 13,223 | 13,264 | 13,316 | 13,364 | 13,330 | 13,335 |

Table B-2. Average weokly hours of production or nonsupervisory workers' on private nonagricultural payrolls by industry

| Induty | Mor Meosely dijurua |  |  |  | Stemonaly mexprud |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Now. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { Sept: } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Oct: } \\ & 1980^{\circ} \end{aligned}$ | $\begin{aligned} & \text { Ho7: } \\ & 1980 \mathrm{P} \end{aligned}$ | $\begin{aligned} & \text { Nov: } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { Ju1y } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Aug. } \\ & 19880 \end{aligned}$ | $\begin{aligned} & \text { Sept. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Occ: } \\ & 1980 \mathrm{p} \end{aligned}$ | $\begin{aligned} & \text { Nov. } \\ & 1980 \end{aligned}$ |
| total private | 35.6 | 35.3 | 35.3 | 35.3 | 35.6 | 36.9 | 35.1 | 35.2 | 33.2 | 35.3 |
| MINING | 43.6 | 43.5 | 43.4 | 43.3 | ( ${ }^{2}$ ) | (2) | (2) | 17 | (2) | (2) 1 |
| CONSTRUCTION | 36.6 | 37.9 | 31.8 | 36.8 | 37.0 | 36.8 | 36.5 | 37.4 | 36.9 | 37.2 |
| manufacturing | 40.3 | 39.8 | 39.8 | 40.0 | 40.1 | 39.0 | 39.4 | 39.6 | 39.6 | 39.7 |
| Owntme hours | 3.4 | 3.0 | 2.9 | 3.0 | 3.3 | 2.5 | 2.7 | 2.7 | 2.8 | 2.9 |
| duralle coods | 40.8 | 40.2 | 40.3 | 40.5 | 40.6 | 39.4 | 39.9 | 40.1 | 40.1 | 40.3 |
| Owrdnu houm | 3.4 | 2.9 | 2.9 | 3.0 | 3.3 | 2.4 | 2.6 | 2.7 | 2.8 | 2.9 |
| Lumitar end wood proctuctis | 38.8 | 39.3 | 39.0 | 38.9 | 38.9 | 38.1 | 38.9 | 38.8 | 38.5 | 39.0 |
| Furniturn and fixturs | 39.3 | 38.3 | 38.4 | 38.5 | 38.9 | 36.6 | 37.4 | 38.0 | 37.9 | 38.1 |
| Store, chy. and duen procicis | 41.7 | 41.1 | 41.3 | 41.4 | 41.4 | 340.2 | 40.3 | 40.9 | 40.9 | 4.1 |
| Primery menal industries .... | 40.7 | 40.2 | 40.2 | 40.9 | 40.8 | 38.6 | 39.2 | 40.0 | 40.4 | 41.0 |
| Fsbricated mmal products | 41.0 | 40.5 | 40.4 | 40.7 | 40.7 | 39.6 | 40.1 | 40.4 | 40.3 | 40.4 |
| Mectionery. exapt otecrical | 41.8 | 41.0 | 40.7 | 41.0 | 41.5 | 40.6 | 40.8 | 40.9 | 0.7 | 40.7 |
| Elictric and sherronic mulprent. | 40.8 | 39.7 | 39.8 | 40.3 | 40.4 | 39.0 | 19.4 | 39.5 | 39.8 | 39.9 |
| Tramportation eculprient | 40.8 | 40.7 | 41.1 | 4.2 | 40.5 | 39.6 | 40.9 | 40.6 | 40.8 | 40.9 |
| Instrument and roleted products | 41.4 | 40.1 | 40.3 | 40.9 39.0 | 41.0 38.9 | 40.1 38.3 | 30.1 38.6 | 40.1 38.9 | 40.2 38.6 | 40.5 38.5 |
| Misallomoous menutacturise | 39.4 | 39.1 | 38.8 | 39.0 | 38.9 | 38.3 | 38.6 | 38.9 | 38.6 | 38.5 |
| mOMDURABLE GOODA | 39.6 | 39.1 | 39.1 | 39.2 | 39.4 | 38.5 | 38.7 | 38.8 | 39.0 | 38.9 |
| Owrtine hours | 3.3 | 3.0 | 2.9 | 3.0 | 3.2 | 2.6 | 2.8 | 2.7 | 2.8 | 2.9 |
| Food and kindsed producti | 40.2 | 40.3 | 39.7 | 39.9 | 39.9 | 39.7 | 39.8 | 39.7 | 39.6 | 39.6 |
| $1{ }^{1}$ | 38.8 | 38.2 | 40.1 | 40.3 | 37.8 | 38.5 | 37.3 | 37.5 | 39.5 | 39.2 |
| Tixtiby mill prowera | 41.3 | 39.8 | 39.8 | 40.1 | 41.0 | 38.8 | 39.2 | 39.7 | 39.8 | 39.8 |
| Apporel end other tuxtile procues | 35.6 | 35.2 | 35.4 | 35.4 | 35.3 | 35.1 | 35.1 | 33.1 | 35.3 | 35.0 |
| Puper und atised proovers | 42.9 | 42.4 | 42.3 | 42.5 | 42.7 | 41.4 | 41.8 | 42.2 | 42.3 | 42.3 |
| Primting and pubilithing | 37.9 | 37.3 | 37.1 | 37.1 | 37.5 | 36.9 | 37.1 | 36.9 | 37.0 | 36.7 |
| Crumicetir end elliod prowurt | 42.2 | 41.3 | 4.4 | 41.7 | 42.0 | 40.8 | 41.0 | 41.3 | 41.4 | 41.5 |
| Marrotumn med cosel procters | 44.8 | 43.4 | 44.1 | 44.2 | 44.4 | 42.2 | 42.2 | 42.7 | 43.5 | 43.8 |
| Rulxien end mixa, plemica products | 40.3 | 40.3 | 40.6 | 4.1 | 40.0 | 39.0 | 40.2 | 40.1 | 60.3 | 40.6 |
|  | 36.8 | 36.2 | 36.1 | 36.0 | 36.6 | 36.1 | 36.5 | 36.2 | 36.1 | 35.9 |
| TRANSPORTATION AND PUBLIC UTILITIES | 40.2 | 39.7 | 39.7 | 39.7 | ${ }^{(2)}$ | ${ }^{(2)}$ | ${ }^{(1)}$ | (2) | ( ${ }^{2}$ | ( ${ }^{4}$ |
| Wholesale and retail. trade | 32.4 | 32.1 | 32.1 | 32.1 | 32.6 | 31.8 | 32.0 | 32.1 | 32.2 | 32.2 |
| RETAIL TAADE | 30.4 | 30.1 | 30.0 | 30.0 | 30.6 | 29.8 | 30.1 | 30.1 | 30.2 | 30.2 |
| FINANCE, INSURANCE, AND REAL ESTATE | 36.3 | 36.1 | 36.3 | 36.4 | ${ }^{(2)}$ | $\left({ }^{2}\right)$ | ${ }^{(2)}$ | ( ${ }^{2}$ | ( ${ }^{2}$ | ${ }^{(4)}$ |
| services | 32.6 | 32.5 | 32.6 | 32.6 | 32.7 | 32.6 | 32.6 | 32.5 | 32.6 | 32.7 |
| ' Data reiate to production workere in mining and manutacturna: to construction workers in construction; and to nonaupewisory workers in transportation and pubile utilites; wholerale and retall traco; flimence, inturrance, and real entate; and servesa. theme groupe account for approximately four-hithst of the total ariploymant on private nonegiteultural payrolis. <br> - This ceries ity not cessonally sdfutiod alince the seasonal comporsent is amail rolative to the trand-cycte andior irregular componanta and consequently cannot be saperatod with sutflecient procizlan. <br> $p=$ prollminary. |  |  |  |  |  |  |  |  |  |  |

Table B-3. Average hourly and weekly earnings of production or nonaupervisory workers' on private nonagricuttural peyrolis by industry

