## SURVEY OF CURRENT BUSINESS



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RREVISED estimates show that real GNP increased at an annual rate of one-half of 1 percent, the same as the 15-day estimate (table 1). A downward revision in personal consumption expenditures was about offset by an upward revision in net exports. GNP prices as measured by the fixed-weighted price index increased $91 / 2$ percent, also the same as the 15 -day estimate.

## Corporate profits

Corporate profits from current pro-duction-before-tax book profits with inventory valuation and capital consumption adjustments-at an annual rate decreased $\$ 10 \frac{1}{2}$ billion in the first quarter, following a $\$ 11 / 2$ billion increase in the fourth quarter of 1978. The swing was largely in trade and in manufacturing.

Domestic profits of nonfinancial corporations more then accounted for the first-quarter decline. These profits, at an annual rate, declined $\$ 12$ billion following an increase of $\$ 10$ billion in the fourth quarter. An increase in real corporate product was not large enough to offset a decline in profits per unit of real product (chart 1). Unit profits reflected a faster increase in costs incurred by corporations than in the prices they charged. The first-quarter decline in profits was largely in trade. In manufacturing, an increase in motor vehicles partly offset declines in other durable goods industries, and a decline in food partly offset increases in other nondurable goods industries.

Before-tax book profits at an annual Trate increased $\$ 2$ billion in the first quarter, following a $\$ 193^{\prime}$ billion in-
crease in the fourth. These profits exclude the two valuation adjustments,
which are designed to value inventories and fixed capital used up in production

Table 1.-Revisions in Selected Component Series of the NIPA's, First Quarter of 1979


1. Not at annual rates.

Note.-For the first quarter of 1979, the following revised or additional major source data became available: For personal consumption expenditures, revised retail sales for February and March, and sales and inventories of used cars of franchised automobile dealers for February; for nonresidential fixed investment, manufacturers' shipments of equipment for February (revised) and March, construction put in place for February (revised) and March, and a partial tabulation of business expenditures for plant and equipment for the quarter; for residential inyestment, construction put in place for February (revised) and March; for change in business inventories, book values for manufacturing and trade for February (revised) and March; for net exports of goods
and services, merchandise trade for February (revised) and March, and revised net investment income and other services receipts for the quarter; for government purchases of goods and services, Federal unified budget outlays for March, and State and local construction put in place for February (revised) and March; for wages and salaries, revised employment, average hourly earnings, and average weekly hours for February and March; for net interest, revised net interest received from abroad for the quarter; for corporate profits, domestic book profits for the quarter, and dividends from abroad and branch profits (net) for the quarter; for GNP prices, the Consumer Price Index for March, unit value indexes for exports and imports for March, and residential housing and nonresidential buildings prices for the quarter.
at replacement cost, the valuation concept underlying national income and product accounting, rather that at historical cost, the valuation concept generally underlying business accounting.

If, as in the first quarter, the historical cost of inventories used up is less than their replacement cost, profits as measured by business exceed profits as measured in the national income and product





NOTE- - Real output is constant dollar gross domestic corporate product (GDCP). Price per unit is current dollar GDC divided by constant doliar GOCP. Costs and proints per
unit are respective components of current dollar GOCP unit are respective components of
divided by constant dollar GDCP.
U.S. Department of Commerce. Bureau of Economic Analysis
accounts by an amount that is called inventory profits. Inventory profits increased $\$ 12$ billion in the first quarter, following an increase of $\$ 7 \frac{1}{2}$ billion in the fourth. The first-quarter increase resulted from an acceleration in prices of inventories in almost all industries.

Corporate profits taxes at an annual rate decreased $\$ 5 \frac{1}{2}$ billion, following an increase of $\$ 8$ billion in the fourth quarter. The decrease resulted from the reduction in Federal corporate income tax rates and other changes provided by the Revenue Act of 1978. Primarily as a result of these changes, after-tax profits increased $\$ 7$ billion, following an increase of $\$ 11$ billion in the fourth quarter.

## The Federal sector

The Federal Government deficit at an annual rate, as measured in the national income and product accounts, declined $\$ 2 \frac{1}{2}$ billion in the first quarter of 1979 , as receipts-despite large tax reductions-increased more than expenditures. The deficit was $\$ 181 / 2$ billion, compared with $\$ 21$ billion in the fourth quarter of 1978.

Receipts at an annual rate increased $\$ 7$ billion in the first quarter; the increase was held down by tax reductionsabout $\$ 19$ billion-under provisions of the Revenue Act of 1978 and the Energy Tax Act of 1978. Personal tax and nontax receipts declined $\$ 1 \frac{1}{2}$ billion; tax reductions under the Revenue Act and the Energy Tax Act- $\$ 13$ billion-were largely offset by rising incomes and large final settlements on 1978 liabilities. Corporate profits tax accruals declined $\$ 53 / 2$ billion, reflecting a $\$ 6$ billion tax reduction under provisions of the Revenue Act. Indirect business tax and nontax accruals increased slightly; a reduction in the telephone excise tax rate was more than offset by increases in other indirect business taxes. Contributions for social insurance increased $\$ 13$ billion, including $\$ 9$ billion due to changes in the social security tax. In January, the taxable wage base increased from $\$ 17,700$ to $\$ 22,900$ ( $\$ 7.5$ billion of the tax increase) and the tax rate increased from 12.1 percent to 12.26 percent ( $\$ 1.5$ billion).

Expenditures at an annual rate increased $\$ 4 \frac{1}{2}$ billion; the increase was held down by large declines in grants-in-aid to State and local governments and in subsidies less the current surplus of government enterprises. Grants declined $\$ 3 \frac{1}{2}$ billion; the fourth quarter had included a one-time payment of retroactive social services claims, and local public works grants declined. The decline in subsidies less the current surplus of government enterprises$\$ 2$ billion-was traceable to government payments to farmers. Other expenditures increased $\$ 10$ billion; transfer payments accounted for about one-half of the increase.

## Special reconciliation tables

The reconciliations of changes in compensation per hour and average hourly earnings and of changes in the implicit price deflator for personal consumption expenditures (PCE) and the Consumer Price Index (CPI) are shown in table 2 and 3, respectively. Compensation per hour of all persons in the business economy other than farm and housing increased 10.2 percent (annual rate) in the first quarter, virtually the same as 10.1 percent for average hourly earnings of production and nonsupervisory workers in the private nonfarm economy. The contribution of supplements, resulting from increases in the social security tax rate and wage base, added 1.1 percentage points to the increase in hourly compensation, but was offset by the contributions of other reconciliation items.

The implicit price deflator for PCE increased 10.5 percent (annual rate) in the first quarter, compared with 10.2 percent for the chain price index and 11.1 percent for the CPI for All Urban Consumers. Major factors in the larger increase in the CPI were the PCE expenditure component for owner-occupied dwellings, which has no comparable CPI component, and the CPI expenditures component for homeownership, which has no comparable PCE component.

Table 2.-Reconciliation of Changes in Compensation Per Hour in the Business Economy Other Than Farm and Housing and Average Hourly Earnings in the Private Nonfarm Economy, Seasonally Adjusted

|  | 1978 |  |  |  | $\frac{1979}{I^{p}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | I | II | III | IV ${ }^{\text {r }}$ |  |
| 1. Compensation per hour of all persons in the business economy other than farm and housing (percent change at annual rate) | 11.7 | 8.5 | 9.3 | 8.9 | 10.2 |
| 2. Less: Contribution of supplements | 1.8 | -. 2 | . 7 | -. 3 | 1.1 |
| 3. Plus: Contribution of employees of housing and of nonprofit institutions. | . 1 | 0 | 0 | -. 3 | 0 |
| 4. Less: Contribution of employees of government enterprises and selfemployed and unpaid family workers. | -. 1 | -. 3 | . 3 | .4 | -. 3 |
| 5. Equals: Wages and salaries per hour of employees in the private nonfarm economy (percent change at annual rate) | 10.1 | 9.0 | 8.3 | 8.5 | 9.4 |
| 6. Less: Contribution of nonproduction workers in manufacturing | -. 2 | -. 5 | 0 | -. 1 | -. 2 |
| 7. Less: Contribution of non-BLS data, detailed weighting, and seasonal adjustment | 1.9 | -. 6 | . 5 | -. 8 | -. 5 |
|  | 1.1 | $-1.4$ | -.5 | -1.0 | -. 8 |
| Manufacturing ---.- | -. 2 | -. 3 | -. 2 | $-.9$ | -. 6 |
| Distributive industries. | . 6 | . 7 | . 5 | $-.3$ | . 2 |
| Service industries. | 1.2 | . 1 | . 5 | . 5 | . 1 |
| 8. Equals: Average hourly earnings, production and nonsupervisory workers in the private nonfarm economy (percent change at annual rate) | 8.4 | 10, 1 | 7.8 | 9.4 | 10.1 |

© Revised. $\quad$ Preliminary.

1. BLS estimates of changes in hourly compensation in the nonfarm business sector for the five quarters are $12.2,8.3$, $9.4,8.9$, and 10.2 percent

Table 3.-Reconciliation of Changes in the Implicit Price Deflator for Personal Consumption Expenditures and the Consumer Price Index for all Urban Consumers, Seasonally Adjusted

|  | 1978 |  |  | 1979 |
| :---: | :---: | :---: | :---: | :---: |
|  | II ${ }^{\text {r }}$ | III ${ }^{\text {r }}$ | IV ${ }^{\text {r }}$ | I ${ }^{p}$ |
| 1. Implicit price deflator for personal consumption expenditures (percent change at annual rate) | 8.7 | 6.4 | 6.5 | 10.5 |
| 2. Less: Contribution of shifting weights in PCE ${ }_{\text {New }}$ autos | -1.2 | -1.4 | $-.5$ | +1. 2 |
|  | 0 | -1.3 | . 3 | 1.1 |
| Electricity, gas, fuel oil, and coal | -1.9 | -. 2 | -. 2 | . 7 |
| Furniture and household equipment | . 7 | . 2 | . 5 | -. 6 |
| Food purchased for off-premise consumption | -2.1 | -. 6 | $-.4$ | -. 6 |
| Purchased meals and beverages........... | . 3 | -. 2 | -. 2 | 0 |
| Clothing and shoes. | . 7 | .6 | . 8 | $-.7$ |
| Housing-- | -. 3 | 0 | -. 4 | . 7 |
| Other-.. | -. 3 | 1.3 | -. 8 | $-.5$ |
| 3. Equals: PCE chain price index (percent change at annual rate) ................- | 10.0 | 6.7 | 5.9 | 10.2 |
| 4. Less: Contribution of differences in weights of comparable CPI and PCE expenditure components | . 2 | 0 |  | -. 1 |
| Gasoline and oil | 0 | -. 1 | $-.2$ | -. 3 |
|  | -. 1 | -. 1 | 0 | -. 1 |
| Furniture, appliances, floor coverings, other household furnishings. - | 0 | .1 | 0 | . 1 |
| Food at home.-........ | . 3 | 0 | 0 | 0 |
| Food away from home | -. 4 | $-2$ | $\rightarrow .1$ | $\rightarrow: 3$ |
| Apparel commodities. | . 2 | 0 | 0 | . 1 |
| Rent | $-.3$ | -. 3 | $-.3$ | -. 1 |
| Other. | . 5 | . 7 | .2 | . 5 |
| 5. Less: Contributions of PCE expenditures components not comparable with CPI components. | -. 5 | . 4 | . 3 | -. 8 |
|  | $-.1$ | .1 | .3 -.2 | 0 |
|  | 0 | . 1 | . 1 | .1 |
|  | -. 3 | .2 | .3 | $-.8$ |
| Services furnished without payment by financial intermediaries except life insurance carriers. | -. 1 | 0 | 0 | -. 1 |
|  | 0 | ${ }^{0} .1$ | ${ }^{0} .2$ | 0 |
|  | 0 | $-.1$ | $0^{.2}$ | $-.1$ |
| 6. Plus: Contribution of CPI expenditure components not comparable with PCE components ${ }^{1}$ | . 5 | 2.0 | 1.2 | . 6 |
|  | -. 1 | 0 | $-.3$ | 0 |
| Used autos...-. | -. 1 | . 2 | . 2 | . 2 |
| Homeownership | . 9 | 1.7 | 1.6 | . 6 |
| Other | $-.2$ | 0 | -. 2 | -. 1 |
| 7. Less: Contribution of differences in seasonal adjustment 2 $\qquad$ <br> 8. Equals: Consumer Price Index, all items ${ }^{1}$ (percent change at annual rate) | . 6 | -. 5 | $-.7$ | . 8 |
|  | 10.2 | 8.8 | 9.1 | 11.1 |

PRevised. P Preliminary.

1. Data have been revised by BLS to reflect new seasonal factors incorporating data for 1978.
2. These differences arise because component price indexes that are used in the BEA measures and in the CPI are seasonally adjusted at different levels of detail

## Summaries of BEA Staff Papers

The average number of pages in the Survey of Current Business has tended to increase in recent years, because the scope of BEA's work has broadened and because computers have made it possible to prepare more detailed estimates, which are often of particular interest to specialists. Also, inflation has increased the costs of printing and distributing the Survey. Accordingly, in the future the BEA staff paper series will present more of BEA's work. These staff papers will be summarized in the Survey.

# Updated Input-Output Table of the U.S. Economy: 1972 

(Derived From the 1967 Input-Output Table)<br>By Paula C. Young and Philip M. Ritz

THIS paper presents the fifth in a series of summary updates of the detailed benchmark input-output table for 1967. It may be used, along with previous update tables (for 1961 and 1966) and previous benchmark tables (for 1958 and 1963), to analyze changes in the input structure of the U.S. economy. (The recently released benchmark input-output study for 1972 differs from earlier studies because it is based on the 1972 Standard In-
dustrial Classification and incorporates a new treatment of secondary products along with other changes. Forthcoming annual inputoutput update tables will be based on this study.)

The updated tables are at the 85 -industry order of detail. Current-dollar estimates of transactions, direct requirements per dollar of output, and total requirements per dollar of delivery to final demand, and constant (1967) dollar estimates of transactions and direct requirements are provided.

Single copies of this parper are available on request from the Bureau of Economic Analysis, Interindustry Economics Division (BE-51), U.S. Department of Commerce, Washington, D.C. 20230. Additional copies may be purchased from the National Technical Information Service, 5285 Port Royal Road, Springfield, Va. 22161. The price is $\$ 5.25$ for paper copy and $\$ 3.00$ for microfiche. Ask for BEASP 79-032.

# Sources and Uses of Funds of Majority-Owned Foreign Affiliates of U.S. Companies, 1973-76 

By Ida May Mantel

THIS paper analyzes sources and uses of funds of a sample of majority-owned foreign affiliates of U.S. companies in 1973-76. The sample accounts for a substantial portion of the data for all such affiliates.

Sources of funds consist of internal funds generated by affiliate operations, external funds loaned to or invested in affiliates by U.S. and foreign residents, and "other" sources of funds. External funds are classified as coming from the multinational company (MNC)-the U.S. parent and foreign affiliates of the U.S. parent-or from U.S. and foreign residents outside the MNC. Uses of funds consist of investment in physical, financial, and other assets. Physical asset investment consists of capital expenditures and the change in inventories. Financial asset investment consists of the change in current receivables, the change in cash and other short-term assets, and a substantial portion of "other" uses of funds. The latter consists of the change in long-term financial assets, together with changes in intangible assets and adjustment items.

The analysis centers on affiliates in non-
financial industries--petroleum, manufacturing, and "other"; these affiliates accounted for almost all physical asset investment by the sample. Sources and uses of funds of affiliates in financial industries are discussed briefly.

The major findings of the paper are:

- In the 1973-76 period, sources and uses of funds exhibited unusually volatile changes, largely reflecting abrupt changes in economic activity, particularly in major industrial countries, and in prices.
- The quadrupling of petroleum prices during 1973-74 resulted in particularly large changes in the sources and uses of funds of affiliates in the petroleum industry and in certain nonpetroleum industries, such as chemicals and transportation-equipment manufacturing.
- In 1973-76, for nonfinancial affiliates, changes in external funds from sources outside the MNC were in the same direction as changes in the gap between physical asset investment and funds controlled by the MNC. The gap was unusually large in 1973-74; to fill the gap, affiliates relied primarily on short-
term funds from foreign creditors other than financial institutions.
- By the end of 1976 , the distribution of sources of funds of nonfinancial affiliates was similar to the average distribution in 1966-72, but the distribution of uses of funds differed significantly. In 1976, physical asset investment, particularly the capital expenditures component, was a smaller percentage, and financial asset investment a larger percentage of total uses of funds than in 1966-72.

The paper includes tables that show sources and uses of funds data for 1966-76. The data for 1966-72, initially published in the July 1975 Survey of Current Business, are revised. Manufacturing and "other" industry detail are published for the first time.

Single copies of this paper are available on request from the Bureau of Economic Analysis, BE-50 (RB), U.S. Department of Commerce, Washington, D.C. 20230. Additional copies may be purchased from the National Technical Information Service, 5285 Port Royal Road, Springfield, Va. 22161. The price is $\$ 5.25$ for paper copy and $\$ 3.00$ for microfiche. Ask for BEA-SP 79-033.

NATIONAL INCOME AND PRODUCT TABLES


Table 1.-Gross National Product in Current and Constant Dollars (1.1, 1.2)


Table 2.-Gross National Product by Major Type of Product in Current and Constant Dollars (1.3, 1.5)

| Grose national product | 1,887.2 | 2, 107.6 | 1,958.1 | 1,992.0 | 2,087.5 | 2,136.1 | 2,214.8 | 2,264.8 | 1,332.7 | 1,385.7 | 1,354.5 | 1,354. 2 | 1,382.6 | 1,391.4 | 1, 414.7 | 1,416.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Final sales. $\qquad$ Change in business inventori | $1, \begin{gathered} 871.6 \\ 15.6 \end{gathered}$ | $\begin{array}{r} 2,091.6 \\ \begin{array}{r} 16.0 \end{array} \\ \hline \end{array}$ | $\begin{array}{r} 1,945.0 \\ 13.1 \end{array}$ | $\begin{array}{\|} 1,975.3 \\ 16.7 \end{array}$ | $2,067.4$ 20.1 212. | $\underset{13.6}{2,122.5}$ | $2,201.3$ <br> $\mathbf{1 3 . 5}$ <br> $\mathbf{9}, 5$ | $\begin{array}{r} 2,248.1 \\ 16.6 \end{array}$ | $\begin{array}{\|r} 1,323.8 \\ 8.9 \end{array}$ | $\begin{array}{\|c} 1,375.2 \\ 10.6 \end{array}$ | $\begin{array}{r} 1,347.1 \\ 7.5 \end{array}$ | $\begin{array}{r} 1,341.8 \\ 12.3 \end{array}$ | $1,369.9$ <br> 12.7 <br> 6.7 | 1, $\begin{array}{r}182.4 \\ 9.0\end{array}$ | $\begin{array}{r} 1,406.5 \\ \quad 8.2 \end{array}$ | $\begin{array}{r} 1,405.0 \\ \begin{array}{r} 41.2 \end{array} \end{array}$ |
| Goods. | 832.6 | 918.4 | 859.6 | 861.8 | 912.2 | 927.3 | 972.5 | 1,000.8 | 608.4 | 629.7 | 620.1 | 611.8 | 627.7 | 630.2 | 649.1 | 650.9 |
| Final sales. $\qquad$ Change in business inventories | 817.0 15.6 | 902.4 16.0 | 846.5 13.1 | 845.1 16.7 | 892.1 20.1 | 913.7 13.6 | 958.9 13.5 | 984.2 <br> 16.0 <br> 180. | 509.6 8.9 | 619.1 10.6 | 612.7 7.5 | 599.4 12.3 | 615.0 12.7 | 621.2 9.0 | 640.9 8.2 | 639.7 11.2 |
| Durable goods Final sales | 341.3 332.9 | 376.8 <br> 365.1 <br> 1.1 | 347.4 <br> 341.1 | $\begin{array}{r}351.2 \\ 336.3 \\ \hline 1\end{array}$ | 375.8 365.0 | 380.1 <br> 369.8 | 400.1 389.2 | 426.0 405.9 | 263.7 248.0 | 265.4 258.1 | 25.1 250.5 | 254.6 245.0 | 266.6 260.6 | 264.8 258.7 | 275.5 268.4 | 284.8 272.9 |
| Change in business inventories | 8.4 | 11.7 | 6.3 | 14.8 | 10.8 | 10.2 | 10.8 | 20.1 | 5.8 | 7.3 | 4.6 | 9.6 | 6.4 | 6.1 | 7.1 | 11.9 |
| Nondurable g | 491.3 | 541.7 | 512.2 | 510.6 | 536.4 | 547.2 | 572.4 | 574.8 | 354.7 | 364.3 361.1 |  | $\begin{array}{r}357.2 \\ 3545 \\ \hline\end{array}$ | 361.2 354.8 | 365.4 362.5 | 373.6 372.5 | 366.1 366.8 |
| Change in business inventories | 484.1 7.2 | 537.4 4.3 | 505.4 6.8 | 508.7 1.9 | 527.1 9.3 | 543.9 3.4 | 569.7 2.7 | 578.2 -3.4 | 351.6 3.1 | 361.1 3.3 | 362.1 2.9 | 354.5 2.7 | 354.8 6.3 | 362.5 2.9 | 372.5 1.1 | 366.8 -.7 |
| Services- | 862.8 | 962.5 | 893.6 | ${ }^{926.4}$ | 952,0 | 973.7 2350 | 997.7 | 1,025.9 | 602.9 | 627.0 129.0 | 609.6 124.8 | ${ }_{122} 62.1$ | 625.6 129.3 | 629.7 131.6 | 632.6 133.0 | 638.5 126.9 |
| Structures | 191.8 | 226.7 | 204,9 | 203.8 | 223.4 | 235.0 | 244.7 | 238.1 | 121.3 | 129.0 | 124.8 | 122.3 |  |  |  | 126.9 |

Table 3.-Gross National Product by Sector in Current and Constant Dollars (1.7, 1.8)

| Gross national product. | 1,887.2 | 2, 107.6 | 1,958.1 | 1,992.0 | 2,087.5 | 2,136.1 | 2, 214.8 | 2, 264.8 | 1,332.7 | 1,385. 7 | 1,354, 5 | 1,354.2 | 1,382.6 | 1,391, 4 | 1,414.7 | 1,416. 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross domestic product. | 1,869.9 | 2, 088.2 | 1,942,2 | 1,973.8 | 2,066.5 | 2,117.3 | 2, 195.1 | 2, 243.1 | 1,325.3 | 1,377.9 | 1,347.9 | 1,346.6 | 1,373.9 | 1,383.9 | 1,407,0 | 1,408.2 |
| Business. | 1,599.3 | 1,790.2 | 1,660.4 | 1,684.1 | 1,771.8 | 1,817.5 | 1, 887.4 | 1,929.0 | 1,135.9 | 1,183.7 | 1,155.9 | 1,153.5 | 1, 180.0 | 1,189.3 | 1,212. 1 | 1,213.0 |
| Nonfarm...--- | 1,544.0 | 1, $1,730.5$ | 1, $1,601.6$ | 1,628.9 | 1,714.9 | ${ }^{1,758.5}$ | 1,8819.9 | 1, $1,860.0$ | 1, $1,04.2$ | 1, 146.0 | 1, 112.4 | 1, 115.4 | 1, $1,145.2$ | 1,151.8 | 1, 1771.5 |  |
| Nonfarm less housin | $1,397.8$ 146.2 | 1, 566.3 | $1,449.0$ 152.7 | 1, 171.7 | $\xrightarrow{1,553.2} \begin{array}{r}161.7\end{array}$ | 1,592.0 | 1,648.1 | $1,684.3$ <br> 195.7 | 980.5 113.6 | $1,026.6$ 119.4 | 996.4 116.0 | 117.4 | $1,026.5$ <br> 118.6 | $1,031.7$ 120.1 | $1,050.0$ 121.5 | ${ }^{1,052.9}$ |
| Farmsing | ${ }^{146.2} 5$ | 164.3 57.8 | 152.7 54.0 |  | 161.7 56.4 | 166.5 58.6 |  |  | 113.6 34.4 | 119.4 32.5 | ${ }_{36.1}^{16.0}$ | ${ }_{32.5}$ | 30.5 | 33.2 | 33.8 | 31.9 |
| Statistical discrepancy. | 4.7 | 1.8 | 4.8 | 2.2 | . 5 | . 4 | 4.3 | 2.1 |  |  |  |  |  |  |  |  |
| Residual ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  | 7.3 | 5.2 | 7.4 | 5.5 | 4.3 | 4.3 | 6.8 | 5.3 |
| Households and institution | 62.7 | 71.5 | 65.9 | 68.8 | 70.5 | 72.3 | 74.4 | 76.9 | 42.2 | 44.5 | 43.6 | 43.8 | 4.3 | 44.9 | 45.2 | 45.4 |
| Government | 208.0 | 226.5 | 215.9 | 221.0 | 224.1 | 227.5 | 233.4 |  |  |  | 148.4 |  | $149.6$ |  |  |  |
| Federal. | 66.4 | 71.1 | 69.5 | 69.9 | 70.1 | 70.5 | 754.0 | 74.6 | ${ }_{48.7}^{48}$ | 48.9 | ${ }_{9}^{48.8}$ | ${ }_{180}^{48.8}$ | 48.8 | 49.0 100.8 | 48.9 100.9 | 48.8 100.9 |
| Rest of the world | 17.3 | 19.4 | 15.9 | 18.2 | 21.1 | 18.8 | 19.8 | 21.7 | 7.3 | 7.9 | 6.6 | 7.5 | 8.8 | 7.5 | 7.7 | 8.1 |

${ }^{r}$ Revised. Footnotes for tables 2 and 3 on following page.

## HISTORICAL STATISTICS

The national income and product data for 1929-72 are in The National Income and Products Accounts of the United States, 1989-74: Statistical Tables (available for \$4.95, SN 003-010-00052-9, from Commerce Department District Offices or the Superintendent of

Documents; see addresses inside front cover). Data for 1973, 1974, and 1975-77 are in July 1976, July 1977, and July 1978 issues of the Sulivex, respectively.

| 1977 | 1978 | 1977 | 1978 |  |  |  | 1979 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IV | I | II | III | IV | I ${ }^{\text {r }}$ |
|  |  | Seasonally adjusted at annual rates |  |  |  |  |  |
| Billions of dollars |  |  |  |  |  |  |  |

Table 4.-Relation of Gross National Product, Net National Product, National Income, and Personal Income (1.9)

| Gross national product | 1,887. 2 | 2,107.6 | 1,958. 1 | 1,992.0 | 2,087.5 | 2,136.1 | 2,214.8 | 2,264.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Less: Capital consumption allowances with capital consumption adjustment | 195. 2 | 216.9 | 202.6 | 207.3 | 213.3 | 220.8 | 226.3 | 231.7 |
| Capital consumption allowances without capital consumption adjustment | 153.6 | 165.4 | 157.8 | 161.0 | 163.9 | 166.9 | 169.9 | 172.7 |
| Less: Capital consumption adjustment | -41.6 | -51.5 | -44.7 | -46.3 | -49.4 | -53.8 | -56. 4 | -59.0 |
| Equals: Net national product.. | 1,692.0 | 1,890.7 | 1,755, 5 | 1,784. 7 | 1,874.2 | 1,915.3 | 1,988.5 | 2,033.1 |
| Less: Indirect business tax and nontax liability... | 165.1 | 178.3 | 170.1 | 173.3 | 179.4 | 177.7 | 182.7 | 186.2 |
| Business transfer pay- ments. | 9.6 | 10.7 | 10.0 | 10.2 | 10.5 | 10.9 | 11.3 | 11.7 |
| Statistical discrepancy-- | 4.7 | 1.8 | 4.8 | 2.2 |  | 4 | 4.3 | 2.1 |
| Plus: Subsidies less current surplus of government enterprises. | 2.8 | 3.9 | 6.3 | 4.1 | 4.3 | 2.1 | 5.0 | 2.3 |
| Equals: National | 1,515.3 | 1,703.7 | 1,576.9 | 1,603.1 | 1,688, 1 | 1,728.4 | 1,795.2 | 1,835.4 |
| Less: Corporate profits with inventory valuation and capital consump- | 144.2 | 159.5 | 148.2 | 132.fi | 163.4 | 165. 2 | 176.6 |  |
| Net interest....-..... | 95.4 | 106.3 | 99.0 | 101.7 | 104.6 | 107.4 | 111.4 |  |
| Contributions for social insurance | 140.3 | 164.3 | 145.0 | 157.4 | 162.7 | 166. 2 | 170.7 | 184.5 |
| Wage accruals less disbursements. |  |  |  |  |  |  |  | -. 2 |
| Plus: Government transfer payments to persons. | 199.2 | 215.3 | 205.9 | 208.9 | 210.1 | 219.6 | 222.7 | 227.3 |
| Personal interest income. | 141.2 | 159.0 | 146.0 | 151.4 | 156.3 | 161.7 | 166. 6 | 172.4 |
| Net interest | 95.4 | 106.3 | 99.0 | 101.7 | 104.6 | 107.4 | 111.4 | 114.5 |
| Interest paid by government to persons and business | 43.0 | 49.3 | 44.5 | 43.7 | 48.4 | 50.6 | 51.4 | 54.6 |
| Less: Interest received by government | 25.8 | 30. |  | 8.5 | 29.7 |  |  | 33. |
| Interest paid by con | 25.8 | 30 | 29.8 | 31.5 |  |  |  | . |
| sumers to business | 28.6 | 33.8 | 29.8 | 31.5 | 33.0 | 34. 6 | 36.0 | 36.9 |
| Dividends..------ | 43.7 | 49.3 | 46.3 | 47.0 | 48.1 | 50.1 | 51.9 | 54.0 |
| Business transfer payments | 9.6 | 10.7 | 10.0 | 10.2 | 10.5 | 10.9 | 11.3 | 11.7 |
| Equals: Personal income | 1,529.0 | 1,708.0 | 1,593.0 | 1,628,9 | 1,682.4 | 1,731.7 | 1,789.0 | 1,836.0 |

Table 5.-Relation of Gross National Product, Net National Product, and National Income in Constant Dollars (1.10)

| [Billions of 1972 dollars] |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross national product. | $\left.\begin{array}{\|r\|} 1,332.7 \\ 128.9 \\ 1,203.8 \end{array} \right\rvert\,$ | $\begin{array}{r} 1,385.7 \\ 131.9 \\ 1,253.8 \end{array}$ | $\begin{array}{r} 1,354,5 \\ 130.2 \\ 1,224.4 \end{array}$ | $\begin{array}{r} 1,354,2 \\ 130.9 \\ 1,223.3 \end{array}$ | $\begin{array}{r} 1,382.6 \\ \\ 131.6 \\ 31,251.1 \end{array}$ | $\begin{gathered} 1,391.4 \\ 132.3 \\ 1,259.2 \end{gathered}$ |  | $\begin{array}{r} 1,416.3 \\ 133.8 \\ 1,282.4 \end{array}$ |
| Less: Capital consumption al- $\begin{aligned} & \text { lowances with capital } \\ & \text { consumption adjust- } \\ & \text { ment }\end{aligned}$ |  |  |  |  |  |  |  |  |
| Equals: Net national product.- |  |  |  |  |  |  |  |  |
| Less: Indirect business tax and nontax liability plus business transfer payments less subsidies plus current surplus of government enterprise | 131.4 |  |  |  |  |  |  |  |
| Residual ${ }^{1}$. |  |  |  | 5.5 |  |  |  | 5.3 |
| Equals: National income | 1,065. 1 | , 110 | 1,083. | 1,082.8 | 1,109. | 1,115.8 | 1,134,2 | 1,135.7 |



Table 6.-Net National Product and National Income by Sector in Current and Constant Dollars (1.11, 1.12)

| Net national product | 1,692.0 | 1,890.7 | 1,755.5 | 1,784.7 | 1,874.2 | 1,915.3 | 1,988. 5 | 2,033.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net domestic product | 1,674.7 | 1,871.2 | 1,739.6 | 1, 766. 5 | 1,853.2 | 1,896.5 | 1,968.7 | 2,011.4 |
| Busines |  | 1,573, 3 |  | 1, 476.8. | 1,558.5 | 1,596.7 | 1,661.0 | 1,697.3 |
| Nonfarm | 1,363. 2 | 1,529.2 | 1,413.9 | 1, 436.71 | 1,517.0 | 1,553.5 | 1,609.6 | 1,644.7 |
| Farm | 36.1 | 42.2 | 39.1 | 37.9 | 41.0 | 42.9 | 47.1 | 50.5 |
| Statistical discrepancy | 4.7 | 1.8 | 4.8 |  |  |  | 4.3 | 2.1 |
| Households and institutions. | 62.7 | 71.5 | 65.9 | 68.8 | 70.5 | 72.3 | 74.4 | 76.9 |
| Government. | 208.0 | 226.5 | 215.9 | 221.0 | 224.1 | 227.5 | 233.4 | 237.2 |
| Rest of the world. | 17.3 | 19.4 | 15.9 | 18.2 | 21.1 | 18.8 | 19.8 | 21.7 |
| National inco | 1,515.3 | 1,703.7 | 1,576.9 | 1,603.1 | 1,688.1 | 1,728. | 1,795. 2 | 1,835.4 |
| Domestic income | 1,498.01 | 1,684, 3 | 1,560.9 | 1, 584, 91 | 1,667.1 | 1,709.7 | 1,775, 5 | 1,813.8 |
| Busines | 1,227.4 | 1,386. 3 | 1,279.1 | 1,295. 2 | 1, 372.4 | 1,409.9 | 1,467.8 |  |
| Nonfarm | 1, 192.61 | 1,344. | $1,238.7$ | 1, 257.71 | 1, 332.4 | 1, 368.5 | 1, 420.4 | 1, 451.4 |
| Farm. | 34.8 | 41.5 | 40.5 | 37.4 | 40.0 | 41.3 | 47.3 | 48.3 |
| Households and institutions- | 62.7 | 71.5 | ${ }^{65.9}$ | 68.8 | 70.5 | 72.3 | 74.4 | 76.9 |
| Government. | 208.0 | 226.5 | 215.9 | 221.0 | 224.1 | 227.5 | 233.4 | 237.2 |
| Rest of the world.............. | 17.3 | 19.4 | 15.9 | 18.2 | 21.1 | 18.8 | 19.8 | 21.7 |
|  | Billions of 1972 dollars |  |  |  |  |  |  |  |
| Net nationa | 1,203.8 | 1,253.8 | 1,224. | 1,223.3 |  |  |  |  |
|  |  |  |  |  |  |  |  | 1,282 |
| Net domestic product | 1,196.4 | 1,246.0 | 1,217.7 | 1,215.8 | 1, 242.3 | 1,251.7 | 1,274.0 | 1,274,3 |
| Busines |  |  | 1,025.7 |  |  |  |  | 1,079.1 |
| Nonfarm | 1974.51, | 1,023. 3 | 991.5 | 993.8 | ,022. | , 028.8 | 1,047.8 | 1,051.2 |
| Farm. |  |  | ${ }^{26.9}$ | 23.31 | 21.3 | 23.9 | 24.5 | 22.6 |
| Residual 1 | 7.3 | 5. 2 | 7.4 | 5.5 | 4.3 | 4.3 | 6.8 | 5.3 |
| Households and institutions- | 42.2 | 44.5 | 43.6 | 43.8 | 44.3 | 44.9 | 45. 2 | 45. 4 |
| Government | 147.2 | 149.6 | 148.4 | 149.4 | 149.6 | 149.8 | 149.8 | 149.7 |
| Rest of the world $\qquad$ <br> National income. $\qquad$ | 1,065. 1 | 7.9 | 6.6 | 7.5 | 8.8 | 7.5 | 7.7 | 8.1 |
|  |  | 1,110.5 | 1,083, 0 | 1,082.8 | 1,109.4 | 1, 115.8 | 1,134. 2 | 1,135.7 |
| Domestic income | 1, 057.7 | 1,102.7 | 1,076.4 | 1,075, 3 | 1, 100.6 | 1, 108.3 | 1,126.5 | 1,127.6 |
| Business. | 868.3 |  |  |  |  | 913.6 | 931.6 | 932.4 |
| Nonfar | 841.4 26.9 | 8888.8 | 855.7 | 857.3 24.8 | ${ }_{22}^{88.7} 1$ | 888.3 | 905.6 | ${ }^{908} 1$ |
| Households and institutions. | 42.2 | 44.5 | 43.6 | 43.8 | 44.3 | 44.9 | 45.2 | 45.4 |
|  | 147.2 | 149.6 | 148.4 | 149.4 | 149.6 | 149.8 | 149.8 | 149.7 |
| Rest of the world.- | 7.3 | 7.9 | 6.6 | 7.5 | 8.8 | 7.5 | 7.7 | 8.1 |

## r Revised

1. Equals GNP in constant dollars measured as the sum of final products less GNP in constant dollars measured as the sum of gross product by industry. The quarterly estimates by the implicit price deflator for gross domestic business product.
Nore.-Table 6: The industry classification within the business sector is on an establishment basis and is based on the 1972 Standard Industrial Classification.

Footnotes for tables 2 and 3.