| tesurry | Aumer mentr aring |  |  |  | Avose meatly merringa |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Nov. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { Sept. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & 0 c \mathrm{cc} \\ & 1980 \end{aligned}$ | $\begin{aligned} & \operatorname{Mov}_{1980} \end{aligned}$ | $\begin{aligned} & \text { Nuv: } \\ & \text { 1979 } \end{aligned}$ | $\begin{aligned} & \text { Sept } \\ & 1980 \end{aligned}$ | oer. <br> $1980^{\circ}$ | Nov. 1980 |
|  | 36.34 | \$6.80 | 56.86 | \$6.91. | 5225.70 | \$240.04 | \$242.16 | 243.92 |
| Sustomely adketer | 6.34 | 6.77 | 6.82 | 6.90 | 225.70 | 238.30 | 240.06 | 243.57 |
| mining | 8.73 | 9.32 | 9.60 | 9.61 | 380.63 | 405.42 | 407.96 | - 16.11 |
| COnStruction | 9.52 | 10.19 | 10.24 | 10.22 | 348.43 | 386.20 | 387.07 | 376.10 |
| manufacturing | 6.87 | 7.43 | 7.49 | 7.37 | 276.86 | 295.71 | 298.10 | 302.80 |
| DUAable gooos | 7.29 | 7.93 | 8.01 | 8.09 | 297.43 | 318.79 | 322.80 | 327.65 |
| Lumber mind mod moctucts | 6.22 | 6.80 | 6.75 | 0.77 | 24.34 | 257.24 | 263.25 | 263.35 |
| Furnture and tixturss | 5.21 | 5.38 | 5.59 | 5.63 | 204.75 | 213.71 | 214.66 | 216.76 |
| Storne, dery and deu prodict | 3.08 | 7.69 | 3.74 | 7.83 | 295.24 | 316.06 | 319.66 | 324.16 |
| Primevy metal industries. | 9.26 | 9.97 | 10.09 | 10.24 | 376.88 | 400.79 | 405.62 | 418.82 |
| Fubricated merel prochctu | 7.01 | 7.62 | 7.66 | 7.75 | 287.4 | 308.61 | 109.46 | 315.63 |
| Mechinery, exceex destrical. | 7.50 | 8.38 | 8.35 | \%. 44 | 313.50 | 339.48 | 339.85 | 346.04 |
| Enacricend diveromic equienoms | 6.52 | 7.14 | 7.19 | 7.26 | 266.02 | 283.46 | 285.16 | 292.58 |
| Trembortuiosn aswiberwnt | 8. 72 | 9.36 | 9.74 | 9.79 | 355.78 | 389.09 | 400.31 | 803.35 |
|  | 6.39 | 6.92 | 6.96 | 3.02 | 264.55 | 277.49 | 280.49 | 241.12 |
| Micerlemosat menutacturing. | 5.13 | 5.51 | 5.53 | 3.60 | 202.12 | 215.44 | 215,36 | 218.40 |
| MONDURAELE GODCS | 6.21 | 6.69 | 6.72 | 6.78 | 24.92 | 261.98 | 262.75 | 205.78 |
| Food und kimutre prodeta | 6.50 | 6.93 | 6.96 | 2.08 | 261.30 | 279.28 | 276.31 | 282.49 |
| Tobeso memitacturen. | 6.97 | 7.42 | 7.54 | 7.73 | 270.64 | 253.44 | 302.35 | 311.32 |
| Tentile mill procieth | 4.86 | 5.24 | 5.26 | 5.28 | 200.72 | 208. 35 | 204.35 | 211.13 |
| Appreet mad other wexlich producta | 4.32 | 4.70 | 4.73 | 4.74 | 153.79 | 165.64 | 167.64 | 167.80 |
| momer and mised prodects. | 7.43 | 8.06 | 8.09 | 8.11 | 318.75 | 341.74 | 342.21 | 344.64 |
| Priming and puabiliting | 7.13 | 7.73 | 7.74 | 2.71 | 270.23 | 288.33 | 237.15 | 288.27 |
| Cremicat and aniod prockert. | 7.88 | 8.46 | 8.52 | 8.60 | 332.54 | 349.40 | 352.73 | 358.62 |
| Atroleum end cosp produca | 9.56 | 10.33 | 10.36 | 10.51 | 428.29 | 468.32 | 456.88 | 464.54 |
| Autber and fuxc, Dlasitrs prodecis | 6.14 | 6.63 | 6.71 | 6.79 | 247.44 | 267.19 | 272.43 | 279.07 |
| Lemther and lemilem products | 4.33 | 4.61 | 4.64 | 4.67 | 159.34 | 166.88 | 167.50 | 168.12 |
| TRANSPORTATION AND PUBLIC UTILITIES. | 8.51 | 9.04 | 9.20 | 9.25 | 342.10 | 358.89 | 365.24 | 367.23 |
| wholesale and retail trade. | 5.18 | 5.56 | 5.58 | 5.63 | 167.83 | 178.48 | 179.12 | 180.72 |
| wholesale trade | 6.58 | 7.08 | 7.09 | 7.17 | 255.96 | 272.58 | 273.67 | 276.76 |
| Retail trade | 4.62 | 4.95 | 4.97 | 5.01 | 140.45 | 149.00 | 149.10 | 150.30 |
| FINANCE, IMSURANCE, AND REAL ESTATE . | 5.41 | 5.87 | 5.90 | 5.99 | 196.38 | 211.91 | 214.17 | 218.04 |
| SERVICES | 5.35 | 5.93 | 6.00 | 6.09 | 180.93 | 192.73 | 195.60 | 198.53 |

- Sin tocenote 1, uble e. 2.

Table B-4. Hourly earnings index for production or nonsupervisory workers on private
monagricultural payrolls by industry division, seazonally adjusted

| indery | $\begin{aligned} & \text { NOV. } \\ & 1979 \end{aligned}$ | $\begin{aligned} & \text { JUNE } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { JuLy } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { Auc. } \\ & 1980 \end{aligned}$ | $\begin{aligned} & \text { SEPT. } \\ & 1980 \end{aligned}$ |  |  | Mrcemt chewe tram- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | $\begin{aligned} & \text { nov. } 1979- \\ & \text { yov. } 1980 \end{aligned}$ | $\text { Oct. } 1980=$ $\text { mov. } 1980$ |
| TOTAL PRIVATE NONFARM: |  |  |  |  |  |  |  |  |  |
| carome dotion | 237.3 | 250.9 | 252.1 | 254.0 | 235.4 | 257.7 | 260.3 | 9.7 | 1.0 |
| Contum (1067) cotior | 104.1 | 101.5 | 102.0 | 102.0 | 101.5 | 101.6 | N.A. | (2) | (3) |
| mining | 272.0 | 286.3 | 285.3 | 288.9 | 290.4 | 294.9 | 301.1 | 10.7 | 2.1 |
| COMSTRUCTION | 226.5 | 235.3 | 236.3 | 239.0 | 239.3 | 241.2 | 242.3 | 7.0 | . 5 |
| manufacturing | 241.9 | 258.3 | 260.6 | 262.4 | 264.5 | 266.4 | 268.3 | 10.9 | . 7 |
| transfoatatiom amd public utilitis | 258.7 | 270.6 | 272.8 | 273.2 | 274.0 | 279.9 | 282.0 | 9.0 | . 8 |
| wholeiale and hetail tande | 229.7 | 241.8 | 243.5 | 245.3 | 246.5 | 247.4 | 250.2 | 8.9 | 1.1 |
| finance, ingurance, and heal estate | 215.7 | 230.2 | 229.0 | 232.7 | 233.1 | 234.2 | 238.5 | 10.6 | 1.9 |
| SERVICEs | 234.9 | 248.4 | 247.6 | 249.8 | 251.7 | 254.3 | 258.: | 9. 8 | 1.5 |

I SEE FOOTNOTE 1 . TABLE B-2.


## NA. - not wemable.


Table B-5. Indexes of aggregate weakly hours of production or nonsupervisory workers,' on private nonagricultural payrolls by industry, seasonally adjusted