1. Equals GNP in constant dollars measured as the sum of final products less GNP in constant dollars measured as the sum of gross product by industry. The quarterly estimates are obtained by interpolating the annual estimates with the statistical discrepancy deflated by the implicit price deflator for gross domestic business product.
"Note-Table 2: "Final sales" is classified as durable or nondurable by type of product. "Change in business inventories" is classified as follows. For manufacturing, by the type of product prold by the establishment holding the inventory; for construction, durable; and for other industries, nondurable.
Table 8: The industry classification within the business sector is on an establishment basis and is based on the 1972 Standard Industrial Classification.

| 1977 | 1978 | 1977 | 1978 |  |  |  | 1979 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IV | I | II | III | IV | I ${ }^{\text {r }}$ |
|  |  | Seasonally adjusted at annual rates |  |  |  |  |  |
| Billions of dollars |  |  |  |  |  |  |  |

Table 7.-National Income by Type of Income (1.13)

| National income. | 1,515.31, | 1,703.71 | 1,576.911 | 1,603. 11 | 1,688.11 | 1,728.4 | 1,795. 21 | 1,835.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Compensation of employees. | 1,153.4 1, | 1,301.4 | 1,199.71, | 1,241.01 | 1,287, 81 | 1,317.1 | 1,359,8 | 1,406.8 |
| Wages and salaries. | 983.61 , | 1,101.01, | 1,021.2 1 | 1,050.8 1 | 1,090.211 | 1,113.4 | 1,149.4 | 1,185. 2 |
| Government and gover ment enterprises... |  |  |  | 1,050.8 | 1,090.2 |  |  | 1,185.2 |
| Other menterprises........... | 7820.9 | 2164.1 <br> 88 | 813.1 | ${ }_{839}^{211.4}$ | 213.9 876.3 | 216.8. 6 | ${ }_{922.1}{ }^{222}$ | ${ }_{960.1}^{225.1}$ |
| Supplements to wages and salaries | 169.8 | 200.5 | 178.4 | 190.2 | 197.6 | 203.6 | 210.4 | 221.5 |
| Employer contributions for social insurance. | 79.4 |  | 82. | 90.2 | 93.6 | 95.7 | 98.6 | . 6 |
| Proprietors' income with inventory valuation and capital consumption adjustments. | 99.8 | 113.2 | 107.3 | 105.0 | 110.1 | 114.5 | 123.0 | 123.6 |
| Farm. | 20.2 | 25.3 | 25.1 | 21.9 | 24.0 | 25.0 | 30. | 30.6 |
| Proprietors, Income with inventory valuation adcapital consumption adjustment | 24.6 | 30.3 | 29.8 | 26.6 | 28.8 | 29.7 | 35.2 | 35.5 |
| Capital consumption ad- |  |  |  |  |  |  |  |  |
| Nonfarmen | 79.5 | -47.8 | -42, ${ }^{-4}$ | -43.1 | -4.81 | -4.8 89.6 | -42.6 | $-5.0$ |
| Proprietors' income without inventory valuation and capital consump- tion adjustments....... | 81.4 | 92.0 | 84.8 | 86.7 | 90.1 | 93.5 | 97.8 | 99.5 |
| Inventory valuation ad- |  |  |  |  |  |  |  |  |
| justment--....... | -1.3 | -2.2 | -1.3 | -2.1. | -2.2 | -1.8 | -2.6 | -3.3 |
| Capital consumption adjustment | -. 6 | -2.0 | -1.2 | -1.5 | -1.8 | -2.1 | -2.6 | -3.2 |
| Rental income of persons with capital consumption adjustment | 22.5 | 23.4 | 22.7 | 22.8 | 22.2 | 24.3 | 24.4 | 24.7 |
| Rental income-- | 42.1 | 47.6 | 44.0 | 44.6 | 45.5 | 49.5 | 51.0 | 52.0 |
| Capital consumption adjustment. | -19.6 | -24.2 | -21.3 | -21.8 | -23.3 | -25.2 | -26.6 | -27.3 |
| Corporate profits with inventory valuation and capital consumption adjustments. | 144.2 | 159.5 | 148.2 | 132.6 | 163.4 | 165.2 | 176.6 | 166.0 |
| Corporate profits with inventory valuation adjustment and without capital consumption ad- | 159.1 | 177.6 | 163.5 | 148.7 | 180.6 |  |  |  |
| Profits before tax | 173.9 | 202.0 | 178.3 | 172.1 | 205.5 | 205.4 | 224.9 | 226.9 |
| Profits tax liability. | 71.8 | 83.9 | 73.9 | 70.0 | 85.0 | 86.2 | 94.4 | 89.1 |
| Profits after tax | 102.1 | 118.1 | 104.4 | 102.1 | 120.5 | 119.2 | 130.5 | 137.9 |
| Dividends. | 43.7 | 49.3 | 46.3 | 47.0 | 48.1 | 50.1 | 51.9 | 54.0 |
| Undistributed profits. Inventory valuation ad- | 58.4 | 68.8 | 58.1 | 55.1 | 72.4 | 69.2 | 78.6 | 83.9 |
| justment-...-...........- | -14.8 | -24. 4 | -14.8 | -23.5 | -24.9 | -20.9 | -28.4 | -40.2 |
| Capital consumption adjustment. | -14.9 | -18.1 | -15.3 | -16.1 | -17.2 | -19.3 | -19. | -20.7 |
| Net interest | 95.4 | 106.3 | 99.0 | 101.7 | 104.6 | 107.4 | 111. | 114.5 |
| Addenda: <br> Corporate profits with inventory valuation and capital consumption adjustments | 144.2 | 159.5 | 148.2 | 132.6 | 163.4 | 165.2 | 176.6 | 166.0 |
| Profits tax liability. | 71.8 | 83.9 | 73.9 | 70.0 | 85.0 | 86.2 | 94. | 89.1 |
| Profits after tax with inventory valuation and capital |  |  |  |  |  |  |  |  |
| consumption adjustments. Dividends | 72.3 43.7 | $\begin{aligned} & 75.6 \\ & 4.3 \end{aligned}$ | 74.3 46.3 | 62.6 47.0 | [ $\begin{array}{r}78.4 \\ 48.1\end{array}$ | 4 $\begin{gathered}79.0 \\ 50.1\end{gathered}$ | 82.2 51.9 | 76.9 54.0 |
| Undistributed profits with inventory valuation and capital consumption adjustments. | 28.7 28.7 | 26.3 | 28.0 | 15.6 | 18.1 <br> 30.3 | 29. | 5 | 22.9 <br>  |

Table 8.-Gross Domestic Product of Corporate Business (1.15, 7.8)

| Gross domestic product of corporate business. | 1,160.2 | 1,307.0 | 1,206.1 | 1,223.4 | 1,298.0 | 1,328.7 | 1,377.8 | 1,408. 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capital consumption allowances with capital consumption adjustment | 120.9 | 132.5 | 124.6 | 127.4 | 130.5 | 134. 7 | 137.4 | 140.3 |
| Net do | 1,039.3 | 1,174, 5 | 1,081.4 | 1,096.1 | 1,167.5 | 1,194. 0 | 1,240. 4 | 1,267.8 |
| Indirect business tax an |  |  |  |  |  |  |  |  |
| nontax liability plus bus |  |  |  |  |  |  |  |  |
| ness transfer paym |  |  |  |  |  |  |  |  |
| less subsidies... | 117.8 | 129.1 | 121.5 | 124.3 | 129.1 | 129.7 | 133.4 | 136.5 |
| Domestic income.... | 921.5 | 1,045. 4 | 960.0 | 971.8 | 1,038.3 | 1,064, 3 | 1,107. | 1,131.3 |
| Compensation of e ployees |  | 884.1 |  | 837.4 | 875.1 |  | 927.4 |  |
| Wages and salaries. | 652 | 737.5 | 678.1 | 698.7 | 730.6 | 747.4 | 773. | 801.2 |
| Supplements to wages and salaries. | 123.8 | 146.5 | 130.0 | 138.7 | 144.5 | 149.0 | 154.0 | 162.4 |


| 1977 | 1978 | 1977 | 1978 |  |  |  | $\frac{1979}{I^{r}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IV | I | II | III | IV |  |
|  |  | Seasonally adjusted at annual rates |  |  |  |  |  |
| Billions of dollars |  |  |  |  |  |  |  |

Table 8.-Gross Domestic Product of Corporate Business-Con.

$r$ Revised.

1. Consists of the following industries: Banking; credit agencies other than banks; security, commodity brokers and services; insurance carriers; regulated investment companies; small
business investment companies; and real estate investment trusts. 2. Equals the deflator for gross domestice

| 1977 | 1978 | 1977 | 1978 |  |  |  | $\frac{1979}{I^{r}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IV | I | II | III | IV |  |
|  |  | Seasonally adjusted at annual rates |  |  |  |  |  |
| Billions of dollars |  |  |  |  |  |  |  |

Table 9.-Auto Output in Current and Constant Dollars (1.16, 1.17)

| Auto output. .-..........-. - | 72.3 | 77.5 | 74.5 | 73.8 | 79.5 | 75.8 | 81.0 | 87.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Final sales | 70.9 | 76.7 | 72.0 | 71.3 | 80.8 | 77.4 | 77.5 | 85.4 |
| Personal consumption expenditures. | 61.8 | 67.8 | 63.2 | 63.1 | 70.5 | 67.9 | 69.6 | 73.6 |
| New autos................. | 46.3 | 50.6 | 47.3 | 47.3 | 54.1 | 49.9 | 51.1 | 56.0 |
| Net purchases of used autos | 15.5 | 17.2 | 15.9 | 15.8 | 16.5 | 18.0 | 18.5 | 17.6 |
| Producers' durable equipment | 12.2 | 14.7 | 13.0 | 13.4 | 15. 0 | 15.5 | 14.9 | 16.0 |
| New autos. | 19.0 | 22.3 | 19.7 | 20.3 | 22.7 | 23.4 | 22.6 | 24.3 |
| Net purchases of used autos. | -6.8 | $-7.6$ | -6.7 | -6.9 | -7.8 | -7.9 | $-7.7$ | $-8.4$ |
|  | $-3.6$ | -6.2 | -4.8 | -5.8 | -5.2 | -6.5 | $-7.5$ | -4.7 |
| Exports.. | 7.0 | 7.5 | 6.9 | 6.9 | 7.9 | 7.8 | 7.4 | 9.0 |
| Imports. | 10.7 | 13.7 | 11.8 | 12.7 | 13.1 | 14.3 | 14.9 | 13.7 |
| Government purchases of goods and services | . 6 | . 5 | . 6 | .6 | . 5 | .5 | . 5 | . 5 |
| Change in business inventories ol new and used autos......- | 1.4 | . 8 | 2.5 | 2.5 | -1.3 | $-1.6$ | 3.6 | 2.3 |
| New | 1.6 | . 9 | 3.4 | 2.7 | -2.2 | -1.4 | 4.5 | 1.7 |
| Used | -. 2 | -. 1 | $-.9$ | -. 2 | . 9 | -. 2 | -1.0 | . 6 |
| Addenda: <br> Domestic output of new autos ${ }^{1}$ $\qquad$ | 59.4 | 63.9 | 60.2 | 60.5 | 65.3 | 63.6 | 66.7 | 72.3 |
| Sales of imported new autos ${ }^{2}$...- | 15.3 | 16.7 | 15.5 | 15.7 | 17.0 | 16.9 | 17.3 | 20.4 |
|  | Billions of 1972 dollars |  |  |  |  |  |  |  |
| Auto output..-.-...........- | 55.2 | 55.3 | 55.4 | 54.1 | 57.0 | 53.5 | 56.5 | 60.0 |
| Final sales | 54.0 | 54.9 | 53.8 | 52.4 | 58.3 | 54.5 | 54.2 | 58.1 |
| Personal consumption expenditures. New autos. | 44.4 | 45.3 | 44.7 | 43.4 | 47.8 | 44.6 | 45.3 | 46.9 |
|  | 36.0 | 36.5 | 45.8 | 35.0 | 39.3 | 35.6 | 36.2 | 38.7 |
| Producers' durable equipment | 8.5 | 8.7 | 9.0 | 8.4 | 8.4 | 9.0 | 9.1 | 8.2 |
|  | 10.6 | 11.5 | 10.6 | 10.8 | 11.8 | 12.0 | 11.6 | 12.1 |
| New autos. | 14.8 | 16.1 | 14.9 | 15.1 | 16.5 | 16.7 | 16.0 | 16.8 |
| Net purchases of used autos. | -4.2 | -4.6 | -4.3 | $-4.3$ |  | $-4.7$ | $-4.5$ | -4.6 |
| Net exports. | -1.5 | -2.3 | $-2.0$ | -2.2 | $-1.7$ | -2.4 | -3.0 | -1.3 |
| Exports. | 5. 4 | 5.4 | 5.2 | 5.2 | 5.8 | 5.5 | 5.3 | 6.2 |
| Imports. | 6.9 | 7.7 | 7.2 | 7.3 | 7.5 | 7.9 | 8.3 | 7.5 |
| Government purchases of goods and services. | . 5 | . 4 | . 4 | . 4 | . 4 | . 4 | . 4 | . 3 |
| Change in business inventories of new and used autos..... | 1.2 | .4 | 1.6 | 1.6 | -1.3 | -1.1 | 2.3 | 1.9 |
| New | 1.3 | 4 | 2.2 | 1.8 | -1.8 | -1.0 | 2.8 | 1.6 |
| Used | -. 2 | -. 1 | $-.6$ | -. 1 | . 5 | -. 1 | -. 5 | . 3 |
| Addenda: <br> Domestic output of new autos 1. $\qquad$ | 46.1 | 46.2 | 45.5 | 44.9 | 47.5 | 45.3 | 47.3 | 49.9 |
|  | 11.9 | 12.1 | 11.8 | 11.6 | 12.3 | 12.0 | 12.2 | 14.1 |

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the United States. 2. Consists of personal consumption expenditures, producers' durable equipment, and 3. Consists of agriculture, forestry, and fisheries; mining; construction; and manuacturing.
4. Consists of transportation; communication; electric, gas, and sanitary services; and 5. Consists of finance, insurance, and real estate; services; and rest of the world.

Nore.-Table 10: The industry classification of wage and salary disbursements and proprietors' income is on an establishment basis and is based on the 1972 Standard Industria
Classification.



Table 11.-Personal Consumption Expenditures by Major Type of Product in Current and Constant Dollars (2.3, 2.4)


Table 12.-Federal Government Receipts and Expenditures (3.2)

| Receipts | 374.5 | 431.4 | 385.5 | 396.2 | 424.7 | 441.7 | 463.1 | 469.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personal tax and nontax receipts | 169.4 | 193.2 | 174.8 | 176.8 | 186.7 | 199.7 | 209.7 | 208.3 |
| Income taxes. | 162.1 | 187.8 | 169.2 | 171.3 | 181.3 | 194.4 | 204.1 | 202.7 |
| Estate and gift taxes | 7.2 | 5.3 | 5.5 | 5.4 | 5.2 | 5.2 | 5.4 | 5.4 |
| Nontares.. | .2 | 2 | 2 | . 2 | 2 | 2 | . 2 | . 2 |
| Corporate profits tax accruals | 61.3 | 71.6 | 62.9 | 59.6 | 72.6 | 73.6 | 80.6 | 75.3 |
| Indirect business tax and nontax accruals. | 25.0 | 27.9 | 25.6 | 26.5 | 27.9 | 28.2 | 28.8 | 29.3 |
| Excise taxes. | 17.5 | 18.5 | 17.9 | 17.9 | 18.4 | 18.6 | 18.9 | 19.1 |
| Customs duties | 5.4 | 7.1 | 5.5 | 6.3 | 7.2 | 7.2 | 7.4 |  |
| Nontax | 2.1 | 2.3 | 2.2 | 2.2 | 2.3 | 2.3 | 2.5 | 2.7 |
| Contributions for | 118.7 | 138.7 | 122.2 | 133.3 | 137.6 | 140.1 | 144.0 | 157.1 |
| Expenditure | 422.6 | 461.4 | 444,1 | 448.8 | 448.3 | 464.5 | 483.8 | 488.4 |
| Purchases cf goc | ${ }_{14}^{14.1}$ | 153.8 | ${ }_{97}^{152}$ | ${ }^{151.5}$ | ${ }_{147}^{14.2}$ | ${ }_{99}^{154.0}$ | 162.5 | 164.5 103.9 |
| Compensation | 42.9 | 45.7 | ${ }_{44.9}$ | 45.0 | ${ }_{45.0}^{98.6}$ | 45.3 | ${ }_{47}^{102.1}$ |  |
| Military | 24.9 | 26.2 | 26.0 | 25.9 | 25.9 | 26.0 | 27.2 | 27.2 |
| Civilian | 18.0 | 19.5 | 18.9 | 19.1 | 19.2 | 19.3 | 20.3 | 20.6 |
| Other.- | 51.4 | 53.8 | 52.3 | 52.9 | 53.5 | 54.3 | 54.6 | 56.2 |
| Nondefense. | 50 | 54.3 | 55.1 | 53.6 | 48.6 | 54.5 | 60.4 | 60.6 |
| Compensation of empl | 23.5 | 25.4 | 24.6 | 24.9 | 25.0 | 25.2 | 26.5 | 26.8 |
| Other | 27.3 | 28.8 | 30.5 | 28.7 | 23.6 | 29.2 | 33.9 | 33.8 |
| T ransfer payments | 172.7 | 185.4 | 178.3 | 180.2 | 180.7 | 188.8 | 191.9 | 196. 5 |
| To persons.- | 169.5 | 181.9 | 175.0 | 176.9 | 177.0 | 185.5 | 188.3 | 192.6 |
| To foreigners. | 3.2 | 3.5 | 3.4 | 3.3 | 3.7 | 3.4 | 3.6 | 3.9 |
| Grants-in-aid to State and local governments. | 67.4 | 76. | 71.1 | 73.9 | 75.9 | 77.5 | 80.3 | 77.0 |
| Net interest paid | 29.1 | 35.5 | 30.7 | 33.2 | 34.6 | 36. 3 | 38.1 | 41.5 |
| Interest paid. | 35.3 | 43.1 | 37.0 | 40.2 | 42.3 | 44.0 | 45.9 | 49.7 |
| To persons and | 29.8 | 34.4 | 30.4 | 32.3 | 33.7 | 35. 6 | 36.1 | 38.9 |
| Less: Interest received by | 5. 5 | 8.7 | 6. 6 | 7.9 | ${ }_{8}^{8.5}$ | 8.4 | 9.8 | 10.8 |
| Less: Interest received by Government. | 6.2 | 7.6 | 6.3 | 7.0 | 7.7 | 7.7 | 7.8 | 8.1 |
| Subsidies less current surplus of Government enterprises. | 8.3 | 9.7 | 11.8 | 10.0 | 10.0 | 8.0 |  | 8.7 |
| Subsidies......-.......--- | 7.5 | 8.9 | 10.3 | 8.8 | 8.4 | 8.2 | 10.3 | 8.4 |
| Less: Current surplus of Government enterprises. | -. 9 | -. 8 | -1.4 | -1.2 | -1.6 | 2 | -. 7 | -. 3 |
| Less: Wage accruals less disbursements. | 0 | 0 | 0 | 0 | 0 | . 2 | 0 | -. 2 |
| Surplus or deficit (-), national income and product accounts.- | -48.1 | -29.9 | -58.6 | -52.6 | -23.6 | -22.8 | -20.8 | -18.4 |
| Social insurance funds Other funds. | $x_{-10.1}$ | $\begin{aligned} & -1.2 \\ & -28.7 \end{aligned}$ | $\begin{aligned} & -11.5 \\ & -47.1 \end{aligned}$ | $\left\lvert\, \begin{aligned} & -1.7 \\ & -50.9 \end{aligned}\right.$ | 1.9 -25.5 | $\left\{\begin{array}{l} -3.5 \\ -19.3 \end{array}\right.$ | $\left\|\begin{array}{l} -1.5 \\ -19.3 \end{array}\right\|$ | $\begin{array}{r} 9.2 \\ -27.6 \end{array}$ |



Table 13.-State and Local Government Receipts and Expenditures (3.4)

| Receipte |  | 328.1 | 307.9 |  | 327.4 | 329.2 | . 1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| nal | 56.6 | 63.0 | 58.5 | 60.5 | 62.5 | S3.5 | 65.3 |  |
| nta | (18.9 | 20.5 | ${ }_{\text {che }}^{32.0}$ | 33.3 | ${ }^{30.1}$ | 34.9 | ${ }^{36.0}$ |  |
| her | 7.4 | 7.8 | 7.5 | 7.7 | 7.8 | 7.8 | 7.8 | 7.8 |
| Corporate profts tax accruals | 10.5 | 12.3 | 10.9 | 10.4 | 12.4 | 12.5 | 13.8 | 13.8 |
| Indirect business tax and nontax accruals. |  |  |  |  |  |  |  |  |
| Sales taxe | 63.9 | 71.4 | 66.7 | 67.7 |  | 72.2 | 75.0 |  |
| Pr | ${ }_{13}^{62.7}$ | 15.4 | (14.3 | 64.3 14 | 65.8 15.1 |  | 16.1 |  |
| Contributions for social insurance | 21.7 | 25.5 | 22.8 | 24.1 | 25.2 | 26.1 | 26.7 | 27.4 |
| Federal grants-in-sid | 67.4 | 76.9 | 71.1 | 73.9 | 75.9 | 77.5 | 80.3 | 77.0 |
| Expenditures | 26.6 | 299.7 | 278.9 | 284.2 | 297.7 | 305.8 | 311.3 | 312 |
| chase | 248.9 | 280.2 | 260.3 |  |  |  |  |  |
| 0 | $1 \begin{aligned} & 141.5 \\ & 107\end{aligned}$ | ${ }_{124.8}^{155.4}$ | ${ }^{136.4} 1$ | ${ }_{114 .}^{151 .}$ | 123 |  |  |  |
| Transfer payments | 29.7 | 33.4 | 30.9 | 32.0 | 33.1 | 34.1 | 34.4 | 34.7 |
| Net interest paid | -6.5 | -7.9 | -6.8 | -7.1 | -7.3 | -8.2 | -9.1 | -9.8 |
| Interest Interest recei | 13.2 | 14.8 | 14.1 | 14.4 | 14.7 |  |  | 15.7 |
| Less: Interest m | 19.6 | 22.8 | 21.0 | 21. | 22.0 | 23.1 | 24.5 | 25.5 |
| Subsidies less current surplus of government enterprises Subsidies. |  |  | $5.5$ | $\begin{gathered} 5.0 \\ .0 \end{gathered}$ | $.7$ |  | ${ }_{3}$ |  |
| Less: Current surplus of govern- | 5.8 | 6.2 | 5.8 | 6.2 | 6.0 | 6.2 | 6.3 | 6.7 |
| Less: Wage accruals less disbursements. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Surplus or deficit ( - ), national income and product accounts | 29.6 | 28.3 | 29.0 | 31.5 | 29.8 | 23.4 | 28.8 | 27.1 |
| ran | 18.0 | 21.2 | 19.1 | 19.9 | ${ }_{9}^{20.5}$ | ${ }_{1.8}^{21.6}$ | 52.9 | 23.7 3.4 |
| r fund |  |  |  |  |  |  |  |  |

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1. Includes fees for licenses to import petroleum and petroleum products.

| 1977 | 1978 | 1977 | 1978 |  |  |  | 1979 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IV | I | II | III | IV | I ${ }^{\text {r }}$ |
|  |  | Seasonally adjusted at annual rates |  |  |  |  |  |
| Billions of dollars |  |  |  |  |  |  |  |

Table 14.-Foreign Transactions in the National Income and Product Accounts (4.1)

| Receipts from foreigner | 175. 5 | 204.8 | 172.1 | 181.7 | 205, 4 | 210, 1 | 221.9 | 234.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exports of goods and services. | 175.5 | 204.8 | 172.1 | 181.7 | 205.4 | 210.1 | 221.9 | 233.8 |
| Merchandise | 120.6 | 141.7 | 117.8 | 122.7 | 140.3 | 147.7 | 156.3 | 163.7 |
| Other | 54.9 | 63.0 | 54.2 | 59.0 | 65.1 | 62.4 | 65.6 | 70.1 |
| Capital grants received by the United States (net) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 |
| Payments to foreig | 175.5 | 204.8 | 172.1 | 1.7 | 205.4 | 210. | 221.9 | 234.9 |
| Impo | 186 | 216.8 | 195.2 | 205.8 | 210.9 | 220.8 | 229.5 | 239.0 |
| Merchand | 151.6 | 176.3 | 158.5 | 167.5 | 171.5 | 179.9 | 186.2 | 193. 1 |
| Other | 35.0 | 40.5 | 36.7 | 38.3 | 39.4 | 40.9 | 43.3 | 46.0 |
| Transfer payments (net) | 4.2 | 4.5 | 4.3 | 4.3 | 4.8 | 4.3 | . 6 | 4.9 |
| From persons (net) | 1.0 | 1.0 | 9 | 1.0 | 1.1 | 9 | 9 | 1.0 |
| From government (net).. | 3.2 | 3.5 | 3.4 | 3.3 | 3.7 | 3.4 | 3.6 | 3.9 |
| Interest paid by government to foreigners. | 5.5 | 8. 7 | 6.6 | 7.9 | 8.5 | 8.4 | 9.8 | 10.8 |
| Net foreign investment. | -20.9 | $-25.2$ | -34.1 | $-36.3$ | -18.9 | -23.5 | -22.1 | -19. |

Table 15.—Gross Saving and Investment (5.1)

| Groese eaving | 272.2 | 318.5 | 274.7 | 284.2 | 326.1 | 326.2 | 337.6 | 349.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross private saving... | 290.8 | 320.1 | 304. 3 | 305.4 | 319.9 | 325.7 | 329.6 | 339.5 |
| Personal saving | 66.9 | 76.9 | 73.7 | 82.4 | 76.3 | 76.0 | 73.0 | 84.9 |
| Undistributed corporate valuation and capital consumption adjustments. | 28.7 | 26.3 | 28.0 | 15.6 | 30.3 | 29.0 | 30.3 | 22.9 |
| Undistributed profits....- | 58.4 | 68.8 | 58.1 | 55.1 | 72.4 | 69.2 | 78.6 | 839 |
| Inventory valuation adjustment. | -14.8 | -24. 4 | -14.8 | -23.5 | -24.9 | -20.9 | -28.4 | -40.2 |
| Capital consumption adjustment | -14.9 | -18.1 | -15.3 | -16.1 | -17.2 | -19.3 | -19.9 | -20.7 |
| Corporate capital consumption allowances with caps ment-....................... | 120.9 | 132.5 | 124.6 | 127.4 | 130.5 | 134.7 | 137.4 | 140.3 |
| Noncorporate capital consumption allowances wadjustment...................... | 74.3 | 84.4 | 77.9 | 79.9 | 82.8 | 86.1 | 89.0 | 91.4 |
| Wage accruals less disbursements. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Government surplus or deficit $(-)$, national income and product accounts. $\qquad$ | -18.6 | -1.6 | -29.6 | -21.1 | 6.2 | . 6 | 8.0 | 8.7 |
| Federal State and local | -48.1 29.6 | $\begin{array}{r} -29.9 \\ 28.3 \end{array}$ | $\begin{array}{r} -586 \\ \quad 29.0 \end{array}$ | $\begin{array}{r} -52.6 \\ 31.5 \end{array}$ | $-23.6$ | $\begin{array}{r} -22.8 \\ 23.4 \end{array}$ | $\begin{array}{r} -20.8 \\ 28.8 \end{array}$ | $\begin{array}{r} -18.4 \\ 27.1 \end{array}$ |
| Capital grants received by the United States (net) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Gross investment | 276.9 | 320.4 | 279.5 | 286.4 | 326.6 | 326.6 | 342.0 | 351.3 |
| Gross private domestic investment <br> Net foreign investment | $\left\lvert\, \begin{aligned} & 297.8 \\ & -20.9 \end{aligned}\right.$ | $\begin{array}{r} 345.6 \\ -25.2 \end{array}$ | $\left\lvert\, \begin{gathered} 313.5 \\ -34.1 \end{gathered}\right.$ | $\begin{array}{r} 322.7 \\ -36.3 \end{array}$ | $\begin{array}{\|} 345.4 \\ -18.9 \end{array}$ | $\begin{array}{\|} 350.1 \\ -23.5 \end{array}$ | $\begin{array}{r} 364.0 \\ -22.1 \end{array}$ | ${ }^{371.1}$ |
| Statistical discrepancy. | 4.7 | 1.8 | 4.8 | 2.2 | . 5 | . 4 | 4.3 | 2.1 |

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1. Inventories are as of the end of the quarter. The quarter-to-quarter change in inventories calculated from current-dollar inventories shown in this table is not the current-dollar change in business inventories (CBI) corrconents of GNP. The former is the difference between two inventory stocks, each valued at end-of-quarter prices. The latter is the change in the physical volume of inventories valued at average prices of the quarter. In addition, changes calculated from this table are at quarterly rates, whereas CBI is stated at annual rates.
2. Quarterly totals at annual rates. amount of final sales by farms.
Note.-Table 16: Inventories are classified as durable or nondurable as follows: For manufacturing, by the type of procuct produced by the establishment holding the inventory; for trade, by the type of product sold by the establishment holding the inventory; for construction, durable; and for other nonfarm industries, nondurable. The industry classification is based on the 1972 Standard Industrial Classification.
and rental income is on an establishment basis; the industry classification of corporst income, and net interest is on a company basis. The industry classification of these items is based on the 1972 Standard Industrial Classification.

| 1977 | 1978 | $\frac{1977}{\text { IV }}$ | 1978 |  |  |  | $\frac{1979}{I^{\text {r }}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | I | II | III | IV |  |
|  |  | Seasonally adjusted at annual rates |  |  |  |  |  |
| Billions of dollars |  |  |  |  |  |  |  |

Table 16.-Inventories and Final Sales of Business in Current and Constant Dollars (5.9, 5.10)


Table 17.-National Income Without Capital Consumption Adjustment by Industry (6.4)

| National income without capital consumption adjustment. | 1,554.8 | 1,752.8 | 1,619.3 | 1,647.2 | 1,735.2 | 1,779.8 | 1,849.1 | 1,891.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Domestic inco | 1,537.5 | 1,733.4 | 1,603.4 | 1,629.0 | 1,714, 1 | 1,761.1 | 1,829.3 | 1,870.0 |
| Agriculture, forestry, and fisheries. | 44.6 | 52.3 | 50.6 | 47.9 | 50.7 | 52.2 | 58.3 |  |
| Mining and constr | 100.4 | 118.0 | 104.2 | 101.6 | 118.9 | 123.3 | 128.0 |  |
| Manufacturing | 408.9 | 464.2 | 428.7 | 432.5 | ${ }^{461.9}$ | 469.4 | 492.9 |  |
| Nondurable go Durable goods | 1647.2 | 1767.7 287 | 166.6 262.1 | 167.6 265.0 | 176.0 28.9 | 178.3 291.1 | 184.9 308.0 |  |
| Transportation. | 58.4 | 65.9 | 61.3 | 61.3 | 6.5 | 7 | 1 |  |
| Communication | 35.0 | 40.1 | 36.6 | 38.6 | 39.3 | 41.1 | . 4 |  |
| Electric, gas, and sanitary services. | 29.5 | 33.5 | 30.0 | 33.3 | 32.7 | 33.1 | 34.9 |  |
| Wholesale a | 237.0 | 263.7 | 242.9 | 245.7 | 260.0 | 270.5 | 278.6 |  |
| Wholesale | 140.5 | 106.9 | ${ }^{96.8}$ | ${ }_{147} 9$ | 105.5 154.5 | 110.4 160.1 | 113.7 164.9 |  |
| Retail | 140.5 | 156.8 | 146.1 | 147.5 | 154.5 | 160.1 | 164.9 |  |
| Finance, insurance, and real estate | ${ }_{213}^{17.9}$ | 202.0 | ${ }_{222.0}^{185}$ | 189.9 231.0 | 196.6 236.8 | 2430 | 214.5 250.3 |  |
| Services....-.-.-.-.......-- | 213.1 | 240.3 | 222.0 | 231.0 | 236.8 | 243.0 | 250.3 |  |
| Government and government enterprises........... | 232.7 | 253.4 | 241.5 | 247.2 | 250.7 | 254. | 261.3 |  |
| Rest of the world. | 17.3 | 19.4 | 15.9 | 18.2 | 21.1 | 18.8 | 19.8 | 21.7 |



| Table 18.-Corporate Profits by Industry (6.18) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporate profits with inventory valuation and capital consumption adjustments...... | 144.2 | 159.5 | 148.2 | 132.6 | 163.4 | 165.2 | 176.6 | 166.0 |
| Domestic industries Financial 1 | ${ }_{20.7}^{134.6}$ | 149.6 24.7 | 140.3 21.6 | 123.2 22.3 | 151.7 23.9 | $\underset{156.1}{25.5}$ | $\underset{\text { 167. }}{16}$ | $\underset{26.5}{15.1}$ |
| Nonfinancial | 113.9 | 124.9 | 118.7 | 100.9 | 127.8 | 130.6 | 140.4 | 128.6 |
| Rest of the world. | 9.6 | 9.8 | 7.9 | 9.4 | 11.7 | 9.1 | 9.1 | 10.8 |
| Corporate profits with inventory valuation adjustment and without capital consump- | 159.1 | 177.6 | 163.5 | 148.7 | 180.6 | 184.5 | 196.4 | 186.7 |
| Domestic industries. | 149.5 | 167.7 | 155.6 | 139.2 | 168.9 | 175.4 | 187.4 | 175.9 |
| Financial ${ }^{\text {- }}$ - | 20.9 | 25.1 | 21.9 | 22.7 | 24.3 | 26.0 | 27.6 | 27.1 |
| Federal Reserve ba | 6.2 | 7.7 | 6.4 | 6.9 | 7.3 | 8.0 | 8.7 | 8.8 |
| Other. | 14.6 | 17.4 | 15.5 | 15.7 | 17.0 | 18.0 | 18.8 | 18.4 |
| Nonfinancial. | 128.6 | 142.6 | 133.7 | 116.6 | 144.6 | 149.4 | 159.8 | 148.7 |
| Manufacturing.-..-. | 74.7 39.6 | 85.0 | ${ }_{41}^{80.2}$ | 69.8 37.0 | 87.8 41.7 | 87.1 <br> 42 | 95.2 46.0 |  |
| Nondurable goods. <br> Food and kindred products | 39.6 5.7 | 41.8 5.7 | 41.1 5.7 | 37.0 4.3 | 41.7 5.4 | 42.5 6.6 | 46.0 6.6 |  |
| products ............ | 8.2 | 8.6 | 8.2 | 8.1 | 8.3 | 8.2 | 9.8 |  |
| Petroleum and coal products | 12.8 | 13.8 | 13.8 | 10.4 | 14.4 | 14.6 | 15.8 |  |
| Other.-- | 12.9 | 13.7 | 13.4 | 14.3 | 13.7 | 13.2 | 13.8 |  |
| Durable goods. | 35.1 | 43.2 | 39.1 | 32.8 | 46.1 | 44.6 | 49.2 |  |
| Primary metal indus- tries.............. | 1.8 | 4.2 | 2.4 | 1.2 | 5.1 | 5.0 | 5.6 |  |
| Fabricated metal products.......... | 4.0 | 4.3 | 4.2 | 3.2 | 4.3 | 4.7 | 5.1 |  |
| Machinery, electrical |  |  |  |  |  |  |  |  |
| Electric and electronic | 7.1 | 8.3 | 8.5 | 6.4 | 9.2 | 7.4 | 10.1 |  |
| equipment | 3.9 | 4.9 | 4.4 | 4.3 | 4.8 | 5.8 | 4.8 |  |
| Motor vehicles and equipment | 9.5 | 9.6 | 9.1 | 7.9 | 10.8 | 10.2 | 9.4 |  |
| Other... | 8.8 | 11.9 | 10.5 | 9.7 | 11.9 | 11.7 | 14.3 |  |
| Wholesale and retail trade | 24.0 | 22.7 | 22.1 | 16.7 | 22.0 | 25.8 | 26.3 |  |
| Transportation, communication, and electric, gas, and sanitary services. | 16.1 | 19.5 | 17.1 | 17.3 | 19.3 | 20.7 | 20.8 |  |
| Other | 13.8 | 15.4 | 14.3 | 12.8 | 15.4 | 15.8 | 17.5 |  |
| Rest of the world | 9.6 | 9.8 | 7.9 | 9.4 | 11.7 | 9.1 | 9.1 | 10.8 |
| Corporate profits before deduction of capital consumption allowvaluation ad justment | 265.1 | 291.9 | 272.8 | 260.0 | 294.0 | 299.9 | 313.9 | 306.2 |
| Domestic industries. | 255.5 | 282.1 | 265.0 | 250.6 | 282.2 | 290.8 | 304.9 | 295.4 |
| Financial ${ }^{\text {- }}$. | 26.0 | 30.7 | 27.2 | 28.1 | 29.8 | 31.6 | 33. 3 | ${ }^{33.0}$ |
| ${ }_{\text {Federal }}$ Reserve | 6.2 | 7.8 | 6.4 | 7.0 | 7.3 | 8.0 | 8.7 | 8.8 |
| Other.. | 19.8 | 23.0 | 20.8 | 21.1 | 22.5 | 23.6 | 24.6 | 24.2 |
| Nonfinancial. | 229.5 | 251.4 | 237.7 | ¢22.5 | 252.4 | 259.2 | 271.5 | 262.4 |
| Manufacturing | 118.6 | 132.4 | 125.5 | 116.0 | 134.8 | 134.9 | 143.9 |  |
| Nondurable goods. | 60.9 | 65.1 | 63.2 | 59.6 | 64.8 | 66.1 | 70.1 |  |
| Food and kindred products.......... | 9.3 | 9.6 | 9.4 | 8.1 | 9.2 | 10.6 | 10.6 |  |
| Chemicals and allied products | 13.5 | 14.5 | 13.7 | 13.7 | 14.2 | 14.2 | 16.0 |  |
| Petroleum and coal |  |  |  |  |  |  |  |  |
| products | 19.3 18.8 | 20.8 20.2 | 20.5 19.5 | 17.2 20.6 | 21.4 20.0 | 21.7 19.6 | 23.0 20.4 |  |
| Durable goods | 57.7 | 67.3 | 62.4 | 56.4 |  | 68.8 | 73.8 |  |
| Durable goods $\begin{aligned} & \text { Primary } \\ & \text { metal }\end{aligned}$ |  |  |  |  | 70.0 |  |  |  |
| dustries.........---- | 5.8 | 8.5 | 6.5 | 5.4 | 9.4 | 9.3 | 10.1 |  |
| Fabricated metal products | 5.9 | 6.4 | 6.2 | 5.3 | 6.4 | 6.8 | 7.2 |  |
| Machinery, except electrical .... | 11.5 | 13.1 | 12.9 | 11.1 | 14.0 | 12.3 | 15.1 |  |
|  |  | 8.6 | 8.0 | 7.9 | 8.4 | 9.4 | 8.5 |  |
| Motor vehicles and | 7.3 | 8.6 | 8.0 | 7.9 | 8.4 |  |  |  |
| eq̧uipment. | 12.9 | 13.0 | 12.6 | 11.3 | 14.2 | 13.6 | 12.8 |  |
| Other..... | 14.3 | 17.6 | 16.1 | 15.4 | 17.6 | 17.3 | 20.0 |  |
| Wholesale and retail trade. | 36.2 | 36.4 | 34.8 | 29.8 | 35.5 | 39.7 | 40.6 |  |
| Transportation, communication, and electric, gas, and sanitary services.. | 42.9 | 48.1 | 44.8 | 45.3 | 47.7 | 49.5 | 50.1 |  |
| Other. | 31.8 | 34.4 | 32.6 | 31.4 | 34.4 | 35.0 | 36.9 |  |
| Rest of the world | 9.6 | 9.8 | 7.9 | 9.4 | 11.7 | 9.1 | 9.1 | 10.8 |


| 1977 | 1978 | 1977 | 1978 |  |  |  | 1979 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IV | I | II | III | IV | r |
|  |  | Seasonally adjusted |  |  |  |  |  |
| Index numbers, $1972=100$ |  |  |  |  |  |  |  |

Table 19.-Implicit Price Deflators for Gross National Product (7.1)

| Gross national product . . . | 141.61 | 152.09 | 144. 56 | 147. 10 | 150. 98 | 153. 52 | 156. 56 | 159.91 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personal consumption expenditures. | 140.7 | 150.3 | 143.2 | 146.2 | 149.3 | 151.6 | 154.0 | 157.9 |
| Durable goods. | 129.5 | 136.5 | 130.9 | 133.1 | 135.7 | 137.8 | 139.3 | 142.2 |
| Nondurable goods | 145.0 | 155.0 | 147.0 | 150.4 | 154.4 | 156. 2 | 158.8 | 164.4 |
| Servi | 141.0 | 151.2 | 144.4 | 147.1 | 149.9 | 152.6 | 155.2 | 158.0 |
| Gross private domestic investment |  |  |  |  |  |  |  |  |
| Fixed investment. | 150.6 | 164.7 | 155.9 | 158.2 | 162.3 | 167.1 | 170.8 | 173.3 |
| Nonresidential | 146.7 | 158.7 | 151.2 | 153.6 | 156.7 | 160.6 | 163.6 | 166.3 |
| Structures | 159.6 | 174.9 | 164.5 | 167.2 | 171.8 | 177.3 | 182.2 | 185.9 |
| enuipment...... | 141.0 | 151.2 | 145.2 | 147.6 | 149.6 | 152.7 | 154.8 | 157.3 |
| Residential. | 159.4 | 178.8 | 166.1 | 168.6 | 175.7 | 182.6 | 188.2 | 191.4 |
| Nonfarm structures. | 160.0 | 179.8 | 166.9 | 169.5 | 176.7 | 183.7 | 189.3 | 192.6 |
| $\xrightarrow{\text { Farm structures }}$ Producers ${ }^{\text {durable }}$ | 159.7 | 179.1 | 167.5 | 168.9 | 176.5 | 182.8 | 188.1 | 191.7 |
| equipment--.--........ | 126.2 | 132.2 | 1275 | 128.8 | 131.8 | 133.3 | 135.2 | 138. |
| Change in business inventories.. |  |  |  |  |  |  |  |  |
| Net exports of goods and services. |  |  |  |  |  |  |  |  |
| Exports | 178.7 | 191.3 | 179.2 | 183.3 | 189.4 | 192.8 | 198.7 |  |
| Imports. | 210.3 | 219.7 | 210.2 | 213.8 | 217.2 | 221.5 | 226.1 | 232.1 |
| Government purchases of goods and services. $\qquad$ | 6.3 | 157.8 | 150.3 | 153.2 | 156, 2 | 158.9 | 162.7 | 165.9 |
| Federal | 142.7 | 153.3 | 146.9 | 149.6 | 151.5 | 153.4 | 158.5 | 161.3 |
| State and loca | 148.5 | 160.4 | 152.3 | 155.2 | 158.8 | 162.1 | 165.1 | 168.5 |

Table 20.-Fixed-Weighted Price Indexes for Gross National Product, 1972 Weights (7.2)

| Grose national product .-- | 143.3 | 154.3 | 146.5 | 149.0 | 152.9 | 155. 8 | 158.9 | 162.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personal consumption expenditures. | 141.8 | 151.9 | 144.5 | 147.3 | 150.9 | 153.4 | 156.0 | 160.1 |
| Durable goods. | 130.5 | 138.1 | 132.1 | 134.5 | 137.2 | 139.3 | 141.0 | 144.2 |
| Nondurable goods | 146.4 | 157.1 | 148.6 | 151.7 | 156.4 | 158.6 | 161.6 | 167.3 |
| Services----- | 141.5 | 151.9 | 145.0 | 147.5 | 150.6 | 153.3 | 156.0 | 158.8 |
| Gross private domestic investment. |  |  |  |  |  |  |  |  |
| Fixed investment | 152.3 | 167.2 | 157.6 | 160.1 | 164.9 | 169.7 | 173.7 | 177.0 |
| Nonresidential | 148.7 | 161.1 | 153.0 | 155.5 | 159.2 | 163.0 | 166.1 | 169.4 |
| Structures. | 156.3 | 171.1 | 160.8 | 163.3 | 168.1 | 173.5 | 178.3 | 182.3 |
| Producers' durable equipment | 144.3 | 155.4 | 148.5 | 151.1 | 154. 0 | 157.0 | 159.1 | 162.0 |
| Residential...------------------ | 159.2 | 178.6 | 166.1 | 168.6 | 175.5 | 182.3 | 188.0 | 191.3 |
| Change in business inventories |  |  |  |  |  |  |  |  |
| Net exports of goods and services |  |  |  |  |  |  |  |  |
| Exports | 181.3 | 193.3 | 181.7 | 185.2 | 190.9 | 194.6 | 200.1 | 205. 1 |
| Imports. | 199.0 | 213.0 | 203.5 | 209.5 | 211.0 | 215.0 | 220.3 | 227.0 |
| Government purchases of goods and services | 146.8 | 158.0 | 151.0 | 153.4 | 156.4 | 158.9 | 162.9 | 166.2 |
| Federal | 144.9 | 154.7 | 149.6 | 151.4 | 153.1 | 154.5 | 159.9 | 162.9 |
| State and local | 148. 1 | 160.2 | 152.0 | 154.9 | 158.6 | 161.9 | 164.9 | 168.4 |
| Addenda: |  |  | 146.4 | 148.9 | 152.8 | 155.7 | 158.8 | 162.5 |
| Final sales.-.-.-....-. | 142.8 | 153.8 | 146.0 | 148.5 | 152.5 | 155.3 | 158.5 | 162.1 |
| Business... | 142.9 | 153.9 | 145.9 | 148.3 | 152.6 | 155.6 | 158.6 | 162.4 |
| Nonfarm | 142.9 | 153.2 | 145.7 | 147.6 | 151.4 | 154.6 | 157.3 | 160.5 |

r Revised.