| lnatury divivon and mown | 1979 |  | 1980 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hor | Det. | Jan. | Fab. | ma | Apr. | May | June | July | Au | Sep | Oct. ${ }^{\text {P }}$ | Nov. |
| TOTAL PRIVATE | 126.4 | 126.8 | 127.1 | 126.9 | 126.0 | 124.8 | 123.4 | 122.5 | 121.9 | 123.0 | 123.8 | 124.3 | 125.1 |
| goods Producing | 108.7 | 109.4 | 110.1 | 109.1 | 107.3 | 105.2 | 102.2 | 100.3 | 98.5 | 100.0 | 101.6 | 102.1 | 103.2 |
| MINING | 160.8 | 162.5 | 162.0 | 162.1 | 162.9 | 161.7. | 163.2 | 166.4 | 158.7 | 162.4 | 166.7 | 167.8 | 168.8 |
| CONSTRUCTION | 129.7 | 132.8 | 137.7 | 134.7 | 126.9 | 124.7 | 124.3 | 123.7 | 120.6 | 120.5 | 124.7 | 124.1 | 126.1 |
| manuFacturing | 103.2 | 103.5, | 103.4 | 102.8 | 101.8 | 99.8 | 96.1 | 93.8 | 92.5 | 94.2 | 95.2 | 95.9 | 96.9 |
| Duhable goods. | 106.0 | 106.4 | 106.0 | 105.8 | 105.0 | 101.6 | 96.6 | 94.0 | 92, 4 | 94.1 | 95.6 | 96.4 | 97.6 |
| Lumber mid mod prodves | 111.0 109.4 | 109.4 109.1 | 109.8 | 108.9 | 106.5 106.9 | 95.3 <br> 106.1 | 90.6 | 89.6 | 91.5 | 95.3 | 96.8 98.4 | 96.9 98.2 | 99.0 |
|  | 110.4 110.1 | $1 \begin{aligned} & 109.1 \\ & 110.4\end{aligned}$ | 110.3 | 109.6 | 108.0 | 103.5 | 99.4 | 96.7 | 95.1 | 96.5 | 99.3 | 99.7 | 101.2 |
| Primury maral industrim | 94.1 | 92.9 | 92.7 | 92.4 | 91.8 | 89.9 | 82.4 | 77.4 | 13.4 | 75.4 | 78.3 | 81.1 | 83.9 |
| Fabricatod mestal products | 105.6 | 105.7 | 104.8 | 104.9 | 104.6 | 102.1 | 95.3 | 92.5 | 89.9 | 92.3 | 94.5 | 94.9 | 95.8 |
| Maschinery, exerpt etsetrical | 114.9 | 114.4 | 118.5 | 117.5 | 116.9 | 116.1 | 114.1 | 110.8 | 108.8 | 108.61 | 110.1 | 110.1 | 110.1 |
| Electicicand electronic sowipment | 109.2 | 110.4 | 110.8 | 109.8 | 109.4 | 108.1 | 103.8 | 100.1 | 98.5 | 99.8 | 100.5 | 102.0 | 103.0 |
| Temaporation maviprent. | 95.5 | 98.3 | 131.7 | 93.8 | 93.0, | ${ }_{128.0}^{85.4}$ | 79.1 | 79.6 | 79.8 123.8 | 224.4 | 82.5 123.8 | 84.1 21 | 855.3 |
| Intrumens and roisted procurch | 128.2 98.6 | 8.8 <br> 99.4 | 130.0 | 129.1 | 128.7 96.9 | 128.4 95.8 | ${ }_{1}^{126.0}$ | 125.1 <br> 88.3 | 123.8 <br> 89.0 | 124.1 88.5 | 88.9 | 87.7 | 88.6 |
|  | 99.1 | 99.2 | 99.7 | 98.4 | 97.3 | 97.2 | 95.4 | 93.5 | 92.5 | 96.3 | 94.7 | 95.2 | 95.7 |
| monturable gooos | 97.3 | 97.6 | 96.9 | 96.2 | 94.6 | 94.4 | 95.1 | 93.2 | 93.9 | 94.8 | 93.2 | 93.1 | 93.3 |
|  | 65.0 | 70.3 | 71.7 | 70.5 | 70.2 | 72.4 | 73.8 | 22.1 | 73.0 | 68.1 | 81.15 | 85.9 | 75.7 |
| Textion mill procuets. | ${ }_{81.2}^{87.8}$ | 91.5 | 92.7 | 91.6 90.5 | 89.0 | 89.4 89.3 | 88.4 | 82.2 86.7 | 80.5 | 87.2 | 87.3 | 87.4 | 85.5 |
| Aposel ando other inxile product | 81.8 102.0 | \|102.1 | 102.9 | 102.5 | 101.6 | 100.4 | 96.7 | 84.7 | 93.6 | 95.0 | 96.5 | 97.3 | 98.8 |
| Pmot und atied production |  | 105.2 | 106.9 | 105.9 | 105.1 | 104.8 | 103.6 | 103.1 | 102.9 | 103.8 | 103.8 | 103.9 | 104.2 |
| Punting and outulithing ...... | 108.5 | 108.2 | 109.0 | 108.4 | 108.0 | 107.4 | :106.0 | 104.4 | 102.1 | 102.4 | 103.9 | 104.1 | 104.7 |
| Crumicals and ollied products | 124.4 | 122.4 | 104.9 | 75.7 | 71.4 | 91.6 | 113.8 | 113.3 | 113.9 | 114.8 | 116.1 | 118.3 | 119.1 |
| Ruber and mix. plastict procicis. | 144.9 | 143.4 | 145.7 | 142.2 | 14.1 .4 | 139.9 | 128.5 | 123.6 63.3 | 119.2 <br> 59.5 | 127.5 63.9 | 130.1 63.7 | 132.5 63.5 | 135.6 63.2 |
| Lexther ind leasther procurty | 66.0 | 66.4 | 66.4 | 66.4 | 65.6 | 66.0 | 83.6 | 63.3 | 59.5 |  |  |  |  |
| SERVICE.PRODUCING | 13 A .7 | 138.8 | 138.9 | 139.2 | 139.0 | 138.3 | 138.1 | 137.9 | 138.2 | 139.0 | 139.2 | 139.7 | 140.3 |
| transportation and public UTILITIES | 116.6 | 115.8 | 114.0 | 113.7 | 113.9 | 113.5 | 112.6 | 112.6 | 112.8 | 112.6 | 112.7 | 113.1 | 113.3 |
| Wholssale and retail trade | 132.3 | 132.2 | 132.6 | 132.7 | 131.8 | 130.4 | 130.3 | 129.1 | 128.9 | 170.4 | 130.9 | 131.3 | 131.6 |
|  | 135.1 | 135.0 | 135.4 | 135.6 | 134.5 | 134.1 | 133.7 | 130.8 | 131.0 | 131.9 | 133.3 | 133.2 | 134.0 |
| hetail tadie | 131.2 | 131.0 | 131.5 | 131.5 | 130.7 | 128.9 | 129.0 | 12 A .5 | 128.0 | 129.8 | 130.0 | 130.6 | 130.6 |
| FINANCE, INSURANCE, AND REAL ESTATE | 147.7 | 148.2 | 148.2 | 149.3 | 149.6 | 149.4 | 149.7 | 151.2 | 151.1 | 151.8 | 151.1 | 152.0 | 152.9 |
| SEAvices | 155.0 | 156.0 | 156.4 | 157.2 | 137.6 | 157.6 | 157.4 | 157.8 | 159.1 | 1159.4 | 159.3 | 159.9 | 161.3 |

Sew footnote 1, trable $\mathrm{B}-2$.

Toble B.6. Indexes of diffusion: Percent of industries in which employment' increased


[^5]
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## PRODUCER PRICE INDEXES--NOVEMBER 1980

The Producer Price Index for Finished Goods moved up 0.6 percent from Oct ober to November on a seasonally adjusted basis, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The November increase followed a 0.8 percent rise in October. Prices for intermediate (semifinished) goods rose 1.0 percent, about the same as in October and substantially more than in September. Crude material prices advanced 1.1 percent, somethat less than in eicher of the 2 previcus months. (See table A.)

Table A. Percent changes from preceding month in selected stage-of processing price indexes, seasonally adfusted*

| 1 | Finished goods |  |  | Intermediate goods |  |  | Crude goods |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| I |  |  |  |  | Foods |  |  | Foods tuffe |  |
| I | Total | Consumer\| | Other | Total | and | Other | Total | and | lother |
| 1 Month |  | foods |  |  | feeds $/$ / |  |  | feedstuff: |  |
| I |  | 1 I |  |  | 1 |  |  |  |  |
| 1 I |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |
| \|Nov. 1979] | 1.2 | 1.9 | 1.01 | 0.9 | -0.3 | 0.9 | 1.3 | 1.0 | 1.7 |
| \|Dec. . . . . $\mid$ | . 8 | . 3 | 1.11 | 1.1 | .3 | 1.2 | 1.1 | . 2 | 2.2 |
| \| | |  | 11 |  |  |  |  |  |  |  |
| \|Jan. 1980| | 1.6 | -. 91 | 2.4 | 2.7 | -2.6 | 3.01 | -. 7 | -3.8 | 3.2 |
| \|Feb. .... ${ }^{\text {I }}$ | 1.4 | \| -.41 | 2.0 | 2.0 | 5.6 | 1.81 | 2.7 | 2.2 | 3.3 |
| \|Mar. . . . . ${ }^{\text {l }}$ | 1.4 | 11.0\| | 1.5 | . 5 | -3.1 | .71 | -2.1 | -2.7 | \|-1.4 |
| $\|A p r . . .$. | . 6 | \| -2.8 | | 1.6 | . 1 | -2.7 1 | .3 | -3.5 | -6.1 | -. 5 |
| \|May . . . . | .3 | 0 | .4 | .4 | 6.1 | .1 | 1.3 | 2.4 | 0 |
| \|June . . . . | . 7 | .7 | . 7 | . 8 | 0 | .81 | . 4 1 | 1.1 | -. 5 |
| \|July .... ${ }^{\text {\| }}$ \| | 1.75 | \| $3.9 \mathrm{r} \mid$ | 1.1r | .9 r | 4.2 r | .7r\| | 6.3 r 1 | 9.0 | 3.3 rl |
| \|Aug. .... $\mid$ | 1.45 | 4.3ri | . 5 r I | . 8 r | 8.7r1 | .3r1 | 5.6 r | 9.0 | 1.75 |
| \|Sept......|' | -. 2 | - -2 | -. 1 \| | . 6 | .91 | .51 | 1.3 | -. 4 | 3.31 |
| \|0ct. . . . | | . 8 | 1.51 | .91 | . 9 | 6.01 | .61 | 1.91 | 1.5 | 2.5 |
| \|Nov. .....| | . 6 | 1.51 | .7 | 1.0 | 1.71 | . 9 | 1.1 \| | . 6 | 1.8 |
| 1 \| |  |  |  |  |  |  |  |  |  |

1 Intermediate materials for food manufacturing and feeds.

* Data for July 1980 have been revised to reflect the availability of late reports and corrections by respondents. For this reason, some of the figures shown above and elsewhere in this release may differ from those previously reported.
[ $=$ revised.

Among finished goods, price increases slowed for wotor vehicles and a broad range of capital goods. Consumer food prices rose 0.5 percent for the second consecutive wonth. In contrast, the finished energy goods index turned up after edging lower in most months since last spring

Before seasonal adjustment, the Producer Price Index for Finished Goods moved up 0.4 percent to $253.2(1967=100)$. Over the year, the Finished Goods Price Index rose 11.9 percent. From November 1979 to November 1980, prices for consumer foods increased 7.1 percent, the finished energy goods, index advanced 28.1 percent, finished consumer goods other than food and energy climbed 11.0 percent, and the capital equipment index was up 11.3 percent. The Producer Price Index for intermediate goods was 12.4 percent higher than a year ago, and crude material prices rose 16.1 percent over the year.

Table B. Percent changes in inished goods price indexes, selected periods*


* Data for July 1980 have been revised to reflect the availability of late reports and corrections by respondents. For this reason, some of the figures shown above and elsewhere in this release may differ from those previously reported.
r* revised.


## Einished soods

Finlshed consumer goods. The Producer Price Index for finished consumer goods advanced 0.7 percent in November on a seasonally adfusted basis, following a 0.6 percent increase in October. Prjces for finished energy goods advanced $1: 3$ percent, after falling 0.4 percent in both September and October. Gasoline prices climbed 1.7 percent, after declining for 5 consecutive months; home heating oil prices rose 0.9 percent, following 2 months of amall decreases.

Prices for consumer foods increased 0.5 percent for the second consecutive month. The largest advances occurred for pork, cereal and bakery products, dairy products, peanut butter, confectionery end products, fresh fruits and vegetables, pecans, vegetable oil end products, and fiah. Prices declined for beef and veal, processed poultry, and packaged cocoa. Refined sugar prices were virtually unchanged, following a 23 percent jump in October.

The index for finished consumer goods ot her than foods and energy increased 0.6 percent, somewhat less than the 0.9 percent upward movement in October. This deceleration was accounted for by slower price increases for passenger cars, which rose 0.7 percent after a 3.4 percent increase in the previous month, when 1981 models were introduced. Prices turned down for gold jewelry, disposable plastic dinnerware, and tires and tubes. In contrast, increases accelerated for beverages, cosmetics, tobacco products, and prescription drugs. Home electronic equipment prices advanced ateeply, following several months of minor changes. Prices for over-the-counter drugs climbed rapidly for the third consecutive month.

Capital equipment. The Producer Price Index for capital equipment rose 0.6 percent, after increasing 1.4 percent a month earlier. Prices for motor vehicles advanced much less than in October. Price increases also slowed for several other capital goods, particularly commercial furniture, railroad equipment, construction machinery, chemicai industry machinery, generators, industrial material handling equipment, and oilfield machinery. Prices for afrcraft, transformers and power regulators, pump and compressors, end hand tools moved down, following substantial advances in the preceding nonth.

## Intermediate materials

The Producer Price Index for Intermediate Materials, Supplies, and Components registered a 1.0 percent seasonally adjusted increase in November, about the same as the 0.9 percent rise in October. The intermediate energy index rose 1.7 percent, following a small decline in October. The upturn was almost entirely due to large advances for residual fuel oil and liquefied petroleum gas; other energy prices were virtually unchanged.

The intermediate foods and feeds index also increased 1.7 percent; this was considerably less than the 6.0 percent surge in the previous month. Most of the slowdown was caused by a much smaller price increase for refined sugar for food manafacturing. Flour prices turned down following 6 months of steady increases. On the other hand, prices turned up sharply after falling in the previous month for animal fats and oils and refined vegetable oils. Prices for feeds and crude vegetable ofls also were higher.

The index for intermediate materials less foods and energy rose 0.8 percent for the second consecutive month; in contrast, this index had registered average monthly increases of 0.4 percent during the 7 months ended in September. In November, prices for construction materials and nondurable manufacturing materials advanced more than in

## 105

October, but increases slowed for durable manufacturing materiala and manufacturing components.
The construction materials index moved up 1.1 percent, following a 0.5 percent increase in October. Prices advanced for plywood, willwork, fabricated structural metal products, and building paper and board. Prices for aoftwood lumber, gypsum producta, plastic construction products, and insulation materials turned up after falling the month before. On the other hand, asphalt roofing prices declined for the fourth consecutive month.

The nondurable manufacturing materials index also rose considerably more than in the preceding month. Prices for inorganic industrial chemicals advanced even more sharply than in recent months, and prices for plastic resins and pharmaceutical materials moved up after little or no change in October. The indexes for paper, paperboard, gray fabrics, processed yarns and threads, and inedible fats and oils continued to increase substantially.

The durable manufacturing materials index increased 0.8 percent, following a 1.4 percent jump in the previous month. This slowdown was mostly due to lower prices for gold, silver, jewelers' materials, copper, lead, and tin. However, prices continued to increase substantially for finished steel mill products, aluminum and aluminum shapes, zinc, and flat glass.

The manufacturing components index edged up 0.3 percent, considerably less than in most recent months. The deceleration resulted chiefly from smaller increases for motor vehicle parts, electronic components, and bearings. In contrast, prices advanced more than in October for internal combustion engines, builders' hardware, and stationary fans and blowers. Among other internediate goods, large increases occurred for photographic supplies, glass containers, and mining machinery parts.

Crude materials
The Producer Price Index for Crude Materials for Purther Processing increased 1.1 percent in November on a seasonally adjusted basis, following a 1.9 percent rise in October. Although crude energy prices moved up about as much as in most recent months, other crude materials advanced considerably less than in October.

The Index for crude foodstuffs and feedstuffs rose 0.6 percent, following a 1.5 percent climb in October. Prices for raw cane sugar and wheat dropped after rising dramatically in October. Prices for corn, cocoa beans, and live poultry also moved down over the month, and the soybean index increased much less than in most recent months.

The index for crude nonfood materials less energy moved up 2.2 percent, after rising 3.8 percent in October. Nonferrous scrap prices moved up less than in either of the previous 2 months, and iron and steel scrap prices fell after 3 months of rapid advances. Wastepaper prices also turned down. The hides and skins index advanced substantially, although not as much as in October. Raw cotton prices turned up after falling in the previous month. Higher prices were also registered for sand and gravel.

Prices for crude energy materials moved up 1.6 percent, about the same as the 1.8 percent rise in the previous month. Natural gas prices continued to rise substantially, Coal prices climbed 1.4 percent', the largest monthiy advance since April 1978. Crude petroleum prices were virtually unchanged.

Upcoming Revisions in Stage-of-Processing Indexes
Beginning with January 1981 data to be released on February 13, Producer Price Indexes at all stages of processing will reflect updated industry input-output relationships and improved classification of some products. The text and tables 1 and 2 of this release are based
on stage-of-processing data, developed Erom PPI commodity indexes.regrouped into various categories -- crude, intermediate, or finished goods -- according to the latest available input-output values. (For a definition of the major stage-of-processing categories, see "Brief Explanation of Producer Price Indexes," on the next two pages of this release.) The new stage-of-processing relationships will be based upon 1972 input-output tables prepared by the Bureau of Economic Analysis, U.S. Department of Comerce. Since January 1976, stage-ofprocessing indexes have been based on relationships from the 1967 input-output tables.

The most significant reclasaification will be reflected in the Finished Goods Price - Index and in the Crude Materials Price Index as a result of a change in the allocation of the natural gas index (PPI comodity code 05-31). Until now, the entire weight of this index has been allocated to the stage-of-processing index for crude fuels. However, approximately half the weight of this index will be allocated to the stage-of-processing index for consumer nondurable goods excluding foods, since households purchase natural gas in an essentially unprocessed form. In addition, the Finished Goods. Price Index will no longer incorporate weights reflecting the value of shipments purchased by the government or exported, since these categories do not fit the existing components of the Finished Goods index--finished consumer goods and capital equipment. New input-output tables are sufficiently detailed for the first time to permit the separation of weights for government purchases and exports, for which prices have not been collected.

Revised historical stage-of-processing indexes from January 1976 through December 1980 will also be released February 13 to reflect the updated stage-of-processing relationships and reclassifications, as well as the separation of the weights for government purchases and exports from the Finished Goods Price Index. Previously reported indexes for individual commodities and comodity groupings will not be affecred by these revisions.

## Brief Explanation of Producer Price Indexes

Producer Price Indexes measure average changes in prices received in primary markets of the United States by producers of commodities in all sages of processingThese data were previously presented as the Wholesale Price Index. The name "Producer Price Indexes" is now being used to reflect more accurately the coverage of the data. The simple used for calculating these indexes continues to contain nearly 2.800 commodities and about 10.000 quotations selected to represent the movement of prices of all commodities produced in the manufacturing. agriculture. forestry, fishing, mining. gas and electricity, and public utilities sectors. The universe includes all commodities produced or im. ported for sale in commercial transactions in primary markets in the United States.

Producer Price Indexes can be organized by stage of processing or by commodity. The stage of processing structure organizes products by degree of tabrication fi.e.. finished goods, intermediate or semifinished goods. and crude materials). The commodity structure organizes products by similarity of end-use or material composition.

Finished goods are commodities that will not undergo further processing and are ready for sale to the uitimate user. either an individual consumer or a business firm. Capital equipment (formerly called producer
finished goods) includes commodities such as motor trucks. farm equipment, and machine tools. Finished consumer goods include foods and other types of goods eventually purchased by retailers and used by con: sumers. Consumer foods include unprocessed foods such as eges and fresh vegetables. as well as processed toods such as bakery products and meats. Other finished consumer goods include durables such as automobiles, household furniture, and jewelry, and nondurables such as apparel and gasoline.

Internediate materials, supplies. and components are commodities that have been processed but require further processing before they become finished goods. Examples of such semifinished goods include flour. cotton yarns, steel mill products, belts and betting. lumber. liquefied perroleum gas. paper boxes, and motor vehicle parts.

Crude materials for further processing include products emering the market for the first time which have not been manufactured or fabricated but will be processed betore becoming finished goods. Scrap materials are also included. Crude foodstuffs and ieedstuffs include items such as grains and livestock. Examples of crude nonfood materials include raw cotton. crude petroleum, natural gas; hides and skins. and iron and steel scrap.


For analydit of peneral price trends, stage of procesung indexes are more useful than commodity grouping indexes. This is because commodity grouping indexes sometimes produce exaggerated or mideading signals of price changes by reflecting the tame price movement through various stages of procussing. For example, suppose that a price rise for steel scrap results in an increase in the price of steel sheet and then an advance in prices of automobiles produced from that steel. The All Commodities Price Index and the Industrial Commodities Price Index would reflect the same price movement three times-once for the steel scrap, once for the steel sheer, and once for the automobiles. This multiple counting occurs because the weighting structure for the All Commodities Index uses the total shipment values for aill commodities at all stages of processing. On the other hand, the Finished Goods Price Index would reflect the change in automobile prices. the Intermediate Materials Price Index would reflect the steel sheet price change. and the Crude Materials Price Index would reflect the rise in the price of steel scrap. (See illustration.)