1. Consists of the following industries: Banking; credit agencies other than banks; security; commodity brokers and services; insurance carriers; regulated investment companies; small business investment companies: and real estate investment trusts.
Note.-Table 18: The industry classification is on a company basis and is based on the 1972 Standard Industrial Classification.

| 1977 | 1978 | 1977 | 1978 |  |  |  | $\frac{1979}{I^{r}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | I | II | III | IV |  |
|  |  |  |  | sonal | adjus |  |  |
|  |  | Ind | um | s, 197 |  |  |  |

Table 21.-Implicit Price Deflators for Gross National Product by Major Type of Product (7.3)

| Gross national product.- | 141. 61 | 152.09 | 144. 56 | 147. 10 | 150.98 | 153. 52 | 156. 56 | 159.91 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Final sales. | 141.4 | 152.1 | 144.4 | 147.2 | 150.9 | 153.5 | 156.5 | 160.0 |
| Change in business inventories |  |  |  |  |  |  |  |  |
| Goods | 136.8 | 145.9 | 138.6 | 140.9 | 145.3 | 147.2 | 149.8 | 153.8 |
| Final sales. | 136.3 | 145.8 | 138.2 | 141.0 | 145.1 | 147.1 | 149.6 | 153.9 |
| Change in business inventories. |  |  |  |  |  |  |  |  |
| Durable goods | 134.5 | 142.0 | 136.2 | 137.9 | 141.0 | 143.5 | 145.2 | 149.6 |
|  | 134.3 | 141.5 | 136.1 | 137.3 | 140.3 | 143.0 | 145.0 | 148.7 |
| Change in business inventories. |  |  |  |  |  |  |  |  |
| Nondurable goods.--------- | 138.5 | 148.7 | 140.3 | 143.0 | 148.5 | 149.8 | 153.2 | 157.0 |
| Final sales,-.----------- | 137.7 | 148.8 | 139.6 | 143.5 | 148.5 | 150.0 | 153.0 | 157.7 |
| Change in business inventories. |  |  |  |  |  |  |  |  |
| Services | 143.1 | 153.5 | 146.6 | 149.4 | 152.2 | 154.6 | 157.7 | 160.7 |
| Structures. | 158.1 | 175.7 | 164.1 | 166.7 | 172.7 | 178.6 | 183.9 | 187.7 |

Table 22.-Implicit Price Deflators for Gross National Product by Sector (7.5)

| Gross national product.- | 141.61 | 152.09 | 144.56 | 147. 10 | 150.98 | 153, 52 | 156. 56 | 159.91 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross domestic product | 141.1 | 151.6 | 144.1 | 146.6 | 150.4 | 153.0 | 156.0 | 159.3 |
| Business. | 140.8 | 151.2 | 143.6 | 146.0 | 150.1 | 152.8 | 155.7 | 159.0 |
| Nonfarm | 141.1 | 151.0 | 144.0 | 146.0 | 149.8 | 152.7 | 155.3 | 158.2 |
| Nonfarm less housing | 142.6 | 152.6 | 145.4 | 147.5 | 151.3 | 154.3 | 157.0 | 160.0 |
| Housing. | 128.7 | 137.6 | 131.6 | 133.9 | 136.3 | 138.7 | 141.4 | 143.0 |
| Farm.- | 146.7 | 177.9 | 149.4 | 163.2 | 184.7 | 176.6 | 187.1 | 209.7 |
| Households and institutions- | 148.3 | 160.5 | 151.1 | 157.1 | 159.2 | 161.0 | 164.5 | 169.2 |
| Government | 141.3 | 151.4 | 145.5 | 147.9 | 149.9 | 151.9 | 155.8 | 158.4 |
| Federal | 136.4 | 145.5 | 142.5 | 143.3 | 143.5 | 144.0 | 151.3 | 152.8 |
| State and local | 143.8 | 154.2 | 146.9 | 150.2 | 152.9 | 155.8 | 158.0 | 161.2 |
| Rest of the world. |  |  |  |  |  |  |  |  |

Table 23.-Implicit Price Deflators for the Relation of Gross National Product, Net National Product, and National Income (7.6)

| Gross national product | 141.61 | 152.09 | 144.56 | 147. 10 | 150. 98 | 153, 52 | 156. 56 | 159.91 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Less: Capital consumption allowances with capital consumption ad- justment............... | 151.5 | 164.4 | 155.6 | 158.4 | 162.2 | 166.9 | 170.2 | 173.1 |
| Equals: Net national product-- | 140.6 | 150.8 | 143.4 | 145.9 | 149.8 | 152.1 | 155.1 | 158.5 |
| Less: Indirect business tax and nontax liability plus business transfer sidies plus current sur- |  |  |  |  |  |  |  |  |
| plus of government enterprises | 130.9 | 134.1 | 129.8 | 132.9 | 135.1 | 134.1 | 134.3 | 138.3 |
| Residual.-------------- |  |  |  |  |  |  |  |  |
| Equals: National income.....- | 142.3 | 153.4 | 145.6 | 148.1 | 152.2 | 154.9 | 158.3 | 161.6 |

## $r$ Revised.

1. Consists of final sales and change in business inventories of new autos produced in the United States.
2. Consists. of personal consumption expenditures, producers' durable equipment, and government purchases.
Note.-Table 21: "Final sales", is classified as durable or nondurable by type of product. "Change in business inventories" is classified as follows: For manufacturing, by the type of uct sold by the establishment holding the inventory; for construction, durable; and for other industries, nondurable.
Tables \&Q a a nd $94:$ The industry classification within the business sector is on an establish-
ment basis and is based on the 1972 Standard Industrial Classifiction. ment basis and is based on the 1972 Standard Industrial Classification.

| 1977 | 1978 | 1977 | 1978 |  |  |  | $\frac{1979}{I^{r}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IV | I | II | III | IV |  |
|  |  | Seasonally adjusted |  |  |  |  |  |
| Index numbers, $1972=100$ |  |  |  |  |  |  |  |

Table 24.-Implicit Price Deflators for Net National Product and National Income by Sector (7.7)

| Net national product....- | 140.6 | 150.8 | 143.4 | 145.9 | 149.8 | 152.1 | 155. 1 | 158.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net domestic product. | 140.0 | 150, 2 | 142.9 | 145.3 | 149.2 | 151.5 | 154,5 | 157.8 |
| Business. | 139.4 | 149.6 | 142.1 | 144.4 | 148.6 | 151.1 | 153.9 | 157.3 |
| Nonfarm | 139.9 | 149.4 | 142.6 | 144.6 | 148.3 | 151.0 | 153.6 | 156.5 |
| Farm. | 143.3 | 181.7 | 145.4 | 163.0 | 192.6 | 179.2 | 192.4 | 223.9 |
| Residual |  |  |  |  |  |  |  |  |
| Households and institutions | 148.3 | 160.5 | 151.1 | 157.1 | 159.2 | 161.0 | 164.5 | 169.2 |
| Government | 141.3 | 151.4 | 145.5 | 147.9 | 149.9 | 151.9 | 155.8 | 158.4 |
| Rest of the world. .-..--------- |  |  |  |  |  |  |  |  |
| National income | 142.3 | 153.4 | 145.6 | 148.1 | 152.2 | 154.9 | 158.3 | 161.6 |
| Domestic income. | 141.6 | 152.7 | 145. 0 | 147.4 | 151.5 | 154.3 | 157. 6 | 160.9 |
| Business. | 141.4 | 152.6 | 144. 6 | 146.8 | 151.3 | 154.3 | 157.6 | 160.8 |
| Nonfarm | 141.7 | 152.2 | 144.8 | 146. 7 | 150.7 | 154. 1 | 156. 9 | 159.8 |
| Farm | 129.2 | 168.0 | 141.2 | 150.8 | 176.1 | 163.2 | 182. 1 | 200.3 |
| Households and institutions | 148.3 | 160.5 | 151. 1 | 157.1 | 159.2 | 161. 0 | 164.5 | 169.2 |
| Government. | 141.3 | 151.4 | 145.5 | 147.9 | 149.9 | 151.9 | 155.8 | 158.4 |
| Rest of the world. |  |  |  |  |  |  |  |  |

Table 25.-Implicit Price Deflators for Auto Output (7.9)

| Auto output. ---.-------- | 130.9 | 140.3 | 134.3 | 136.4 | 139.4 | 141.8 | 143.4 | 146. 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Final sales | 131. 2 | 139.9 | 133.8 | 135.9 | 138.6 | 142.0 | 142.9 | 146.9 |
| Personal consumption expenditures. | 139.0 | 149.7 | 141.3 | 145.3 | 147.7 | 152.3 | 153.6 | 156.8 |
| New autos.-.-. --- | 128.6 | 138.5 | 132.2 | 135.0 | 137.5 | 140.3 | 141.0 | 144.8 |
| Net purchases of used autos. |  |  |  |  |  |  |  |  |
| Producers' durable equipment $\qquad$ | 114.9 | 127.4 | 123.0 | 124.5 | 126.8 | 129.5 | 128.6 | 131.5 |
| New autos. | 128. 6 | 138.5 | 132.2 | 134.9 | 137.5 | 140.3 | 140.9 | 144.9 |
| Net purchases of used autos $\qquad$ |  |  |  |  |  |  |  |  |
| Net exports |  |  |  |  |  |  |  |  |
| Exports | 128.9 | 137.5 | 132.2 | 133.0 | 135.3 | 140.5 | 141.4 | 145.0 |
| Imports. | 154.2 | 177.3 | 163.6 | 172.4 | 175.4 | 180.0 | 180.8 | 181.9 |
| Government purchases of goods and services. | 126.0 | 139.6 | 134.3 | 135.9 | 137.8 | 142.0 | 143.8 | 148.3 |
| Change in business inventories of new and used autos. |  |  |  |  |  |  |  |  |
| Addenda: |  |  |  |  |  |  |  |  |
| Domestic output of new autos ' | 128.6 | 138.3 | 132.2 | 134.7 | 137.3 | 140.4 | 140.9 | 144.7 |
| Sales of imported new autos ${ }^{\text {a }}$. | 128.6 | 138.5 | 132.3 | 135.0 | 137.5 | 140.4 | 141.0 | 144.9 |

Table 26.-Implicit Price Deflators for Personal Consumption Expenditures by Major Type of Product (7.11)

| Personal consumption expenditures | 140.7 | 150.3 | 143.2 | 146.2 | 149.3 | 151.6 | 154.0 | 157.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Durable goods. | 129.5 | 136.5 | 130.9 | 133.1 | 135.7 | 137.8 | 139.3 | 142.2 |
| Motor vehicles and parts. | 135.8 | 145.5 | 137.9 | 141.3 | 144.0 | 147.8 | 148.9 | 152.5 |
| Furniture and household |  |  |  | 125. 7 |  |  | 131.4 |  |
| Other.-..-------------------- | 126.9 | ${ }_{132.9}^{123.7}$ | 128.7 | 130.1 | 132.1 | 133.5 | 135. 4 | 137.4 |
| Nondurable goods | 145.0 | 155.0 | 147.0 | 150.4 | 154.4 | 156. 2 | 158.8 | 164.4 |
| Food. | 148.5 | 162.9 | 150.7 | 155.6 | 162.6 | 165.1 | 168.2 | 175.3 |
| Clothing and shoes. | 12.3 | 125. 7 | 123.5 | 124.0 | 125.9 | 126.0 | 126.6 | 127.1 |
| Gasoline and oil | ${ }^{174.4}$ | ${ }_{253.8}^{182.1}$ | 176.8 <br> 244.8 <br> 1 | 177.2 | ${ }_{252.1}^{178}$ | ${ }_{254.5}^{1815}$ | 282.6 | 279.1 |
| Ouel oil and coa | 139.0 | 146.9 | 142.0 | 143.7 | 145.5 | 148.0 | 150.1 | 153.1 |
| Services | 141.0 | 151.2 | 144.4 | 147.1 | 149.9 | 152.6 | 155.2 | 158.0 |
| Housing. | 131.5 | 141.4 | 134.8 | 137.3 | 140.0 | 142.6 | 145. 5 | 147.4 |
| Household operation | 147.2 | 156.9 | 150.1 | 152.7 | 156.0 | 158.9 | 159.8 | 161.9 |
| Electricity and gas. | 169.5 | 184. 0 | 174.1 | 176.1 | 184.2 | 187.9 | 188.0 | ${ }_{1142.7}^{190}$ |
| $\bigcirc$ | 133.1 | 154.7 | 148.2 | 1350.8 15 | ${ }_{153.3}^{137.6}$ | 155.4 | 157.8 | 159.7 |
| Other-..-- | 146.6 | 157.2 | 150.0 | 152.8 | 155.7 | 158.6 | 161.7 | 165.5 |


| 1977 | 1978 | 1977 | 1978 |  |  |  | 1979 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IV | I | II | III | IV |  |
|  |  | Seasonally adjusted |  |  |  |  |  |
| Percent |  | Percent at annual rate |  |  |  |  |  |

Table 27.-Percent Change From Preceding Period in Gross National Product in Current and Constant Dollars, Implicit Price Deflator, and Price Indexes (8.9)

| Gross national product: Current dollars. | 11.0 | 11.7 | 8.9 | 7.1 | 20.6 | 9.6 | 15.6 | 9.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1972 dollars... | 4.9 | 4.0 | 8.2 | $\bigcirc$ | 8.7 | 2.6 | 6.9 | . 4 |
| Implicit price deflator | 5.9 | 7.4 | 5.5 | 7.2 | 11.0 | 6.9 | 8.2 | 8.8 |
| Chain price index.- | 6.2 | 7.5 | 6.5 | 7.1 | 10.8 | 7.6 | 8.1 | 9.3 |
| Fixed-weighted price index. | 6.3 | 7.6 | 6.8 | 7.0 | 11.0 | 7.6 | 8.4 | 9.6 |
| Personal consumption expenditures: |  |  |  |  |  |  |  |  |
| 1972 dollars | 4.7 | 4.0 | 9.0 | -1.4 | 6.0 | 4.1 | 7.6 | . 3 |
| Implicit price defla | 5.7 | 6.8 | 4.7 | 8.6 | 8.7 | 6.4 | 6.5 | 10.5 |
| Chain price index | 5.9 | 7.0 | 5.0 | 7.7 | 10.0 | 6.7 | 69 | 10.2 |
| Fixed-weighted price index-- | 5.9 | 7.1 | 5.0 | 7.9 | 10.2 | 6.7 | 7.1 | 10.8 |
| Durable goods: |  |  |  |  |  |  |  |  |
| 1972 dollars | 19.9 | 5.0 | ${ }^{29.1} 0$ | -13.7 | 25.2 | -2.8 | 15.6 | -3.4 |
| Implicit price deflato | 4.1 | 5.5 | 4.3 | 7.0 | 8.0 | 6.4 | 4.5 | 8.6 |
| Chain price index. | 4.3 | 5.6 | 4.4 | 7.2 | 8.2 | 6.3 | 5.0 | 9.1 |
| Fixed-weighted price index. | 4.4 | 5.8 | 4.7 | 7.5 | 8.4 | 6.4 | 4.9 | 9.4 |
| Nondurable goods: |  |  |  |  |  |  |  |  |
|  | 8.2 | 9.9 | 15.1 | 3.7 | 15.0 | 9.9 | 17.4 | 10.9 |
| 1972 dollars---------- | 3.2 | 2.8 | 11.2 | $-5.5$ | 3.6 | 5.0 | 10.0 | -3.6 |
| Implicit price deflator...- | 4.9 | 6.9 | 3.6 | 9.8 | 11.0 | 4.7 | 6.8 | 15.0 |
| Chain price index. Fixed-weighted price | 4.9 | 7.2 | 3.9 | 8.4 | 12.5 | 5.8 | 7.5 | 14.3 |
| index | 5.0 | 7.3 | 3.9 | 8.6 | 12.8 | 5.9 | 7.8 | 14.9 |
| Services: |  |  |  |  |  |  |  |  |
| 1972 dollars | 4.4 | 4.6 | 3.9 | 7.0 | 1.9 | 5.9 | 3.1 | 5.8 |
| Implicit price deflator | 7.2 | 7.3 | 6.0 | 7.7 | 7.8 | 7.6 | 7.1 | 7.3 |
| Chain price index .----- | 7.2 | 7.3 | 6.2 | 7.3 | 8.4 | 7.6 | 7.1 | 7.2 |
| Fixed-weighted price index- | 7.3 | 7.4 | 6.2 | 7.3 | 8.4 | 7.6 | 7.2 | 7.3 |
| Gross private domestic investment: |  |  |  |  |  |  |  |  |
| 1972 dollars | 13.2 | 7.3 | -2.9 | 11.3 | 15.2 | -5.1 | 5.8 | 4.5 |
| Implicit price deflator |  |  |  |  |  |  |  |  |
| Chain price index---- Fixed-weighted price ind |  |  |  |  |  |  |  |  |
| Fixed investment: |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Current dollars. | 21.3 | 16.8 | 18.8 | 7.5 | 27.8 | 14.4 | 17.7 | 4.6 |
| 1972 dollars----7-7 | 12.4 7.9 | 6.7 9.4 | 7.1 11.0 | 1.2 | 15.3 10.8 | 2.0 12.2 | 7.8 9.2 | -1.3 |
| Chain price index. | 7.8 | 9.6 | 10.8 | 6.5 | 11.9 | 12.1 | 9.3 | 7.8 |
| Fixed-weighted price index.................... | 8.2 | 9.8 | 10.9 | 6.5 | 12.5 | 12.3 | 9.7 | 7.9 |
| Nonresidential: |  |  |  |  |  |  |  |  |
| Current dollars | 15.7 | 16.9 | 14.8 | 11.1 | ${ }_{31}^{31.2}$ | 14.3 | 18.0 9 | 12.4 |
| 1972 dollars-------- | 9.1 | 8.1 | 5.3 | 4.2 | 21.3 | 3.5 | 9.5 | 5.4 |
| Implicit price deflator | 6.0 | 8.2 8.3 | 9.0 | 6.7 | 8.2 | 10.4 | 7.8 | 6. 6 |
| Chain price index-- | 6.2 | 8.3 | 8.8 | 6.7 | 9.2 | 10.0 | 7.5 | 8.0 |
| Fixed-weighted index. | 6.3 | 8.4 | 8.6 | 6.7 | 9.7 | 10. | 7.7 | 8.3 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 1972 dollars | 4.4 | 11.1 | 2.0 | $-3$ | 40.3 | 9.8 | 9.8 | -7.4 |
| Implicit price deffator- | 6.7 | 9.6 | 11.1 | 6.6 | 11.5 | 13.3 | 11.5 | 8.5 |
| Chain price index Fixed-weighted price | 6.5 | 9.6 | 9.2 | 5.9 | 12.4 | 13.7 | 11.9 | 9.2 |
| index.... | 6.3 | 9.4 | 8.9 | 6.2 | 12.5 | 13.4 | 11.6 | 9.3 |
| Producers' durable equipment: |  |  |  |  |  |  |  |  |
| 1972 dollars..- | 11.4 | 6.7 | 6.8 | 6.2 | 13.6 | . | 9.3 | 11.9 |
| Implicit price defla | 5.8 | 7.3 | 8.2 | 6.9 | 5.5 | 8.3 | 5.7 | 6.7 |
| Chain price index...-- | 6.0 | 7.6 | 8.6 | 7.2 | 7.6 | 8.0 | 5.1 | 7.4 |
| Fixed-weighted price index- | 6.3 | 7.7 | 8.4 | 7.1 | 8.0 | 7.9 | 5.3 | 7.6 |
| Residential: |  |  |  |  |  |  |  |  |
| Current dollar | 34.8 | 16.4 | 27.3 |  | 21.0 | 14.9 | 17.3 | -10.3 |
| 1972 dollars | 20.5 | 3.8 | 11.1 | -5.2 | 2.7 | -1.6 | 4.0 | -16.2 |
| Implicit price deflator | 11.8 | 12.2 | 14.6 | 6.0 | 17.9 | 16.7 | 12.8 | 7.1 |
| Chain price index.- | 11.8 | 12.2 | 15.1 | 6.1 | 17.6 | 16.7 | 13.1 | 7.2 |
| Fixed-we | 11.8 | 12.2 | 14.9 | 6.2 | 17.5 | 16.4 | 13.1 | 7.3 |


| 1977 | 1978 | 1977 | 1978 |  |  |  | $\frac{1979}{\text { I }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IV | I | II | III | IV |  |
|  |  | Seasonally adjusted |  |  |  |  |  |
| Percent |  | Percent at annual rate |  |  |  |  |  |

Table 27.-Percent Change From Preceding Period in Gross National Product in Current and Constant Dollars, Implicit Price Deflator, and Price Indexes (8.9)-Con.

| Exports: |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current dollars. | 7.5 | 16.7 | -18.0 | 24.3 | 63.4 | 9.5 | 24.4 | 23.3 |
| 1972 dollars | 2.4 | 9.0 | -17.6 | 13.7 | 43.3 | 1.9 | 10.3 | 11.2 |
| Implicit price deflator | 5.1 | 7.0 | -. 5 | 9.4 | 14.0 | 7.4 | 12.7 | 10.8 |
| Chain price index | 5.0 | 6.8 | -. 2 | 8.5 | 13.7 | 7.4 | 12.1 | 10.0 |
| Fixed-weighted price index. | 5.2 | 6.6 | -. 4 | 8.1 | 12.9 | 7.9 | 11.8 | 10.5 |
| Imports: |  |  |  |  |  |  |  |  |
| Current dollars. | 19.8 | 16.1 | 16.8 | 23.4 | 10.3 | 20.2 | 16.6 | 17.7 |
| 1972 dollars..- | 10.2 | 11.2 | 22.8 | 15.2 | 3.7 | 11.2 | 7.3 | 6.0 |
| Implicit price deflator | 8.7 | 4.5 | -4.9 | 7.1 | 6.4 | 8.2 | 8.7 | 11.0 |
| Chain price index.-. | 7.5 | 6.7 | 2.6 | 12.3 | 3.7 | 7.7 | 9.9 | 12.6 |
| Fixed-weighted price index.- | 7.8 | 7.0 | 3.1 | 12.3 | 2.9 | 7.9 | 10.2 | 12.7 |
| Government purchases of goods and services: |  |  |  |  |  |  |  |  |
| Current dollars | 9.6 | 10.1 | 13.7 | 4.1 | 7.9 | 15.0 | 14.1 | 3.6 |
| 1972 dollars. | 2.4 | 2.2 | 4.2 | -3.5 | $-{ }^{-2}$ | 7.2 | 4.0 | -4.2 |
| Implicit price deflat | 7.0 | 7.8 | 9.0 | 7.9 | 8.2 | 7.2 | 9.7 | 8.1 |
| Chain price index | 7.0 | 7.5 | 9.5 | 73 | 7.5 | 6.9 | 10.0 | 8.6 |
| Fixed-weighted price index-- | 7.0 | 7.6 | 10.2 | 6.6 | 7.8 | 6.7 | 10.4 | 8.4 |
| Federal: |  |  |  |  |  |  |  |  |
| Current dollars. | 11.7 | 6.0 | 15.7 | $-2.0$ | -10.9 | 20.0 | 23.9 | 5.1 |
| 1972 dollars. | 5.2 | -1.3 | 2.9 | -8.9 | -15.3 | 14.3 | 8.8 | $-2.2$ |
| Implicit price deflator | 6.2 | 7.4 | 12.4 | 7.6 | 5.2 | 5.0 | 13.9 | 7.5 |
| Chain price index | 6.3 | 7.0 | 14.2 | 6.1 | 5.0 | 4.4 | 14.8 | 7.8 |
| Fixed-weighted price index. | 6.5 | 6.8 | 14.7 | 4.9 | 4.5 | 3.9 | 14.6 | 7.7 |
| State and local: |  |  |  |  |  |  |  |  |
| Current dollars. | 8.4 | 12.6 | 12.5 | 7.8 | 19.9 | 12.4 | 9.0 | 2.8 |
| 1972 dollars. | . 8 | 4.2 | 5.1 | $-.1$ | 9.6 | 3.4 | 1.3 | $-5.3$ |
| Implicit price deflator | 7.5 | 8.0 | 7.1 | 8.0 | 9.5 | 8.6 | 7.6 | 8.5 |
| Chain price index-.-.-.- | 7.4 | 7.8 | 6.9 | 8.0 | 9.0 | 8.3 | 7.5 | 9.0 |
| Fixed-weighted price index | 7.3 | 8.1 | 7.4 | 7.8 | 10.0 | 8.6 | 7.7 | 8.8 |
| Addenda: |  |  |  |  |  |  |  |  |
| Final sales: |  |  |  |  |  |  |  |  |
| Current dollars | 10.8 | 11.8 | 11.0 | 6.4 | 20.0 | 11.1 | 15.7 | 8.8 |
| 1972 dollars.- | 4.7 | 3.9 | 4.7 | -1.6 | 8.6 | 3.7 | 7.2 | -. 4 |
| Implicit price deflator | 5.8 | 7.6 | 6.0 | 8.0 | 10.5 | 7.1 | 8.0 | 9.3 |
| Chain price index. | 6.2 | 7.5 | 6.6 | 7.0 | 10.8 | 7.5 | 8.1 | 9.2 |
| Fixed-weighted price index. | 6.8 | 7.6 | 6.9 | 7.0 | 11.0 | 7.6 | 8.3 | 9.5 |
| Gross domestic product: |  |  |  |  |  |  |  |  |
| Current dollars........ | 10.9 | 11.7 | 9.5 | 6.7 | 20.1 | 10.2 | 15.5 | 9.0 |
| 1972 dollars. | 4.8 | 4.0 | 3.5 | $-.4$ | 8.3 | 3.0 | 6.9 | . 3 |
| Implicit price deflato | 5.8 | 7.4 | 5.8 | 7.1 | 10.9 | 7.0 | 8.1 | 8.7 |
| Chain price index | 6.1 | 7.5 | 6.7 | 7.1 | 10.9 | 7.5 | 8.1 | 9.2 |
| Fixed-weighted price index.- | 6.3 | 7.7 | 7.0 | - 7.0 | 11.0 | 7.6 | 8.4 | 9.6 |
| Business: |  |  |  |  |  |  |  |  |
| Current dollars | 11.3 | 11.9 | 8.6 | 5.8 | 22.5 | 10.7 | 16.3 | 9.1 |
| 1972 dollars- | 5.4 | 4.2 | 3.5 | -. 8 | 9.5 | 3.2 | 7.9 | 3 |
| Implicit price deflator | 5.6 | 7.4 | 5.0 | 6.7 | 11.9 | 7.3 | 7.8 | 8.8 |
| Chain price index-.....- | 6.0 | 7.6 | 6.1 | 6.7 | 11.8 | 7.9 | 7.8 | 9.4 |
| Fixed-weighted price index | 6.2 | 7.7 | 6.3 | 6.7 | 12.1 | 8.0 | 8.0 | 9.9 |
| Nonfarm: |  |  |  |  |  |  |  |  |
| Current dollars. | 11.4 | 12.1 | 7.9 | 7.0 | 22.9 | 10.6 | 14.7 | 9.1 |
| 1972 dollars.-.-.-...-- | 5.2 | 4.7 | 3. 6 | 1.1 | 11.1 | 2.3 | 7.0 | 1.5 |
| Implicit price deflator. | 5.9 | 7.0 | 4.1 | 5.8 | 10.6 | 8.0 | 7.2 | 7.5 |
| Chain price index-...- | 6.2 | 7.1 | 5.1 | 5.4 | 10.7 | 8.5 | 7.2 | 8.1 |
| index----.----... | 6.4 | 7.2 | 5.3 | 5.3 | 10.8 | 8.7 | 7.3 | 8.2 |
| Disposable personal income: |  |  |  |  |  |  |  |  |
| Current dollars............. | 10.0 | 11.4 | 12.9 | 9.8 | 12.5 | 10.2 | 13.0 | 13.7 |
| 1972 dollars. | 4.1 | 4.3 | 7.8 | 1.1 | 3.5 | 3.6 | 6.1 | 2.9 |
| - Revised. |  |  |  |  |  |  |  |  |
| Note.-Table 27: The implicit price defiator for GNP is a weighted average of the detailed |  |  |  |  |  |  |  |  |
| price indexes used in the deflation of GNP. In each period, the weights are based on the |  |  |  |  |  |  |  |  |
| composition of constant-dollar output in that period. In other words, the price index for each |  |  |  |  |  |  |  |  |
| item is weighted by the ratio of the quantity of the item valued in 1972 prices to the total |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| of output in the prior period, and, therefore, reflects only the change in prices between the |  |  |  |  |  |  |  |  |
| two periods. However, comparisons of percent changes in the chain index also reflect changes |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| in the composition of output. The fixed-weighted price index uses as weights the composition of output in 1972. Accordingly, comparisons over any timespan reflect only changes in prices. |  |  |  |  |  |  |  |  |

# Cyclical Fluctuations in the Difiference Between the Payroll and Household Measures of Employment 

## FOREWORD

UNEXPLAINED differences in the cyclical behavior of the two principal measures of employment-the payroll and household measures-have long troubled labor market and other economists. This article concludes that these differences can be traced, first, to cyclical fluctuations in multiple jobholding and job changing and, second, to the inadequate representation in the household survey of certain groups-men, particularly black men, and workers who are poor-for which cyclical employment declines are larger than for groups that are more adequately represented.

The author's research is impressive because he has sifted and integrated a vast amount of evidence using simple statistical tools. His procedure has the further advantage of supplying the reader with information on the crucial assumptions he made when adequate data were lacking, thus enabling the reader to modify these assumptions. The author's conclusions are necessarily controversial, because research cannot compensate for the lack of firm data. Nevertheless, on occasion he states his conclusions as though they were not subject to qualification, so as not to overburden the exposition.

As noted in the acknowledgments, staff of the Bureau of Labor Statistics and the Census Bureau-the agencies that prepare the payroll and household measures-have been most helpful to the author. The agencies have been invited to comment on the article, and their comments will be published in the Survey if they wish. Others are invited to comment, and their comments will be considered for publication.

The Editor-in-Chief

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[^0]
## Section 1: Introduction

ECONOMISTS have long been puzzled by the differing cyclical behavior of the payroll and household measures of nonagricultural wage and salary employment. ${ }^{1}$ The payroll measure is based on reports from a panel of employers and on employer tax returns; the household measure is based on interviews with respondents in a sample of households and on population estimates derived from the decennial census. In general, during labor market contractions the

1. The President's Committee to Appraise Employment and Unemployment Statistics, Measuring Employment and Unemployment, 1962, p. 113; Stanley W. Black and R. Robert Russell, "An Alternative Estimate of Potential GNP," Review of Economics and Statistics, February 1969, p. 73; Edward F. Denison, Accounting for United States Economic Growth: 1929-1969, Brookings Institution, 1974, pp. 168-71; and Joseph R. Antos, Anthony J. Barkume, J. Wilson Mixon, and Jack E. Triplett, "Why Employment Estimates Differ: A Study of Discrepancies Between BLS Household and Payroll Estimates," Bureau of Labor Statistics Working Paper 65, October 1976.
payroll measure declines more than the household measure; during labor market recoveries and expansions, the payroll measure increases more than the household measure.

## Definition of DIFF

This article describes and attempts to explain the differing cyclical behavior of the two employment measures. The two measures discussed here have been adjusted for all coverage differences for which monthly data exist. The adjusted measures are available from June 1956 forward (chart 2, upper panel) ; their derivation from the published measures is shown in table 1, for a single month. ${ }^{2}$
2. The payroll survey first covered employees in Alaska and Hawaii in January 1959, whereas the household survey first covered them in January 1960. In order to make the two adjusted measures comparable, I exclude employees in Alaska and Hawaii from the adjusted payroll employment measure in 1959.

Almost all of the adjustments are to the household measure, to make it conform with the payroll measure. Private household workers and workers on unpaid absences are excluded, and $14-15$ year-olds included, in the adjusted household employment measure.

Table 1.-Derivation of Adjusted Payroll and Household Measures of Nonagricultural Wage and Salary Employment, July 1977


Source: Bureau of Labor Statistics (BLS).

Table 2.-DIFF and the Adjusted Employment Measures, 1956-77


Source: BLS; seasonal adjustment by BLS and BEA. Because seasonal adjustment of DIFF and the two adjusted employment measures was performed independently, DIFF differs somewhat from the difference between the two seasonally adjusted employment measures.

Adjusted Employment Measures and DIFF


In describing the difference in the behavior over time of the two adjusted employment measures, it is most convenient to examine the behavior of the difference between the two measures. I define DIFF as the seasonally adjusted difference between the adjusted payroll and the adjusted household measures of nonagricultural wage and salary employment (chart 2, lower panel; and table 2).

Two factors account for the fact that DIFF has always been positive, averaging about 4 million in the period 1956-77. First, the payroll survey counts jobs, and therefore counts all the jobs of multiple jobholders, whereas the household survey counts workers, and therefore counts each multiple jobholder only once. Second, the household survey understates employment, because it is based on population estimates that are too low. Other, minor, factors that affect DIFF's level are
mentioned passim throughout this article. ${ }^{3}$

## Cyclical behavior of DIFF

For comparison with DIFF, the adult male unemployment rate-widely regarded as an indicator of labor market conditions-is plotted on an inverted scale (chart 2, lower panel). The comparison shows that, in general, DIFF behaved cyclically throughout the period 1956-77. The cyclical behavior of DIFF reflected divergent cyclical movements in the two adjusted employment measures.

1. DIFF declined in periods when the adult male unemployment rate rose sharply-i.e., in labor market con-tractions-because the adjusted payroll measure declined more than did the adjusted household employment measure. When DIFF is smoothed somewhat
2. See also Gloria P. Green, "Comparing Employment Estimates from Household and Payroll Surveys," Monthly Labor Review, December 1969, pp. 9-20.
to eliminate short-term irregularities in the series, the declines in DIFF in the four contractions in the period 1956-77 were between 400,000 and 1 million; the two earlier declines were larger than the two most recent ones.
3. DIFF generally increased in periods when the adult male unemployment rate fell-i.e., in labor market recoveries and expansions-because the adjusted payroll employment measure increased more than did the adjusted household employment measure. ${ }^{4}$ The smoothed DIFF increased about $600,000-700,000$ in the 1958-59, 1961-62, and 1972-73 recoveries, but did not increase in the 1975-77 recovery. In the long expansion from 1962 to 1969 , DIFF declined somewhat in 1962-64 and then increased the
4. In 1971 and early 1972 the labor market remained looseas indicated by the fact that the adult male unemployment rate remained high. In this period, DIFF continued to decline, and the adjusted payroll employment measure increased less than did the adjusted household employment measure.

Employees on Nonagricultural Payrolls, by Industry Group

record amount of 2.2 million in 1964$69 .{ }^{5}$

In principle, the cyclical behavior of DIFF could be due to any of three causes, or to a combination of them.

1. Conceptual differences in the coverage of the two adjusted employment measures could be responsible.
2. Statistical error in the payroll survey might cause the adjusted payroll measure to exaggerate cyclical fluctuations-specifically, to exaggerate employment declines and those employment increases that occur in recoveries and expansions.
3. Statistical error in the household survey might cause the adjusted house-
4. The measure of the 1964-69 increase in DIFF is based on annual averages and is adjusted for a break in the adjusted household measure in January 1987, when the household survey reclassified about 750,000 operators of small nonfarm incorporated enterprises from self-employed to wage and salary workers. The measures of the change in the smoothed DIFF in contractions and recoveries are based on monthly trend-cycle values, as estimated by the Census Bureau's X-11 seasonal adjustment program.
hold measure to dampen cyclical fluc-tuations-specifically, to dampen employment declines and those employment increases that occur in recoveries and expansions.

Preview of findings.-This article examines each of the three possible causes. Section 2 shows that conceptual differences in the coverage of the two adjusted employment measures have contributed somewhat to the cyclical behavior of DIFF. Section 3 concludes that statistical error in the payroll survey probably did not contribute substantially. Section 4 presents another major finding of this articlethat two statistical errors have substantially dampened cyclical declines in the adjusted household employment measure, and one of them has somewhat dampened cyclical increases. Section 5 summarizes my findings and broadly relates these findings, in an integrated way, to the observed cyclical behavior of DIFF.

## Section 2: Conceptual Differences Between the Payroll and Household Employment Measures

THE major conceptual difference between the two adjusted employment measures is that the payroll survey counts jobs, whereas the household survey counts workers. Accordingly, the adjusted payroll measure is larger than the adjusted household measure, because some workers hold two or more jobs simultaneously, and because some workers change jobs under circumstances that cause both jobs to be counted by the payroll survey. In this section, I will show that this conceptual difference has contributed to, but by no means fully accounted for, the cyclical behavior of DIFF.

There are other, minor, conceptual differences between the two adjusted employment measures, but there is no evidence that they have contributed to the cyclical behavior of DIFF. ${ }^{6}$

## Multiple jobholding

A multiple jobholder is a worker who holds two or more jobs simultaneously.

[^1]It is convenient to distinguish two groups of multiple jobholders-civilians, and members of the Armed Forces.

Civilian multiple jobholders.-Analysts of multiple jobholding distinguish two types of jobs. The "primary" job is the one at which a multiple jobholder works the largest number of hours per week. "Secondary" jobs are his or her other jobs.

The adjusted payroll employment measure counts both primary and secondary nonagricultural wage and salary jobs outside private households, whereas the adjusted household measure counts those workers whose primary job is a nonagricultural wage and salary job outside private households. Therefore, the adjusted payroll measure exceeds the adjusted household measure by the number of secondary nonagricultural wage and salary jobs outside private households ("secondary jobs," for short).

The available evidence indicates that cyclical declines and pre-1962 cyclical
increases in secondary jobs, both of which were small, contributed little to the cyclical declines and increases in DIFF, and that post-1962 cyclical increases in secondary jobs, which were large, contributed substantially to cyclical increases in DIFF. I will first discuss the evidence and its limitations, then present the conclusions I draw from the evidence, and, finally, show that the behavior of multiple jobholding seems reasonable in light of the industrial composition of secondary jobs.

A series for the number of workers with secondary nonagricultural wage and salary jobs outside private households ("workers with secondary jobs," for short) is available from 19 intermittent household surveys over the period 1957-77 (chart 2, lower panel). The series is an indicator of the number of secondary jobs. ${ }^{7}$ However, it is not a very precise indicator of short-term changes in that number, because statistical error in the series has been quite large relative to the size of the fluctuations that I think may have occurred. ${ }^{8}$ For instance, the large increase in the number of workers with secondary jobs in 1962-63, and the decline in 1963-64, during a period

[^2]when the labor market was relatively stable, may reflect error in the series rather than a real change in the number of secondary jobs.

On the basis of the intermittent household series, I draw the following conclusion with regard to the cyclical behavior of the number of secondary jobs and of DIFF, in contractions and in recoveries and expansions.

1. Perhaps because of statistical error, the series does not show a consistent pattern for the four contractions; on average, however, it declined 1.5 percent, or about $40,000 .{ }^{9}$ Declines of this magnitude in the number of secondary jobs would have contributed relatively little to cyclical declines in DIFF.
2. The series consistently increased in periods of recovery and expansion. It appears that multiple jobholding contributed relatively little to the increases in DIFF in the 1958-59 and 1961-62 recoveries, but contributed substantially to the increases in DIFF in the 1964-69 expansion and the 1972-73 recovery, and even raised DIFF substantially in the 1962-64 expansion and the 1975-77 recoveryperiods when DIFF showed no increase.

The series increased only 2 percent, or about 40,000 , from July 1958 to December 1959, and it increased only 6 percent, or about 120,000 , from December 1960 to May $1962 .{ }^{10}$ However, it increased 9 percent, or about 190,000, from May 1962 to May 1964; 14 percent, or about 310,000 from May 1964 to May 1969; 13 percent, or 300,000 , from May 1972 to May 1973 ; and 17 percent, or 400,000 , from May 1975 to May 1977.

The behavior of the intermittent household series seems reasonable in light of the industrial makeup of secondary jobs. Few such jobs are in goodsproducing industries, where employ-

[^3]ment has declined sharply in contractions and increased sharply in recoveries (chart 3). In May 1977 the household survey found that only 14 percent of workers with secondary jobs held their main secondary job in goods-producing industries; according to the payroll survey, 29 percent of all employees on nonagricultural payrolls worked in such industries. Most secondary jobs are in private service-producing industries, where employment generally remained flat in contractions, increased somewhat in the 1958-60 and 1961-62 recoveries, and increased substantially in recoveries and expansions after 1962 (chart 3). ${ }^{11}$

Military multiple jobholders.-Because the household survey does not cover Armed Forces members, civilian jobs held by them in off-duty hours are not covered by the intermittent household surveys of multiple jobholding.

Armed Forces members stationed on shore in the United States probably held about 200,000 civilian jobs in August 1975. ${ }^{12}$ Most of them were probably nonagricultural wage and salary jobs outside private households. Both the number of Armed Forces members stationed on shore in the United States and the proportion of them who held civilian jobs have a bearing on the cyclicality of DIFF.

1. The proportion of Armed Forces members stationed on shore in the United States who held civilian jobs13 percent in August 1975-may have fluctuated cyclically. In the absence of data, my guess is that fluctuations in this proportion are unlikely to have accounted for cyclical fluctuations of

[^4]more than 20,000 in the number of civilian jobs held by Armed Forces members, and, consequently, in DIFF.
2. The number of Armed Forces members stationed on shore in the United States has not fluctuated cyclically, except in the period 1964-72. In connection with the Vietnam war, the number increased about 230,000 from 1964 to 1969, and declined about 400,000 from 1969 to 1972. Assuming that the proportion who held civilian jobs was a constant 13 percent, the 1964-69 increase would have contributed about 30,000 to the increase in DIFF, and the 1969-72 decline would have contributed about 50,000 to the decline in DIFF.

## Job changing

In analyzing the treatment of job changers in the payroll and household surveys, it is necessary to understand that the two surveys refer to different periods. The household survey counts workers who were employed at any time during the survey week-the calendar week that includes the 12 th of the month. The payroll survey counts workers who were on the payroll at any time during the pay period that includes the 12 th of the month. ${ }^{13}$

I will first show that job changing causes the adjusted payroll employment measure to exceed the adjusted household employment measure, and then discuss the cyclical behavior of this difference.

Treatment of job changers in the two surveys.-Data from several sources indicate that the length of pay periods varies by industry and occupation. ${ }^{14}$ The pay period is 1 week for a little more than one-half the workers covered by the payroll survey. Weekly periods predominate for production workers and for other nonsupervisory workers in the private sector except office

[^5]
## Labor Turnover Rates in Manufacturing


workers; they are also used for a large number of office workers. The pay period is 2 weeks, one-half a month, or 1 month, for a little less than one-half of the workers covered by the payroll survey. The first two periods predominate for office and supervisory workers in the private sector and for government workers; the last is used for a minority of supervisory workers in the private sector and for a minority of State and local government workers.

The difference in the treatment of job changers in the two employment surveys depends on the length of the pay periods at the old and the new jobs, on the day of the week on which the pay periods end, and on the dates on which the worker leaves the old job and starts the new job. I will discuss three cases. Two of the cases concern jobs with weekly pay periods; these are of particular interest, because there is evidence that workers in these jobs change jobs more frequently than do workers in jobs with longer pay periods. ${ }^{15}$

[^6]1. Suppose the pay periods at both jobs are 1 week and that they end on a Saturday or Sunday, as do most weekly pay periods. ${ }^{16}$ If the worker leaves the old job to begin the new job the following Monday, there is typically no difference between the two surveys: The payroll survey counts one job and the household survey counts one worker. ${ }^{17}$ If the worker changes jobs between Monday and Saturday, say from Tuesday to Wednesday, the payroll survey counts two jobs and the household survey counts one worker. However, the intermittent household surveys of multiple jobholding identify that worker as a multiple jobholder. ${ }^{18}$ Therefore, for

## 16. Pay Period Practices.

17. There are two minor exceptions to this rule, if the $12 t h$ of the month is a Sunday. The two exceptions occur with roughly equal frequency, and offset each other. If the worker leaves a job with a pay period that ends on Sunday the 12th, to begin a job with a pay period that ends on Saturday the 18th, the payroll survey counts two jobs and the household survey counts one worker. If the worker leaves a job with a pay period that ends on Saturday the 11th, to begin a job with a pay period that ends on Sunday the 19th, the payroll survey counts no jobs and the household survey counts one worker.
18. The number of "multiple jobholders" who left one nonagricultural wage and salary job and began another one in the survey week was estimated on one occasion, in December 1960, to be 45,000 . The number of 'multiple jobholders'' who left any job and began another one in the survey week was estimated to be 80,000 in December 1960, $\mathbf{4 3 , 0 0 0}$ in May 1969, 29,000 in May 1974, 18,000 in May 1975, 35,000 in May 1976, and 58,000 in May 1977. The standard error of these
weekly pay periods that end on Saturday or Sunday, there is no discrepancy in the treatment of job changers that has not already been discussed as part of "multiple jobholding."
19. Suppose the pay periods at both jobs are 1 week, and that one or both of them end on a day other than Saturday or Sunday. Suppose further that the worker leaves the old job to begin the new job the following Monday. If the pay periods at the two jobs end on the same day, and if the leaving date and the following Monday both fall in the pay period that includes the 12th of the month, the payroll survey counts two jobs and the household survey counts one worker. If the pay periods at the two jobs end on different days, the payroll survey often counts two jobs and the household survey one worker; less frequently, the payroll survey counts no job, and the household survey one worker.
20. Suppose the pay period at one or both jobs is longer than 1 week. If the worker leaves the old job in a pay

[^7]period that includes the 12 th to begin the new job in a pay period that includes the 12 th of the same month, the payroll survey counts two jobs. Depending on the length and juxtaposition of the pay periods at the two jobs, the payroll survey could count two jobs even if the worker is out of work a week or more between jobs. The household survey normally counts the job changer once. ${ }^{19}$ The intermittent surveys do not identify him as a multiple jobholder unless he changes jobs during the week of the 12 th.
I will refer to the group of job changers for whom the payroll survey counts two jobs, and whom the intermittent household surveys do not identify as multiple jobholders, as "excess job changers." Excess job changers is to be understood as net of all job changing cases for which the payroll survey counts no job and the household survey counts one worker, as well as cases for which the payroll survey counts no or one job and the intermittent household surveys identify the worker as a multiple jobholder. ${ }^{20}$

Cyclical fluctuations in excess job changing.-Excess job changing probably increases when the labor market is becoming tight and jobs are becoming
easier to find, for two reason: There is more job changing, and job changers lose less time looking for work between jobs. Conversely, excess job changing probably declines when the labor market is becoming slack and jobs are getting harder to find.

Evidence from two sources indicates that job changing fluctuates cyclically.

1. Monthly data on labor turnover rates in manufacturing show that quits and new hires rise sharply when the labor market tightens, and fall sharply when it slackens (chart 4). Presumably, these movements reflect fluctuations in job changing.
2. The Social Security Administration's Continuous Work History Sample (CWHS), a 1-percent sample of social security records, provides a measure of the number of separate jobs held by each worker during the calendar year, for 1957-75 (table 3). The jobs-perworker is a good indicator of job changing. ${ }^{21}$ It rose when the labor market tightened and fell when it slackened.

[^8] of these limitations, however, significantly impair the use-

There are two reasons for believing that the time lost between jobs fluctuates cyclically.

1. The proportion of job changers who were laid off their old job falls when the labor market tightens and rises when it slackens; workers who are laid off are less likely than workers who quit to have lined up a new job beforehand at which they can start work immediately. ${ }^{22}$
2. The length of time it takes to find
fulness of the CWHS as an indicator of cyclical fluctuations in job changing.
3. Employers often change their tax identification numbers because of transfer of ownership, merger, change of name, or change of legal form of organization, and these changes cause spurious job changes for workers in the CWHS. There is no evidence that such spurious changes fluctuate cychcally, and there is some evidence that the changes involve less than 5 percent of workers each year.
4. Tips became subject to Social Security tax in 1960. Be cause reports of tips are filed separately from reports of wages, the CWHS treats tips as wages from a second employer. In this way, about 2.3 million spurious "jobs" were added to the CWHS in 1966.
5. The CWHS counts jobs held both sequentially and simultaneously. However, intermittent household surveys indicate that jobs held simultaneously-i.e., multiple job-holding-have accounted for only 3-5 percent of nonagricultural wage and salary jobs outside private households in any week. Furthermore, the surveys indicate that cyclical fluctuations in multiple jobholding are not large enough to account for very much of the cyclical pattern in the CWHS series on jobs per worker.
6. A household survey of persons who began new jobs in 1972 found that 66 percent of workers who quit previous jobs had begun looking for work before they quit, and 44 percent found their new jobs before quitting the old one. By contrast, only 23 percent of workers who were laid off or otherwise lost their job had begun looking for work prior to separation Bureau of Labor Statistics, Jobseeking Methods Used by American Workers, Bulletin 1886, 1975, p. 12.

Table 3.-Number of Covered Wage and Salary Jobs Held During Year by Workers Covered by Social Security, 1957-75

|  | Workers |  |  | Jobs | Jobs per worker |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $\underset{\text { Wob }}{\text { With } 1}$ | With 2 or more jobs |  |  |
|  | Millions |  |  |  |  |
| 1957. | 62.91 | 44.84 | 18.07 | 95.43 | 1.517 |
| 1958. | 62.37 | 45.84 | 16. 53 | 90.79 | 1. 456 |
| 1959 | 64.48 | 45.73 | 18.75 | 97.64 | 1.514 |
| 1960 | 66.01 | 47.13 | 18.88 | 99.05 | 1.501 |
| 1961. | 66.43 | 47.89 | 18. 55 | 98.27 | 1.479 |
| 1962. | 68.05 | 48.59 | 19.46 | 101.97 | 1.498 |
| 1963. | 69.49 | 49.70 | 19.80 | 104. 16 | 1. 499 |
| 1964. | 71.47 | 50.63 | 20.84 | 108. 30 | 1.514 |
| 1965. | 74.54 | 51.80 | 22.72 | 115.30 | 1.547 |
| 1966. | 78.49 | 52.87 | 25.62 | 127.02 | 1,618 |
| 1967 | 80.55 | 55.07 | 25.48 | 126.58 | 1.571 |
| 1968 | 83.34 | 57.37 | 25.97 | 132.10 | 1. 585 |
| 1969. | 86.31 | 57.82 | 28.49 | 137.83 | 1.597 |
| 1970. | 87.05 | 60.45 | 26.60 | 133.34 | 1.532 |
| 1971. | 87.13 | 61.88 | 25.25 | 129.78 | 1. 489 |
| 1972. | 89.78 | 62.65 | 27.14 | 136.81 | 1.524 |
| 1973. | 93.02 | 63.54 | 29.48 | 145.32 | 1.562 |
| 1974. | 94.81 | 65.71 | 29.10 | 144.98 | 1.529 |
| 1975. | 93.98 | 68.54 | 25.44 | 135.31 | 1.440 |

Source: Continuous Work History Sample, 1-Percent Annual Employee-Employer File, Social Security Administration. For description of the sample, see Bureau of Economic Analysis, Regional Work Force Characteristics and Migration Data: A Handbook on the Social Security Continuous Work History Sample and its Application, 1976.
a new job falls when the labor market tightens and rises when it slackens. ${ }^{23}$

Effect on DIFF.-Data are not available for making reliable estimates of cyclical fluctuations in excess job changing. However, an illustrative calculation indicates that the fluctuations are too small to explain the cyclical behavior of DIFF. It is appropriate to make the calculation for the period 1973-75, when job changing declined more than at any other time in the period 1957-75, and to present the calculation in two steps.

First, I estimate that there were an average of about 250,000 excess job changers each month in 1973. To arrive at this figure, I first estimated (on the basis of CWHS data adjusted for spurious job changing, tip reporting, and multiple jobholding) that about 800,000 wage and salary workers left jobs each week in 1973 to start new jobs sometime before yearend. I then made somewhat arbitrary assumptions as to how many of the job changers left jobs with 1-week, 2-week, and 1-month pay periods; and as to what proportions of each group started new jobs soon enough for both jobs to be counted in the payroll survey.

Second, I estimate that excess job changing declined in 1975 to at most 68 percent, and perhaps to as little as 45 percent of its 1973 level. This estimate is based on two considerations.

1. The CWHS series on jobs per worker indicates that in 1975 about 75 percent as many workers as in 1973, or about 600,000 per week, left a job to start another job before yearend.
2. I assume that, among workers who did leave a job to start another job before yearend, the proportion who began new jobs soon enough to be counted twice in the payroll survey declined in 1975 to at most 90 percent, and perhaps to as little as 60 percent,

[^9]of the 1973 proportion of 25 percent, that is, to $22 \frac{1}{2}-15$ percent.

It follows that excess job changing declined at least 80,000 , and, perhaps as much as 137,000 , from 1973 to 1975. Although the assumptions underlying the illustrative calculation are somewhat arbitrary, it is difficult to posit plausible circumstances under which the true decline in excess job changing could have been more than twice as large or less than half as large as in the illustrative calculation.

Because the annual CWHS data show that job changing declined more in 1973-75 than at any other time in the period 1957-75, and because the quarterly labor turnover data show that the quit and new hire rates in manufacturing declined more in 1973-

75 than at any other time in the period 1956-77, I conclude that excess job changing probably declined more in 1973-75 than at any other time in the period 1956-77. (The labor turnover data also indicate that excess job changing declined less in the 1960-61 contraction than in any other contraction in the period.)

On the basis of the CWHS and the labor turnover data, I conclude that cyclical increases in excess job changing in the period 1956-77 were no larger than the 1973-75 decline in excess job changing, with the sharpest of these increases occurring in 1964-66 and in 1971-73. It appears, therefore, that excess job changing has contributed to, but by no means fully explained, the cyclical behavior of DIFF.

## Section 3: Cyclical Aceuracy of the Payroll Survey

IN this section, I will show that statistical error probably did not cause the payroll survey to substantially exaggerate cyclical fluctuations of nonagricultural employment during the period 1956-77. The conclusions of this section also apply to the adjusted payroll measure, which differs little from the published payroll survey measure (table 1). However, the limited data that are available are insufficient to rule out the possibility of cyclical error in the payroll survey.

The payroll survey measures the number of nonagricultural wage and salary jobs at which workers either worked, or were absent with pay, during the pay period that includes the 12 th of the month. Underlying the payroll survey estimate prepared by the Bureau of Labor Statistics (BLS) are two data sources. ${ }^{24}$

1. The survey is benchmarked, for March of almost every year, to universe counts of employment, based on unemployment insurance (UI) tax data and other data sources for groups of workers not covered by UI. ${ }^{25}$

[^10]2. Estimates for inter-benchmark and post-benchmark months are based on reports from a panel of about 160,000 establishments.

In principle, one could take two approaches to the evaluation of the cyclical accuracy of the payroll series. One could discuss the methodology that underlies the payroll series and whether flaws in that methodology may have led to an exaggeration of cyclical fluctuations in nonagricultural employment. Alternatively, one could compare cyclical fluctuations in the payroll series with those in another series that is conceptually similar, and draw infer-. ences from the comparison.

For two reasons, the latter approach is appropriate for private employment (the major topic of discussion in this section). First, the payroll survey methodology is extremely complex and little evidence is available on the accuracy of the underlying data. Second, another series that is conceptually similar to the payroll series is available; it is based on a much simpler methodology, which is easier to evaluate than is the

[^11]metholology of the payroll series. As will be seen, the cyclical fluctuations in that series confirm those in the payroll series.

For the Federal Government also, the latter approach is appropriate, because there exists another series that is conceptually similar to the payroll series and that is believed to be cyclically accurate. For State and local government, neither approach is appropriate, for reasons that will be discussed below.

## Private employment

The number of workers covered by UI is a series that is conceptually close to the payroll series for private employment. I will first describe this alternative series, then evaluate its cyclical accuracy, and, finally, compare it with the payroll series.

ES-202 employment.-Employers covered by UI must submit quarterly tax returns, known as ES-202 reports, to State employment security agencies. In the reports, employers state the number of workers who either worked, or were absent with pay, during the pay period that included the 12 th of each month. The State agencies tabulate the number of workers, and BLS edits, compiles, and publishes the tabulations.

In the period under discussion, UI coverage has grown from 86 percent of the payroll measure of private nonagricultural employment in 1956 to 97 percent in 1977. From 1956 to 1971, Federal law required that private employers of four or more workers participate in the UI programs, but exempted railroads, hospitals, educational institutions, religious organizations, and other nonprofit organizations. State laws covered some workers not covered under Federal law. From January 1972 until the end of the period under discussion, Federal law covered private employers of one or more workers. Hospitals, institutions of higher education, and some other nonprofit organizations were covered, but railroads, primary and secondary schools, and religious organizations remained exempt. Again, State laws covered some workers not covered under Federal law.

Conceptually, the ES-202 series for private employment is the same as the
payroll series for private employment, except for two differences. First, the ES-202 series excludes uncovered employment. Second, the ES-202 series includes some employment in agriculture, in private households, and in U.S. territories.

Cyclical accuracy of the ES-202 series.-The principal source of statistical error in the ES-202 series is the attempt by some employers to evade UI taxes either by omitting some workers from returns or by not filing returns. ${ }^{28}$ Only very small firms can evade UI taxes with a low risk of detection, because: First, in order to evade UI taxes a firm must enjoy the collusion of workers, who might otherwise file UI claims that would expose the firm's evasion, or simply denounce the firm to tax authorities; and second, in order not to file ES-202 returns a firm must have few dealings with official agencies, so that its name rarely appears on official lists that investigators match with tax returns.

To minimize the risk of detection, most firms that evade UI taxes probably do so continuously at rates that do not fluctuate sharply, rather than episodically, or at sharply fluctuating rates, for two reasons. First, firms that omit some workers from ES-202 returns must pay these workers "off the books," and must therfore "skim" (fail to record) some of their income as well, in order that their books balance. Because the share of income that such firms can skim is limited by the need to maintain accounting proportions that would appear reasonable to an Internal Revenue Service (IRS) investigator, the share of income that they do skim probably does not fluctu-

[^12]ate sharply. ${ }^{27}$ Second, the IRS or the State agency usually investigates when a firm stops filing ES-202 returns, unless the firm files a "final return" showing that it has gone out of business. Continuous evasion at constant rates by a fixed group of employers would not normally cause the ES-202 series to exaggerate cyclical fluctuations in covered employment.

However, there may be a cyclical pattern to tax evasion, due to efforts by some small firms to cut costs by evading taxes during recessions. First, in contractions some firms may increase off-the-books employment, temporarily accepting an increased risk of an IRS investigation. Some of the additional off-the-books workers may be persons receiving unemployment compensation, who would prefer to work off the books and not report their income to the State employment security agency. During recoveries and expansions, such workers may become reemployed elsewhere in higher paying, on-the-books, jobs, and such firms may begin reporting previously unreported workers in order to reduce the risk of an IRS investigation. Second, during contractions some firms may lay off workers, pretend to go out of business, and operate clandestinely with a core group of trusted workers. Later, during recoveries and expansions, if the tax-evading firms hire additional, less trusted, workers, or if they expand into operations that bring their names to the attention of official agencies, they may resume paying taxes. Such behavior would cause the ES-202 series to exaggerate cyclical fluctuations in covered employment. For the most recent recession, there is circumstantial evidence that no substantial increase in UI tax evasion occurred. ${ }^{28}$ For earlier

[^13]years, there is no evidence on cyclical fluctuations in tax evasion. I conclude that cyclical fluctuations in tax evasion were probably small or did not occur, but I cannot rule out the possibility that they were substantial.

There are other causes of inaccuracy in the ES-202 series but none appear to affect the cyclical accuracy of the series. ${ }^{29}$

Comparison of payroll and ES-202 series.-When employment in agriculture (including agricultural services) and private households, and in U.S. territories, is subtracted from the published ES-202 series for private employment, the resulting adjusted ES202 series is conceptually the same as the adjusted payroll series for private employment minus uncovered employment. Accordingly, the difference between the adjusted payroll series for private employment and the adjusted ES-202 series is conceptually the same as uncovered employment.
As previously mentioned, the ES-202 tabulations for March are the principal source for the benchmarking of the payroll survey, which is done almost every year. The issue, then, is whether reports by establishments in the payroll survey panel have somehow introduced cyclical error between benchmarks. If this had been the case, the adjusted payroll series would have fluctuated more, cyclically, than the adjusted ES-202 series-which, I concluded above is probably cyclically accurate. ${ }^{30}$ Accordingly, the difference between the adjusted payroll series for private employment and the adjusted ES-202 series would have fluctuated cyclically-

[^14]Table 4.-Adjusted Payroll Employment Minus Adjusted ES-202 Employment, Private Nonagricultural Establishments, 1956-77


1. Federal legislation effective January 1, 1956 extended mandatory unemployment insurance coverage to employers of four or more workers who had paid wages for 20 or more
weeks. Previously, the Federal minimum had been eight weeks. Previously, the Federal minimum had been eight workers. Some of the increase in ES-202 employment during subsequent quarters of 1956 was due to late compliance with the new law.
of two workers; New York extended coverage to employers workers. As a result, about 100,000 additional workers were covered.
2. Approximately 300,000 workers in fluid-milk and readymixed concrete plants were shifted from trade to manufacturing in ES-202 reports in 1958:I, due to a revision of the Standard Industrial Classification (SIC). In the payroll series, LS made the shift retroactive.
3. Torker; previously the minimumed coverage to employers of As a result, about 100,000 additional wad been four workers. 5. In 1968:II, Connecticut extended coverage to employers of one worker; previously, the minimum had been four workers. As a result, about 20,000 additional workers were covered.
4. In. 1969:I, New Jersey extended coverage to employers workers. As a result about 100,000 additional workers were covered.
5. In 1971:I, both New York and Connecticut extended coverage to nonprofit organizations. As a result, about 400,000 additional workers were covered.
6. Federal legislation effective January 1, 1972 extended mandatory unemployment insurance coverage to employers of one or more workers who had paid wages for 20 weeks or more or paid $\$ 1,500$ in wages in the current or previous quarter. This legislation also sharply curtailed the inst of excepted industries. Some of the increase in ES-202 employcompliance with the new law. Also, it appears that some previously nonreporting employers who were covered prior to January 1972 began reporting for the first time.
7. Although BLS published a March 1974 benchmark in October 1975, it discarded the March 1974 benchmark when it revised the payroll series for 1970-78 in connection with the March 1977 benchmark. For March 1973-February 1975, accordingly, the payroll survey probably measures the change in employment less accurately than it did before this latest revision. This fact explains part of the instability of the goods-producing industries in 1973-74. When I computed the difference on the basis of the unrevised payroll series. it fluctuated over a range of about 50,000 , compared
with 140,000 in the table.
10 . Approximately 100,000 employees of operative builders and of various manufacturing plants were shifted from service-producing to goods-producing industries in the ES-202 series in 1975:I, due to a revision of the SIC and to
recoding of the ES-202 returns. In the payroll series, BLS recode the shift retroactive.
8. The negative difference for goods-producing industries in 1975-77 is due to a recurring tendency for the (seasonally unadjusted) ES-202 series to increase more than the (seasonally unadjusted) payroll series in the second and third quarters of the year. In the first quarter, which includes the benchmark month, the seasonally unadjusted difference was positive in 1975-7, but in the second and third quarters difference was negative throughout the year
9. Pending their revision to a March 1978 benchmark, the payroll series for the last three quarters of 1977 may not accurately measure employment in new firms.
Sources: Payroll data are from Employment and Earnings. ES-202 data for 1956-74 are from Employment and Wages for 1975-77, the estimates were prepared by BEA from State reports (the 1977 estimates are preliminary).
Note.-Agriculture ser vices employment is excluded from both the payroll series and the adjusted ES-202 series. Employment in Puerto Rico and the Virgin islands, and in the adjusted ES-202 series. Employment in Alaska and Hawail is excluded from the adjusted ES-202 series for
$1956-58$.
declining in contractions and increasing in recoveries and expansions.

In table 4, the seasonally adjusted difference between the payroll series and the adjusted ES-202 series is shown for 1956-77 for all private employment, and separately for goods-producing and service-producing industries. ${ }^{31}$ In examining the table, it is important to bear in mind that extensions of UI coverage under Federal or State law (documented in the footnotes to table 4) have intermittently reduced the difference series; that some workers were shifted from the service-producing to the goodsproducing difference series in 1958 and in 1975; and that the goods-producing difference increased in 1969-71 because BLS wedged about 200,000 previously unreported construction workers into the payroll series at the time of the 1973 benchmark revision. ${ }^{32}$

The table shows that there was no persistent cyclical pattern in the difference for all private industries, although it declined about 250,000 during the 1957-58 contraction, due mostly to a decline in uncovered railroad employment, and it increased a similar amount in the 1958-59 recovery, due at least in part to growth in employment in hospitals and other uncovered sectors of the services industry. Similarly, there was no persistent cyclical pattern in the difference for goods-producing industries (which contained few uncovered workers and in which cyclical employment fluctuations were sharp), or for service-producing industries (which contained many uncovered workers and in which cyclical employment fluctuations were mild).

In summary, because the ES-202 series probably did not substantially exaggerate cyclical fluctuations in covered private employment, and because there was no persistent cyclical pattern in the difference between the payroll series and the adjusted ES-202 series, I conclude that the payroll series

[^15]probably did not substantially exaggerate cyclical fluctuations in private employment during the period 1956-77.

## Government employment

For Federal employment, BLS uses the monthly Civil Service Commission (CSC) series. The number of workers covered by Unemployment Compensation for Federal Employees (UCFE) is a series that is conceptually similar to the CSC series. ${ }^{33}$
The UCFE series has been consistently higher than the CSC series, in recent years by about 170,000 , because the latter excludes Federal employees paid with nonappropriated funds. ${ }^{34}$ The difference between the UCFE and the CSC series has fluctuated seasonally, and even the seasonally adjusted difference has fluctuated somewhat. However, because there was no cyclical pattern to the difference between the two series in the period 195774, and because Federal supervisors would have little motive or opportunity to file inaccurate UI reports, it appears that the CSC series has been cyclically accurate.
33. Both the CSC and the UCFE series exclude employees of the Central Intelligence Agency and the National Security Agency.
34. Workers at canteens and other facilities on military bases, many of whom are military moonlighters and are therefore not in the adjusted household employment measure (section 2 of this article), account for a large share of Federal employees paid with nonappropriated funds.

The methodology of the payroll series for State and local government is complex, and there is no alternative series that is suitable for comparison with it. As a result of deficiencies in the underlying data, the payroll series has apparently been less accurate for State and local government than for mostindustries in the private sector.

According to the payroll series, State and local government employment has grown steadily in all phases of the business cycle in the period since 1959 (chart 3). Accordingly, error in the payroll series for State and local government could not have exaggerated cyclical fluctuations in total payroll employment unless true employment in State and local government increased even more than the payroll measure of State and local government employment in contractions, and increased less in recoveries and expansions. There is no evidence that this kind of error has occurred, and it is difficult to understand how it could have occurred, except in the most recent contraction-when BLS found it difficult to measure the increase in State and local government employment under the Comprehensive Employment and Training Act (CETA). In earlier contractions, there was no counterpart to CETA, and State and local governments lacked the funds to launch countercyclical employment programs on their own.

## Section 4: Cyclical Accuracy of the Household Survey

In this section, I will show that two statistical errors have substantially dampened cyclical declines in the adjusted household employment meas-ure-that is, the household measure of adjusted nonagricultural wage and salary workers (ANWSW)-and that one of the errors has somewhat dampened cyclical increases in ANWSW. The conclusions of this section also apply to the household measure of total employment.
Much of my analysis will be in terms of ANWSW ratios. The aggregate ANWSW ratio is the percentage of the civilian noninstitutional population age 14 and above (CNIP) that either worked at, or was on paid leave from, a
nonagricultural wage and salary job outside private households during the calendar week that included the 12 th of the month. Similarly, for any sex-race-age group, the ANWSW ratio is the corresponding percentage of the CNIP in the group.

Underlying the "official" monthly ANWSW estimate, which is based on employment estimates prepared by the Census Bureau (table 1), are data from two independent sources. ${ }^{35}$ (1) From the most recent decennial census, the Census Bureau extrapolates population

[^16]for 84 separate sex-race-age groups in the CNIP to obtain current population control totals. (2) From a sample of 56,000 households, the Census Bureau ascertains ANWSW ratios for each of the 84 sex-race-age groups. ${ }^{36}$ To estimate ANWSW, the Census Bureau multiplies the sample ANWSW ratios by the population control totals. I will discuss two statistical errors underlying this procedure.

1. Control total error: Because of undercount in the decennial census, the population control totals for the 84 sex-race-age groups are understated, by varying percentages. It is convenient to distinguish two elements in control total error. The scale element is the error in aggregate CNIP; the nonscale element is the differential percentage error for the sex-race-age groups.
2. Undercoverage: The sample from which the Census Bureau ascertains ANWSW ratios for the sex-race-age groups misses some of the persons it is designed to cover.
Although ANWSW is derived by multiplying ANWSW ratios for 84 sex-race-age groups by corresponding population control totals, it can be thought of as the product of an aggregate ANWSW ratio times an aggregate population control total. In this section, I will examine the effect of control total error and undercoverage on each term of this product, to determine the implications of these errors for the cyclical accuracy of ANWSW.

## Cyclical error in the ANWSW ratio

In the first part of this section, I will examine the effect of control total error and undercoverage on cyclical declines in the ANWSW ratio in two steps. (1) Provisionally disregarding undercoverage, I will show that the nonscale element of control total error dampens cyclical declines in the ANWSW ratio. (2) After correcting for the nonscale element of control total error, I will show that undercoverage further dampens cyclical declines in the ANWSW ratio. In passing, I will briefly discuss the accuracy of cyclical increases in

[^17]Table 5.-Household Survey Undercoverage, 1975

| Line |  | Total | Men |  |  | Women |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | White | Black and other | Total | White | Black and other |
| 1 | Oficial civilian noninstitntional population (CNIP), age 14 and over. | Millions of persons |  |  |  |  |  |  |
|  |  | $\begin{array}{r} 159.71 \\ 4.09 \end{array}$ | 75.702.73 | 67.031.82 | 8.67.91 | 84.021.36 | 73.62 | 10.40.41 |
| 2 |  |  |  |  |  |  |  |  |
| 3 | Evuals; Corrected CNIP | 163.80 | 78.43 | 68.85 | 9.58 | 85.37 | 74.56 | 10.81 |
| 4 | Less: Population covered by household survey ${ }^{1}$.......... | 154.13 | 72.24 | 64.58 | 7.66 | 81.89 | 72.09 | 9.80 |
| 5 |  | 9,67 | 6.18 | 4.27 | 1.91 | 3.48 | 2.47 | 1.01 |
| 6 | Less: Population in uncovered housing units ............ | 2.80 | 4.84 | 1.15 | . 19 | 1.46 | 1.28 | . 20 |
| 7 | Equals: Reaidual uncovered population........................ | 6.87 |  | 3.12 | 1.73 | 2.03 | 1. 22 | . 81 |
|  |  | Percentage |  |  |  |  |  |  |
| 8 | Uncovered population as a percentage of corrected CNIP. | 5.90 | 7.89 | 6.20 | 19.98 | 4.08 | 3.31 | 9.38 |
| 9 | Population in uncovered housing units as a percentage of corrected CNIP | 1.71 | 1.71 | 1.67 | 1.96 | 1.71 | 1.68 | 1.89 |
| 10 | Residual uncovered population as a percentage of corrected CNIP | 4.19 | 6.18 | 4.53 | 18.02 | 2.37 | 1.63 | 7.49 |
| 11 | Undercount group as a percentage of corrected CNIP... | 2.55 | 3.48 | 2.71 | 10.52 | 1.59 | 1.29 | 3.94 |

1 Annual average.
Source: Census Bureau. Line 2 is consistent with Census Bureau, Current Population Reports, Series P-25, No. 614, "Estimates of the Population of the United States, by Age, Sex, and Race: 1970 to 1975, ${ }^{\prime} 1975$. Line 6 is estimate4 by BEA.
the ANWSW ratio. The conclusions of this part also apply to the employment ratio, which is the ratio of total employment to CNIP.
In the second part of this section, I will show that the scale element in control total error has dampened most cyclical fluctuations in ANWSW. I will then analyze the combined effect of control total error and undercoverage on cyclical fluctuations in ANWSW and present an illustrative calculation of their effect on the ANWSW decline in one contraction. To facilitate understanding of the entire section, I present an arithmetic example in appendix $A$ that shows the interrelation of control total error and undercoverage. ${ }^{37}$
Control total error and its effect.-The Census Bureau derives "official" population control totals for 84 sex-race-age groups of the CNIP age 14 and over by "aging" the most recent decennial

[^18]census and adding estimates of net immigration minus mortality. ${ }^{38}$

Jacob S. Siegel used birth registrations and other data to estimate independently the 1970 population and concluded that the 1970 census undercounted the population by 2.5 percent. ${ }^{30}$ On the basis of this work, the Census Bureau has developed for internal use a series of annual population estimates corrected for census undercount. In this section, I will assume that these estimates accurately measure the population. ${ }^{40}$ Official and "corrected" CNIP for 1975 are shown at the top of table 5. I define the "undercount group" (table 5, line 2) as the difference between the corrected and official CNIP.
The "corrected" ANWSW ratio is the ratio that the Census Bureau would obtain if it multiplied the sample ANWSW ratios by corrected popula-

[^19]tion control totals, and divided the resulting ANWSW estimate by corrected CNIP. 41 I will show that, in contractions, the nonscale element in control total error causes the corrected ANWSW ratio to decline more than the official ratio. I draw this conclusion on the basis of evidence that the sex-race groups with the largest census undercount rates experience the largest cyclical declines in their ANWSW ratios. ${ }^{42}$ Table 6 shows census undercount rates for persons of working age (18-64). Chart 5 shows employment ratios for periods of contraction and recovery; because ANWSW accounted for about 76 to 86 percent of employment during 1956-77, employment ratios can serve as indicators of the cyclical behavior of ANWSW ratios. ${ }^{43}$

1. Declines in the employment ratio have been much larger for men than for women, and the census undercount rate for men was 1.9 times that for women in 1960 and 2.7 times that for women in 1970 .
2. Declines in the employment ratio for black and other men have been much larger than for white men, and the census undercount rate for black and other men was 5.3 times that for
3. It is technically feasible for the Census Bureau to compute and publish corrected employment data. To date, the Census Bureau has decided not to do this, for two reasons. First, the estimates of census undercount are subject to error. Second, the Census Bureau has not been able to develop a reliable method for estimating census undercount for States and localities. Consequently, the best available estimates of national population are inconsistent with the best available estimates of State and local populations. For a report on attempts to estimate undercount by States, see Census Burean, Current Population Reports, Series P-23, No. 65, "Developmental Estimates of the Coverage of the Population of States in the 1970 Census: Demographic Anslysis," 1977.

If the Census Bureau were to compute corrected empioyment data, it would have to utilize the corrected control totals that would be available at the time of the household survey, fust as it now uses the official control totals that are available at the time of the survey. The Census Bureau could not revise corrected control totals-just as it cannot revise official control totals-to incorporate mortality, net immigration, and other demographic data that subsequently become available. However, the corrected control totals used in the present article to analyze statistical error in 1956-77 do incorporate such revisions.
42. In this analysis, I ignore variations in the undercount rate among age groups. For a discussion of the effect of such variations in 1974-75, see the illustrative calculation at the end of this section, and footnote 47.
The scale element in control total error has no effect on the ANWSW ratio, because it has the same effect on the numerator that it has on the denominator of that ratio.
43. Because self-employment and employment in agriculture and private households are not cyclically sensitive, it is unlikely that these non-ANWSW types of employment accounted for any of the sex-race differentials in the cyclical behavior of the employment ratio that are depicted in chart 5 .

U.S. Department of Commerce, Bureau of Economic Analysis
white men in 1960 and 4.0 times that for white men in 1970.
3. Declines in the employment ratio for black and other women have been larger than for white women, and the census undercount rate for black and other women was 5.8 times that for white women in 1960 and 4.1 times that for white women in 1970 . However, this factor does not contribute very much to the difference between cyclical declines in the corrected and official ANWSW ratios, because the employment ratio for black and other women has not declined much more than that for white women, and because women
account for a disproportionately small share of census undercount.

With respect to cyclical increases in the ANWSW ratio, I conclude that, after 1959, the corrected ANWSW ratio showed no larger increases than the official ratio in recoveries and expansions, because the sex-race groups with the largest census undercount rates did not experience above-average employment ratio increases during such periods. During the 1958-59 recovery, however, the corrected ANWSW ratio increased more than the official ratio, because employment ratio increases were larger for men than for women, and were
also larger for black and other men than for white men.
Undercoverage and its effect.-The household survey sample is designed to cover a certain proportion of noninstitutional housing units in the Nation. ${ }^{44}$ At units designated for the sample, interviewers inquire about the employment activities of all household members age 14 and over, except Armed Forces members. To estimate the population actually covered by the sample, the Census Bureau multiplies the population in each sample household by the household's weight (the inverse of its probability of selection) and adds the products. ${ }^{45}$ For example, in 1975, the survey, on average, covered 154.13 million persons (table 5). The population missed by the sample, i.e., the "uncovered population," equals corrected CNIP, 163.80 million in 1975 , minus the covered population. ${ }^{46}$ In 1975, the uncovered population averaged 9.67 million persons.
The undercoverage rate, the uncovered population as a percentage of corrected CNIP, was 5.90 percent in 1975 (line 8). The undercoverage rate varies greatly by sex, race, and age, and has always been largest for black and other men and smallest for white women (chart 6).

I define the "full-coverage" ANWSW ratio as the ratio that the Census Bureau would estimate if it could eliminate both errors under consideration in this

[^20]
section-i.e., if the population control totals were corrected for census undercount and if the sample fully covered the population. ${ }^{47}$ Unlike the corrected ANWSW ratio, the full-coverage ANWSW ratio is not calculable, because data on the ANWSW ratios of uncovered persons are not available.

In appendix $A, I$ show that the question of whether the full-coverage ANWSW ratio declines more, in contractions, than the corrected ANWSW ratio depends on whether the ANWSW ratios of uncovered persons decline more than do the ANWSW ratios of their covered counterparts of the same sex, race, and age. I will now try to establish that the ANWSW ratios of uncovered persons probably decline more than do the ANWSW ratios of their covered counterparts. I will present the argument, which is somewhat complex, in three steps.

First, the evidence presented in the appendixes clearly indicates that un-

[^21]covered persons are poorer than their covered counterparts of the same sex, race, and age. ${ }^{48}$ In appendix B, I show that persons who live in housing units that are not covered by the sampleand who accounted for an estimated 29 percent of uncovered persons in 1975 (table 5, line 6)-are not less poor and perhaps are poorer than their covered counterparts. In appendix C, I draw on evidence from a wide variety of sources to show that persons in the residual uncovered population (line 7), which consists mainly of persons omitted from rosters of residents given by respondents to interviewers, are considerably poorer than their covered counterparts.

Second, on the basis of what is known about the functioning of the labor market and the limited evidence available, I conclude that the ANWSW ratios of poor persons probably decline more in contractions then do those of more affluent persons of the same sex, race, and age. It is generally agreed that poor persons experience disproportionate employment losses in contractions, because they are less skilled on average than more affluent persons and there-fore-for a variety of reasons-are fired first by employers. The limited evidence is as follows.