To the extent possible. prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States, from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Re.
spondents are asked to provide net prieses or to provide ail applicable discounts. BLS attempts to base Producer Price Indexes on actual transaction prices; however, list or bcok prices are used if transection prices are not available. Most prices are obtained directly from producing companies on a voluntary, and confidential basis, but some prices are taken from trade pubitications or from other Govemment agencies. Prices generally are reported for the Tuesday of the week containing the 13 th day of the month.

In calculating Producer Price Indexes. price changes for the various commodities are averaged together with weights representing their importance in the total net selling value of all commodities as of 1972. The detailed data are aggregated to obtain indexes for stage of processing groupings, commodity groupings, durability of product groupings, and a number of special composite groupings. Each index measures price changes from a reference period which equals 100.0 (usually 1967, as designated by the Office of Management and Budget). An increase of 85 percent from the reference period in the Finished Goods Price Index, for example, is shown as 185.0. This change can also be expressed in dollars, as follows: "The price of a representative sample of finished goods sold in pnamary markets in the United States has risen from $\$ 100$ in 1967 to $\$ 185 .{ }^{.}$

## A Note about Calculating Index Changes

Movements of price indexes from one month to.another are usually expressed as percent changes rather than chanqes in index points because index point changes are affected by the level of the index in relation to its base period. while percent changes are not. The box below shows the computstion of index point and percent changes.

Percent changes for 3 -month and 6 -month periods are expressed as annual rates that are computed according to the standard formula for compound growth rates. These data indicate what the percent change would be if the current rate were maintained for a 12 -month period.

| Index Point Change |  |
| :--- | :--- |
| Finished Goods Price Index  <br> less previous index 185.5 <br> equals index point change $\frac{184.5}{1.0}$ <br> Index Percent Change  <br> Index point change  <br> divided by the previous index $\underline{1.0}$ <br> equals 184.5 <br> result multipied by 100 0.005 <br> equals index percent change $0.005 \times 100$ |  |

## A Note on Seasonally Adjusted Data

Because price data are used for different purposes by different groups, the Bureau of Labor Statistics publishes seasonally adjusted as well as unadjusted changes each month.

For analyzing general price trends in the economy, seasonally adjusted data usually are preferred because they eliminate the effect of changes that normally occur It about the same time and in about the same magnitude every year-such as price movements resulting from normal weather patterns. regular production and marketing cycles. model changeovers, seasonal discounts, and holidays. For this reason. seasonally adjusted data more cleariy reveal the underlying cyclical trends. Seasonally adjusted data are subject to revision when seasonal factors are revised each year.
The unadjusted data are of primary interest to users who need information which can be reiated to the actual Jollar values of transactions. Individuals requiring this information include marketing specialists. purchasing agents, budget and cost analysts, contract specialists, and commodity traders. Unadjusted data generally. are used in escalating contraits such as purchase agreernents or real estate leases.

Table 1. Producer price indexes and percent changes by stage of processing

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Grouping} \&  \& \multicolumn{3}{|c|}{ustad ind} \& \multicolumn{2}{|l|}{} \& \multicolumn{3}{|l|}{Sessonn 11 y odiustrd} \\
\hline \& 90¢\% \& Juty 1980 \&  \& \({ }^{1988}\) \& Noy\% \& \({ }_{6}^{0.650}\) \&  \& \({ }_{\text {copt }}^{\text {Det. }}\) to \&  \\
\hline  \&  \& 2479
2496
239 \& 252.2
253
25 \& 253.2
254.7
24. \& 12. \& 9.4 \& -0.2 \& - 8 \& 0.6 \\
\hline Finhirshe consureortood \&  \& 249.6
2393
23.8 \&  \& 254.7
24.9
248.2 \& 12.8
8.8
8.8 \& , 4 \& - 5 \& -7. \({ }^{-6}\) \& 2.5 \\
\hline  \&  \& 233.8 \& 231.38 \& \begin{tabular}{l}
243.2 \\
285 \\
285 \\
\hline 25
\end{tabular} \& 8.8 \& - 3 \& 5.8 \& -7:4 \& 2.9 \\
\hline  \& 47.375 \& 231:9 \& \({ }^{255} 5\) \& 2559
285
20,9 \& 16.9 \& : \& -. 1 \& . 2 \& 1.1 \\
\hline  \&  \& \(\underset{290.5}{206.6}\) \& 2188.0 \& 210.0
249.1 \& 11.8 \& -. 2 \& -. 1 \& 1.2 \& \(-2\) \\
\hline  \& \({ }^{100} 98.000\) \& 281.0
\(265:\) \& 2848 \& \({ }^{238} 81.0^{\circ}\) \& 12.4 \& \({ }^{6}\) \& . 6 \& \% \& ': \\
\hline  \&  \& 2869
2597
257 \& 29.8
259.6 \& 323:
301
261 \&  \& : \& -1.5 \& 8.4 \& \% \\
\hline  \& 18.537 \& 259.2
2993 \& 259
595
59 \&  \& 12.2 \& \& - 1.2 \& \(\therefore\) \& \({ }^{1} .2\) \\
\hline  \& (1.2288 \& 231.6
269.8 \& \({ }^{2312} 21\) \& 238.5
273.9 \&  \& : \& . 5 \& . 7 \& 1.1 \\
\hline  \& (12.459 \& 536.2 \&  \&  \& 22. 2.8 \& \(\because\) \& \% \& --2 \& : \\
\hline  \& 5 7.455 \& 3736
366
368 \& 314.9
63 \&  \& 28.3 \& - 1.3 \& 1.7 \& -2 \& 2.2 \\
\hline Continer \& 14.954 \& 264.6 \& 270
259
259 \& 269.8
256.3
265 \& 10.7
83
19 \& \(\because: 1\) \& \(1: 8\) \& . 8 \& 1.3 \\
\hline Manufecturing industr \& 4.575 \& 235.8 \& 234.4
\(265: 8\) \& 235.
267 \& 19.6 \& -3, \& : \(\%\) \& 6 \& . 3 \\
\hline  \& , 7.750 \& 257.5
277 \& 26.8
2646
2606 \& \(269: 4\)
263. \& 14.9 \& 3: \& \% \(\%\) \& 1:7 \& \(\therefore 8\) \\
\hline Crude enturials for further \& 100.000
\(55.46 \%\) \& 316.6
265.5 \& 3839.0 \& \& \& \& 1.15 \& \& 1.1 \\
\hline Foongtut is mnd fedstufts \& 54.985 \& \({ }^{365} 4\) \& 2749 \& 277.3
532.0 \& 12.5
20.6 \& \(\because 6\) \& 3.3 \& \begin{tabular}{l}
1.5 \\
\hline 2.5
\end{tabular} \& 1.8 \\
\hline Nopfoodmateriti; \& 27.895 \& 3312 : \({ }^{3}\) \& 3353.5 \&  \& 173
\(7 \%\) \& \(1: 3\) \& 2.9, \& 2.7
2.7
2.7 \& 7.5 \\
\hline Cruant fuet \& +2.276 \& 324,
719
719 \&  \& 3276:3 \& 15.7
25.7 \& 1.3
2.6 \&  \& 2.7

2.6
2.6 \& : 1.4 <br>
\hline  \& - \& $781: 3$
667.3 \& 804:9 \& ${ }_{818}^{81 \%} 8$ \& 2.
2.1
2.5 \&  \& 3.8
3.5
3.4 \&  \&  <br>
\hline Spacial aroupinas \& \& \& \& \& \& \& \& \& <br>
\hline  \&  \& 286:9 \& 251.7
286.6 \& 252.7
285.0 \& 13:0 \& $\cdot{ }_{5}$ \& \& 9 \& ? <br>
\hline Intermoditet food, nd feeod. \&  \& 251:0 \& 285
582
58 \& 283: \& 21:2 \& 2.3 \& \& \& <br>
\hline  \& 12 \& +1. \& 532.5 \& 510.4 \& 20.3 \& 1.6 \& 3.0 \& 2.9 \& 1.8 <br>
\hline Finishad oneray goods... \&  \&  \& 683:4 \& 626:
2298
220.8 \& 28.19 \& 4 \& -: -8 \& i: \& $\begin{array}{r}1.3 \\ -5 \\ \hline\end{array}$ <br>
\hline finished qoodz lass foods and enerav. Finishad consuner goadg less toods and enercis Consumer nondursble geodz less foods and energy. \&  \& 217.4
295
193
18.6 \& 222.3
2096
196 \& 221.3
298.3
198.3 \& 11:\% \& - ${ }^{3}$ \& : 1 \& : $\%$ \& 6 <br>
\hline Intermediate eneray goods. Intermediate materials less meray................ $\qquad$ \&  \& 487.1
2663
26.6 \&  \& 492.0
2678
26.8 \& 23.7
10.7
9.7 \& : 7 \& : 6 \& - 2.1 \& 1.7 <br>

\hline |  |
| :--- |
|  crude nenfood materials | \&  \& 631.6

2537
256.4 \& 669.7
2737
276.8 \& 678.6
273.5
28.6 \& 24.1
12.2
10.9 \& 1.6
2.1 \& 2.5

4.9 \& $$
\begin{aligned}
& 1.8 \\
& \text { an } \\
& 3.8
\end{aligned}
$$ \& 1.6 <br>