1. Analyzing longitudinal data for 2,600 families in the period 1967-72, Edward M. Gramlich found that cyclical fluctuations in the time spent unemployed were larger for poor male family heads than for more affluent ones. Gramlich's regressions showed that, when the national unemployment rate changed 1 percentage point, white and black male heads of families with average incomes at the poverty line experienced changes of 1.31 and 2.14 percentage points in weeks of unemployment, respectively, and those with average incomes at five times the poverty level experienced changes of only 0.65 and 1.31 percentage points. ${ }^{49}$ Provided-as seems reasonable-that there is some correlation between increases in unemployment and declines

[^22]in ANWSW ratios, Gramlich's study supports my conclusion.
2. Household survey data show that in the 1974-75 contraction the nonagricultural employment ratio declined more in metropolitan poverty areas than outside these areas for each sex-race group except black and other women (table 7). Although the interarea differences in the declines are small relative to the standard errors of these differences, the fact that the ratios did declinemore in the metropolitan poverty areas than outside these areas for three of the four sex-race groups, and did not decline less for the fourth group, lends some support to my conclusion.
3. Each March since 1964, the household survey has gathered data on the educational attainment of the population. In chart 7, standardized employment ratios for 1964-77 are shown for selected educational attainment strata within eight sex-race-age groups. In those periods when the adult male unemployment rate was increasing (March 1969-March 1971 and March 1974March 1975), the employment ratios of persons with less than 12 years of education declined more-for most sex-race-age groups-than did those of better-educated persons. The differentials were largest for men-a fact that is important for my argument, because the undercoverage rates for men have been about double those for women. Because persons with low educational attainment are more likely to be poor than persons with high educational attainment, the data support my conclusion. ${ }^{50}$

Third, I assume that cyclical declines in the ANWSW ratio of uncovered poor persons are not very different from those of covered poor persons of the same sex, race, and age; if this were not the case, the circumstantial evidence just cited, which relates to persons covered by the household survey and by another survey, would have no bearing on the conclusion that I am trying to establish. In opposition to my assumption, one could argue that cyclical

[^23]Table 6.-Undercount Rates for the Population Age 18-64 in the 1960 and 1970 Censuses


Source: Census Bureau, Current Population Report, Series P-25, No. 519, "Estimates of the Population of the United States, by Age, Sex, and Race: April 1, 1960 to July 1, 1973,'

Table 7.-Nonagricultural Employment Ratios for Persons Age 18-64, 1974: I-III and 1975: I-III

| Sex, race, and area of residence | $\begin{aligned} & \text { 1974: } \\ & \text { I-III } \end{aligned}$ | $\begin{aligned} & \text { 1975: } \\ & \text { I-III } \end{aligned}$ | Change ${ }^{1}$ | $\begin{aligned} & \text { Adden- } \\ & \text { dum: } \\ & \text { 1975 } \\ & \text { popula- } \\ & \text { tion } \\ & \text { 8ge } \\ & \text { 18-64 } \\ & \text { (mil- } \\ & \text { lions) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| White men: |  |  |  |  |
| Metropolitan poverty . | 74.0 | 70.0 | -4.0 | 2.2 |
| Other residence. | 82.9 | 79.6 | -3.3 | 49.7 |
| Black and other men: |  |  |  |  |
| Metropolitan poverty. | 69.0 | 61.5 | -7.5 | 1.9 |
| Other residence.... | 76.5 | 71.0 | -5.5 | 4.6 |
| White women: |  |  |  |  |
| Metropolitan poverty...- | 45.0 | 43.5 | -1.5 | 2.4 |
| Other residence.... | 48.9 | 48.5 | -. 4 | 52.8 |
| Black and other women: |  |  |  |  |
| Metropolitan poverty... | 43.8 | 41.4 | -2.4 | 2.6 |
| Other residence..... | 53.6 | 51.2 | -2.4 | 5.4 |

1. For persons in metropolitan poverty areas, the standard errors on the change in the nonagricultural employment ratio are in the range of 1.4-1.6 percent. For persons who reside elsewhere, the standard error is 0.2 percent for whites and $0.7-0.9$ for black and other races.
Source: Unpublished BLS tabulations from the household survey.
declines in the ANWSW ratios of uncovered poor persons cannot be very large, because few uncovered poor persons ever work. I do not accept this objection, because, although some poor persons of working age never work, I know of no reason why nonworkers should be more heavily represented among poor persons omitted from rosters and among poor residents of "false vacancies"-the two groups that together account for the overwhelming majority of residual uncovered poor persons-than among covered poor persons. ${ }^{51}$

In sum, because uncovered persons
51. For a discussion of the characteristics of each of the component groups of the residual uncovered population, see appendix C .
In support of my view, a small-scale study in a poor New York neighborhood in 1967 found that most of the men of working age were working at the time of the study, and there was no significant difference in the proportion of men working between those whose presence had been reported and those who had been omitted from rosters in an eariier survey. For a description of the study, see appendix C. Alan Harwood, personal communication to the author.
are poorer than their covered counterparts of the same sex, race, and age, and because poor persons probably experience larger cyclical declines in their ANWSW ratios than do more affluent persons of the same sex, race, and age, $I$ conclude that uncovered persons probably experience larger cyclical declines in their ANWSW ratios that do their covered counterparts. Accordingly, the full-coverage ANWSW ratio probably declines more, in contractions, that does the corrected ANWSW ratio.

Although many labor market analysts believe that poor persons experience disproportionate employment gains when the labor market is relatively tight, because only then are they hired or rehired, the three pieces of evidence cited above do not either support or clearly rule out the conclusion that the ANWSW ratios of poor persons increase more in such periods than do those of more affluent persons of the same sex, race, and age. ${ }^{52}$ Accordingly, I can neither confirm nor rule out the possibility that the full-coverage ANWSW ratio increases more than does the corrected ANWSW ratio in such periods.

## Cyclical error in ANWSW

Having considered cyclical error in the ANWSW ratio, I will now discuss cyclical error in ANWSW, which can be thought of as the product of the ANWSW ratio and aggregate CNIP. I will first show that understatement of the aggregate CNIP, i.e., the scale element in control total error, has dampened most cyclical fluctuations in ANWSW, and then analyze the combined effects of control total error and undercoverage on the change in ANWSW in contractions and in recoveries and expansions.

The scale element in control total error reduces ANWSW by the product of the ANWSW ratio and the size of the undercount group. Accordingly,
52. One piece of evidence suggests that the ANWSW ratios of poor persons do not increase more than do those of more affluent persons of the same sex, race, and age. Persons with less than 12 years of education-who are more likely to be poor than persons with high educational attainment-did not experience larger employment ratio increases than did better-educated persons in periods when the adult male unemployment rate was declining to a relatively low level (March 1964-March 1969 and March 1972-March 1973). However, the Gramlich study did not distinguish between periods of increasing and decreasing unemployment, and employment data by residence in metropolitan poverty areas are not available for any period under analysis in which the labor market became relatively tight, because these data from the household survey were first tabulated in 1973.

Note.-Based on unpublished BLS tabulations from the March household survey. Original data for six age groups ( $18-19,20-24,25-34,35-44,45-54$, and $55-64$ ) were combined. To standardize for secular shifts in the age distribution within each educational group, the average March population for the 14 -year period was used as a fixed weight for each sex-race-age-education group. For whites, the standard error of the employment ratio ranges from about 0.3 to about 1.6 percent. For black and other races, it ranges from about 1.2 to about 2.0 percent.
U.S. Department of Commerce, Bureau of Economic Analysis

Standardized Employment Ratio, by Years of School Completed




CHART 7
group reflect, in addition to the aging of the population and the fact that the corrected CNIP series incorporates mortality and migration data that were not available at the time the Census Bureau estimated official CNIP, minor methodological differences between the corrected and officisl CNIP series, and intermittent administrative decisions to revise the methodology or data used in estimating one or the other of the series.
clines in ANWSW, because undercoverage and the nonscale element in control total error have dampened cyclical declines in the ANWSW ratio, and because the scale element in control total error has generally dampened declines in ANWSW. I will present an illustrative calculation of the error in the most recent contraction; reference to appendix A will facilitate understanding of the calculation. I will then discuss briefly the error in other contractions.

Because of data limitations, it is convenient to discuss error in the cyclical decline of nonagricultural wage and salary workers excluding private household workers (NWSW), a close approximation to ANWSW. NWSW differs from ANWSW only in that it includes unpaid absentees, whose numbers have averaged about 2.1 million in recent years. I will assume that findings with regard to NWSW apply to ANWSW.

The illustrative calculation relates to the change in NWSW from the first three quarters of 1974 , when the adult male unemployment rate was 3.6 percent, to the first three quarters of 1975 , when it was 6.9 percent. I will deal first with the effect of control total error (and its scale and nonscale elements separately), and then with the effect of undercoverage. In calculating the effects of both errors, I use readily available NWSW ratios for 40 sex-race-age groups; the effect of distinguishing only 40 , instead of 84 , sex-race-age groups cannot be substantial.

1. The effect of control total error, i.e., the difference between the changes in corrected and official NWSW, can be found by multiplying the changes in NWSW ratios of covered persons by the size of the undercount group, by sex, race, and age (as shown in appen$\operatorname{dix} \mathrm{A}) .{ }^{54}$ The changes in the official NWSW ratio for the four major sexrace groups are shown in line 2 of table 8; these changes are weighted averages of the changes in the underlying NWSW ratios for the various sex-race-age groups. In 1974-75, there were an average of 4,070 thousand persons in the undercount group (line 1), and I assume that the size of the group was constant in 1974-75.
[^24]Table 8.-An Illustrative Calculation of the Difference Between the Declines in FullCoverage and Official NWSW, from 1974:I-III to 1975:I-III
[Thousands except where noted]


1. Line 3 is not equal to line 1 times line 2c because the or 10 are 2. Line $5 a$ is not equal to line 4 times line 2c because the components of the figures on line $5 a$ are calculated separately for 10 age groups within each of the sex-race groups.
2. No figures are shown on line 5 b for the sex-race groups,
because they would be subject to a very large margin of error. Line 1: A verage for July 1, 1974 and July 1, 1975, for persons age 14 and over. Consistent with Current Population Reports,
Series P-25, No. 614. Census Bureau.
Line 2: BLS.
Line 3: Based on data from Census Bureau and BLS.
Line 4: Average for first 9 months of 1974 and 1975, for
Corrected NWSW declined 105 thousand more than official NWSW (line 3). Men accounted for virtually the entire difference between the corrected and the official NWSW declines, because their NWSW ratios declined substantially and those of women declined only slightly, and because men accounted for a disproportionate share ( 74 percent) of the undercount group in the working ages 18-64. Black and other men accounted for nearly half the entire difference, because their NWSW ratios declined most, and because they accounted for a disproportionate share ( 26 percent) of the undercount group in the working ages.
The difference between the corrected and the official NWSW declines equals the sum of the effects of the scale and the nonscale elements of control total error. The effect of the scale element, 65 thousand (the product of the decline in the official ratio, 1.6 percentage points, and the size of the undercount group), is the extra decline in NWSW that would have been found if the corrected NWSW ratio had declined the same amount as the official NWSW ratio. The effect of the nonscale element, 40,000 (the remainder of the 105
persons age 14 and over. Consistent with Current Population Reports, Series P-25, No. 614. Census Bureau.
Line 5a: Based on data from Census Bureau and BLS. Line 5 b . Based on the assumption that residual uncovered those for covered persons of the same sex, race, and age. This calculation is subject to an especially large margin of error (see text). The text presents an alternative calculation based on the assumption that NWSW ratios for residual uncovered persons decline 1.5 times as much as those for covered persons.
Note.-NWSW is nonagricultural wage and salary workers age 14 and over, excluding private household workers.
The NWSW ratio is the ratio of NWSW to civilian noninstitutional population age 14 and over.
thousand), is the extra decline in NWSW that is due to the fact that the corrected NWSW ratio declined more than the published NWSW ratio, because sex-race-age groups that experienced above-average NWSW ratio declines accounted for disproportionately large share of the undercount group.
The effect of the nonscale element is, in turn, the sum of two parts. First, 30,000 is due to the disproportionately large shares of men, and of black and other races, in the undercount group. Second, the other 10,000 is due to the disproportionately large share of persons of working age (18-64), who experienced larger NWSW ratio declines than did younger and older persons of the same sex and race. ${ }^{55}$

[^25]2. The effect of undercoverage, i.e., the difference between the changes in full-coverage and corrected NWSW, equals the true NWSW change for the uncovered population, minus the change imputed to it by multiplying the changes in NWSW ratios of covered persons by the size of the uncovered population, by sex, race, and age (as shown in appendix A). ${ }^{56}$

The calculation of this difference is subject to a large margin of error, because data on the true employment experience of the uncovered population are lacking. I estimate that the NWSW ratio declines for uncovered persons were 71 percent larger on average than for their covered counterparts of the same sex, race, and age. My estimate is based on two assumptions.

First, for residual uncovered persons (71 percent of uncovered persons), I assume that the NWSW ratio declines were about twice those for their covered counterparts. This is an arbitrary assumption. ${ }^{57}$ Evidence presented above indicates that uncovered persons experience substantially larger employment ratio declines than do their covered counterparts, but does not indicate how much larger.

Second, for residents of uncovered housing units ( 29 percent of uncovered persons), I assume that the NWSW ratio declines were the same as those for their covered counterparts. There is no reason to believe that their NWSW ratio declines differed from those of covered persons.

In the six quarters under consideration, there were an average of 10,104 thousand uncovered persons (line 4). ${ }^{58}$ The imputed NWSW decline for uncovered persons is 267,000 (line $5 a$ ); this is the amount that NWSW would have declined for uncovered persons if the NWSW ratios for uncovered persons declined the same amount as NWSW ratios for their covered counterparts, by sex, race, and age. According

[^26]to my assumption, true NWSW among uncovered persons declined 71 percent more than this, or 456,600 (line 5 b). The difference between the two estimates, 189,600 (line 5 c ), is the difference between the full-coverage and corrected NWSW declines.

The difference between the fullcoverage and the official NWSW declines, 294,600 (line 6), is the combined effect of control total error and undercoverage. This difference is 23 percent of the official NWSW decline for that period, $1,280,000$, and 69 percent of the decline in DIFF, 425,000. ${ }^{58}$
As I noted earlier, it was arbitrary to assume that the NWSW ratio declines for residual uncovered persons were twice those for their covered counterparts. If, instead, I assume NWSW ratio declines for residual uncovered persons of one and one-half times those for their covered counterparts, lines $5 \mathrm{~b}, 5 \mathrm{c}$, and 6 of table 8 become $-361,800,-94,800$, and $-199,800$ respectively. ${ }^{60}$ The difference of 199,800 between the full-coverage and the official NWSW declines is about 16 percent of the official NWSW decline, and 47 percent of the decline in DIFF.

When I try now to generalize the results of my illustrative calculation to other contractions, I conclude that control total error and undercoverage dampened the 1960-61 and the 1970 ANWSW declines less than they dampened the 1974-75 decline, and probably did not dampen the 1957-58 decline substantially more than they dampened the 1974-75 decline. Comparing these dampening effects with the declines in DIFF in those contractions, I further conclude that the two statistical errors have contributed to, but by no means fully accounted for, the declines in DIFF.

Reasoning within the framework of the formula that ANWSW equals the product of the ANWSW ratio and CNIP, I base my assessment of the effect of control total error and undercoverage on pre-1974 declines in ANWSW on the following arguments.

1. The nonscale element of control

[^27]total error, and undercoverage, probably did not dampen the ANWSW decline in earlier contractions substantially more than in 1974-75, for two reasons. First, as explained in the next two paragraphs, they probably did not dampen the ANWSW ratio decline substantially more in the earlier contractions than in 1974-75. Second, for every tenth of a percentage point that they did dampen the ANWSW ratio decline in earlier contractions, they dampened the absolute ANWSW decline less then than in 1974-75, simply because CNIP was smaller in the earlier contractions than in 1974-75.

I argue that the nonscale element of control total error probably dampened the ANWSW ratio decline in earlier contractions no more than it did in 1974-75, for two reasons. First, the employment ratio declines for men relative to women, and for black and other men relative to white men, were no larger in the earlier contractions than in 1974-75 (chart 5). Second, the control totals understated the male CNIP relative to the female CNIP no more in the earlier contractions than in 1974-75, and did not understate the black and other male CNIP relative to the white male CNIP very much more then than in 1974-75.

I suspect that undercoverage did not dampen the ANWSW ratio decline in earlier contractions substantially more than in 1974-75, for three reasons. First, the overall undercoverage rate in the earlier contractions was no larger than in 1974-75, and the undercoverage rates for the sex-race groups were not substantially different, relative to one another, from what they were in 197475 (chart 5). Second, the earlier contractions were either less severe or not substantially more severe than the 1974-75 contraction, as indicated by the fact that the decline in the aggregate ANWSW ratio was larger only in 1957-58, and even then was not substantially larger. Third, there is no reason to believe that the ANWSW ratio decline in the earlier contractions was concentrated more heavily among uncovered persons relative to their covered counterparts of the same sex, race, and age, than it was in 1974-75.
2. The scale element in control total error dampened the 1974-75 ANWSW decline more than the 1960-61 decline
and less than the 1957-58 decline, because the ANWSW ratio declined more in 1974-75 than in 1960-61 and less than in 1957-58 (chart 8), and the size of the undercount group was constant within all of these periods (at about 4 million). In 1970, when, as previously mentioned, the size of the undercount group was increasing, the scale element in control total error may not have dampened the ANWSW decline at all. The increase that occurred in the size of the undercount group while the ANWSW ratio was declining caused an overstatement of the ANWSW decline, and this overstatement may have more than offset the dampening effect of the understatement of CNIP.

Recoveries and expansions.-As I showed in the first part of this section, the nonscale element in control total error did not dampen cyclical increases in the ANWSW ratio after 1959, and there is no evidence that undercoverage dampened cyclical increases in the ANWSW ratio at any time. ${ }^{61}$ Accordingly, the scale element in control total error is the only factor that has clearly and generally dampened cyclical increases in ANWSW. However, the limited data available are insufficient to rule out the possibility that undercoverage has also dampened cyclical increases in ANWSW. I will first discuss recoveries, then the 1962-69 expansion.

As shown below, the scale element in control total error never dampened increases in ANWSW in recoveries by more than about 100,000 . The nonscale element in control total error dampened the ANWSW increase only in the 1958-59 recovery, and then only by a small amount. Comparing these dampening effects with the increases in DIFF in recoveries, I conclude that control total error has accounted for only a small share of the increase in DIFF.

In each of the recovery periods 1958-60, 1961-62, 1972-73, and 197577 , the size of the undercount group was about 4 million and the ANWSW ratio increased. Therefore, the scale element in control total error dampened the ANWSW increases in these periods by the product of 4 million and the increase in the ANWSW ratio (chart 8).

[^28]In 1975-77, the scale element in control total error dampened the ANWSW increase by 104,000 , more than in the earlier periods, because the ANWSW ratio increased 2.6 percentage points, more than in the earlier periods. ${ }^{62}$ In 1961-62, the scale element in control total error dampened the ANWSW increase by 28,000 , less than in the other periods, because the ANWSW ratio increased only 0.7 percentage point, less than in the other periods.

In 1962-69, a period of expansion in which the size of the undercount group was increasing, the scale element of control total error dampened the ANWSW increase by about 460,000 . The calculation is based on the convenient formula that the change in a product equals the change in the first term times the average value of the second term, plus the change in the second term times the average value of the first term. ${ }^{63}$ The first element in the sum, 200,000 , is the product of the ANWSW ratio increase, 4.8 percentage points, and the average size of the undercount group, 4.2 million. ${ }^{64}$ The second element in the sum, 260,000 , is the product of the average ANWSW ratio during the period, 43.4 percent, and the

[^29]increase in the size of the undercount group, about 600,000 . Similar calculations show that the scale element dampened the ANWSW increase by about 140,000 in 1962-64, when DIFF declined, and dampened it by about 320,000 in 1964-69, when DIFF increased a record amount.
The period from the first quarter of 1971 to the first quarter of 1972 is unique, in that ANWSW increased while the labor market remained looseas indicated by the fact that the adult male unemployment rate remained high. In this period, both elements of control total error exaggerated the ANWSW increase; accordingly, they contributed to the observed decline in DIFF. First, the scale element caused ANWSW to increase about 320,000 in January 1972, because the size of the undercount group abruptly fell 700,$000 .{ }^{65}$ Second, the nonscale element caused ANWSW to increase somewhat, because the employment ratio data indicate that the ANWSW ratio of men did not increase while that of women did, and that the ANWSW ratio of black men declined sharply while that of white men remained level (chart 5).

[^30]
## Section 5: Summary and Conclusions

THE payroll employment measure shows larger cyclical changes than the household measure after the two measures are adjusted for those differences in coverage for which monthly data are available. Specifically, DIFF-the seasonally adjusted difference between the adjusted payroll and adjusted household measures of nonagricultural wage and salary employment-declined in labor market contractions during the period 1956-77 and generally increased in labor market recoveries and expansions.

In the two earlier contractions in the period, DIFF declined more than in
the two most recent ones; DIFF declined about 0.9-1.0 million in 1957-58 and 1960-61, but it declined only about 600,000 in 1969-70 and only about 400,000 in 1974-75. In recoveries, DIFF increased about $600,000-700,000$ in 1958-59, 1961-62, and 1972-73, but it did not increase in 1975-77. In the 1962-69 expansion DIFF initially declined about 150,000 from 1962 to 1964 and then increased the record amount of about 2.2 million from 1964 to 1969.

In this section, I will first set out in summary form the factors that do-or that may-cause DIFF to fluctuate cyclically, and then discuss in an

The ANWSW Ratio


Note.The ANWSW ratio is the ratio of adjusted nonagricuitural wage and salary workers
(ANWSW) to civilian noninstitutional population age 14 and over (CIP).
Data: Bureau of Labor Statistics
U.S. Department of Commerce, Bureau of Economic Analysis
integrated way some broad relationships between these factors and the observed cyclical behavior of DIFF.

## Factors that affect DIFF

I have concluded that statistical error in the household survey and conceptual differences between the two adjusted employment measures contribute to the cyclical behavior of DIFF, but that statistical error in the payroll survey probably does not. I will now summarize the findings that led me to this conclusion, and then briefly discuss two kinds of factors that may affect the cyclical behavior of DIFF, but in regard to which I was unable to arrive at conclusions.

Statistical error in the household sur-vey.-Two statistical errors substantially dampen cyclical declines in the adjusted household employment measure (adjusted nonagricultural wage and salary workers (ANWSW)), and one of the errors somewhat dampens cyclical increases in ANWSW.

1. Although ANWSW is derived by multiplying population control totals for 84 sex-race-age groups by corresponding ANWSW ratios, it can be
thought of as equaling an aggregate population control total times an aggregate ANWSW ratio. Error in the control totals dampens cyclical declines in ANWSW for two reasons. First, census undercount causes the control totals to understate the aggregate population; I call this the scale element in control total error. The scale element has dampened most cyclical fluctuations in ANWSW. ${ }^{68}$ Second, census undercount causes the control totals to understate the population in each sex-race-age group by varying percentages; I call this the nonscale element in control total error. Because the percentage understatement is largest for those groups (i.e., men, particularly black men) that experience the largest cyclical declines in their ANWSW ratios, the nonscale element dampens cyclical declines in the aggregate ANWSW ratio. ${ }^{67}$
2. ANWSW ratios for the various sex-race-age groups are based on a sample of households that misses some of the persons it is designed to cover. Because uncovered persons are poorer than their

[^31]covered counterparts of the same sex, race, and age, and because poor persons probably experience larger cyclical ANWSW ratio declines than do more affluent persons of the same sex, race, and age, I concluded that uncovered persons probably experience larger cyclical ANWSW ratio declines than do their covered counterparts of the same sex, race, and age. Therefore, undercoverage probably dampens cyclical declines in the aggregate ANWSW ratio, and in ANWSW. ${ }^{68}$

An illustrative calculation of the understatement in the decline of a close variant of ANWSW from the first three quarters of 1974 to the first three quarters of 1975 showed that: (1) Control total error caused an understatement of 105,000 , of which the scale element in control total error accounted for 65,000 , and the nonscale element accounted for 40,000 ; and (2) undercoverage caused an understatement of 189,600. Together, the two statistical errors dampened the decline of the close variant of ANWSW by 294,600 , or 69 percent of the decline in DIFF.

Because, in the absence of data on
the ANWSW ratios of uncovered persons, the estimate of the effect of undercoverage is subject to a large margin of error, I made an alternative estimate, based on a more moderate assumption about the difference between the declines in the ANWSW ratios of covered and uncovered persons. This estimate of the combined effect of the two statistical errors was 199,800 , or 47 percent of the decline in DIFF.

When I tried to generalize the results of $m y$ illustrative calculation to other contractions, I concluded that the two statistical errors probably dampened the 1960-61 and the 1970 ANWSW declines less than they dampened the 1974-75 decline, and probably did not dampen the 1957-58 decline substantially more than they dampened the 1974-75 decline.

Because the nonscale element in control total error did not dampen post1959 cyclical increases in the ANWSW ratio, and because there is no evidence that undercoverage dampened cyclical increases in the ANWSW ratio at any time, the scale element in control total error is the only factor that has clearly and generally dampened ANWSW increases in recoveries and expansions. In recoveries, the scale element never dampened the ANWSW increase by more than about 100,000 . In the 1962-69 expansion, the scale element dampened the ANWSW increase by about 460,000 .

Multiple jobholding and job chang-ing.-A conceptual difference in the coverage of the two adjusted employment measures contributes to the cyclical behavior of DIFF. The payroll measure counts jobs, whereas the household measure counts workers, and this difference has two consequences for DIFF.

1. In the case of a multiple jobholder, the payroll measure counts all the worker's jobs, whereas the household measure counts one worker. The data indicate that civilian multiple jobholding declines relatively little in contractions, and may have contributed an average of only about 40,000 to cyclical declines in DIFF. The data also indicate that civilian multiple jobholding increased relatively little in recoveries before 1962, and substantially in recoveries and expansions thereafter. More specifically, civil-
ian multiple jobholding may have tended to raise DIFF by 300,000 500,000 in the periods 1962-69, 197273, and 1975-77.

Because the household survey does not cover Armed Forces members, civilian jobs that they hold in off-duty hours are omitted from the adjusted household employment measure. Cyclical fluctuations in the number of military multiple jobholders have probably contributed somewhat to DIFF, but the contribution cannot have been very large.
2. In the case of a job changer, the payroll measure, under certain circumstances, counts both the old and new jobs, whereas the household measure counts the job changer once. There is considerable evidence that job changing increases when the labor market tightens and declines when it slackens. An illustrative calculation suggested that the decline in job changing from 1973 to 1975 may have contributed from 80,000 to 137,000 to the decline in DIFF. There are some indications that the effect of job changing on the change in DIFF was larger in 1973-75 than in any other period in 1956-77; there are also indications that job changing contributed more to cyclical increases in DIFF after 1962 than before.

Statistical error in the payroll survey.Any tendency for statistical error in the payroll measure to exaggerate cyclical employment fluctuations would contribute to the cyclical pattern in DIFF. The most serious cause for concern is the possibility that evasion of payroll taxes increases during contractions and decreases during recoveries and expansions. Because BLS uses unemployment insurance (UI) tax returns as the principal source for benchmarking the payroll survey, cyclical fluctuations in UI tax evasion would cause the payroll measure to exaggerate cyclical employment fluctuations. For the most recent recession, there is circumstantial evidence that no substantial increase in UI tax evasion occurred, but for earlier years, there is no evidence. I concluded that cyclical fluctuations in tax evasion were probably small, but I could not rule out the possibility that they were substantial.

Other factors.-I was unable to arrive at conclusions in regard to two kinds
of factors that affect the cyclical behavior of DIFF.

1. My findings with regard to statistical error in the household survey are based on the assumption that population control totals corrected for census undercount accurately measure the population. This assumption must be qualified, because the corrected control totals do not take account of two types of migration: net illegal immigration, and some emigration of citizens and legally resident aliens. On the basis of the evidence shown in appendix D , I concluded that differences in the coverage of these uncounted migrants in the household and payroll surveys may be an important factor in DIFF, and may have accounted for part of the increase in DIFF that began in 1964. However, because there is no evidence on the cyclical behavior of the employment of uncounted migrants, I was unable to draw conclusions about the effect of these differences in coverage on the cyclical behavior of DIFF.
2. Because multiple jobholding, job changing, control total error and undercoverage cannot account for abrupt month-to-month changes in DIFF, the existence of such changes (chart 2) is prima facie evidence that other conceptual differences between the two adjusted employment measures, or statistical errors in the measures, affect the behavior of DIFF. I identified about a dozen "outlier" months in which DIFF was $400,000-800,000$ above or below its average level in surrounding months; these outliers are too frequent and too extreme to be attributable to sampling error in either of the adjusted employment measures. On several other occasions DIFF changed abruptly for no apparent reason. Whatever factors explain the outliers and the other abrupt changes in DIFF may also contribute to the cyclical behavior of DIFF.

## Contribution of the factors to DIFF's behavior

I will now discuss, in an integrated way, some broad relationships between the observed cyclical behavior of DIFF and the factors that I have found contributed to it. I will deal separately with contractions and with recoveries and expansions, because the contribu-
tions of the various factors to the behavior of DIFF differ substantially in the two kinds of periods, and because my findings more fully explain the behavior of DIFF in contractions than in recoveries and expansions.

1. Job changing, multiple jobholding, and the two statistical errors in the household survey contributed to declines in DIFF in all four contractions. The limited evidence available indicates that they contributed most to the 195758 and the 1974-75 declines in DIFF, and least to the 1960-61 and the 196970 declines.

The assumptions underlying my illustrative calculations are somewhat arbitrary, and I have not been able to estimate the varying effect of each factor in each contraction. Together, however, the factors that I have identified do not appear to have accounted for more than $330,000-480,000$ of the cyclical declines in DIFF. ${ }^{69}$ Accordingly, these factors may have largely accounted for DIFF's decline in the two most recent contractions, but probably accounted only in part for DIFF's decline in the two earlier contractions.
2. Job changing, multiple jobholding, and the scale element in control total error tended to raise DIFF in all periods of recovery and expansion, but these factors failed in two ways to explain the behavior of DIFF in such periods. First, for reasons that are unclear, DIFF did not increase in 1962-64 and 1975-77, despite the influence of the three factors cited above. Second, the three factors came close to fully explaining the increase of DIFF in only one of the remaining periods-the 197273 recovery; in the other periods, the factors explained less than half of the increase in DIFF. ${ }^{70}$

With regard to recoveries, the limited evidence available indicates that the three factors tended to raise DIFF less in the two earlier recoveries than in the two most recent ones. In 1958-59 and 1961-62, the factors probably accounted for less than half of the increase in

[^32]DIFF. In 1972-73, multiple jobholding may have contributed about 310,000 to the increase in DIFF, and the other factors may have accounted for much of the remaining increase. The failure of DIFF to increase in 1975-77 is puzzling, inasmuch as multiple jobholding may have tended to raise it about 400,000 and the other factors may have tended to raise it, very roughly, an additional 200,000 .
With regard to the 1962-69 expansion, it is necessary to distinguish two subperiods: 1962-64 and 1964-69. The failure of DIFF to increase in 1962-64 is puzzling, because the scale element of control total error and multiple
jobholding tended to raise DIFF. ${ }^{11}$ In 1964-69, the three factors contributed to, but by no means fully explained, the record increase in DIFF. The scale element contributed about 320,000 to the increase in DIFF, multiple jobholding may have contributed about 300,000 , and job changing may have contributed, very roughly, about 100,000 . The unexplained portion of the increase in DIFF may be due in part to uncounted migration.
71. The decline of about 150,000 in DIFF in 1962-64 is entirely attributable to a sharp decline in DIF F in August 1962. The latter decline may somehow be connected with changes in the household survey sample that were introduced from August 1962 to March 1963.

# Appendix A: Arithmetic Example of Statistical Brror in the Household Survey 

THIS example illustrates the effects of control total error and undercoverage on the household survey estimate of the decline in employment in a contraction.

Assume that population is constant and consists only of civilians age 16 and over living outside institutions, and that the Census Bureau maintains population control totals for only two sex-race-age groups-men and women. Assume, further:

1. The true population is 100 mil-lion- 50 million men and 50 million women. The decennial census undercounts the true population by 10 million men and no women (table 9 , line 3 ); this is control total error. The scale element in control total error is the understatement of aggregate CNIP by 10 million; the nonscale element is the 20 percent understatement for men and the zero understatement for women.
2. The household survey is a 1 in 1,000 sample. Accordingly, it should pick up 100,000 persons. Actually, it picks up only 85,000 , and the 15,000 missed are all men (line 6); this is undercoverage.
3. There are two points of time: Ithe prerecession peak, and II-the recession trough. Employment ratios for both points of time for covered persons are taken from the household survey sample (line 7). I assume that the Census Bureau, in a supplementary survey, finds and interviews the 15,000 men missed by the household survey
sample; their employment ratios are shown in line 8 . The employment ratio declines more for uncovered men than for covered men.

## Effect of control total error

When the sample employment ratios are multiplied by the decennial census population, the aggregate employment ratio declines 4.44 percentage points; when they are multiplied by the true population, the ratio declines 5.00 percentage points (table 10). The former product is equivalent to the official measure published by the Census Bu-

Table 9.-Data for Arithmetic Example

reau; the latter, I call the corrected measure. The decline in the corrected employment ratio is larger than that in the official employment ratio because men are undercounted in the census and women are not, and because covered men experience an employment ratio decline and covered women do not. The difference between the two declines, 0.56 percentage points, is the dampening effect of control total error on the employment ratio decline.

In terms of employment, the declines are 4 million, and 5 million. The difference between them ( 1 million) is the dampening effect of control total error. This difference can be computed also by multiplying the change in the employment ratio for covered men ( -10.0 percentage points) by the size of the male census undercount ( 10 million), and reversing the sign. More generally, the difference between the changes in corrected and official employment can be found by multiplying the changes in employment ratios of covered persons by the size of the undercount, by sex. This procedure is a shortcut that is used when illustrative calculations are made in the text with actual numbers from the household survey.
The difference equals the sum of the effects of the scale and nonscale elements of control total error. The effect of the scale element, 444,000 , is the product of the undercount ( 10 million) and the change in the aggregate employment ratio (-4.44 percentage points). This component measures the extra decline in employment that would have been found if the undercount group had had the same sex composition as the decennial census, and, accordingly, the corrected employment ratio had been the same as the published employment ratio. The effect of the nonscale element is the remainder of the 1 million, or 556,000 . This component measures the extra decline in employment that is due to the fact that the corrected employment ratio declines more than the published employment ratio, because the undercount group consists entirely of men, whose employment ratio declines more than that of women.

## Effect of undercoverage

I define full-coverage employment as
the product of employment ratios from a sample that fully covers the population and corrected control totals. Thus, it equals the sum of: (1) the product of employment ratios for covered persons and the covered portion of the true population (line 3a); and (2) the product of employment ratios for uncovered persons and the uncovered portion of the true population (line 3b). The fullcoverage employment ratio declines 5.75 percentage points (line 3c), whereas the corrected employment ratio declines only 5.00 percentage points (line 2). The former ratio declines more, because the employment ratio for the uncovered men declines more than that for the covered men. The difference between the two declines, 0.75 percentage points, is the dampening effect of undercoverage on the decline in the corrected employment ratio.

In terms of employment, the decline in full-coverage employment is 5.75 million, 750,000 more than in corrected employment. The difference is the dampening effect of undercoverage on the decline in corrected employment. This difference can also be computed by multiplying the difference ( -5.0 percentage points) between the change in the employment ratio for uncovered men ( -15.0 percentage points) and that for covered men ( -10.0 percent-
age points) by the size of the uncovered male population ( 15 million), and reversing the sign. More generally, the difference between the changes in fullcoverage and corrected employment equals the true employment decline for the uncovered population, minus the decline imputed to it by multiplying the changes in employment ratios of covered persons by the size of the uncovered population, by sex. This procedure is a shortcut that is used when illustrative calculations are made in the text with actual numbers from the household survey.
The example also suggest the following generalization: Whether cyclical changes in the full-coverage employment ratio exceed those in the corrected employment ratio depends on whether cyclical changes in employment ratios of uncovered persons exceed on average those in the employment ratios of covered persons of the same sex. If, in the example, the employment ratio of uncovered men had declined only 10 percentage points, the full coverage ratio would have declined the same amount as the corrected ratio. If the employment ratio of uncovered men had declined less than 10 percentage points, the full-coverage ratio would have declined less than the corrected ratio.

## Appendix B: Hoosing Units Not Covered by the Household Survey

THE household survey misses people in two ways. First, the survey misses some housing units, and therefore misses the residents of such units. Second, the survey misses some or all of the residents of some covered housing units and persons with no usual residence. I will discuss the first type of miss in this appendix and the second type in the next appendix.

## Selection of sample housing units

The sample is, and has always been, selected by a multistage procedure. ${ }^{72}$ First, a probability sample of large geographic areas consisting of a county

[^33]or group of counties, and known as Primary Sampling Units (PSU's) is selected. Within each sample PSU, a probability sample of census enumeration districts (ED's) containing an average of 350 housing units is selected. Finally, since 1973, a group of four housing units has been selected randomly within each ED, by one of two methods.
Address lists.-About 75 percent of the sample housing units (mostly in urban areas) have been selected randomly from three types of address lists that represent housing units in list ED's, i.e., those ED's for which complete address lists exist. First, address lists from the decennial census contain those housing units in the sample ED that were enumerated in the census. Second, lists of building permits for

Household Survey Undercoverge of the Corrected Civilian Noninstitutional Population Age 14 and Over, by Sex, Race, and Age, 1975 Annual Average

U.S. Department of Commerce, Bureau of Economic Analysis
new construction issued since January 1970 contain housing units built after the decennial census (in the sample PSU but not necessarily in the sample ED). Third, a subsample from the "census supplemental (Cen-Sup) sample" represents housing units that were overlooked in the 1970 census. Cen-Sup is based on an intensive onetime, post-censal canvass of city blocks or equivalent areas in a sample of list ED's in sample PSU's throughout the country.
Area sampling.-About 25 percent of the sample housing units (mostly in rural areas) have been selected randomly by area sampling methods in area ED's, i.e., those ED's for which complete address lists do not exist. The sample ED's are subdivided into small land areas with well-defined boundaries, and one area is selected. Interviewers prepare a complete "pre-list" of housing units in the area, from which the Census

Bureau selects sample units by following a standard set of rules.
I will first discuss the types of housing units that were missed by the sample in 1975, one of the years for which illustrative calculations are made in the text, then review the types that were missed in other years. Finally, I will discuss the average income of residents of uncovered housing units.

## Uncovered housing units, 1975

The household survey missed about 1.67 million housing units in 1975-1.27 million in list ED's, and 0.40 million in area ED's.
List ED's.-The sample missed several types of housing units that were omitted from the ostensibly complete address lists.

1. The building permit lists omitted housing units for which building permits were issued before January 1970, and on which construction was not
complete when the census was taken in April 1970. The Census Bureau estimates that 598,000 units were so missed, most of which were in multiunit structures, because multiunit structures take longer to build than do singleunit structures. ${ }^{73}$
2. The sample omitted mobile homes put in place after the 1970 census at sites outside mobile home parks, and in mobile home parks that were established after the census. It also omitted mobile homes in parks missed by the census and at nonpark sites missed by the census. Census Bureau data indicate that 269,000 occupied mobile homes were so missed.
3. The sample omitted residential structures converted from nonresidential use, and houses moved to their present site after the 1970 census. Reliable data are lacking, but Census
[^34]Table 10.-Measures of Employment Decline in the Contraction
[Millions except where noted]

| Line |  | Population | Employment |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | I | II | Change |
| 1 | Official employment measure (product of sample employment ratios and decennial census population) : |  |  |  |  |
|  |  | 40 | 28.00 | 24.00 | $-4.00$ |
|  | Women | 50 90 | 25.00 53.00 | 25.00 49.00 | 0 -4.00 |
|  | Total <br> Employment ratio (percent) | 90 | 53.00 58.89 | 49.00 54.44 | -4.00 -4.44 |
| 2 | Corrected employment measure (product of sample employment ratios and true population): |  |  |  |  |
|  |  | 50 | 35.00 | 30.00 | $-5.00$ |
|  |  | 100 | 60.00 | 55.00 | $-5.00$ |
|  | Employment ratio (percent) |  | 60.00 | 55.00 | $-5.00$ |
| 3 | Derivation of full-coverage employment measure: <br> a. Product of sample employment ratios and covered population: |  |  |  |  |
|  | Men... | 35 | 24.50 | 21.00 | -3.50 |
|  | Total | 85 | 25.00 49.50 | 25.00 46.00 | 0 -3.50 |
|  | b. Product of supplemental survey employment ratios and uncovered male population. | 15 | 9.50 | 6.00 6.75 | -2.25 |
|  | c. Full-coverage employment measure ( $a+b$ ): |  |  |  |  |
|  | Men. | 50 | 33.50 | 27.75 | $-5.75$ |
|  | Women | 50 | 25.00 | 25.00 | 0 |
|  | Total. | 100 | 58.50 | 52.75 | $-5.75$ |
|  | Employment ratio (percent) |  | 58.50 | 52.75 | $-5.75$ |

Bureau officials believe that roughly 200,000 units may have been so missed. The sample probably missed additional units in a variety of ways, but the Census Bureau does not know how many. I allow for 200,000 , but the true number could be very different. ${ }^{74}$

Area ED's.-When interviewers prelist housing units in area ED's, they occasionally overlook units within the designated boundaries. They tend to overlook dwellings that are off roads, on back roads, concealed, or otherwise inconspicuous. The most recent smallscale intensive coverage checks, in October 1966 and June 1967, found that the interviewers had missed 1.6-2.1 percent of housing units in area segments. ${ }^{75}$ In the absence of reliable data, Census Bureau estimates of uncovered housing units in area ED's range from about 200,000 upwards. I estimate that 400,000 units, about 2.0 percent of housing in area ED's, were missed in 1975.

## Historical review of uncovered housing units

The types of housing units missed by the household survey have changed over time.

[^35]1. Before 1962, the Census Bureau relied mainly on area sampling methods to select the sample. Interviewer oversight in prelisting was probably the major cause of housing units being missed.
2. In 1962-71, address lists based on the 1960 census were used to select the sample in about two-thirds of ED's. The Census Bureau believes that the number of permit-lag units was much smaller in that period than it was after 1971. Some mobile homes and units in structures converted from nonresidential to residential use were missed, for the same reasons as in 1975; the number of such missed units increased steadily from 1962 to 1971. There was no CenSup sample, and the Census Bureau used a different method to cover housing units missed by the 1960 census; it believes that the method missed a substantial proportion of units missed by the 1960 census.
3. In 1972-77, address lists based on the 1970 census were used for about three-quarters of ED's. The number of uncovered mobile homes and uncovered units in converted structures increased steadily from 1972 to $1977 .{ }^{76}$

## Average income of residents of uncovered housing units

I estimate that, in 1975, 2.80 million persons age 14 and over (table 5, line
76. In October 1978, the household survey began to cover permit-lag units and previously missed mobile homes in new mobile home parks and in parks missed in the 1970 census.
6)-a little less than one-third of the uncovered population-lived in the 1.67 million housing units missed by the household survey. ${ }^{7}$ I assume that the ratio of men to women in the uncovered housing units was the same as in the corrected CNIP, and I estimate that black and other races accounted for 14 percent of the population in the uncovered units. ${ }^{78}$
The evidence on the average income of the missed persons is as follows:

1. Residents of permit-lag units may have somewhat higher incomes than covered persons of the same sex, race, and age, because they occupy new, mostly rental, housing-but the evidence on this point is inconclusive.
2. Residents of missed mobile homes have considerably lower incomes than covered persons of the same sex, race, and age. ${ }^{79}$
3. Little is known about the average income of residents of units converted from nonresidential to residential use, and houses moved to their present site, but there are indications that they may be poorer than covered persons of the same sex, race, and age. There is no evidence regarding the average income of residents of other uncovered housing units in address ED's.
4. Residents of uncovered housing units in area ED's are probably poorer than covered persons of the same sex, race, and age, for two reasons. First, area ED's have largely been in rural places since 1962, and residents of rural areas are poorer than residents of urban areas. Second, in prelisting, interviewers are most likely to miss out-of-the-way housing units, and these are more likely to contain poor persons than are more visible rural housing units. ${ }^{80}$
5. This estimate is based on dats on persons per occupied unit, and on vacancy rates, for housing units with characteristics similar to those of the missed units. Census Bureau Annual Housing Survey: 1975, 1977, and Technical Paper No. 19, pp. 39-40.
6. The estimate is based on the percentage of blacks and other races in housing units with characteristics similar to those of the missed units. See sources cited in previous footnote, and Census Bureau, "Results Pertaining to the Coverage of Persons," Results Memorandum \#1, 1950 Post-Enumeration Survey.
7. For families and unrelated individuals in 1975, the median income in mobile homes in urban areas was $\$ 8,200$; the median for all housing units in the country was $\$ 11,200$. Annual Housing Survey: 1975, Part E, "Urban and Rural Housing Characteristics," pp. 7, 50.
8. The 1950 Post-Enumeration Survey showed that, in rural areas, units missed in the 1950 census were more likely than enumerated units to lack hot and cold piped water or an installed bathtub or shower, and to be dilapidated. Census Bureau, "Analysis of the Characteristics of Erroneously Omitted Occupied Dwelling Units," Results Memorandum \#27, 1950 Post-Enumeration Survey, 1954.

In sum, the evidence indicates that residents of permit-lag units are the only residents of uncovered housing units whose incomes may be higher than those of covered persons of the same sex, race, and age. For 1972-77, I conclude that the relative affluence of permit-lag residents was at least offset by the rela-
tive poverty of residents of other uncovered housing units, so that residents of uncovered housing units were, as a group, as poor as or somewhat poorer than their covered counterparts. For 1956-71, I conclude that they were probably somewhat poorer than their covered counterparts.

## Appendix f: Residual Uncovered Persons

IN this appendix I will discuss "residual uncovered persons"-that is, uncovered persons in covered housing units and persons with no usual residence. I will first present evidence that this group has usually accounted for one-half or more of the uncovered population, and then show that members of this group are poorer on average than their covered counterparts of the same sex, race, and age.

## Size of residual uncovered population

The residual uncovered population equals the uncovered population minus the population in uncovered housing units. The method for estimating the uncovered population was described in section 4. The size of this population in 1975 is shown in line 5 of table 5, and the 1975 rates of undercoverage by sex, race, and age are shown in chart $9 .{ }^{81}$ The method for estimating the population in uncovered housing units was presented in Appendix B, and the estimate for 1975 is shown in line 6 of table 5. The residual uncovered populationline 5 minus line 6 -is shown in line 7 . There were 6.87 million persons in the residual group in 1975-71 percent of the 9.67 million persons in the uncovered population. Census Bureau data on uncovered housing, units in 1973-74 and 1976-77 indicate that the residual group accounted for over 60 percent of annual average undercoverage in those years also.

For 1956-72, there are no data on uncovered housing units that would support a direct estimate of the share of undercoverage accounted for by the residual group. But the following argument suggests that the share was usually larger than, and never much smaller than, 50 percent. In uncovered housing units, men have probably always been missed at about the same rate as women; I will assume that the miss rates for the sexes have always
been equal. Among residual uncovered persons in 1975, men were missed at 2.6 times the rate for women (table 5, line 10 ). Given the causes of residual undercoverage (discussed below), the miss rate for men must have always greatly exceeded that for women; I will assume it has always been 2.6 times as large. Because men are overrepresented in the residual uncovered population but not in missed housing units, it follows that the smaller the share of undercoverage accounted for by the residual group, the lower the ratio of the male to the female undercoverage rate. Under the above assumptions, when residual uncovered persons account for only 50 percent of undercoverage, it can be shown that the undercoverage rate for men is only 1.58 times that for women. ${ }^{82}$ In 1956-72, the undercoverage rate for men was less than 1.58 times the rate for women in only 3 years- 1969 (1.52),
81. The following argument indicates that the uncovered population in table 5 is an underestimate. Household survey interviewers are unable to conduct interviews at an average of about 2,400 occupied housing units each month, because residents are unavailable or refuse to cooperate. The Census Bureau redistributes the selection probabilities of these "noninterview" households among respondent households, thereby assigning the characteristics of respondent households to noninterview households. There is evidence, however, that noninterview households are smaller than respondent households: A 1965 reinterview study found that unavailable households contained only 78 percent as many residents age 14 and over as respondent households; refusal households were about the same size as respondent households. (Susan Palmer, "On the Character and Influence of Nonresponse in the Current Population Survey," Proceedings of the Social Statistics Section, 1967, American Statistical Association, pp. 73-80).
The effect of overstatement of the size of noninterview households can be estimated for 1975 as follows. The covered population was 154.1 million (table 5 , line 4). Noninterview households accounted for about 4.2 percent of that figure, or about 6.5 million persons, including 3.4 million refusals and 3.1 million unavailables. I assume that the refusal households were the same size as respondent households, but that the unavailable households were 78 percent as large as respondent households. Thus, the unavailable households in 1975 actually contained only 2.4 million persons, 0.7 million fewer than the Census Bureau estimate. Consequently, the 1975 covered population was 0.7 million smaller than estimated in table 5, and the uncovered population was 0.7 million larger. In the absence of reliable data on the size of noninterview households by sex, race, and age, it is not feasible to correct the estimate of the uncovered population. 82. The estimate of 1.58 is based on the equation $u_{m}-1 / 2 u$ $=2.6\left(u_{w}-1 / 2 u^{\prime}\right)$, where $u, u_{m}$, and $u_{w}$ are: the overall undercoverage rate, and the undercoverage rates for men, and for women, respectively.

1970 (1.57), and 1971 (1.56)..$^{83}$ In most other years, it was more than 1.70 times the rate for women. Therefore, the share of undercoverage accounted for by the residual group was usually larger than, and never much smaller than, 50 percent.

## Characteristics of residual uncovered persons

Each month the Census Bureau provides interviewers with lists of about 65,500 sample housing units. Three types of persons are missed by interviewers. (1) Interviewers classify an average of 9,500 housing units as vacant or otherwise ineligible for interview. ${ }^{84}$ Some of the units classified as vacant are actually occupied; the residents of such "false vacancies" are missed. (2) At respondent households, interviewers ask a responsible household member to name all persons "who are living or staying here," including persons who are temporarily absent. Persons whom the respondent omits are missed by the survey. (3) Most persons with no usual residence are also missed.

I will present evidence that each type is poorer, on average than covered persons of the same sex, race, and age. I will also point out that men greatly outnumber women among two of the three types of residual uncovered persons, and, at the end of this appendix, I will present evidence that the uncovered men tend to live in metropolitan poverty areas.

Residents of false vacancies.-Estimates of the number of false vacancies are lacking. In 1974, routine reinterviews by Census Bureau supervisory personnel found that interviewers erroneously classified as vacant 0.3 percent of sample housing units. ${ }^{85}$ The percentage of false vacancies is probably larger than 0.3 , because many false vacancies are not detected in routine reinterviews. ${ }^{86}$

[^36]For two reasons, interviewers are more likely to report false vacancies in urban poverty areas than elsewhere. First, the dilapidated condition of many housing units in urban poverty areas, the frequent absence of nameplates or even of apartment numbers, and the difficulty at times of securing entrance to the buildings make it difficult for interviewers to ascertain whether a sample housing unit is occupied. Second, because urban povery areas frequently have, or are perceived to have, high crime rates, the interviewers may feel feel reluctant to venture into such areas in the evening or to make repeated callbacks to ascertain whether a unit is occupied.

At the request of BEA, the Census Bureau made a special tabulation of the location of 235 false vacancies detected in routine monthly reinterviews in 1973-75. The Census Bureau found that there were about three times as many false vacancies per inhabitant in metropolitan poverty areas as outside these areas.

Persons omitted from rosters.-Analysts of census undercount and ethnographic observers of poor neighborhoods have identified two broad reasons why respondents give incomplete rosters to census enumerators and survey interviewers. They are concealment and oversight, and both are associated with poverty.

1. Some respondents conceal the names of some residents, apparently fearing that information given to the Census Bureau will be used against them, even though the Census Bureau assures respondents that the information will be held confidential.

Recipients of public assistance, who are frequently poor, have (or may think they have) an incentive to conceal wageearning or other income-receiving residents. Women receiving Aid to Families with Dependent Children (AFDC) have an incentive to conceal the natural father or adopting stepfather of their children, and may feel safer not reporting a husband or boyfriend even in cases where it would not affect AFDC eligibility. In many States, AFDC recipients also have an incentive to con-
ceal nonearning residents not eligible for AFDC, because welfare officials prorate rent and utilities among all residents in computing AFDC grants. ${ }^{87}$ In an ethnographic study of 35 Puerto Rican households in a poor New York neighborhood, Alan Harwood found that the households had not reported 15 of 52 resident men, and 2 of 48 resident women, to a 1967 survey. Whereas the survey indicated that 67 percent of the households were female-headed, Harwood found that only 38 percent were actually female-headed. Fear of losing public assistance was the main motive for concealing male residents. ${ }^{88}$

Regulations against overcrowding create incentives for poor tenants of crowded apartments to conceal residents. "Enumerators tell of respondents who fear to report complete household rosters because public housing authorities or their landlords would evict them for overcrowding. They say that violations of increasingly strict housing codes result in underreporting of lodgers or tenants." ${ }^{89}$

Fear of police or other persons is another motive for concealment that is associated with poverty. Persons engaged in illegal activities or wanted by the police, and persons avoiding bill collectors or personal enemies are frequently poor. Illegal immigrants, who are generally poorer then citizens and legally resident aliens, have a strong incentive to hide from investigators of the U.S. Immigration and Naturalization Service.

[^37]2. Some respondents apparently overlook persons loosely attached to their household. If they are reinterviewed in more depth-by a more skilled interviewer or by one in possession of the name of a resident omitted in the first instance-they may readily admit that the omitted resident lives there. It appears that the initial oversight was unintentional, or linked to a general wish to protect privacy or a wish to keep interviews short.

The 1950 Post-Enumeration Survey found that "persons loosely attached to households, members of the extended family and nonrelatives, were more likely than the head of households, wife, or children to be missed in the census. 'Lodgers' showed a particularly high rate of net deficiency." ${ }^{90}$

Ethnographic evidence for blacks indicates that loose attachment to households is far more prevalent in poor neighborhoods than in more affluent neighborhoods, and that it is more characteristic for men than women. ${ }^{91}$ Elliot Liebow, who spent a year and a half socializing with streetcorner black men in a poor neighborhood in Washington, D.C., concluded that they were less likely to be counted "in census reports" than "stable workers and family men." ${ }^{92}$

In general, men are much more frequently concealed and overlooked than women, for four reasons. First, the great majority of respondents are women, and respondents usually cannot omit themselves from rosters. Second, when children are present in a household, it is difficult to conceal a mother or female guardian. Third, many of the motives for concealment-such as AFDC eligibility, recipiency of wage income, and fear of police-apply exclusively or at

[^38]least more frequently to men. Fourth, men are more likely than women to be loosely attached to households, and therefore overlooked.

Persons with no usual residence.Persons who sleep in cars or vans, hallways, abandoned buildings, parks, alleys, on sidewalks, or in tents located away from tent sites enumerated in the decennial census have no "usual residence" in the sense recognized by the Census Bureau, and are not covered by the household survey. Such persons probably account for a small proportion of residual uncovered persons; they are, of course, poorer on average than covered persons of the same sex, race, and age; and they are more likely to be men than women.

## Evidence that residual uncovered men live in poverty neighborhoods

Men were missed at the rate of 6.18 percent, 2.6 times the 2.37 percent rate for women, among residual uncovered persons in 1975 (table 5, line 10). Inasmuch as men were missed at about the same rate as women in false vacancies, it follows that men were missed at a rate substantially more than 2.6 times that for women among persons omitted from household rosters and persons with no usual residence. In other years, too, the miss rate for men must have greatly exceeded that for women among persons omitted from household rosters and persons with no usual residence.

In the remainder of this appendix, I will present two types of evidence that indicate that the uncovered men tend to live in metropolitan poverty neighborhoods.

Driver's license study.-Although it does not compare poor and nonpoor neighboorhoods, a Census Bureau study indicates that respondents in poor black neighborhoods omitted many men from rosters they provided to enumerators for the 1970 census-and, presumably, to household survey interviewers as well. From the rolls of the District of Columbia's Department of Motor Vehicles, the Bureau took a sample of 710 men, mostly black, with addresses in poor neighborhoods and with newly issued or renewed driver's licenses. ${ }^{93}$ In attempting to match the names and addresses with persons reported to the 1970 census, the Bureau found that 23.5
percent of the men had been missed or probably missed by the census. There were two groups of missed men.

Twelve percent were misses that were confirmed by a resident at the man's address in reinterviews. Of these, 9.0 percent were in housing units that were enumerated and classified as occupied in the census. The investigators were generally unable to obtain clear explanations of why the men had not been reported to the census. "Oversight" may have been a major reason for this type of miss.

The other 11.5 percent were misses or probable misses that residents would not confirm in reinterviews, although the men had received their licenses by mail, and the investigators were frequently able to obtain corroborative evidence from the Post Office or the IRS that the men received other mail at the address. Residents said they did not know the men, or said the men lived at other addresses that could not be confirmed in interviews at these addresses, or said the men were drifters with no permanent addresses, or gave replies that appeared evasive or confused to the investigators. Deliberate concealment on the part of respondents, and absence of any usual residence on the part of the missed men may have been major reasons for this type of miss.

Sex ratios in the household survey.Comparisons of sex ratios, the number of men per 100 women, for metropolitan poverty and other areas of residence in the household survey indicate that men omitted from rosters tend to live in metropolitan poverty areas. Poverty areas are areas in which 20 percent or more of the population reported 1969 incomes below the poverty level.

Sex ratios in the population covered by the household survey sample for 1975 are shown in column 1 of table 11 by race, for metropolitan poverty areas, metropolitan nonpoverty areas, and nonmetropolitan areas. ${ }^{94}$ The "corrected" sex ratios, i.e. those based on population estimates corrected for census

[^39]undercount, are shown in column 2 by race. For metropolitan areas, the data show that: (1) For whites, the sample found 2.3 fewer men per 100 women in poverty areas than in nonpoverty areas. The difference between the observed area ratio and the national corrected ratio was 1.5 times as large in the poverty areas as in the nonpoverty areas. (2) For blacks and other races, the sample found 10.0 fewer men per 100 women in poverty areas than in nonpoverty areas. The difference between the observed area ratio and the national corrected ratio was 1.9 times as large in the poverty areas as in the nonpoverty areas.

There are two possible explanations for these differences: The differences may reflect more sample undercoverage of men in poverty areas than in nonpoverty areas, due to incomplete rosters, or they may reflect lower true sex ratios in poverty areas than in nonpoverty areas.

Although data are lacking with which to settle the issue, the former explanation is more plausible. In defense of the latter, it is sometimes argued that low sex ratios in poverty areas reflect a situation in which men have left their wives and children in poverty areas and gone to live elsewhere. This view is not persuasive, for two reasons. First, it ignores the findings of ethnographers that many of the households that the household survey counts as female-headed are actually male-headed. Second, it begs the question of where the departed husbands and fathers went to live. Because ethnographers have found that the inability of men to earn steady incomes is a major cause of marital instability among poor persons, it would be surprising if the men were to resettle in the more affluent sections of metropolitan areas. ${ }^{95}$

Sex ratios in the 1970 census.-Analysis of black sex ratios in the 1970 census provides insight into the resi-
94. In metropolitan areas, the Census Bureau classified poverty areas according to the proverty rate of each census tract, which included an average of about 2,500 inhabitants. In nonmetropolitan areas, the Bureau classified proverty areas according to the poverty rate a each minor civil division (MCD). MCD's are townships and cities and may contain up to 50,000 inhabitants. Consequently, the poverty area concept distinguishes sharply between small districts in metropolitan areas, but in nonmetropolitan areas it distinguishes less sharply and is not useful for purposes of the present discussion.
95. Stack, All Our Kin, and Liebow, Talley's Corner.

Table 11.-Sex Ratios for Persons Age 18-64, 1975

| Race and area of residence | Sex ratios: men per 100 women |  | Addenda |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Household survey samplo <br> (1) | "Corrected" <br> (2) | Percent with 1975 income below poverty level <br> (3) | Population 18-64 (millions) <br> (4) |
| White.. | 91.8 | 95.8 | 9.7 | 107.1 |
| Metropolitan poverty | 89.1 |  | 25.0 | 4.7 |
| Metropolitan nonpoverty | 91.4 |  | 7.0 | 68.2 |
| Nonmetropolitan........ | 93.0 |  | 12.6 | 34.2 |
| Black and other. | 75.0 | 89.2 | 29.3 | 14.6 |
| Metropolitan poverty.. | 68.3 |  | 37.4 | 4.4 |
| Metropolitan nonpoverty. | 78.3 |  | 17.6 | 7.0 |
| Nonmetropolitan.......... | 77.8 |  | 41.6 | 3.1 |

Col. (1) Before blow-up of sample data to census-level population control totals. Annual averages based on monthly data from BLS and Census Bureau.

Col. (2) Based on population corrected for census undercount. Census Bureau.
Col. (3) Based on civilian noninstitutional population, all ages, plus Armed Forces members living off-base in the United States. Census Bureau.

Col. (4) Civilian noninstitutional population. BLS.
Consus Bureau.
dence of the relatively large group of black and other men apparently missed by the household survey in metropolitan poverty nieghborhoods.

The 1970 census published detailed data on poverty neighborhoods in 50 large central cities. The neighborhoods consisted of contiguous census tracts with poverty rates of 20 percent or more, and contained populations of 20,000 persons or more. Tabulations for blacks age 22-44 in the 15 cities with
the largest black populations show that the higher the poverty rate of the black residents of the neighborhood, the lower the sex ratio (table 12) ${ }^{96}$. The sex ratio was 78.2 in neighborhoods where the black poverty rate was $20-29.9$ percent. This ratio fell to 74.6 and 69.9 in neighborhoods where the black poverty rate was $30-39.9$ percent, and 40 percent and over, respectively. (In nonpoverty areas of the 15 cities, the sex ratio was 82.5 ).

## Appendix D: Uncounted Migrration

IN this appendix, I will present evidence on the amount of two types of migration that are not counted in the corrected population control totals, and discuss the effects of this uncounted migration on DIFF. ${ }^{97}$ The two types of uncounted migration are: uncounted emigration by citizens and legally resident aliens, and net illegal immigration.

## Uncounted emigration

In discussing emigration, it is convenient to distinguish foreign-born and native-born persons.

1. By comparing the foreign-born population in the 1960 and 1970 censuses, Robert Warren and Jennifer Peck concluded that $1,065,000$ foreignborn persons emigrated in 1960-70. Their finding was supported by independent estimates of emigration by

[^40]registered, legally-resident, aliens, who account for a large share of emigration by foreign-born persons. ${ }^{98}$ Ongoing research at the Census Bureau confirms the Warren-Peck findings, and indicates that emigration of legally-resident aliens increased substantially after 1970. That there has been an increase in such emigration is not surprising, because the legally-resident alien population has grown steadily, increasing from about 3.0 million in 1965 to about 4.5 million in $1977 .{ }^{\text {.9 }}$
2. On the basis of partial data, it appears that about 300,000 nativeborn persons may have emigrated in $1960-70{ }^{100}$
98. "Emigration from the United States: 1960 to 1970," paper presented at the annual meetings of the Population Association of America, 1975; also Warren, "Recent Immigration and Current Data Collection," Monthly Labor Review, October 1977, p. 40.
99. The figures refer to aliens admitted for permanent residence, who, together with parolees, net arrivals from Puerto Rico, and net arrivals of civilian citizens, constitute immigration as measured by the Census Bureau. Because other aliens, such as foreign students and tourists, are not considered immigrants, they are not counted in the corrected population control totals, and are not at issue in this article.

In sum, about $1,365,000$ persons may have emigrated in 1960-70, an average of about 136,000 per year, Census Bureau corrected population control totals allow for an average of 25,000 emigrants per year in 1960-70, and about 36,000 per year after 1970 . Accordingly, there may have been about 110,000 uncounted emigrants per year in 1960-70, and there are indications that the number has increased substantially since 1970.

## Net illegal immigration

By net illegal immigration I mean increases in the illegal alien population, i.e., illegal immigration minus emigration by illegal immigrants. Two types of evidence indicate that substantial net illegal immigration occurred after 1964.

1. The increase in apprehensions of illegal aliens by the Immigration and Naturalization Service (INS) from 74,000 in fiscal year 1964 to 412,000 in fiscal year 1971 and to $1,033,000$ in fiscal year 1977 probably reflects a large increase in illegal immigration; it is unlikely that stricter enforcement of immigration laws has accounted for a large share of the increase in apprehensions. ${ }^{101}$ Although many of the illegal immigrants remain in the United States only briefly, there are indications that some of them remain for extended periods.
2. Published estimates of the number of illegal aliens in the United States vary greatly, but none of the estimates for 1972-77 has been less than about 3 million, and it is generally believed that most of the growth in this population took place after 1964. By analyzing consistencies and inconsistencies between IRS tax records and earnings and benefit records of the Social Security Administration, and comparing these records with corrected population control totals, Clarise Lancaster and Fritz Scheuren tentatively concluded that there may have been about 3.9 million illegal aliens age $18-44$ in the United States in April $1973 .{ }^{102}$
[^41]Table 12.-Sex Ratios for Blacks Age 22-44 in 15 Cities With the Largest Black Population, in Neighborhoods Classified by Poverty Rate, 1970 Census

| Cities, ranked by black population | Poverty neighborhoods, by black poverty rate ${ }^{\text {a }}$ |  |  |  |  |  | Remainder of city |  | City total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 40 percent and over |  | 30-39.9 percent |  | 20-28.9 percent |  |  |  |  |  |
|  | $\begin{gathered} \text { Population } \\ \text { age 22-44 } \end{gathered}$ | Sex ratio: | Population age 22-44 | Sex ratio ${ }^{2}$ | Population age 22-44 | Sex ratio ${ }^{2}$ | Population age 22-44 | Sex ratio: | Population age 22-44 | Sex ratio ${ }^{2}$ |
| Now York | 1,788 | 59.2 | 172,861 | 70.0 | 146,840 | 74.9 | 218, 657 | 77.4 | 540,146 | 74.2 |
| Chicago. | $\begin{array}{r}32,082 \\ 77 \\ \hline 13\end{array}$ | 65.8 89.8 | -97, ${ }^{\text {36,726 }}$ | 73.2 79.9 | 36,047 37,943 | 87.1 | 103, ${ }^{160} \mathbf{7 6 2}$ | 84.4 84.0 | 326,484 186,130 | 78.2 |
| Philadelphia. | 13,919 | 65.3 | 64, 472 | 70.3 | 7,550 | 82.9 | 98, 657 | 80.7 | 184, 598 | 75.8 |
| Washington, D.C. | 4,969 | 56.6 | 11,786 | 102.1 | 46, 422 | 81.2 | 105, 799 | 86.1 | 168, 976 | 84.7 |
| Los Angeles-Long Beach | 9,856 | 73.9 | 38,408 | 78.7 | 43, 187 | 83.2 | 70,425 | 90.7 | 161, 876 | 84.7 |
| Baltimore. | ${ }^{21,712}$ | ${ }^{64.0}$ | 25, 370 | 79.9 | 13,828 | 79.3 | 54, 423 | 83.6 | 115, 333 | 78.2 |
| Houston-. | 17,940 | 81.3 78 | 31, | 83.4 77.4 | 12,918 9 | ${ }_{71.7}^{82.1}$ | 32,769 <br> 40 <br> 40 <br> 151 | 85.9 77.5 | 95,472 | 88.7 |
| Atlanta | 18,783 <br> 20 | 70.8 71.9 | 11,714 | 77.4 | 9,949 | 71.7 | 40,251 37,150 | 77.5 85.5 | 80,677 75,235 | 75.2 79.6 |
| New Orleans. | 49,796 | 71.5 | 6,454 | 82.7 |  |  | 11, 298 | 81.1 | 67,548 | 74.1 |
| St. Louis. | 15,318 | 65.1 | 8,191 | 70.9 | 25, 472 | 77.4 | 15, 515 | 78.2 | 64, 496 | 73.7 |
| Newark. |  |  | 19,045 | 69.3 | 28,389 | 72.7 | 16, 962 | 78.2 | 64,396 | 73.1 |
| Dallas | 5,291 | 61.6 | 23,744 | 84.7 | 17,987 | 84.4 | 16, 117 | 86.9 | 63, 139 | 83.0 |
| Memphis. | 26,873 | 71.1 | 22, 236 | 75.5 | 5,865 | 82.8 | 4,648 | 80.2 | 59,622 | 74.5 |
| Total, 15 cities. | 246,761 | 69.9 | 587,778 | 74.6 | 432, 397 | 78.2 | 987, 192 | 82.5 | 2, 254, 128 | 78.1 |

1. Poverty neighborhoods contain all census tracts with an overall poverty rate of 20 percent or more, grouped into neighborhoods with a combined population of 20,000 or more. These neighborhoods are here classified by the poverty rate of their black population.
2. Men per 100 women.

Source: Census Burealu, 1970 Census of Population, Supplementary Reports, Low-Income Neighborhoods in Large Cuties: 1970, for each city.

## Effect of uncounted migration on DIFF

I will discuss the effect of uncounted migration on the accuracy of the household and payroll employment measures, and on DIFF.

As previously mentioned, the household employment measure equals the population control totals times the corresponding employment ratios. The household survey does not measure increases in illegal alien employment, or employment declines associated with uncounted emigration, because the population control totals do not measure uncounted migration. ${ }^{103}$

The payroll survey measures employment declines that occur when nonagricultural wage and salary workers emigrate, and there are indications that it counts a large proportion of the nonagricultural wage and salary jobs held by illegal aliens. Because UI tax returns are the principal source for benchmarking the payroll survey, the survey covers illegal aliens to the extent

[^42]that their employers pay UI taxes on them. The following argument indicates that employers pay UI taxes on most of their illegal alien workers. Employers who evade UI taxes on illegal alien workers probably evade Social Security taxes on these workers as well, because employers fear that tax investigators will match the two types of returns. A number of small-scale surveys have found that illegal aliens interviewed in a variety of circumstances say that their employer, in most cases, deducts Social Security taxes from their wages. Also, IRS tax investigators believe that employers pay Social Security taxes on most covered illegal alien workers. No evidence has been presented to the contrary.

The findings of the surveys are as follows. (1) In a sample of 625 apprehended illegal aliens who had worked at nonagricultural jobs in the United States, 80 percent said their employer had deducted Social Security taxes from their wages. ${ }^{104}$ (2) In a sample of 145 Mexicans who had worked at nonagricultural jobs in the United States and were later interviewed in their villages in Mexico, 78 percent said their employer had deducted Social Security taxes from their wages. ${ }^{105}$ (3) In a sample of 185 Mexicans living illegally in

[^43]the United States and interviewed informally, most of those who worked said their employer deducted Social Security taxes from their wages. ${ }^{106}$ (4) In a sample of 447 Mexicans who had worked illegally in the United States, were apprehended, and were interviewed by Mexicans upon their return to Mexico, 65 percent said their employer had deducted Social Security taxes from their wages. ${ }^{107}$ (5) In a sample of 49 Haitians and Dominicans working illegally in New York City at jobs not in private households, 86 percent said their employer deducted Social Security taxes. ${ }^{108}$ Because some of these samples included agricultural and private household workers, some of whom are not covered by the Social Security law, and because tax evasion in regard to those agricultural and private household workers who are covered is probably much higher than it is in regard to other wage and salary workers, the percentages cited may understate the percentage of illegal alien nonagricultural wage and salary workers outside

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[^44]
## By FRANK DE LEEUW

# Why Capacity Utilization Estimates Difier 

## Introduction

IIN spite of continuing efforts to measure capacity utilization in manufacturing, at times serious uncertainty remains about its movements. The Census Bureau, the Bureau of Economic Analysis, the Federal Reserve Board, the McGraw-Hill Publications Company, and Wharton Econometric Forecasting Associates all maintain current measures. Broadly, these capacity utilization measures move up and down together; but there are important differences in amplitude and timing. Differences in amplitude are shown in table 1, which compares the five measures from yearend to yearend during two recent contractions and expansions. ${ }^{1}$

There is a clear and systematic difference between "production-based" and "survey-based" measures. "Pro-duction-based" refers to measures that use production statistics to measure the numerator of capacity utilization and some technique involving the assumption of smoothness to measure capacity in the denominator. "Survey-based" refers to measures for which respondents report on utilization directly. The Federal Reserve and Wharton measures, which are production-based, show a greater amplitude of swing than the McGraw-Hill, BEA, and Census measures, which are survey-based. Of the two production-based measures, Whar-

Noтe.-The results reported in this article are largely based on special tabulations of the Census Bureau and BEA capacity utilization surveys. Wayne McCaughey at the Census Bureau and John Woodward and Kenneth A. Beckman at BEA were extremely helpful in supervising these tabulations, including modifications at various stages to make them as useful as possible. Saundria Pitts also provided capable assistance in preparing the article. A preliminary version of this article was presented at the Round Table Conference on Capacity Utilization sponsored by the Federal Reserve Board and BEA in December 1978.

1. Yearend comparisons do not match the precise timing of expansions and contractions; but two of the five measures are calculated only for the end of each year.
ton shows slightly more amplitude than the Federal Reserve. Of the survey-based measures, McGraw-Hill shows more amplitude than BEA. This article will touch briefly on differences within the survey-based group and within the production-based group; but its focus is on the reasons survey-based measures show less amplitude in their swings than do production-based measures.

An explanation of why a multiplicity of measures exists and what the various measures were intended to accomplish may be helpful. For many years, capacity and output were calculated by industry or trade associations for a relatively narrow group of materials industries-steel, cement, paper, petroleum refining, and other continuous-process industries with a high degree of capital intensity. Capacity was measured as the proven production capability of each plant in tons, barrels, or some other physical unit, summed over all plants in the industry and typically corrected for normal downtime. Capacity utilization measures were found highly useful in analyzing investment needs, profit swings, and other economic developments in these industries.

In the construction of these measures, not much attention was devoted to framing a precise theoretical definition of capacity. Clearly, "capacity" was a level of output that would be costly to exceed without increasing the capital stock; but whether capacity corresponded to minimum shortrun cost, maximum shortrun profit, or some other concept was not investigated. The next section of this article returns to the problem of definition. ${ }^{2}$
Because capacity utilization measures were useful wherever they were available, it seemed likely that broad measures for at least all manufacturing and possibly a still wider group of industries would be helpful in analyzing general business conditions. The method of measuring the physical capability of each plant, however, was not feasible for most industries. Instead, three other methods of measuring capacity or its utilization were devised-the trend-through-peaks method, the capital stock method and the survey method.
The trend-through-peaks method, which approximates capacity by linear interpolation between production peaks,

[^45]Table 1.-Changes in Manufacturing Capacity Utilization: Recent Contractions and Expansions
[Percentage Points]


NOTE.-The time periods selected for comparison are dictated by data availability. Estimates from the McGraw-Hill survey are available for December; from the BEA survey, for the last month of each quarter; from the Federal Reserve, for sach month; from Wharton, for the average of each quarter; and from Census, for each fourth quarter. McGraw-Hill and Census estimates are not seasonally adjusted; the others are. This difference should have little effect on the comparisons.

Rounding follows the source: Wharton and Federal Reserve estimates are published to the nearest tenth of a percent, BEA and Census to the nearest percent, and McGraw-Hill to the nearest one-half percent.

1. The December comparisons use December 1974 as a low month, and the fourth quarter comparisons use the last quarter index rose from December 1974 to December 1975 but fell from fourth quarter of 1974 to the fourth quarter of 1975.
is the simplest. It begins with the assumption that output is equal to capacity at every production peak, although ways have been devised for modifying this assumption in cases where other evidence clearly indicates significant excess capacity at a production peak. Extrapolation of capacity beyond the latest peak raises another problem, and even proponents of the method admit that it is sometimes not reliable for the period since the most recent peak-often the period of greatest interest. ${ }^{3}$

Another problem of this method is that it may miss the slowdowns or speedups in capacity growth due to fluctuations in investment. A utilization measure subject to this problem would tend to fall more in contractions or rise more in expansions than a measure that is not. The results shown in table 1 are evidence that the Wharton measure, which is a trend-through-peaks measure, is subject to this problem.

The capital stock method, which uses capital stock as a proxy for capacity, does take systematic account of fluctuations in investment, because capital stocks are generally measured by the perpetual-inventory method of cumulating past investment spending and subtracting retirement or depreciation. There are, however, serious statistical problems in converting investment spending into capital stocks. ${ }^{4}$ Furthermore, the link between investment spending and additions to capacity is not precise; some capacity expansion requires little or no investment spending and much investment serves purposes other than expanding capacity. ${ }^{5}$

The survey method offered promise of a distinct improvement over the other methods. In utilization surveys, individual companies or establishments make the determination of their capacity utilization. They are given wide latitude in defining output and capac-

[^46]ity, especially the latter, because it is assumed that respondents are best able to measure capacity and its utilization in a way most appropriate to their situations. In the 1950 's, McGraw-Hill pioneered this area. In the 1960 's, BEA extended the survey method to cover a much larger sample and to provide quarterly instead of just annual estimates. Census restricted itself to an annual survey, covered establishments rather than companies, and collected information on actual operating conditions (number of shifts per day, days per week, etc.) and on operating conditions assumed in measuring capacity. ${ }^{6}$

Survey-based methods have yielded valuable information on capacity utilization for many industries and have been employed extensively in economic analyses. They have also been used in the construction of eclectic measures of capacity utilization such as the Federal Reserve estimates, which draw on many sources of information for measuring shortrun changes in utilization, but which employ survey-based measures as benchmarks in the long run.

Survey-based measures of utilization, however, have displayed a cyclical sluggishness that has been disappointing and puzzling. In conjunction with production statistics, survey-based utilization measures imply an implausible degree of short-run sensitivity of capacity to the rate of growth of output. For example, some of the survey-based measures suggest that capacity has declined during some contractions, although all other evidence indicates positive, although lower-than-average growth. This apparent bias in surveybased measures was noted by Perry some years ago with reference to the McGraw-Hill survey. ${ }^{7}$ The bias appears to be even larger for other survey-based measures.

This article focuses on three possible reasons for the sluggishness of surveybased utilization measures and on what might be done to correct them. The next section deals with changes in assumed operating conditions-specifically, with the possibility that survey
6. The appendix to this article reproduces the Census questionnaire on capacity utilization.
7. See George L. Perry, "Capacity in Manufacturing", Brookings Papers on Economic Activity, 1973:3, pp. 710-712.
respondents base their notions of capacity on fewer shifts per day and days per week when output is low than when output is high. Evidence suggests that this is not an important explanation of the behavior of survey-based measures. Assumptions about shifts per day and days per week are not the only operating assumptions firms need to make to measure capacity. They also need to decide whether to include or exclude plants, or portions of plants, that can operate only at very high unit costs or that require inputs (hydroelectric power, for example) that are not always available. This article does not cover these dimensions of operating assumptions.

The third section deals with overreporting of "no change"- the possibility that respondents to surveys tend to report no change in utilization even when there has been an actual change. Evidence suggests that overreporting of no change is substantial and may be an important source of bias in the survey-based measures.

The fourth section deals with the use of labor instead of output to measure capacity utilization, a possibility that would lead to a bias because of shortterm fluctuations in labor productivity. Evidence suggests that this, too, may be an important source of bias.

The final section concludes that overreporting of no change and using labor rather than output probably account for a substantial fraction of the differences in amplitude of swing between survey-based and production-based measures of capacity utilization. The section reports on two experimental adjustments to the BEA measure, and concludes that systematic correction for bias may make survey-based measures of capacity utilization more useful.

## Changes in assumptions about operating conditions

Measurement of capacity rests on a series of assumptions about operating conditions-assumptions about number of shifts per day, days per week, weeks per year, hours per shift, machine downtime, obsolete facilities, product mix, and availability of labor and materials. A frequent conjecture about why sur-vey-based measures fluctuate less than
production-based measures is that respondents tend to change their assumptions as output changes. This section deals with the hypothesis that during periods of expanding output there is a tendency to increase the number of shifts per day or days per week that capacity is assumed to represent, and during periods of contracting output the reverse takes place. The hypothesis implies that capacity is "found" during expansions and "lost" during contractions and that utilization fluctuates less than it would if operating assumptions were held constant.

It does not necessarily follow that a capacity measure based on changing operating assumptions is useless. It may convey information about the attitudes of respondents. The level of output that maximizes shortrun profits, furthermore, probably grows during expansions and may require more shifts per day when demand is relatively high than when it is relatively low. A theoretical definition of capacity as the profitmaximizing level of output could thus imply systematic changes in operating assumptions-though not necessarily those changes assumed by respondents in any particular capacity measure. The usual theoretical definition of capacity, however, is not the level of output that maximizes profits but rather the level of output that meets a cost criterioneither the level that minimizes shortrun costs per unit of output or the level at which the cost of an additional unit of output rises above some high threshold. Under the usual definition, in contrast to a profit-maximizing definition, cyclical shifts in operating assumptions have no place.

Information collected in the Census survey of manufacturing capacity makes possible for the first time an investigation of whether assumptions about shifts per day and days per week change significantly over time. The Census survey is conducted at the end of each year, and the interval from the end of 1975 to the end of 1976 provides an excellent period for investigating the practical importance of this aspect of capacity measurement. Although this period was one of vigorous expansion in manufacturing output, the Census measure of utilization shows no change (table 1). The Census survey

Table 2.-Shifts Per Day and Days Per Week at Practical Capacity in Manufacturing Industries, Fourth Quarters of 1975 and 1976


Note.-Numbers in parenthesis are SIC numbers.

1. Averages for the three groups and for all manufacturing are based on employment weights.

Source: Census Survey of Plant Capacity, 1975 and 1976.
includes questions not only about utilization but also about operating conditions at practical capacity, defined as "the greatest level of output a plant can achieve within the framework of a realistic work pattern" (appendix A). Responses to the questions about conditions at practical capacity enable us to determine how much, if any, of the extreme sluggishness of reported utilization was due to respondents increasing the number of shifts per day or days per week used to define practical capacity between 1975 and 1976.

The somewhat surprising answer is that, in the aggregate, there was no shift in operating conditions at practical capacity during this period of expansion. A special tabulation of establishments reporting to Census in both years showed no change in the average number of shifts per day-2.27-and a miniscule decline in days per week-
from 5.67 to 5.66 at practical capacity (table 2). These results thus cast grave doubt on the hypothesis that chnages in assumed operating conditions at capacity have much to do with the sluggishness of survey-based measures.

It is of some interest to divide manufacturing industries into three groups, based on their reported practical capacity shifts per day in $1976 .{ }^{8}$ The first group consists of those industries that typically operate on a continuous basis, accounting for 10 percent of manufacturing employment in 1976. It includes almost allof the industries for which physical capacity and output data have been calculated for many years. It is not surprising that these industries reported a practical capacity of three shifts per day in both years. They also reported high and unchanged

[^47]days per week-6.55 days for both surveys.