\hline
\end{tabular}

[^6]Table 2. Producer price indexes and percent changes for selected commodity
groupings by stage of processing groupings by stage of processing

| Comodity code | Grouping | Resetive limoerkance <br> Dec. <br> 1979 $1 /$ | Unadjustedindex |  |  |  | Seasonally adfusted gencent ehange from: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\left\lvert\, \begin{array}{lll} 0 c t \\ i 980 & z \end{array}\right.,$ | $\begin{array}{\|l\|l\|l\|l\|l\|l\|l\|l\|l\|l\|l\|l\|l\|l\|l\|l\|l\|} \end{array}$ | Nou; | $\begin{aligned} & 0 c t \\ & \text { igiti } \end{aligned}$ | Aug.to | Sept.to ${ }_{\text {act }}$ | $\begin{aligned} & \text { Dect. to } \\ & \text { Nov. } \end{aligned}$ |
|  |  | $\left\lvert\, \begin{aligned} & 100.089 \\ & 11.632 \\ & 24.257 \end{aligned}\right.$ | $\begin{aligned} & 252.2 \\ & 253.6 \\ & 245.4 \end{aligned}$ | $\begin{aligned} & 253.2 \\ & 254.7 \\ & 246.9 \end{aligned}$ | 11.9 12.2 7.1 | $\begin{array}{r} 0.4 \\ .4 \\ .4 \end{array}$ | -0.2 -.2 -.2 | 0.8 .8 .8 | 0.6 .7 |
| :1-11 |  | . 433 | 223.4 | 219.0 218.5 | 21.9 | -2.0 | -2.3 | -14.3 | 8.3 |
| :1-7 |  |  |  | 194.0 |  |  | I.) | 2.1 |  |
|  |  | 2.139 .198 198 | 251.; | 255.2 232.4 265 | 10.0 12.3 | 1.3 -12.1 | -. -1 | 2.0 | 1.2 -.6 |
|  | Milied rice.............. | -142 | 217.2 | 235.8 | 14.6 | 12.1 | 9.1 | 1.8 | 5.7 |
| 馹-14-21-11 | Other enderesls | ${ }^{3.586}$ | 260.4 | 263.7 24.7 | 12.6 | -3.3 | -2.3 | . 7 | 4.i |
| 02-21-64 | port......... | 3.637 | 225:9 | 22.6 | 18.3 | -1.9 | -7. 2 | 1.7 | 3.0 |
| -02-22 | Processed pou. | $\xrightarrow{.805}$ | 211 350. | 207.7 357 | -8.3 | -2.5 | 6.5 | 1.2 | i:8 |
| $02-3$ | dairy produets. | 3.653 | 238.4 | 240.6 | 9.7 | 2.9 | .2 | \$. 2 | 1.8 |
| 02-63-01 |  | 1.624 | 234.5 | 235.2 | 5.8 | : 3 | . 8 | . 3 | 0.8 |
| 02-93 |  | . 133 | 281.5 118.0 | 282.3 120.7 | 135.1 | 2.3 | -1.5 | 23.1 | 2.3 |
| 32-63-61.. | koasted coffee...................... | 1.881 | 353.3 | 346.7 | -13.2 | $-1.7$ | -2.9 | -2.7 | -. 1.1 |
| ${ }_{02-74}$ | Vegetable oil end product; | - 690 | 235.7 | \$37.5 | 2.5 | . 8 | -. 2 | -. | $1:$ |
| 02-8 | Miscallaneous procassed foeds | 2.427 | 230.6 | 235.0 | 5.8 | 1.9 | 1.3 | 1.6 | 1.9 |
|  | FIMISHED CONSUAER goods excluding fgods. | 47.375 | 235.0 | 253.9 | 14.7 | 4 | -. 1 | . 6 | . 7 |
| 02-61 | Alcoholte bavarager ${ }^{\text {a/ }}$ | 1.47\% | 180.0 269.5 | 2850.; | 8.5 19.3 | 2.4 | . 8 | : 9 | 2.4 |
| 03-81 | Apparel . Textile hou | 5.123 | 175.5 | $\begin{aligned} & 176.0 \\ & 288.0 \end{aligned}$ | +0.9 | 0.3 | 2.3 | . 5 | -. 5 |
| $\begin{array}{r} 04-3 \\ -04-61 \end{array}$ |  | 1.896 .302 | 234.8 | 257.7 177 | 9.3 | $\stackrel{4}{4}$ | - 2 | 2.4 | . 8 |
| 05-71 | axsoline | 6.627 | 441.6 | 661.\% | 31.6 | 0 | -. 7 | -. 2 | , |
| 93-72-02-01 | Kerosent (Fat 1973=190 | $\begin{array}{r} \\ -346 \\ \hline-38\end{array}$ | 683.2 | ${ }^{889.7}$ | 23.1 | 1.8 | - 1 | -. 5 | ? |
| ${ }_{05-76}^{05-73-02-01}$ |  | 2.481 .308 | 692:7 | 305.9 | 21.8 20.1 | 1.8 | $-.2$ | -. -6 | : |
| 96-35 | Pharmaceutical preparations, ethical (Prascription) 1/ | 1.122 | 156.4 | 198.2 | 10.4 | 1.2 | . 1 | . 6 | 1.2 |
| -86-36 | Phareacoutical preparations: proprictary (0uerthe |  |  | 217.2 | 14.9 |  | 1.1 | 2.9 |  |
| $06-71$ $06-75$ |  | . 878 | 223.5 | 223.9 | 10.8 20.5 | 1. 2 | $1: 1$ | . 8 | 2.28 |
| 97-12 ${ }^{\text {a }}$-13-11 | lires and tubee | $\begin{array}{r} 700 \\ . \\ \hline 201 \end{array}$ | $\begin{aligned} & 266.7 \\ & 217.4 \end{aligned}$ | $\begin{aligned} & 244.7 \\ & 217.5 \end{aligned}$ | $3.7$ | ${ }^{0} .2$ | 1.1 -8.2 | 1.7 | .1 |
| 97-13-11 |  | .281 .190 | 217.4 134.0 | 21.5 132.5 | 3.8 3.7 | .2 -1.1 | -1.2 | 0 | -1, ${ }^{\text {- }}$ |
| 07-28 | Coneumer and comarciai plastics,not olsmere <br> elaseified (June $1978=100$ ) y /..................... | . 360 | 122.3 | 122.3 | 8.8 | 0 | 2.7 | . 7 | 0 |
| 09-15-01 | sanitary papars and hasith products | 1.008 | 336.9 | 339.6 | 16.7 | . | 0 | . 5 | . 6 |
| $12 \cdot 1$ | Household furniture | 1.603 | 207.7 | 209.1 | 8.3 | .7 | 1 | 3 | 5 |
| $12-3$ $12-4$ | Floor eovaringa, | 1.681 | 176.6 | 167.2 | 7.7 | . 3 | 9 | . 3 | . 3 |
| $12-5$ | Home elsetronic equipaent ${ }^{\text {a }}$ | -861 | 85.9 | 91.1 | . 9 | 2.5 | 2 | - 2 | 2.5 |
| 12-6 | Othar househald durablo good | . 888 | 277.8 | 278.6 | 12.2 | . 2 | 5 | 1.3 | . 2 |
| 14-11-69 | pasasagar ears. | 5.768 | 198.0 | 198.3 | P.8 | . 2 | -4.2 | 3.4 | . 7 |
| 15.1 | Tey*, *porting geods, mall | 1.153 | 202.0 | 202.8 | 11.9 | 2.4 | . 5 | 2 | 8 |
| $15-2$ $15-5$, | Tobacce product: | 1.459 | 248.7 152.8 | 253.7 152.8 | 16.3 | 2.0 | -. 3 | . 7 | 2.0 |
|  |  | -174 | 108.5 | 108.3 | 3.9 |  | . 4 | -.8 | 0 |
|  |  | 1.073 | 233.4 | 222.3 | 45.1 | -6.4 | 8.0 | . 5 | -6.4 |
| $\begin{aligned} & 15-94-63 \\ & 15-94-04 \end{aligned}$ |  | . 238 | 114.7 | 164.7 13.5 | 27.1 | -. | 5.9 | : 4 | -. 9 |
|  | capital equiphent | 28.368 | 248.2 | 249.1 | 11.3 | . 4 | -. 1 | 1.4 | . 6 |
| 10-42 | Hand tools | . 306 | 286.9 | 287.3 | 13.3 | . 1 | 1.4 | . 9 | -. 3 |
| 11-1 | Agricultural machinary and equipaont. | 1.263 | 242.8 | 264.1 | 9.3 | 1.3 | 1.0 | - 3 | 3 |
| ${ }_{11-32}^{112}$ | Construction machinery ang aqupment | - 197 | 297 197 | 197.1 | 12.8 |  | . 1 | 1.2 |  |
| 11-34 | Industrial process furnaces and ovene | . 163 | 30.18 | 303.7 | 12.1 | 4 | . 3 | 1.1 | 4 |
| $11-37$ 1118 |  | .306 .252 | 325.7 356 | 328.6 357.2 | 15.7 13.6 | 1 | - -1 | 1.2 | \% |
| $111-38$ $11-41$ 108 |  | . 248 | 296.3 | 297.7 | 13.6 | . 4 | -. 8 | 1.6 | . 6 |
| 11-44 | Industrial materiai handiing equipment 3 | 995 | 239.2 | 261.2 | \$. 0 | . 8 | . 3 | 1.2 | d |
| 11146 $11-47$ | Scales and balsneas yelo.....il | . 047 | 214.9 302.2 | 215.5 308.1 | 17.1 | 2.8 | ${ }^{6} .6$ | ${ }_{0} .4$ | 2.6 |
| 11-48-82 | Unitary air eonditionars (Dac. $1977=100$ ) | - 336 | 123.6 | 124.3 | 8.0 | . 6 | $0 \cdot$ | $0 \cdot$ | 6 |
| 11-6 | Spaciai industry machinery and equipgont | 2.702 .384 | 286.2 187 | 287.9 188.0 | 12.9 | . 2 | 2.1 | 1.1 | . 2 |
| ${ }_{1}^{11-72} 11-73$ | Integrating and masaring inptrument | - 384 | 187.6 307.5 | 188.0 307.5 | 25.3 | $0^{-2}$ | $0^{.3}$ | 1.3 | $0^{.2}$ |
| ${ }_{11-74}^{1-73}$ | Tranyformare and powar regulators 3 | - 538 | 192.3 | 190.9 | 25.6 | $\bigcirc .7$ | - | $1: 5$ | -. 7 |
| - $\begin{aligned} & 11-41 \\ & 11-92 \\ & 1.92\end{aligned}$ | Oilifiold machinary and teois ${ }^{\text {and }}$ Mining | -487 | 350.0 315.2 | 355.7 318.6 | 13.9 | 1.7 | .3 | $\begin{array}{r}2.3 \\ \hline .9\end{array}$ | 1.7 |
| 11-93 | Office and storp exchines and equipmeent | 1:793 | 142:4 | 142.9 | 5.9 | . 4 | . | . 5 |  |
| 12-2 | commercisl furnitura | 1.111 | 241.2 | 261.5 | 8.2 | . | 1 | 1.6 | 1 |
| 14-11-01 | Pasameror cars. |  |  |  | 9.8 | -2 | -4.2 | 3.4 | . 7 |
| $\begin{aligned} & 14-11-62 \\ & 14-21-11 \end{aligned}$ | Motor Erueks. <br> Fixed wing. utility aircraft (D.ac. igisziob | 3.673 | 247.9 | 247.6 254.9 | 12.6 | -. | -3.0 | 4.4 | -. 2 |
| $=14-21-11$ |  | r.674 | 323.3 | 234.6 | 15.9 12.5 | 0 | 1.1 | 2.8 | -. -1 |
| $\begin{gathered} 15-41 \\ 15-71-64 \end{gathered}$ | photographic aguipment. Guards, gechanical powit prosit ijunc isis:ionij; | . 468 | $\begin{aligned} & 124.5 \\ & 113.1 \end{aligned}$ | 123.7 | 3.9 | $7.4$ | $-2.3$ | ${ }^{6} .4$ | 9.3 |