The next group consists of indus-tries-56 percent of manufacturing employment-that reported 2.3 to 2.7 shifts per day in 1976. These industries do not operate continuously but they are close enough that capacity could be an important constraint on production when actual shifts reach practical capacity. These industries did show a slight increase-from 2.37 to 2.40 -in assumed shifts per day at capacity from 1975 to 1976. Their average days per week at capacity was exactly the same- 5.60 daysin both years. The increase in shifts implies that utilization for these industries would have risen by a little over 1 percentage point more than the reported figure had it been based on unchanging operating assumptions.

The experience of this middle group, however, is offset by industries (34 percent of manufacturing employment) that typically have low shifts per day. These industries showed a decline in assumed shifts per day at capacity from an average of 1.89 in 1975 to 1.86 in 1976, and a decline in days per week at capacity from 5.54 to 5.50 . For these industries, utilization would have declined by 2 percentage points more than the reported figure had it been based on unchanging operating assumptions.

## Overreporting of "no change"

The simplest possible explanation of the cyclical sluggishness of survey-based measures of capacity utilization is that respondents find it much easier to report no change than anything else and therefore report no change too frequently.

Evidence on the frequency of nochange responses is available from a special tabulation covering 1970-77 of individual company reports submitted to BEA for its quarterly survey of manufacturing capacity utilization. Charts 10, 11, and 12 show frequency distributions of quarter-to-quarter changes in capacity utilization among respondents in the electrical machinery, nonelectrical machinery, and paper industries. Reported frequencies were weighted by the asset size of the company. Reports tabulated for each quarter were limited to companies that reported utilization rates for that and

U.S. Department of Commerce, Bureau of Economic Analysis
29.5-10
the previous quarter. On an average, 237 company reports per quarter were tabulated for electrical machinery, 310 for nonelectrical machinery, and 89 for paper.

Each bar in the top panel of the charts represents the relative frequency of some possible percentage-point value of quarter-to-quarter changes in the capactiy utilization rate. The bar at the center represents the relative frequency of no-change reports, and the bars on the left and right represent percentage point decreases and increases.

The charts show that there is an enormous frequency of no-change reports. In electrical machinery, 42 percent of all reports showed no change in the utilization rate from the previous quarter. For nonelectrical machinery, the no-change frequency was 37 percent and for paper, 27 percent. Frequencies at multiples of 5 and -5 percentage points are also high-though not nearly as high as at no change.
It seems almost certain that much of the extraordinarily high frequency of no-change reports is due to biased reporting. To be sure, there are times when upward changes in utilization rates are not possible because production is constrained by a capacity ceiling. At these times, the true frequency of no change could be quite high. However, reported high frequencies of no change are not confined to periods of high utilization. The bottom panels of charts 1-3 show quarterly frequencies of posi-tive-change reports, no-change reports, and negative-change reports. They demonstrate that while no-change reports did not have a high frequency in each quarter, quarters of high no-change frequency occurred throughout the 1970-77 period-not just during times when aggregate utilization was high. In the electrical machinery industry, for example, at least one quarter with a no-change frequency over 40 percent occurred in seven of the eight years (1971 is the exception).
Some of the high frequency of nochange reports appears to be due to rounding to the nearest 5 percent. The peaks in the three charts at multiples of 5 and -5 provide evidence for this conclusion. The fact that peaks at multiples of 5 and -5 are much less pronounced than the peaks at no change

Quarterly Changes in Utilization 1970-77, Nonelectrical Machinery CHART 11
Quarterly Changes in Utilization, 1970-77, Nonelectrical Machinery

U.S. Department of Commerce, Bureau of Economic Analysis
79.5.11
suggests, however, that such rounding is only a minor part of the explanation of the high no-change frequency.

A recent tabulation of employment data also suggests that the true frequency of no change is much less than
reported in the BEA survey. A tabulation of a sample of 378 electrical machinery establishments reporting to the Bureau of Labor Statistics revealed that only 10 percent reported no change in employment from June to Septem-
ber $1978 .{ }^{9}$ Because employment generally shows less short-term variation than output, this tabulation suggests that the true frequency of no change in output may well have been even less than 10 percent. Although this finding relates to only one quarter and to establishments rather than companies, the difference between the 10 percent no changes in the BLS employment survey and the 1970-77 average of 42 percent no change for the same industry in the BEA capacity utilization survey is so large that it strongly suggests the presence of biased reporting in the latter.

Because the true frequency of no change is unknown, it is impossible to make a precise correction for the bias caused by no-change responses. The experimental calculations reported in the final section of this article suggest, however, that no-change responses may be an important source of the sluggishness of the BEA estimates of capacity utilization.

No-change responses and company size.-There is weak evidence that the frequency of no-change responses varies with the size of the company. Responses in the paper industry clearly show lower frequencies of no-change reports for large than for small companies. For the two machinery industries, however, there is no association in either direction between no-change frequency and size.

A tendency in manufacturing as a whole for no-change responses to be most frequent among small companies would help to explain differences between McGraw-Hill and BEA utilization estimates. McGraw-Hill estimates rely much more heavily on large firms than BEA estimates, and, as table 1 indicated, McGraw-Hill estimates show a greater amplitude of swing than BEA estimates. The suggestion by Ragan that this difference may be due to a tendency of utilization to vary more over time for large firms than for small ones could be reinterpreted to say that the difference may be due to a tendency for reported utilization, but not necessarily actual utilization, to vary more for large firms than for small ones. ${ }^{10}$

[^48]
U.S. Department of Commerce, Bureau of Economic Analysis
79.5. 12

## Labor utilization

For establishments or companies with heterogeneous or complex products it is difficult to measure output, but relatively easy to measure employment or hours. It may therefore be tempting to respond to a survey of capacity utilization by calculating actual hours relative to some measure of "practical capacity" hours rather than attempting to calculate actual output relative to "practical capacity" output.

[^49]Measuring capacity utilization in terms of labor, e.g., hours, rather than output could introduce bias in a number of ways. The most serious source of bias is probably cyclical variations in labor productivity. Labor input varies less in the short run than does output and as a consequence labor-based measures of capacity utilization vary less than output-based measures.

Evidence of the importance of the use of labor to calculate capacity utilization comes from the Census survey. The Census questionnaire includes a series of questions relating to labor

Table 3.-LLabor Utilization and Capacity Utilization, 1975 and 1976

| [Percent] |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Labor utilization ${ }^{\text {a }}$ |  |  | Capacity utilization |  |  | Change in capacity utilization less change in labor utilization |
|  | 1975 | 1976 | Change | 1975 | 1976 | Change |  |
| Group 1: Industries probably relying least on labor to measure utilization. | 82.9 | 84.3 | 1.4 | 76.2 | 79.1 | 2.9 | 1.5 |
| Group 2: Industries probably relying most on labor to measure utilization.. | 67.4 | 69.0 | 1.6 | 68.1 | 68.8 | . 7 | -. 9 |
| Group 3: All other industries.. | 79.4 | 79.5 | . 1 | 77.7 | 77.2 | -. 5 | -. 6 |

Note.-For criteria for grouping industries, see text. Group 1: SIC codes 20, 261-3, 281-2, 29, 301, 324, 331-3. Proportion of total is 0.215 (based on 1975 employment). Group 2: SIC codes $25,334-9,34,35,36,372,38$. Proportion of toatl is 0.388 . Group 3: SIC codes $21,22,23,24,264-9,27,283-9,302-9,31,32$ excluding 321 and $324,371,373-9,39$. Proportion of total is 0.397 .

1. For derivation of the labor utilization measure, see text.
utilization (see question 1, lines 3-6 in the appendix), and also separate questions relating to capacity utilization however the establishment choses to define it (question 2). For establishments that answer both questions, it is possible to compare the changes over time in reported labor utilization and in reported capacity utilization. The general hypothesis to be investigated is that, in periods when labor productivity is rising cyclically, reported capacity utilization will rise relative to reported labor utilization for those establishments that do not rely on labor to measure capacity utilization, but that it will not rise (or rise less) for establishments that do. Correspondingly, in periods when labor productivity is falling cyclically, reported capacity utilization will fall relative to labor utilization for establishments that do not rely on labor to measure capacity utilization, but less so for establishments that do.

The period from the end of 1975 to the end of 1976 provides an appropriate test-it was a period of strong cyclical recovery in output, and one in which labor productivity appears to have increased at an above-trend rate for manufacturing as a whole. The reported Census utilization rate for all manufacturing, however, did not increase at all.

To investigate the hypothesis, it is first necessary to separate the establishments responding to the Census questionnaire into those that relied heavily on a labor measure of capacity utilization and those that did not. There is no direct way of making this separation; but there are two ways of deriving indirect indicators that give a reason-
ably accurate separation. The first is an examination, for those establishments that answer the labor utilization questions, of the differences between the level of labor utilization and the level of capacity utilization. In those industries for which the two differ substantiallyfour percentage points or more in 1975 was chosen to define "substantially"it seems reasonable to infer that labor utilization was not used as a proxy for capacity utilization. The second indicator can be obtained by reference to a Census question relating to the quantity of production measured by units (question 1 , line 8 in the appendix), and is the proportion of establishments responding to this question. The proportion varied enormously by industry, from 20 percent or less in some of the machinery groups to 80 percent or more in petroleum refining and organic chemicals. A reasonable inference is that the use of labor as a measure of utilization was much more widespread among establishments that did not respond to the quantity question than among establishments that did.

Based on these two indicators, the Census tabulation was divided into three industry groups. The first group consisted of those industries for which (a) the level of labor utilization and reported capacity utilization differed by 4 percentage points or more (in either direction) 1975, and (b) more than 60 percent of the establishments responded to the quantity question. Paper, basic chemicals, petroleum, primary metals, and a few other industries were in this group. The second group, at the other extreme, consisted of those industries for which (a) the level of labor utilization and reported capacity
utilization in 1975 differed by 2 percentage points or less, and (b) less than 40 percent of establishments, responded to the quantity question. Fabricated metals, machinery, aircraft, furniture, and a few other industries were in this group. The third, or middle, group consisted of all other industries. ${ }^{11}$ Textiles and apparel, lumber, printing, motor vehicles, and a number of others were in this group. Table 3 shows labor utilization and reported capacity utilization for the three groups of industries.

The key findings shown by the table are: For the first group, both labor utilization and reported capacity utilization increased, the latter more than the former, for a difference of 1.5 percentage points; for the second group, both increased, the former more than the latter, for a difference of -0.9 percentage points; for the third group, the former increased and the latter decreased, for an intermediate difference of -0.6 percentage points.

The results of the tabulation support the notion that establishments that rely heavily on labor to measure capacity utilization understated the rise in utilization during 1976. If it is assumed that those in Group 1 give a true picture of the increase in capacity utilization relative to labor utilization and that deviation from this group's performance is a measure of bias in the other two groups, then the aggregate downward bias in the Census utilization introduced by reliance on labor to calculate capacity utilization is -1.8 percentage points for all manufacturing. ${ }^{12}$ This is about one half of the difference between the 1975-76 change in the Census estimate of manufacturing capacity utilization and the change in either of the production-based estimates of the Federal Reserve and Wharton.
The assumptions underlying the calculation of the downward bias are highly uncertain. The fact that the classification of industries into three groups is itself uncertain, with some

[^50]establishments in the first group probably relying on hours and some in the second group relying on quantity of production, would cause the aggregate estimate to understate the true bias. On the other hand, the fact that productivity varies from one industry to another for all kinds of reasons having nothing to do with the way capacity utilization is measured, means that some of the reported differences between reported capacity utilization and labor utilization could well reflect industry-specific developments, and might cause the aggregate estimate to overstate the true bias. Another complication is possible interaction between the use of labor to calculate capacity utilization and the reporting of no change. All of these factors could distort the quantitative measure of bias, although it is hard to say whether, on balance, they lead to an understatement or an overstatement.

## Adjustment of the BEA measure

This section reports on two experimental adjustments to the BEA measure of capacity utilization. One adjustment deals with the bias due to the overreporting of no change; the other, with the bias due to the use of labor to measure capacity utilization. Utilization measures before and after the adjustments are compared with the Federal Reserve and Wharton measures. The comparisons suggest that the two biases together may account for most of the difference in cyclical variability between the BEA measure and produc-tion-based measures of utilization.
The first adjustment eliminates from BEA tabulations for 1970-77 those firms that report the same utilization rate in the current quarter as in the two previous quarters. From quarter to quarter the firms that fall into this category are not the same, although a small number falls into the category most of the time. In electrical machinery, the proportion of firms eliminated in a single quarter (weighted by asset size) varies from 8 to 42 percent; in nonelectrical machinery, from 8 to 58 percent; and in paper, from 5 to 33 percent.

Clearly, this adjustment reduces the the influence of no-change reports on the utilization rate; but it is hard to


CHART 14
Capacity Utilization, Nonelectrical Machinery

know whether it over- or under-corrects. On one hand, firms that correctly report that they have operated at the same utilization rate for three quarters in a row are excluded from the adjusted utilization rate. On the other hand, firms that incorrectly report no change from the second to the third quarter but correctly report change from the first to the second are included in the adjusted rate.

The effect of this adjustment is to increase somewhat the variability of the capacity utilization rate. Even after adjustment, however, these sur-vey-based utilization rates are less variable than the production-based rates of the Federal Reserve and Wharton (charts 13 through 15). According to an estimate of cyclical variability based on regression analysis, in electrical machinery the published BEA measure shows only 53 percent as much cyclical variation as an average of the two production-based measures. ${ }^{13}$ In contrast, the adjusted BEA measure shows 69 percent as much. In nonelectrical machinery the corresponding measures are 49 to 57 percent. In paper, they are 74 and 85 percent. Thus, the adjustment raises the measure of relative cyclical variability by 16,8 , and 10 percentage points in the three industries.

The second adjustment adds to the BEA utilization rate a proportion of the estimated cyclical change in cutput per hour. Because quarterly output per hour figures are not available in industry detail, the adjustment is made to total manufacturing. The adjusted measure was derived by (a) starting with quarterly percent changes in output per hour in manufacturing, as calculated by the Bureau of Labor Statistics, (b) subtracting from these changes 0.64 percentage points, the quasterly rate of productivity growth from 1969 through 1978, (c) smoothing the resulting estimates of cyclical change in productivity by means of a

[^51]
three-quarter centered moving average (to eliminate highly irregular quarterly fluctuations), and (d) adding one half of the resulting estimate to quarterly changes in the BEA utilization rate
for all manufacturing. The adjusted BEA measure, together with the published BEA measure and two pro-duction-based measures are shown in chart 16.

Capacity Utilization, All Manufacturing


Once again, it is hard to know whether the adjustment over- or undercorrects for the partial omission of short-term movements in productivity due to the use of labor in the calculation of survey-based measures of utilization. The evidence shows that industries accounting for 39 percent of manufacturing employment probably relied heavily on labor to measure utilization and showed strong evidence of bias due to the neglect of productivity change, and that industries accounting for another 40 percent of manufacturing employment probably relied somewhat on labor to measure utilization and showed some evidence of bias. It is not possible to deduce from these findings whether adding one half of productivity change is too much or too little.

The result of this adjustment, like the previous one, is to increase the cyclical variation shown by the BEA measure. Before adjustment, the BEA utilization rates for all manufacturing display 58 percent as much cyclical variation as the average of the two production-based measures. ${ }^{14}$ After adjustment, the BEA estimates show 72 percent as much variation, an increase of 14 percentage points.

Although there are arbitrary elements in both of these adjustments, it is nevertheless of interest to ask to what extent the two corrections taken together eliminate the difference in cyclical variability between the BEA and production-based measures. The adjustment for overreporting of no change raised the estimate of cyclical variability by 8 to 16 percentage points in the three industries to which it was applied. The adjustment for use of labor to measure capacity utilization raised the estimate of cyclical variability for all manufacturing by 14 percentage points. If no-change bias in the three industries is representative of manufacturing generally, and if interaction of the two sources of bias is minor, the two adjustments together increase cyclical variability by 22 to 30 percentage points. Because it would take an increase of 38 percentage points to elim-

[^52]
## Appendix



Appendix -Continued

inate all of the difference in cyclical variability between the BEA and production-based measures for manufacturing, the two adjustments together eliminate 58 to 79 percent of the difference in cyclical variability.

The apparent precision of these calculations should not mask the fact that the adjustments reported in this section are exploratory; they are not the only possible adjustments. Further experimentation may well uncover superior methods of adjustment. What the reported adjustments indicate is that overreporting of no change and use of labor to calculate capacity utilization can account for a substantial fraction of the difference in cyclical variability between survey-based and production-based measures of capacity utilization. Attempts to adjust for these sources of bias can therefore make survey-based measures of utilization more useful.

## Cont. from page 44

private households on whom employers pay Social Security taxes.

In light of the above evidence, it seems clear that differences in the coverage of uncounted migrants in the household and payroll surveys may be an important factor affecting DIFF. ${ }^{109}$ It is tempting to speculate that an increase in illegal alien employment after 1964 accounted in part for the record increase of 2.2 million in DIFF from 1964 to 1969, but the data on uncounted migration are too fragmentary to confirm this hypothesis, and I cannot exclude the possibility that other factors explain the increase in DIFF. Whatever other factors contributed to the increase in DIFF in 1964-69 may also contribute to the cyclical behavior of DIFF that is examined in this article.

[^53]Manufacturing and Trade Inventories and Sales in Constant Dollars, 1978:I-1979:I
Quarterly estimates of inventories, sales, and inventory-sales ratios for manufacturing and trade, in constant dollars, for 1978:I-1979:I, are shown in tables 1-4. Estimates for 1974:IV-1977:IV appear in the August 1978 issue of the SURvEY or CURRENT Business. The estimates are consistent with those presented in the July 1978 SURvEY.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \& ble 1. entori \& \begin{tabular}{l}
Manuf \\
in Con \\
, End of \\
Billions
\end{tabular} \& \[
\begin{aligned}
\& \text { turing } \\
\& \text { tant Do } \\
\& \text { Quart } \\
\& \text { t } 1972
\end{aligned}
\] \&  \& \[
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\] \& able 2. in Co Quart \& \begin{tabular}{l}
Manuf ant Do Y Total \\
Billion
\end{tabular} \&  \&  \& Salea justed \\
\hline \& \& 197 \& \& \& 1979 \& \& 19 \& \& \& 1979 \\
\hline \& I \& II \& III \& IV \(\cdot\) \& I \& I \& II \& III \& IV r \& I \\
\hline Manufacturing and trade. \& 237.3 \& 240.3 \& 242.3 \& 244.2 \& 246.9 \& 150.6 \& 155.9 \& 156.5 \& 160.4 \& 159.9 \\
\hline Manufacturing . \& 129.9 \& 131.5 \& 132.9 \& 133.2 \& 135.2 \& 72.6 \& 74.9 \& 75.0 \& 76.9 \& 78.1 \\
\hline Durable goods
Primary
metais \& 84.9
13.2 \& 86.1
13.2 \& \begin{tabular}{l}
87.2 \\
13.4 \\
\hline
\end{tabular} \& 87.6
13.4
18.4 \& \begin{tabular}{l}
89.7 \\
12.9 \\
\hline 1
\end{tabular} \& 39.6
5.1 \& 41.0
5.3 \& 41.2
5.4 \& 42.8
5.7
5 \& 43.7
5.8 \\
\hline Fabricated metal products. \& 13.2
10.7 \& \(\begin{array}{r}13.2 \\ 10.9 \\ \hline\end{array}\) \& 13.4
10.9 \& 13.4
11.0 \& 12.9
11.3 \& 5.15 \& 3.3
4.7 \& \begin{tabular}{l}
5.4 \\
4.6 \\
\\
\hline
\end{tabular} \& \begin{tabular}{l}
5.7 \\
4.8 \\
\hline
\end{tabular} \& \\
\hline Machinery, except electrical. \& 18.9 \& 19.4 \& 19.8 \& 20.3 \& 20.7 \& 6. 9 \& 7.3 \& 7.5 \& 7.8 \& 8.0 \\
\hline Electrical machinery-. \& 12.2 \& 12.4 \& 12.6
5
5 \& \(\begin{array}{r}12.5 \\ 15 \\ \hline\end{array}\) \& 12.9 \& 5.7 \& 5.7 \& 5.8 \& 5.9 \& 6.2 \\
\hline Motor vehicles and parts.......
Other transportation equipment. \& 5.7
9.8 \& 5.6
10.0 \& 5.9
10.1 \& \(\begin{array}{r}5.3 \\ 10.6 \\ \hline\end{array}\) \& \(\begin{array}{r}6.0 \\ 10.8 \\ \\ \hline\end{array}\) \& 6.6
3.0
3.8 \& 6.9
3.1 \& 6.7
3.2 \& 7.2
3.1 \& 7.3 \\
\hline Other durable goods \(1 . . .\). \& 14.4 \& 14.4 \& 14.6 \& 14.6 \& 15.2 \& 7.8 \& 8.1 \& 7.9 \& 8.1 \& 8.0 \\
\hline Nondurable goods
Food and kindred products. \& 45.0
12.9 \& 45.4
13.0 \& 45.7
13.2 \& 45.6
13.1
18. \& 45.5
13.1 \& 33.0
10.5 \& 33.9
10.6 \& 33.8
10.7 \& 34.1
10.8 \& 34.4
10.6 \\
\hline Nonfood............... \& 32.1 \& 32.4 \& 32.6 \& 32.5 \& 32.4 \& 22.5 \& 23.3 \& 23.1 \& 23.3 \& 23.8 \\
\hline Paper and allied products. \& 3.8 \& 3.9 \& 3.9 \& 3.8 \& 3.8 \& 2.8 \& 2.8 \& 2.8 \& 2.8 \& 2.9 \\
\hline roducts Petroleum and coal products. \& 8.3
3.3 \& 8.4
3.3 \& 8.6
3.3 \& 8.6
3.3 \& 8. \({ }_{3} \mathbf{3}\) \& 6.0
2.9 \& 6. 1 \& 5.9
3.2 \& \begin{tabular}{l}
6.2 \\
3.1 \\
\hline 6.1
\end{tabular} \& 6.5
3.1 \\
\hline Rubber and plastic products. \& 2.9 \& 2.9 \& 3.9 \& 2.9 \& 3.0 \& 2.0 \& 2.0 \& 3.0 \& 2.0 \& 2.2 \\
\hline Other nondurable goods \({ }^{2}\).. \& 13.8 \& 13.9 \& 13.9 \& 13.9 \& 14.0 \& 8.9 \& 9.3 \& 9.2 \& 9.1 \& 9.1 \\
\hline Merchant wholesalers \& 46.3 \& 47.1 \& 47.2 \& 48.4 \& 49.6 \& 34.3 \& 36.3 \& 36.6 \& 37.3 \& 36.5 \\
\hline Durable goods. \& 30.3 \& 31.0 \& 31.4 \& \begin{tabular}{l}
32.2 \\
16.2 \\
\hline 18
\end{tabular} \& 32.5 \& 16.4 \& 17.3
18.8 \& \begin{tabular}{l}
17.7 \\
18.9 \\
\\
\\
\hline 18.9
\end{tabular} \& 18.1 \& 17.9 \\
\hline Nondurable goods............ \& 16.0
5.7 \& 16.1
5.7 \& 15.8
5.4 \& \(\begin{array}{r}16.2 \\ 5.4 \\ \hline\end{array}\) \& 17.1
5
5.5 \& 17.8
9
9.5 \& 18.9
10.0
8.8 \& 18.9
10.0 \& 19.2
10.2 \& 18.6
9.6 \\
\hline Other nondurable goods.... \& 10.2 \& 10.4 \& 10.5 \& 10.8 \& 11.6 \& 8.3 \& 8.9 \& 8.9 \& 9.0 \& 9.0 \\
\hline Retail trade. \& 61.1 \& 61.7 \& 62.2 \& 62.6 \& 62.1 \& 43.7 \& 44.7 \& 45.0 \& 46.2 \& 45.4 \\
\hline Durable goods. \& 27.6 \& 27.3 \& 27.0 \& 27.6 \& 27.9 \& 15.0 \& 15.8 \& 15.9 \& 16.7 \& \\
\hline Automotive dealers.. \& 14.3
13.4 \& 14.0
13.3 \& 13.8
13.3 \& 14.7
12.8 \& 14.9
13.0 \& 8.8
6.2 \& 9.2
6.5 \& 9.1 \& 9.5
7.2 \& 9.6
6.9 \\
\hline Nondurable goods. \& 33.5 \& 34.4 \& 35.2 \& 35.0 \& 34.3 \& \& \& 29.0 \& \& 28.9 \\
\hline Food stores \& 6.5
27.1 \& 6.4
28.0 \& 6.5
28.7 \& 6.4
28.6 \& 6.4

27.8 \& 9.2
19.6 \& 9.0
20.0 \& 9.0
20.1 \& 9.0
20.4 \& 8.9
20.0 <br>
\hline
\end{tabular}



|  |  |
| :---: | :---: |
| Manufacturing |  |
| Durable goods. |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Motor vehicles and parts .-...-................................................................................ |  |
| Other transportation equipment <br> Other durable goods ${ }^{1}$. |  |
| Nondurable goods .-....................... |  |
|  |  |
|  |  |
|  |  |
| Chemicals and allied products..................................................................................................... |  |
| Petroleum and coal products |  |
| Rubber and plastic products <br> Other nondurable goods ${ }^{2}$ - |  |
|  |  |
| Merchant wholesalers. .-................ |  |
| Durable goods.....-.................................................................................................. |  |
|  |  |
| Groceries and farm products <br> Other nondurable goods. |  |
|  |  |
| Retail trade.....-.-.................................................................................................... |  |
|  |  |
| Automotive dealers. <br> Other durable goods |  |
|  |  |
|  |  |
| Food stores <br> Other nondurable goods. |  |
|  |  |

[Ratio, based on 1972 dollars]

| 1978 |  |  |  | 1979 |
| :---: | :---: | :---: | :---: | :---: |
| I | II | III | IV $\cdot$ | I |
| 1.58 | 1.54 | 1.55 | 1.52 | 1.54 |
| 1.79 | 1.76 | 1.77 | 1.73 | 1.73 |
| 2.15 <br> 2.58 <br> 2 | 2.10 2.50 | 2.12 <br> 2.46 | 2.05 2.32 | 2.05 2.23 |
| 2.39 | 2.33 | 2.38 | 2. 29 | 2.24 |
| 2.72 | 2.66 | 2.64 | 2.59 | 2.60 |
| 2.15 | 2. 17 | 2. 16 | 2.10 | 2.08 |
| 3. 29 | 3.28 | 3. 20 | 3.37 | 3. 16 |
| 1.85 | 1.79 | 1.84 | 1.80 | 1.89 |
| 1.36 | 1.34 | 1.35 | 1.33 | 1.33 |
| 1. 1.23 | 1.22 | ${ }_{1.41}^{1.23}$ | 1.21 1.39 | 1.24 1.36 |
| 1.37 | 1.37 | 1.37 | 1.36 | 1.33 |
| 1.38 | 1.37 | 1. 46 | 1. 39 | 1.32 |
| 1.14 | 1.07 | 1.04 | 1.04 | . 99 |
| 1.48 | 1.48 | 1. 44 | 1.44 | 1.36 |
| 1.55 | 1.50 | 1.51 | 1.52 | 1.53 |
| 1.35 | 1.30 | 1.29 | 1.30 | 1.36 |
| 1.84 | 1.79 | 1.78 | 1.78 | 1.82 |
| . 89 | . 85 | . 84 | . 85 | . 92 |
| 1.23 | 1.17 | 1.17 | 1.20 | 1.29 |
| 1.40 | 1.38 | 1.38 | 1.36 | 1.37 |
| 1.85 | 1.73 | 1.70 | 1.65 | 1.69 |
| ${ }_{2}^{1.62}$ | 1.52 2.03 | ${ }_{1}^{1.51}$ | 1.54 1.80 | 1.55 |
|  |  |  |  |  |
| ${ }^{1.69}$ | 1.19 | 1. 21 | 1.19 .71 | 1.19 |
| 1.39 | 1.40 | 1.43 | 1.40 | 1. 40 |

product produced by the establishment holding inventories; constant dollar inventories in table 16 of the national income and product tables include, in addition to the industries shown here, nonmerchant wholesalers, other nonfarm industries, and farms.
Table 4: The weighted I-S ratios shown in this table were obtained by weighting detailed industry I-S ratios with 1972 sales. Additional industrial detail was used than is shown in wholesalers, 20 categories of business, and for retail trade, 8 .

THE STATISTICS here update series published in the 1975 edition of Business Statistics, biennial statistical supplement to the Survey of Current Business. That volume (available from the Superintendent of Documents for $\$ 6.80$ ) provides a description of each series, references to sources of earlier figures, and historical data as follows: For all series, monthly or quarterly, 1971 through 1974 (1964-74 for major quarterly series), annually, 1947-74; for selected series, monthly or quarterly, 1947-74 (where available). Series added or significantly revised after the 1975 Business Statistics went to press are indicated by an asterisk (*) and a dagger ( $\dagger$ ), respectively. Unless otherwise noted, revised monthly data for periods not shown herein corresponding to revised annual data are available upon request.

The sources of the data are given in the 1975 edition of Business Statistics; they appear in the main descriptive note for each series, and are also listed alphabetically on pages 187-88. Statistics originating in Government agencies are not copyrighted and may be reprinted freely. Data from private sources are provided through the courtesy of the compilers, and are subject to their copyrights.

| Unless other wise stated in footnotes below, data through 1974 and descriptive notes are as sho wn in the 1975 edition of BUSINESS STATISTICS | 1976 | 1977 | 1978 | 1976 |  |  |  | 1977 |  |  |  | 1978 |  |  |  | 1979 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual total |  |  | I | II | III | IV | I | II | III | IV | I | II | III | IV | I ${ }^{\text {r }}$ |
|  |  |  |  | Seasonally adjusted quarterly totals at annual rates |  |  |  |  |  |  |  |  |  |  |  |  |

## GENERAL BUSINESS INDICATORS—Quarterly Series

| NATIONAL INCOME AND PRODUCT $\dagger$ <br> Gross national product, total $\dagger$ $\qquad$ _bil.\$.. | 1,700.1 | 1,887.2 | 2,107.6 | 1,649.7 | 1,685. 4 | 1,715. 6 | 1,749.8 | 1,806.8 | 1,867.0 | 1,916.8 | 1,958.1 | 1,992.0 | 2,087.5 | 2,136.1 | 2, 214.8 | 2,264. 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personal consumption expenditures, total..do | 1,090.2 | 1,206. 5 | 1,340.1 | 1,053.8 | 1,075.1 | 1,098.4 | 1,133.7 | 1,167.7 | 1,188.6 | 1,214.5 | 1,255.2 | 1,276.7 | 1,322.9 | 1,356.9 | 1,403.9 | 1,440.4 |
| Durable goods, total 9 | 156. 6 | 178.4 815 81 | $\begin{array}{r}197.5 \\ 89 \\ \hline\end{array}$ | $\begin{array}{r}152.2 \\ 67 \\ \hline\end{array}$ | 154.7 69 | 156.7 | 1628 | ${ }^{173.2}$ | 175.6 | 177.4 79 | ${ }^{187.2}$ | 183.5 | 197.8 98 | 199.5 89 89 | 209.1 92.6 | ${ }^{211.4}$ |
| Motor vehicles and par Furniture and househo | 69.7 63.9 | 81.5 71.3 | 89.7 77.7 | 67.7 61.9 | 69.1 63.0 | 69.5 64.2 | 72.6 66.5 | 81.3 68.0 | 81.2 69.9 | 79.5 72.0 | 84.0 75.3 | 84.1 | 92.5 76.5 | 89.8 78.9 | $\begin{aligned} & 92.6 \\ & 83.2 \end{aligned}$ | 96.2 82.5 |
| Nondurable goods | 442.6 | 479.0 | 526.5 | 430.3 | 437.4 | 444.5 | 458.3 | 465.9 | 473.6 | 479.7 | 496.9 | 501.4 | 519.3 | 531.7 | 553.4 | 567.9 |
| Clothing a | 75.7 | 81.5 | 89.0 | 73.8 | 74.2 | 76.1 | 78.5 | 78.5 | 79.3 | 81.4 | 86.7 | 82.9 | 87.5 | 90.5 | 95.3 | 93.6 |
| Food. | 225.8 | 245.2 | 269.4 | 219.4 | 223.9 | 227.4 | 232.3 | 237.5 | 244.5 | 246.4 | 252.6 | 257.7 | 267.8 | 272.0 | 279.9 | 289.7 59.6 |
| Gasoline and | 42.8 | 46.5 | 51.2 | 41.4 | 41.9 | 43.0 | 45.1 | 46.1 | 46.2 | 46.0 | 47.5 | 48.3 | 49.1 | 51.5 | 55.8 | 59.6 |
| Services, total $\%$ | 491.0 | 549.2 | 641.4 | 471.3 | 483.0 | 497.2 | 512.6 | 528.6 | 539.4 | 557.5 | 571.1 | 591.8 | 605.8 | 625.8 | 641.4 | 661.0 |
| Houshold ope | 72.8 | 81.6 | 91.3 | 69.3 | 70.2 | 73.5 | 78.2 | 80.2 | 78.0 | 83.7 18.9 | ${ }^{84.6}$ | 89.6 |  |  |  |  |
| $\xrightarrow[\text { Housing. }]{\text { Transport }}$ | 166.4 37.9 | 184.6 44.2 | 207.3 52.6 | 160.2 36.0 | 164.7 37.0 | 168.2 38.7 | 172.3 39.8 | 177.3 40.8 | 182.1 43.5 | 186.9 45.0 | 192.0 47.3 | ${ }^{198.1} 4$ | 204.1 52.1 | 210.1 53.7 | 217.0 55.0 | 222.4 56.5 |
| Gross private domestic in | 243.0 | 297.8 | 345.6 | 231.5 | 243.5 | 249.9 | 247.1 | 272.5 | 295.6 | 309.7 | 313.5 | 322.7 | 345.4 | 350.1 | 364.0 | 371.1 |
| Fixed investment......................... do | 232.8 | 282.3 | 329.6 | 220.1 | 228.1 | 235.3 | 247.6 | 262.2 | 278.6 | 287.8 | 300.5 | 306.0 | 325.3 | 336.5 | 350.5 | 354.5 |
| Nonresidential.----.......-.............- do | 164.6 | 190.4 | 222.6 | 157.7 | ${ }^{162.2}$ | 168.1 | 170.5 | 180.6 | 187.2 | 193.5 | 200.3 | 205.6 |  |  |  |  |
| Structures, | 57.3 107.3 | 163.9 126.5 | 77.8 144.8 | 56.4 101.3 | 57.6 104.6 | 57.3 110.8 | 57.9 112.6 | 59.3 121.4 | 63.4 123.8 | 65.4 128.1 | 67.4 132.8 | 68.5 137.1 | 76.6 143.5 | 80.9 146.6 | 85.1 152.0 | 85.2 158.9 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Change in business inventories | 68.2 | ${ }^{915} 9$ | 107.0 | 62.4 11.4 | $\begin{array}{r}65.9 \\ 15.4 \\ \hline 1\end{array}$ | 67.3 14.5 | 77.1 -6 | 81.6 10.3 | 91.4 17.0 | 94.3 21.9 | 100.2 | ${ }_{16}^{10.3}$ | 20.1 | ${ }_{13.6}^{109.0}$ | 13.5 | ${ }_{16.6}$ |
| Change in busines Nonfarm | 12.2 | 15.6 15.0 | 16.0 16.7 | 12.4 | 15.4 18.8 | 14.5 15.2 | -2. 2.1 | 11.1 | 17.0 16.5 | 21.9 22.0 | 13.1 10.4 | 16.7 16.9 | 22.1 | 14.6 14.6 | 13.4 | 16.8 17.8 |
| Net exports of goods and services...........do | 7.4 | -11.1 | -12.0 | 10.4 | 9.7 | 6.9 | 2.8 | -8. 5 | -5.9 | -7.0 | -23.2 | $-24.1$ | $-5.5$ | -10.7 | -7.6 | $-5.3$ |
| Exports. | 163.2 | 175.5 | 204.8 | 154.4 | 160.7 | 168.2 | 169.4 | 170.9 | 178.1 | 180.8 | 172.1 | 181.7 2058 | 205.4 210.9 | 210.1 220.8 |  | ${ }_{239.0}^{233.8}$ |
|  | 155.7 | 186.6 | 216.8 | 144.1 | 150.9 | 161.3 | 166.6 | 179.4 | 184.0 | 187.8 | 195.2 | 205.8 | 210.9 | 220.8 | 229.5 | 239.0 |
| Govt. purchases of goods and services, total do | 359.5 | 394.0 | 433.9 | 354.0 | 357.2 | 360.4 | 366.3 | 375.0 | 388.8 | 399.5 | 412.5 | 416.7 | 424.7 | 439.8 | 454.5 | 458.5 |
| Federal | 129.9 | 145.1 | 153.8 | 127.1 | 127.8 | 129.9 | 134.6 | 138.3 | 142.9 | 146.8 | 152.2 | 151.5 | 147.2 | 154.0 |  | 164.5 |
| National defe | 86.8 | 94.3 | 99.5 | 85.9 | 85.6 | 86.5 | 89.1 | 91.9 | 93.7 | 94.4 | 97.1 | 97.9 | 98.6 | 99.6 | ${ }_{292} 10$ | 103.9 |
| State and local | 229.6 | 248.9 | 280.2 | 226.9 | 229.4 | 230.5 | 231.7 | 236.7 | 245.9 | 252.7 | 260.3 | 265.2 | 277.6 | 285.8 | 292.0 | 294.0 |
| By major type of product: $\dagger$ <br> Final sales, total. | 1,689,9 | 1,871.6 | 2,091.6 | 1,638.3 | 1,670.1 | 1,701.0 |  |  | 1,850.0 | 1,894.9 | 1,945.0 | 1,975.3 |  |  | 2, 201.3 | 2,264.8 |
| Goods, total...................................-do | 760.3 | 832.6 | 918.4 | 741.9 | 1758.0 | 768.1 | 1,772.9 | 1800.2 | -825.8 | 1,844.7 | 1859.6 | ${ }^{861.8}$ | 912.2 | - 927.3 | 972.5 | 1,000.8 |
| Durable | 304. 6 | 341.3 | 376.8 | 288.6 | 301.8 | 312.4 | 315.6 | 332.2 | 339.1 | 346.5 | 347.4 | 351.2 | 375.8 | 380.1 | 400.1 | ${ }^{426.0}$ |
| Nondurable goo | 455.7 | 491.3 | 541.7 | 453.4 | 456.2 | 455.7 | 457.3 | 468.0 | ${ }^{486.7}$ | 498.2 | 512.2 | 510.6 | 536.4 | 547.2 | 572.4 | 574.8 |
| Services | 778.0 | ${ }^{862.8}$ | 962.5 | 749.7 | 766.9 160.5 | 787.1 | 808.1 | 8838.3 | 8 | 875.3 | 893.6 | 926.4 | 952.0 | ${ }_{235.0}^{97.7}$ | 294.7 | , 238.9 |
| Structur | 161.9 | 191.8 | 226.7 | 158.1 | 160.5 | 160.3 | 168.7 | 174.3 | 191.3 | 196.8 | 204.9 | 203.8 | 223.4 | 235.0 | 244.7 | 238.1 |
| Change in business inventories........... do | 10.2 | 15.6 | 16.0 | 11.4 | 15.4 | 14.5 | -. 6 | 10.3 | 17.0 | 21.9 | 13.1 | 16.7 | 20.1 | 13.6 | 13.5 | 16.6 |
|  | 5.3 | ${ }^{2}$ | 11.7 | 11.3 | ${ }_{8.5}^{6.5}$ |  | -5.2 | 6.1 | 9. ${ }^{1}$ | 11.9 | ${ }_{6}^{6.3}$ | $\stackrel{14.8}{18}$ | ${ }_{9}^{10.8}$ | 10.2 3.4 | 10.8 2.7 |  |
|  | 4.9 | 2 | 4.3 | 11.3 | 8.9 | 5.3 | $-5.8$ | 4.2 | 7.9 | 10.0 | 6.8 | 1.9 | 9.3 | 3.4 | 2.7 | -3.4 |
| GNP in constant (1972) dollars $\dagger$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gross national product, totalt .................bil. ${ }^{\text {. }}$ | 1,271.0 | 1,332.7 | 1,385.7 | 1,255.5 | 1,268.0 | 1,276.5 | 1,284.0 | 1,306.7 | 1,325.5 | 1,343.9 | 1,354. 5 | 1,354.2 | 1,382.6 | 1,391.4 | 1,414.7 | 1,416.3 |
| Personal consumption expend | 9.4 | 857. | 891 | 806.3 | 14.0 | 820.9 | 836. | 846.6 | 849. | 858. | 876. | 873.5 | 886.3 | 895. | 911. | 12. |
| Durable good | 125.9 | 137.8 | 144.6 | 124.8 | 125.2 | 125.3 | 128.5 | 134.9 | 136.2 | 136.9 | 143.0 | 137.8 | 145.8 | 144.8 | 150.1 | 148.6 |
| Nondurable go | 320.2 | 330.4 | 339.6 | 314.6 | 318.2 | 320.5 | 327.7 | 327.1 | 327.2 | 329.2 | 338.1 | ${ }^{333.3}$ | 336.3 | 340.4 | 348.5 | 345.4 |
| Services.- | 373.2 | 389.5 | 407.4 | 366.9 | 370.6 | 375.1 | 380.0 | 384.6 | 386.0 | 391.8 | 395.6 | 402.4 | 404.2 | 410.0 | 413.1 | 418.6 |
| Gross private domestic investment, total...do | 173.4 | 190.3 | 210. | 168.5 | 174.7 | 177.1 | 173.4 | 186.1 | 197.1 | 201.7 | 200.3 | 205.7 | 213.1 | 210. | 213. | 215.7 |
| Fixed investmen | 166.8 | 187.4 | 200.1 | 161.0 | 164.6 | 167.8 | 173.6 | 180.3 | 187.1 | 189.5 | 192.8 | 193.4 | 200.4 | 201.4 | 205.2 | 204.5 |
| Nonresiden | 118.9 | 129.8 | 140. 2 | 115.5 | 117.8 | 121.0 | 121.4 | 126.8 | 129.1 | 130.8 | 132.5 | ${ }_{59}^{133.8}$ |  |  | 144.9 | $\begin{array}{r}146.8 \\ 57 \\ \hline\end{array}$ |
| Change in business inven | 47.8 6.7 | 57.7 8.9 | 59.8 10.6 | 45.5 7.5 | 46.8 10.1 | 46.8 9.3 | 52.3 -.2 | 53.5 5.8 | 58.0 10.0 | 58.8 12.2 | 60.3 7.5 | 59.5 12.3 | $\begin{aligned} & 59.9 \\ & 12.7 \end{aligned}$ | 59.7 9.0 | $\begin{array}{r} 60.3 \\ 8.2 \end{array}$ | 57.7 11.2 |
| Net exports of goods and services..........-.do | 15.4 | 9.5 | 8.4 | 16.5 | 16.1 | 16.1 | 13.1 | 11.2 | 11.0 | 12. | 3.1 | 2.9 | 11.3 | 9.2 | 10. | 11.7 |
| Govt. purchases of goods and services, total do. | 262.8 | 269.2 | 275.0 | 264.3 | 263.2 | 262.5 |  | 262.8 | 267.9 | 271.7 | 274. 5 | 272.1 | 271.9 | 276.7 | 279.4 | 276.4 |
| Federal - | 96.6 | 101. 6 | 100.3 | 96.2 | 95.9 | 96.8 | 97.5 | 98.7 | 101.3 | 102.9 | 103.6 | 107.2 | 97.1 | 1170.4 | 102.5 | ${ }^{102.0}$ |
| State and local..............-.-............ ${ }^{\text {d }}$ | 166.2 | 167.6 | 174.7 | 168.1 | 167.3 | 165.7 | 163.8 | 164.1 | 166.6 | 168.8 | 170.9 | 170.8 | 174.8 | 176.3 | 176.9 |  |
| $r$ Revised. $\quad$ Preliminary. $\dagger$ Revised series. and personal income have been revised back to 1973 | imates $\text { ee p. } 16$ | of natio fi. of | $\text { July } 19$ | e and pro 7 SURVE | and | p. 36 o | of the Jul | 1978 SU | vex. | \& Incl | ludes da | ritem |  | personal | ome |  |