Sen footnotes at and of table

Table 2. Continued-Producer price indexes and percent changes for selected commodity groupings by stage of processing


[^7]' Table 2 Continued-Producer price indexes and percent changes for selected commodity grouplngs by stage of processing

|  | orouping |  | Unadjustod |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | \% | 98i |  |  | ${ }^{\text {avepept. }}$ | ${ }^{06}$ | Hov. ${ }_{\text {cos }}$ |
|  |  <br>  <br>  <br>  <br>  <br>  phining devine $\qquad$ <br>  <br>  |  |  |  | 20.3 |  |  |  | \% $\frac{1}{2}$ |
|  |  |  |  |  |  |  |  |  |  |
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|  |  |  | 1270: |  |  |  |  |  |  |
| \{ation |  | 575 | (10, | 27, ${ }^{27}$ |  |  |  |  |  |
| (107 |  | 363 |  |  |  |  |  |  |  |
| a |  |  | cole 23.1 |  |  |  |  |  |  |
| ain |  | - ${ }^{\text {¢ }}$ | $\xrightarrow{316.6}$ | 319:9 2869 | 1.18 .1 |  | . 4 | : |  |
|  |  | . 54 | 200. | 2085: | ; 3 |  |  |  |  |
|  | Flat olasz ${ }^{3}$. <br> Concrete product: <br>  | - 3.24 |  | 273:6 | 10.9 |  |  |  |  |
|  | concrist cemont.... <br> Structural eloy productis. ©x refractories Refracteries. | - 3.48 | 20: ${ }^{20}$ |  | 19, ${ }^{19}$ |  |  |  |  |
| S |  | - | Stisiof |  | 75:5 |  |  |  | : 6 |
| 14-12 |  | 3.753 | 238.1 | 258. | 10.6 |  | , | 5 | 2 |
| ${ }^{13} 5-3$ | Motor vehicio parts. $\qquad$ <br> Motions $3 /$ | 100 | 225.0 | 220: | 68: ${ }^{6}$ | i. 8 |  |  | i. 8 |
| - | Raspiratory protective equipmont (June $1978=1901) y$ <br> Eye and foce protective equipment | $0 \cdot 6$ | 23.0 | 125 | 10.6 |  |  | ' |  |
| 边 |  | :823 | 126:\% | 126:3 | 3 | $\cdots$ |  | . 3 | $\because \cdot 1$ |
|  | Pretective elething ijuns is7azionj i; <br> lomplars materlals and finding | 315 | 248.1 | 22 | 51.7 | -7.4 | . 5 |  | -7.4 |
|  | Crude materials for furtimer processino............ | 00.001 | 386.0 | 337. | 16.1 | 5 | 1.3 | , | . |
|  | CRUDE FONDSTUFFS AKD FEEDSTUFFS ....... <br> frath and driad fruity and vegetables. | 55.66 | 279. | 277. | 12.9 | - 6 | -. 4 | 3 |  |
| ${ }^{1 / 1}$ |  | 2. ${ }^{2} 1035$ | (20.4 | ${ }_{2}^{276}$ | 13.5 | 2.5 | $3: 1$ | 11. ${ }^{2}$ | 4 |
|  | frask and dried fruiti and voatables. <br> Grinhot <br> Gividochitiv <br>  | 2il |  |  | , 21.6 |  |  |  | : |
| : |  | cos |  |  | 20.3 | : $\%$ | ; ${ }^{3}$ | i:3 | 4 |
| 8:-9+-61 |  <br> Grien cotfer <br> cocoz beans. | 2.30 | 314:3 | 399:7 | -29.6 | -8. ${ }^{3}$ | -10:5 | -1 | 3 |
| $02-52-01-a .1$ | 1 Cane suaar, rem zo.... | 1.650 | 366.6 | 362,3 | 152.5 | -4. | -5.2 | 2 L | . 1 |
|  |  | 14.534 | 44.1 | 532.0 | 20.6 | . 8 | 3.3 | 2.5 | 1.8 |
|  | Hides and sting. | 1:364 | ${ }^{218} 96$ | 207:2 | 33. ${ }^{2}$ | 3. | (is | 959 | ' ${ }^{\text {a }}$ |
| $04-1$ |  | 3 | 31.5 | 0 | -8.6 | . 2 | $\cdot$ | 12.6 | 10.6 |
|  |  |  | \$11:9 | 495:3 | 5.5.5 |  | : $:$ | 2i. ${ }^{-1}$ | : |
| 06-52-13 |  | . 187 | 250.7 | 249.4 | 22.4 | -. 3 | -4.0 | 3.6 | * |
| $07-1-14$ | Potash ............................................................. | .35 | 370.8 | 369.6 | 15.8 | -. 3 | 6.4 | 1.8 | . |
| -9-12 |  | . 274 | 19.8 | 19.7 | -12.9 | -. | $-1.3$ | 1.2 | -2.5 |
| 10 |  | s:98 |  |  |  |  |  |  |  |
| 13-21 |  |  | 245.6 | 247.6 | 15.2 | , | 2.0 | 2. 6 | . 1 |


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( Not zazsonsily sajusted.
4) Not avsilable.

5/ The October 1980 Producer Price Index for lenther (compodity code 04-2) shown in last month'a release was found to be subitantially in error and has cherefore been withdrawn. The corrected October PPI for leacher ulll be svailable when Oetober indexes sre routinely reviatd and releaned on March 6, 1981. Major stagerof-procensing Indexes for
October were not affected by this mietaka.
$\underset{\substack{\text { Table 3. } \\(196=1,0)}}{ }$ Producer price indexes for ralacted commodity groupings'


1/ Indexes for these commodity aroupings are not included Indexas for these commodity aroupings are not included
in Table 2 because their componentsara divided amang different
stages of processing.

2' Data for July 1980 have been revised to reflect the availability of late reports and corrections by respondents. All data are subiect to revision 4 months after original publication.

3/ Prices of some items in this grouping are laqqed 1 month.
4/ The October 1980 Producer Price Index for leather (comuodity code $04-2$ ) shown in last month's release was found to be substancially in error and has therefore been withdrawn. The corrected October PPI for leather will be available when October indexes are routinely revised and released on March 6, 1981. Major stage-of-processing indexes for October were not affected by this mistake.

Chart 1
Finishod Goods Price Index and its components
1970 - 80
3-month annual rates of change
(Secsonally adiusted)


## Chart 2

Intermediate Materials Price Index and its components
$1970-80$
3-month annual rates of change
(Seasonally adjusted)


## Chart 3 <br> Crude Matericis Price Index and its components 3 -month annual rates of change <br> (Seasonally adiusted)



Senator Bentsen. With the numbers that you have given us, can you tell what stage of the business cycle we are in?

Ms. Norwood. I think we are certainly moving out of the recession. I think to look further ahead than that depends, as you yourself said at the beginning, on what happens to interest rates and what effect that might have on our economy.

Senator Bentsen. Are the November employment figures consistent with the other numbers that you have on the economy's performance?

Ms. Norwood. Yes, I believe they are.
Senator Bentsen. What's happening on these lower unemployment figures on automobile workers? Are they being recalled to work in the automobile industry? Or do you think they might be going into other lines of work?

Ms. Norwood. I think there are two things that are happening, Senator. One is that the number of people on layoff-that is, waiting to be called back to work-has been reduced considerably this month. So I think that, in automobiles and in steel in particular, the number of people on layoff has probably been reduced.

In addition the data that we have refers to the prior employment of the workers. The fact that there's been a steep reduction in the unemployment rate for automobile workers, doesn't necessarily mean that they have been called back to work in the automobile industry. People who before their unemployment had their last job in the automobile industry, had an unemployment rate in May of 29 percent and now have an unemployment rate of 14.9 percent. That's quite a steep reduction. It's still a high rate, but it's quite a steep reduction. Some of them have gone back to work in the automobile industry, and many of them are probably employed in other industries.

Senator Bentsen. Well, turning to the reduction in unemployment in manufacturing, do you find temporary factors at work? Or do you think a more lasting change has occurred in that sector?

Ms. Norwood. I think that what we're seeing
Senator Bentsen. I'm thinking about remodeled cars, for example, coming along and the activity of the showrooms for that. Is that possibly the type of temporary factor that is bringing this about? Or do we see something more substantial and long-lasting than that happening?

Ms. Norwood. The automobile industry I think is particularly difficult to analyze at the moment, in part because we don't know what the effects of higher interest rates may be on the future automobile sales. But I think that in general the over-the-month increase of something like 100,000 jobs in manufacturing is a very positive sign. Most of that is in durable manufacturing, and that shows that we are moving forward, not necessarily in the automobile industry, but in general in the manufacturing processes.
We have also had a rather interesting situation in that even during the recession, since January, we have had continuing slow increases in employment in the service-producing industries, and that is still continuing.

Senator Bentsen. You've had increasing what?
Ms. Norwood. Increasing employment, even since January, in the service industries.

So that what we've had is a deterioration of the economy, particularly in the second quarter of 1980, which hit construction and durable manufacturing in particular. But during that period, for most months, employment in the service sector was still continuing upward.
Senator Bentsen. With high inflation continuing to erode family purchasing power, do you see an increase in the number of members of the household seeking work?
For example, in the past we have seen more women seeking work, more wives seeking work, to try to counterbalance what's happening to the family budget because of inflation. Do you see a continuation of that? And if that's the case, does that also mean it's going to be even more difficult to cut down the unemployment rate?
Ms. Norwood. That question is one that we have thought a great deal about. As I said earlier, the increase in the labor force has been rather sluggish; and yet over the last year, almost three-quarters of the labor force increase has been due to women.

On the other hand, we already have a very high proportion, by historical standards, of our husband-wife families with two earners in the household. That is, more than 55 percent of the husband-wife families in this country have more than one earner.

I don't know how much further that will increase. It could still, but I think that, at least as of now, the signs do not point to the enormous expansion of women into the labor force that we had during the 1970's. There will be some, but I would be surprised if it were as vigorous an expansion as in the past. The labor force participation rate of women is quite high now. I believe that it will go up some more, but probably not as dramatically as it did before.
Senator Bentsen. With the increase in taxes that will be taking place in January, the social security tax increase, that's $\$ 16$ or $\$ 17$ billion, something on that order, together with the bracket creep and the windfall profits tax, you'll have a total of about $\$ 86$ billion in new taxes.

Barring a tax cut, how quickly do you see that having an impact on the economy? What will be the result of the increased drag on the economy, of having that much less money in the consumers' pockets to spend?
Ms. Norwood. I think there will be several things affecting the economy. First, we know that there is going to be for more than $51 / 2$ million workers an increase in minimum wage, which will push wage rates up some. In addition, the social security costs that you've mentioned will rise. There will probably be other upward pressures on wages in part because of the decline in real earnings. I think that the whole question of food prices and of interest rates are also evidence that the inflation problem is going to continue to be a serious one. That could have a fairly quick effect on employment, again depending on what happens to sales of durable manufacturing in particular.

I think one other element that we have to factor into this is the rest of the world. In some cases, our trading partners, particularly in Europe, are going through some difficulties. And that could well affect our exports.

Senator Bentsen. I just returned from the meeting with Sir Jeffrey Howe, Chancellor of the Exchequer in England. After listening to his problems, I thought ours weren't quite so bad.
In looking at these price numbers-and they are going down-do you see them affecting the inflation rate yet? Is there a likelihood that we're going to end up coming out of this recession with a higher core inflation than we did during the last one?

Ms. Norwood. I think there are signs that that has happened historically after each recession. We seem to have come out with a higher inflation rate.

May I say, Senator. that I have just returned from a department to ministry visit to Israel. When I was there they announced a consumer price index of 11 percent for the single month of October.

Senator Bentsen. They have three-digit inflation there, don't they?
Ms. Norwood. Yes, they do. And they have an almost totally indexed economy. And I must say that I found that quite fascinating to learn about. I am pleased to see that the Congress of the United States and the executive agencies of the U.S. Government are paying so much attention to inflation, because that-the Israeli experience--is certainly something we want to avoid.

Senator Bentsen. The indexing of the economy didn't seem to stop inflation at all or even to fully take care of the impact in Israel; has it?

Ms. Norwood. No. In fact, what it tends to do is to build in expectations of inflation. But it's the only way in which people can cope with a three-digit kind of spiral. Nevertheless, it tends to build in-and I think everybody recognizes that-rather inefficient production because you tend to look at those things which are not indexed as ways of cutting costs. There are not many.

Senator Bentsen. It's almost impossible, I think, to index everything, and so you get some very serious distortions. That's the problem we have seen in Brazil. Indexing hasn't worked for them.
In looking at what's happening to unemployment among blacks, I notice that among minorities, it stayed pretty static at 14 percent. It appears that they have not really shared in the recovery. Is that a fair statement?
Ms. Norwood. Their employment situation has been fairly stable at a higher level. But on the other hand, during the second quarter, when there were large employment declines in some of the durable manufacturing industries, both whites and blacks suffered considerable increases in unemplovment. So it depends on which side you're looking at. But certainly there are very serious problems remaining for blacks and minority groups of all kinds in the United States.
Senator Bentsen. Did I understand you to say gasoline prices have been going up?

Ms. Norwood. In November, yes.
Senator Bentsen. Why is that? What underlying factors do you see. other than the Iranian-Iragi war?

Ms. Norwood. It's only a single month, and I think we really don't know.

Perhaps Mr. Layng has something to add to that.

Mr. Layna. I don't think the situation has affected the PPI yet.
Senator Bentsen. I know it hasn't affected it insofar as supply yet. I was wondering about psychologically.

Mr. Layng. I don't know. It's difficult to tell that. I think it's more a shift in the seasonal pattern. We did not get increases in the summer, when you would normally be expecting prices to go up. They didn't go up because demand was weak.

Now in the fall, we expected prices to go down. And they didn't. Basically, we had a zero unadjusted change when we were expecting a decline, which translates on a seasonally adjusted basis into an increase. So I think it's basically a shift in the seasonal pattern that didn't materialize this year the way it normally does.

Senator Bentsen. As we saw the shift in demand in the automobile industry, we saw manufacturers come in with one price increase after another on their smaller cars. And now we've seen the slump in new car sales. Have the manufacturers responded now with some price cutting on some of the smaller cars, the new cars?

Ms. Norwood. I think there has been some stability in prices of cars. At least, there was a slowdown in the increase in prices. The increase in automobile prices over the year is about 10 percent, so that's not completely out of line.

What has happened is a complete change in pricing policy-first, prices are adjusted not just once a year, but each month-

Senator Bentsen. May I interrupt a moment though? When you're talking about 10 percent though, hasn't there been quite a shift in the price increases on the product mix of the company? Have companies avoided increasing prices of slow-moving larger cars and substantially increased the prices on some of the smaller cars?
Ms. Norwood. Yes. I think that the difference between the small car and large car prices have narrowed considerably. At least in discussions I have had with economists from the automobile companies, they've told me that the new approach to pricing autos is based on that. I'm not sure that has shown up much in our indexes, however.

Senator Bentsen. Do you expect to see any stability in food prices for the near future? Or are we headed for further problems because of bad weather and low grain supplies?

Ms. Norwood. We've had some stability over the last couple of months at only a 0.5 -percent increase. The Department of Agriculture, I note, and a lot of private forecasters are expecting rather large increases, partly because of grain shortages. It's clear that they have not happened yet. Exactly when they will hit or if they will hit is something that we just don't know.
But people who are expert in the field have forecast higher prices.
Senator Bentsen. Well, Commissioner, we have been very appreciative of your presentation this morning. It is some encouragement.

Ms. Norwood. Thank you very much. It's always a pleasure to appear before you.

Senator Bentsen. I wish you the best of the season.
Ms. Norwood. Thank you.
[Whereupon, at $10: 25 \mathrm{a} . \mathrm{m}$., the committee adjourned, subject to the call of the Chair.]


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[^4]:    1 Difference refers to a comparison between the Chase August alternative run 2, no tax cut, versus the Chase August alternative run 4, administration economic proposal.
    Source: "Macroeconomic Forecasts and Analysis," Chase Econometrics Associates, Inc., August 1980.

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