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| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are asshown in the 1975 edition of BUSINESS STATISTICS | 1976 | 1977 | 1978 | 1976 |  |  | 1977 |  |  |  | 1978 |  |  |  | 1979 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual total |  |  | II | III | IV | I | II | III | IV | I | II | III | IV | I. | II |

## GENERAL BUSINESS INDICATORS—Quarterly Series—Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline NATIONAL INCOME AND PRODUCT \(\dagger-\) Con. Quarterly Data Seasonally Adjusted \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline \begin{tabular}{l}
Implicit price deflators: \(\dagger\) \\
Index \(1972=100\)
\end{tabular} \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Gross national product..........Index, \(1972=100\) Personal consumption expenditures...... do.... \& 133.76
133.1 \& 141.61
140.7 \& res \({ }^{152.09}\) \& 132.92
132.1 \& \({ }_{133.8}^{134.3 ¢}\) \& 136.28
135.6 \& \(\begin{array}{r}138.27 \\ 137.9 \\ \hline\end{array}\) \& 140.86
139.9 \& \({ }_{142.63}^{142.6}\) \& 144.56
143.2 \& 147.10
146.2 \& 150.98
149.3 \& 153.52
151.6 \& 156.56
154.0 \& 159.91
157.9 \& \\
\hline Durable goods.........................-do \& 124.4 \& 129.5 \& 136.5 \& 123.6 \& 125. 6 \& 126.8 \& 128.4 \& 128.9 \& 129.5 \& 130.9 \& 133.1 \& 135.7 \& 137.3 \& 139.3 \& 142.2 \& \\
\hline Nondurable good \& \({ }_{131.6}^{138.2}\) \& 145.0
141.0 \& 155 \& 137.4
130.4 \& \({ }_{132.5}^{138.7}\) \& 139.9
134.9 \& 132.4 \& 134.7 \& 145.7 \& 144.4 \& 150.4 \& 154.4
149.9 \&  \& \({ }_{155.2}^{158.8}\) \& \({ }_{164.4}^{164}\) \& \\
\hline Gross private domestic investment: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& 158.0 \& \\
\hline Fixed investment.......................-d \& 139.6 \& 150.6 \& 164.7 \& 138.5 \& 140.3 \& 142.6 \& 145.4 \& 148.9 \& 151.9 \& 155.9 \& 158.2 \& 162.2 \& 167.1 \& 170.8 \& 173.3 \& \\
\hline Nonresidential... \& 138.4
142.5 \& 1659.7
19.4 \& 178.8
178.8 \& 137.7
140.7 \& 138.9 \& 140.5
147.6 \& 142.5 \& 145.0
157.6 \& 147.9
160.6 \& 15151.2 \& 153.6
168.6 \& 156.7
175.7 \& 160.6
182.6 \& 163.7
188.2 \& 166.3
185.9 \& \\
\hline Govt purchases of coods and servic \& 136.8 \& 146.3 \& 157.8 \& 135.7 \& 7.3 \& 140.2 \& 142.7 \& 145.1 \& 47.1 \& 50.3 \& 153.2 \& \& \& \& \& \\
\hline Federal \& \& \& 153.3 \& 133.3 \& 134.2 \& 138.0 \& 140.1 \& 141.1 \& 142.7 \& 146.9 \& 149. \& 151 \& 153.4 \& 162.7
158.5 \& 165.9 \& \\
\hline State and \& 138.1 \& 148.5 \& 160.4 \& 137.1 \& 139.1 \& 141.5 \& 144.3 \& 147.6 \& 149.7 \& 152.3 \& 155.2 \& 158.8 \& 162.1 \& 165.1 \& 168.5 \& \\
\hline Quarterly Data Seasonally Adjusted at Annual Rates \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline National income, totalt.-.....................-bil. \$.. \& 1,359.2 \& 1,515.3 \& 1,703.8 \& 1,347.9 \& 1,372.1 \& 1,397.0 \& 1,447. 5 \& 1,499.3 \& 1,537.6 \& 1,576.9 \& 1,603.1 \& 1,688.1 \& 1,728.4 \& 1,795.6 \& 1,835.4 \& \\
\hline Compensation of employees, total.........-di \& 1,036.8 \& 1,153.4 \& 1,301.4 \& 1,026.0 \& 1,046. 1 \& 1,073.3 \& 1, 107.9 \& 1, 140.5 \& 1,165. 8 \& 1,199.7 \& 1,241.0 \& 1,287.8 \& 1,317.1 \& 1,359.8 \& 1,406. 8 \& \\
\hline Wages and salaries, total. \& 890.1
187.6 \& 983.6
200.8 \& 1, 101.0 \& 881.5
186,1 \& 897.3 \& 919.9
192.6 \& 946.4
195 \& 197.4
198.1 \& \({ }_{201.7}^{993.6}\) \& 1,021.2 \& 1,050.8 \& 1,090.2 \& 1,113.4 \& \(\begin{array}{r}1,349.4 \\ 222.3 \\ \hline\end{array}\) \& 1,185.2 \& \\
\hline Other................ \& 702.5 \& 782.9 \& 884.8 \& 695.4 \& 709.2 \& 727.2 \& 751.2 \& 775.3 \& 791.9 \& 813.1 \& 839.3 \& 876.3 \& 896.6 \& 927.1 \& \({ }_{960.1}^{251}\) \& \\
\hline Supplements to wages and salaries \& 146.7 \& 169.8 \& 200.5 \& 144.6 \& 148.8 \& 153.4 \& 161.5 \& 167.1 \& 172.2 \& 178.4 \& 180.2 \& 197.6 \& 203.6 \& 210.4 \& 221.5 \& \\
\hline Proprietors' income with inventory valuation and capital consumption adjustments, \& 88.6 \& 99.8 \& 113.2 \& 88.8 \& 87.4 \& 89.5 \& 95.6 \& 98.9 \& 97.2 \& 107.3 \& 105.0 \& 110.1 \& 114.5 \& 123.0 \& 123.6 \& \\
\hline Farm...................................................- \& 18.4 \& 20.2 \& 25.3 \& 19.6 \& 16.9 \& \({ }^{16.3}\) \& 19.4 \& 20.0 \& 16.5 \& 25.1 \& 21.9 \& 24.0 \& 25.0 \& 30.4 \& 30.6 \& \\
\hline Nonfarm-..---.....-.-.-.-.-.-.-.-. do \& 70.2 \& 79.5 \& 87.8 \& 69.3 \& 70.5 \& 73.2 \& 76.1 \& 78.9 \& 80.8 \& 82.3 \& 83.1 \& 86.1 \& 89.6 \& 92.6 \& 93.0 \& \\
\hline Rental income of persons with capital consumption adjustment. \(\qquad\) bil. \& 22.5 \& 22.5 \& 23.4 \& 22.4 \& 22.4 \& 22.8 \& 22.5 \& 22.4 \& 22.4 \& 22.7 \& 22.8 \& 22.2 \& 24.3 \& 24.4 \& 24.7 \& \\
\hline Corp. profits with inventory valuation and capital consumption adjustments, total ... bil. \$. Corp. profits with invent. val. adj.: \& 127.0 \& 144.2 \& 159.5 \& 128.6 \& 130.0 \& 122.5 \& 129.9 \& 143.7 \& 154.8 \& 148.2 \& 132.6 \& 183.4 \& 65. \& 176.6 \& . 0 \& \\
\hline Domestic, total................-.......do. \& 133.2 \& 149.5 \& 167.7 \& 135.4 \& 136.3 \& 128.7 \& 134.8 \& 148.1 \& 159.5 \& 155.6 \& 139.2 \& 168.9 \& 175.4 \& 187.4 \& 75.9 \& \\
\hline Financial. \& 17.5 \& 20.9 \& 25.1 \& 17.0 \& 18.3
118.0 \& 19.1 \& 119.7 \& 19.9
128.1 \& 21.9
137.6 \& 21.9
133.7 \& 22.7
116.6 \& 24.3
144.6 \& \({ }^{26.0} 14.4\) \& 27.6 \& 27.1 \& \\
\hline Nonfinancial, total \({ }^{\text {Manufacturing, }}\) \& \(\begin{array}{r}175.6 \\ \hline 65.6\end{array}\) \& 128.6
74.7 \& 142.6
85.0 \& \({ }_{67}^{18.5}\) \& 65.9 \& 61.9 \& 66.4 \& 77.4 \& 74.7 \& \({ }_{80.2}\) \& 69.8 \& 87.8 \& 87.1 \& 159.8
95.2 \& 148.7 \& \\
\hline Durable goods.... \& 28.1 \& 35.1 \& 43.2 \& 29.7 \& 28.5 \& 26.9 \& 29.9 \& 37.2 \& 34.2 \& 39.1 \& 32.8 \& 46.1 \& 44.6 \& 49.2 \& \& \\
\hline Transportation, communication, and electric, gas, and sanitary serv....bil. \$. \& 13.7 \& 16.1 \& 19.5 \& 14.3 \& 14.9 \& 13.3 \& 15.4 \& 14.5 \& 17.5 \& 17.1 \& 17.3 \& 19.3 \& 20.7 \& 20.8 \& \& \\
\hline Rest of the world.-...................d.d.... \& 8.2 \& 9.6 \& 9.8 \& 7.6 \& 8.2 \& 8.2 \& 9.7 \& 10.4 \& 10.3 \& 7.9 \& 9.4 \& 11.7 \& 9.1 \& 9.1 \& 10.8 \& \\
\hline Profits before tax, total...-...............d. \& 155.9 \& 173.9 \& 202.0 \& 158.7 \& 157.8 \& 154.6 \& 164.8 \& 175.1 \& 177.5 \& 178.3 \& 172.1 \& \({ }^{205.5}\) \& 205.4 \& 224.9 \& 226.9 \& \\
\hline Profits tax liability \& 64.3
91.7 \& 102.1 \& 83.9
118.2 \& 66.3
92.4 \& 64.7
93.1 \& 62.4
92.2 \& 68.3
96.5 \& 102.8 \& 72.8
104.8 \& 104.4 \& 70.0
102.1 \& 80.5
120.5 \& 86.2
119.2 \& 94.4
130.5 \& 89.1
137.9 \& \\
\hline Profits after tax Dividends \& 37.9 \& 43.7 \& \({ }_{49.3}\) \& 37.2 \& 38.4 \& \({ }_{41.4}\) \& 41.5 \& 42.7 \& 44.1 \& 46.3 \& 47.0 \& 48.1 \& 50.1 \& 51.9 \& 54.0 \& \\
\hline Undistributed profits \& 53.8 \& 58.4 \& 68.8 \& 55.2 \& 54.7 \& 50.8 \& 55.0 \& 60.1 \& 60.6 \& 58.1 \& 55.1 \& 72.4 \& 69.2 \& 78.6 \& 83.9 \& \\
\hline Inventory valuation adjustment .........do \& -14.5 \& -14.8 \& -24.4 \& -15.7 \& -13.3 \& -17.6 \& \(-20.3\) \& -16.6 \& -7.7 \& -14.8 \& -23.5 \& -24.9 \& -20.9 \& -28.4 \& -40.2 \& \\
\hline Capital consumption adjustment \& -14.4
-84.3 \& -14.9
95.4 \& \(-18.1\) \& -14.4
82.0 \& -14.5
86.2 \& \& -14.6
-91.7 \& \& -15.0
97.3 \& -15.3
99.0 \& \(-16.1\) \& -174.2 \& -19.3
107.4 \& \(-111.9\) \& \(-20.7\) \& \\
\hline Net interest.......................-.......-.d \& 84.3 \& 95.4 \& 106.3 \& 82.0 \& 86.2 \& 88.9 \& 91.7 \& 93.7 \& 97.3 \& 99.0 \& 101.7 \& \& 107.4 \& 111.4 \& 114.5 \& \\
\hline DISPOSITION OF PERSONAL INCOME \(\dagger\) \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Personal income, total-....-....-...........- bil. \$.- \& 1,380.9 \& 1,529.0 \& 1,708.0 \& 1, 363.2 \& 1,392.8 \& 1,430.5 \& 1,470.7 \& 1,508.6 \& 1,543.7 \& 1, 593.0 \& 1, 628.9 \& 1,682.4 \& 1,731.7 \& 1,789.0 \& 1, 836.0 \& \\
\hline Less: Personal tax and nontax payments....-do \& 196.5 \& 1226.0 \& 1256.2 \& 192.6 \& 1200.0 \& 209.0 \& 222.7 \& \({ }^{223.3}\) \& 224.6 \& 1.233 .3 \& 237.3 \& \({ }_{1}^{2493.1}\) \& \({ }_{1}^{263.2}\) \& 1275.1 \& 1272.9 \& \\
\hline Equals: Disposable personal income..--.......do \& 1,184.4 \& 1,236.1 \& \(1,451.8\) \& 1,100.7 \& 1,1924.8 \& 1, \(1,221.5\) \& 1, 195.8 \& 1,217.8 \& 1,244.8 \& 1,285.9 \& 1,309.2 \& 1,357.0 \& 1,392.5 \& 1,440.9 \& 1,478.3 \& \\
\hline Equals: Personal saving \& 68.0 \& 66.9 \& 76.9 \& 69.9 \& 68.1 \& 60.7 \& 52.2 \& 67.5 \& 74.3 \& 73.7 \& 82.4 \& 76.3 \& 76.0 \& 73.0 \& 84.9 \& \\
\hline NEW PLANT AND EQUIPMENT \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Unadjusted quarterly or annual totals: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline All industries................................il. \$.. \& 120.49
52.48 \& 135.80
60.16 \& 153.82 \& 29.70
12.66 \& 30.41
13.48 \& 34.52
15.38 \& 29. 20 \& 33.73
14.84 \& 34.82
15.60 \& \({ }^{38.06}\) \& 32.35 \& 37.89
16.76 \& 38.67
16.89 \& 44.91
20.30 \& 136.97
15.97 \& + 18.07 \\
\hline Durable goods industriesit.-...............do \& 23.68 \& 27.77 \& 31.66 \& 5.61 \& 6. 02 \& 7.27 \& 5. 80 \& 6.79 \& 7.17 \& 8.80 \& 6.36 \& 7.79 \& 7.97 \& 9. 53 \& 7.57 \& 9.20 \\
\hline Nondurable gcods industriest...-........do. \& 28.81 \& 32.39 \& 35.96 \& 7.05 \& 7. 46 \& 8.12 \& 6. 72 \& 8.06 \& 8.43 \& 9.18 \& 7.31 \& 8.97 \& 8.92 \& 10.77 \& 8.40 \& 9.72 \\
\hline  \& 68.01 \& 75. 64 \& 86.19 \& 17.04 \& 16. 93 \& 19.14 \& 16.68 \& 18.88 \& 19.21 \& 20.87 \& 18.68 \& 21.13 \& 21.78 \& 24.61 \& 21. 00 \& 23. 16 \\
\hline Mining \& 4.00
2.52 \& 4. 50
2.80 \& \begin{tabular}{l} 
4. 78 \\
3.32 \\
\hline
\end{tabular} \& . 99 \& 1.04 \& 1.14
.70 \& \(\begin{array}{r}1.02 \\ .59 \\ \hline\end{array}\) \& 1.16

.67 \& 1.17
.78 \& $\begin{array}{r}1.15 \\ \hline 8 \\ \hline 8\end{array}$ \& 1.07
.71 \& 1.22

.83 \& | 1.24 |
| :--- |
| .84 |
| 8 | \& $\begin{array}{r}1.26 \\ \\ \hline 194\end{array}$ \& 1.28

.80 \& 1.23
.83 <br>
\hline  \& 1.30 \& 1.62 \& 3.32
2.30 \& .42 \& .26 \& . 35 \& . 33 \& .43 \& . 39 \& .46 \& . 52 \& . 60 \& .54 \& . 64 \& :64 \& . 68 <br>
\hline Other transportation--.-.-.-.-...............d. ${ }^{\text {do }}$ \& 3.63 \& 2.51 \& 2.43 \& 1.02 \& . 95 \& . 94 \& . 61 \& . 76 \& . 50 \& . 83 \& .51 \& . 60 \& . 62 \& . 71 \& . 62 \& . 77 <br>
\hline Public \& 22.28 \& 25.80 \& \& 5.50 \& 5.52 \& 6. 46 \& 5.55 \& 6.37 \& 6.61 \& 7.28 \& 6.15 \& 7.14 \& 7.43 \& 8.78 \& 7.12 \& 8.00 <br>
\hline Electri \& 18.80 \& 21.59 \& 24.79 \& 4.74 \& 4.54 \& 5.34 \& 4.78 \& 5.34 \& 5.41 \& 6.06 \& 5. 27 \& 6. 01 \& 6. 11 \& 7.40 \& 6. 16 \& 6. 78 <br>
\hline Gas and other \& 3.47 \& 4.21 \& 4.70 \& ${ }^{.76}$ \& - ${ }^{\text {. }} 338$ \& ${ }_{3}^{1.12}$ \& .77
3 \& 1.03 \& 1.20 \& ${ }_{4}^{1.21}$ \& - 88 \& 1. 13 \& 1.32 \& 1.37 \& . 97 \& 1.22 <br>
\hline Communication-t-...............- do \& 13.30
20.99 \& 15.45
22.97 \& ${ }_{25.71}^{18.16}$ \& 3.21
5.21 \& 3.
5
5.19 \& 5.78 \& 3.30
5.27 \& 3.
5.64 \& 5.73 \& ${ }_{6.33}$ \& 3.
5. 76 \& 4.56
6.18 \& 4.68
$\mathbf{6 . 4 3}$ \& 4.
7 \& 210.53 \& 21.63 <br>
\hline Seas. adj. qtrly. totals at annual rates: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline All industries. \& \& \& \& 118.12 \& 122.55 \& 125.22 \& 130.16 \& 134.24 \& 140.38 \& 138.11 \& 144.25 \& 150.76 \& 155.41 \& 163. 96 \& 164.23 \& 167.52 <br>
\hline Manufacturin \& \& \& \& 50.64 \& 54.78 \& 54. 54 \& 56. 43 \& 59.46 \& 63.02 \& 61.41 \& 61. 57 \& 67.20 \& 67.75 \& 73.24 \& 71.97 \& 75.90 <br>
\hline Durable goods industriest--.-------- do \& \& \& \& 22.54 \& 24.59
30.20 \& ${ }^{25.50}$ \& 26.30
30.13 \& 27.26 \& 29.23
33.79 \& 28.19 \& ${ }_{3}^{28.72}$ \& 31.40 \& 32.25 \& ${ }^{33} .99$ \& 34.18 \& 37.09
38.81 <br>
\hline Nondurable goods industriesT........... do \& \& \& \& 28.09 \& 30.20 \& 28.93 \& 30.13 \& 32.19 \& 33.79 \& 33.22 \& 32.86 \& 35.80 \& 35. 50 \& 39.26 \& 37.78 \& 38.81 <br>
\hline Nonmanufacturing-..-.-.................-do \& \& \& \& 67. 48 \& 67.76 \& $\begin{array}{r}70.78 \\ 48 \\ \hline 13\end{array}$ \& 73.74 \& 74.78
4.79 \& 77. 36 \& 76.70
4.50 \& 82. 68 \& 83. 56 \& 87. 66 \& 90.71 \& ${ }^{92.26}$ \& 91. 62 <br>
\hline Mining \& \& \& \&  \& 4.21
2.69 \& ${ }_{2.63}^{4.13}$ \& 4.24
2.71 \& 4.49
2.57 \& 4.74
3.20 \& 4. 50
2.80 \& 4. 45
3.35 \& 4. 81

3.09 \& | 4. 99 |
| :--- |
| 3.38 | \& 4.98

3.49 \& 5. 35
3. 77 \& 4.89
3.11 <br>
\hline Air transportation. \& \& \& \& 1.44 \& 1.12 \& 1.41 \& 1.62 \& 1.43 \& 1.69 \& 1.76 \& 2.67 \& 2.08 \& 2.20 \& 2. 39 \& 3.28 \& 2.36 <br>
\hline Other transportation \& \& \& \& 4.16 \& 3.44 \& 3.49 \& 2.96 \& 2.96 \& 1.96 \& 2.32 \& 2. 44 \& 2.23 \& 2.47 \& 2.55 \& 3.01 \& 2.89 <br>
\hline Public utilities...........................-d \& \& \& \& 21.85 \& 21.67 \& 23.46 \& 25.35 \& 25.29 \& 28.22 \& ${ }^{26.23}$ \& 27.92 \& 28.46 \& 29.62 \& 31.73 \& 32.30 \& 31.91 <br>
\hline C \& \& \& \& 18.82 \& 18. 22 \& 19.49 \& 21.19 \& 21.14 \& 21.90 \& 22.05 \& 23.15 \& 23. 83 \& 24.92 \& 26. 95 \& 27. 06 \& 26.92 <br>
\hline Gas and ot \& \& \& \& 3.03 \& $\begin{array}{r}\text { 3. } \\ \text { 13. } 64 \\ \hline\end{array}$ \& $\begin{array}{r}3.96 \\ 14.30 \\ \hline\end{array}$ \& 4.16
14.19 \& +4.16 \& 4.32 \& 4.18
15.82 \& 4.78
17.07 \& 4.62
18.18 \& 4.70 \& 4.78
18.46 \& 5. 24 \& 4.98 <br>
\hline Commercial and oth \& \& \& \& 20.94 \& 20.99 \& 21.36 \& 22.67 \& 22.73 \& 23.14 \& 23.27 \& 24.76 \& 24.71 \& 26.09 \& 27.12 \& 4.5 \& 4.4 <br>
\hline
\end{tabular}

${ }^{r}$ Revised. ${ }^{p}$ Preliminary ${ }^{1}$ Estimates (corrected for systematic biases) for Jan.Mar. 1979 and Apr.-June 1979 based on expected capital expenditures of business. Expected expenditures for the year 1979 appear on p. 26 or the Mar. 1979 SURVEY. 2 Includes com
 separately. $\oplus$ Personal outlays comprise personal consumption expenditures, interest paid
by consumers to business, and personal transfer payments to foreigners (net).
PPersonal saving is excess of disposable income over personal outlays.
Data for individual durable and nondurable goods industries components appear in the Mar., June, Sept., and Dec. issues of the Surver.

| Uldess otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1976 | 1977 | 1978 ${ }^{\text {b }}$ | 1976 |  |  |  | 1977 |  |  |  | 1978 ${ }^{\text {p }}$ |  |  |  | 1979 p |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual total |  |  | I | II | III | IV | I | II | III | IV | I | II | III | IV | I |

GENERAL BUSINESS INDICATORS—Quarterly Series—Continued

| U.S. INTERNATIONAL TRANSACTIONS <br> Quarterly Data Are Seasonally Adjusted (Credits +; debits -) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exports of goods and services (excl. transfers under military grants) $\qquad$ mil. 8 | 171, 274 | 183, 205 | 218, 024 | 40,375 | 42,449 | 44, 160 | 44, 291 | 44,775 | 46, 507 | 46,700 | 45,226 | 48, 355 | 54, 175 | 55,595 | 59,900 |  |
| Merchandise, adjusted, excl. military......do.... | 114, 694 | 120, 576 | 141, 844 | 27,001 | 28,380 | 29,602 | 29,711 | 29,501 | 30,860 | 30,578 | 29,637 | 30,787 | 35, 256 | 36,486 | 39,315 | 41,161 |
| tracts...........-.......................-mil. $\$$ | 5,213 | 7,079 | 7,710 | 1,095 |  | 1,472 | 1,457 | 1,912 | 1,702 | 1,918 | 1,547 | 1,842 | 2,217 | 1,889 | 1,761 |  |
| Receipts of income on U.S. assets abroad .-.do. | 29, 244 | 32, $\begin{array}{r}3,100 \\ 23\end{array}$ | -41,514 | 7,027 | 1,186 5,511 | 7,428 5,658 | 7,420 5,703 | 7,796 5,566 | 1,088 5,857 | 8, 220 5,984 | 7,997 6,045 | 1,392 6,334 | $\underset{6,689}{10,013}$ | 10,322 | 11,787 7,037 |  |
| Other services. .-.........................do. | 22,124 | 23,451 | 26,957 | 5,252 | 5,511 | 5,658 | 5,703 | 5,566 | 5,857 | 5,984 | 6,045 | 6,334 | 6,689 | 6,898 | 7,037 |  |
| I mports of goods and services ................ do | -161, | 193, | -228,909 | -37,644 | -39, 268 | -41,933 | -43, 068 | -46,999 | -48, 088 | -48,405 | -50,298 | -54, 657 | -56, 18 | -58,031 | -60,038 |  |
| Merchandise, adjusted, excl military -......do | -124,047 | $-151,706$ $-5,745$ | -175,988 | - 28,352 | - 29,963 | -32,418 | -33, 314 | ${ }_{-1,344}^{-37,120}$ | -37,635 | ${ }^{-37,942}$ | -39,009 | -42,707 | - ${ }^{-13,125}$ | -44,478 | -45, 678 | $-47,385$ |
| Direct defense expenditures............-do | -4,901 | -5,745 | -7,179 | -1,159 | -1,219 | -1,235 | -1,288 | -1,344 | $-1,407$ | -1,451 | -1,542 | -1,632 | ${ }^{-1,773}$ | -1,877 | -1,897 |  |
| Other services......................................................... | $\begin{array}{\|} \mid 13,311 \\ -19,655 \end{array}$ | -14,593 | $\left\lvert\, \begin{aligned} & -21,599 \\ & -24,143 \end{aligned}\right.$ | - $-3,405$ | $\begin{aligned} & -3,332 \\ & -4,754 \end{aligned}$ | -3, $\begin{aligned} & -4,983 \\ & -4,98\end{aligned}$ | $\underline{-3,281}$ | - ${ }_{-5,197}$ | -3,601 | $\left\lvert\, \begin{aligned} & -3,610 \\ & -5,401 \end{aligned}\right.$ | $\begin{aligned} & -4,185 \\ & -5,563 \end{aligned}$ | $\left\lvert\, \begin{aligned} & -4,515 \\ & -5,802 \end{aligned}\right.$ | $\begin{aligned} & -5,432 \\ & -5,854 \end{aligned}$ | $\left\|\begin{array}{c} -5,444 \\ -6,232 \end{array}\right\|$ | $\begin{aligned} & -6,207 \\ & -6,256 \end{aligned}$ |  |
| Unilateral transfers (excl. military grants), net mil. \$.- | -5,022 | $-4,708$ | -5,076 | -1,028 | -1,040 | -1,908 | -1,047 | -1,126 | -1,243 | -1,277 | -1,064 | -1,282 | -1,317 | -1,275 | -1,204 |  |
|  | -3,145 | -2,776 | -3, 028 | -546 | -592 | -1,440 | $-567$ | -636 | ${ }_{-763}$ | -787 | -591 |  | -781 | -779 | -691 |  |
| other. $\qquad$ | -1,878 | -1,932 | -2,048 | 482 | 448 | -468 | -480 | -490 | -480 | -490 | -473 | -15,067 | -536 | -10,216 | -513 |  |
| U.S. assets abroad, net........................ do | -50,608 | -34,650 | -58,748 | -12,365 | -11,740 | -10,269 | -16, 235 | -1,334 | -12,003 | -6,615 | -14,700 |  |  |  |  |  |
| U.S. official reserve, net...-...............do | -2,530 | -231 |  | -773 | -1,578 | -407 |  |  |  | 151 | ${ }^{(2)}$ | 246 | 329 | 115 | 182 |  |
| U.S. Gov't, other than official reserve, net... do US. private, net | -4,213 | $-3,679$ $-30,740$ | -4,657 | -762 $-10,830$ | - $\begin{array}{r}\text { - } \\ -932 \\ -2,20\end{array}$ | -1,340 | $-1,180$ $-15,283$ | -949 | ${ }_{-11,214}^{795}$ | - ${ }^{-1,098}$ | -13,862 | - -896 | -1,176 | -1, 198 | $-1,086$ $-26,394$ |  |
| Direct investment abroad | -11,614 | -12,215 | -15,361 | $\left\lvert\, \begin{aligned} & -10,820 \\ & -3,923 \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & -9,230 \\ & -2,047 \end{aligned}\right.$ | -3,081 | - ${ }^{-15,563}$ | $-2,177$ | $\left\lvert\, \begin{aligned} & -11,214 \\ & -3,729\end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & -5,668 \\ & -3,113 \end{aligned}\right.$ | - $\mid$-13,867 | -14,417 | $\left\lvert\, \begin{aligned} & -5,320 \\ & -3,981 \end{aligned}\right.$ | -8,708 | -3,697 |  |
| Foreign assets in the U.S., net. ...............do | 36,969 | 50,869 | 63,260 | 7.590 | 7,914 | 8,932 | 12,534 | 2,490 | 14,064 | 14, 251 | 20,065 | 18,095 | 406 | 15,489 | 29,270 |  |
| Foreign official, ne | 18,073 | 37,124 | ${ }^{33,967}$ | 3, 819 | 4,017 | 3,070 | 7, 166 | 6,451 | 7,884 | 8,246 | 15,543 | 15,760 | $-5,685$ | 4,852 | 19,040 |  |
| Other foreign, net--- ${ }^{\text {direct investment in the }}$ U. | 18,897 4,347 | 13,746 3,338 | 29,293 5,611 | 3,771 1,472 | 3,897 1,086 | 5, ${ }_{999}$ | 5,367 790 | -2,962 | $\begin{array}{r}\text { 6, } 189 \\ \hline 96\end{array}$ | 6,005 1,012 | 4,522 450 | 2, 313 | 6,090 1,852 | 10,637 2,206 | $\begin{array}{r} 10,230 \\ 741 \end{array}$ |  |
| Allocations of special drawing rights.........do. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Statistical discrepancy .........................do | 9,300 | -927 | 11, 449 | 3,073 | 1,685 | 1,018 | 3,525 | 2,194 | 763 | -4,655 | 771 | 4,555 | 9,087 | -1,562 | -630 |  |
| Memoranda |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Balance on merchandise trade . .-.............do. | -9,353 | -31, 130 | -34,144 | -1,351 | -1,583 | -2,816 | -3,603 | -7,619 | -6,775 | -7,364 | -9,372 | -11,920 | -7,869 | -7, 992 | -6, 363 | -6,224 |
| Balance on goods and servicts | 9,361 | -10,585 | -10,885 | 2,731 | 3,181 | 2,227 | 1,223 | -2, 274 | -1,581 | -1,705 | -5,072 | $-6,302$ | -2,009 | -2,436 | $-138$ |  |
| Balance on goods, services, and remittances.-do Balanee on current account | 7,483 4,339 | $-12,516$ $-15,292$ | -12,933 <br> $-15,961$ | 2,249 1,703 | 2,733 2,141 | 1,759 319 | 743 176 | $\xrightarrow{-2,714}$ | $-2,061$ $-2,824$ | -2,195 | -5,545 | -6,806 | $\left\lvert\, \begin{aligned} & -2,545 \\ & -3,326 .\end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & -2,932 \\ & -3,711\end{aligned}\right.$ | -1,342 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1977 | 1978 |  |  |  |  |  | 978 |  |  |  |  |  |  | 79 |  |
|  |  | nual | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nor. | Dec. | Jan. | Feb. | Mar. | Apr. |

GENERAL BUSINESS INDICATORS—Monthly Series

${ }^{r}$ Revised. $\quad$ Preliminary. ${ }_{2}$ Reported annual total; revisions are not reflected in the cludes inventory valuation and capital consumption adjustmang note on $\rho$. S-1. $\Delta \mathrm{In}^{2}$
ning 1973; revisions for periods prior to May 1976 are available from the U.S. Dept. of Agr., EIncludes data for items not shown separately.

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. ${ }^{\text {p }}$ | Apr. ${ }^{1}$ |

GENERAL BUSINESS INDICATORS—Continued

| INDUSTRIAL PRODUCTION ${ }^{\circ}$ <br> Federal Reserve Board Index of Quantity Output <br> Not Seasonally Adjusted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total index................................. $1967=100$. | 137.1 | 145.2 | 141.4 | 144.2 | 144.2 | 148.8 | 141.9 | 146.9 | 152.0 | 152.6 | 149.7 | 146.0 | r 146.1 | r 151.1 | 152.7 | 151.5 |
| By market groupings: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Products, total.................................do...- | 137.1 134.9 | 144.3 141.4 | 141.0 138.6 | 143.2 | 142.1 | 148.2 | 141.7 | 147.0 | 153.3 150.6 | 152.4 | 147.9 144.5 | 142.6 | r 143.7 r 141.3 | 148.9 146.2 | 150.1 | 148.9 |
|  | 143.4 | 147.4 | 145.3 | 148.4 | 145.2 | 152.1 | 142.5 | 149.7 | 158.4 | 156.8 | 149.0 | 141.0 | r 144.8 | 150.3 | 151.4 | 149.3 |
|  | 153.1 | 158.9 | 162.4 | 169.7 | 163.7 | 167.6 | 143.9 | 146.7 | 166.1 | 173.7 | 164.2 | 150.0 | 154.9 | 166.5 | 169.8 | 159.7 |
| Nond urable consumer goods.-.-.-.......do | 139.6 | 142.8 | 138.4 | 140.0 | 137.7 | 146.9 | 142.0 | 150.9 | 155.3 | 150.1 | 142.9 | 137.5 | ${ }^{r} 140.8$ | 143.8 | 144.1 | 145.2 |
| Equipment................................. do | 123.2 | 133.1 | 129.3 | 130.1 | 130.4 | 135.6 | 132.2 | 134.6 | 139.7 | 139.5 | 138.4 | 137.0 | $\begin{array}{r}+136.5 \\ r \\ r \\ 152 \\ \hline\end{array}$ | 140.6 | 141.6 | 139.6 |
| Intermediate products $\qquad$ do Materials. do | 145.1 136.9 | 155.3 146.5 | 150.3 142.1 | 152.6 146.1 | 153.8 147.0 | 159.9 149.7 | 154.8 | 160.3 146.8 | 163.4 149.8 | 163.1 | 160.6 152.7 | 154.5 151.1 | r 152.8 $\sim$ 149.9 | 159.2 154.7 | 160.4 156.7 | 162.6 155.5 |
| By industry groupings: <br> Mining and utilities. | 136.2 | 141.6 | 136.3 | 137.0 | 136.4 | 142.4 | 145.5 | 147.2 | 144.5 | 141.4 | 141.2 | 145.4 | F 149.5 | 146.5 | 143.7 | 140.6 |
| Manufacturing....-.....................-...... do | 137.1 | 145.7 | 142.1 | 145.1 | 145.1 | 149.7 | 141.2 | 146.9 | 153.0 | 154.1 | 151.1 | 146.1 | ${ }^{-145.7}$ | 152.0 | 154.0 | 152.8 |
| Nondurable manufactures...................do | 148. 1 | 154.8 | 150.5 | 153.3 | 153.5 | 159.3 | 150.3 | 160.3 | 164.2 | 163.7 | 159.4 | 151.7 | ${ }_{r} \mathbf{r} 152.1$ | 158.4 | 160.3 | 161.5 |
| Durable manufactures ..........................do | 129.5 | 139.3 | 136.3 | 139.5 | 139.2 | 143.0 | 135.1 | 137.7 | 145.3 | 147.5 | 145.2 | 142.1 | + 141.3 | 147.5 | 149.7 | 146.8 |
| Seasonally Adjusted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 137.1 | 145.2 | 140.9 | 143.2 | 143.9 | 144.9 | 146.1 | 147.1 | 147.8 | 148.7 | 149.6 | 150.9 | 150.9 | 151.0 | 152.0 | 150.5 |
| By market groupings: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 137.1 | 144.3 141.4 | 141.6 138.9 | 1430.5 | 140.5 | 144.0 | 145.0 | 146.2 143.3 | 143.7 | 144.1 | 144.5 | 149.1 | 149.4 | r 149.9 r 146.3 | 150.6 147.3 | 148.9 |
|  | 143.4 | 147.4 | 145.9 | 147.5 | 147.0 | 147.0 | 147.7 | 148.4 | 149.0 | 149.2 | 149.7 | 150.6 | 150.6 | 150.7 | 151.7 | 149.0 |
| Durable consumer goods............... do | 153.1 | 158.9 | 157.5 | 161.8 | 160.2 | 160.6 | 160.9 | 161.5 | 160.3 | 161.6 | 161.8 | 161.9 | 160.9 | -161.3 | 163.9 | 153.4 |
| Automotive products...................do | 174.2 | 178.6 | 175.8 | 184.3 | 180.0 | 179.9 | 182.2 | 182.1 | 178.3 | 185.6 | 189.0 | 185.1 | r 181.3 -173 | 179.1 | 186.0 | 161.3 |
| Autos and utility vehicles..........do | 169.2 | 172.5 | 171.0 | 182.7 | 175.6 | 174.3 | 176.7 | 175.6 | 170.0 | 180.5 | 185.0 | 179.3 | - 173.4 | 170.7 | 180.1 | 147.4 |
| A utos..........-........-...-- | 148.4 | 148.5 | 149.7 | 159.1 | 151.6 | 149.8 | 152.7 | 151.1 | 144.4 | 154.2 | 159.7 | 151.8 | 145.9 | 144.9 | 153.7 | 128. 6 |
| Auto parts and allied goods......do. | 186.8 | 194.0 | 188.5 | 188.2 | 191.5 | 193.9 | 196.1 | 198.0 | 199.8 | 199.1 | 199.0 | 200.1 | 201.8 | 200.7 | 200.8 | 197.0 |
|  | 141.3 | 147.8 | 147.2 | 149.2 | 148.9 | 149.7 | 148.9 | 150.0 | 150.2 | 148.2 | 146.5 | 148.9 | r 149.5 | 151.3 | 151.6 | 149.0 |
| Appliances, air cond., and TV...do. | 127.3 | 132.5 | 135.4 | 142.2 | 138.3 | 139.0 | 133.7 | 133.9 | 134.4 | 128.7 | 123.4 | 129.1 | 125.9 | - 130.4 | 128.5 | 120.0 |
| Carpeting and furniture...........do.. | 152.2 | 164.3 | 159.3 | 158.9 | 163.4 | 166.0 | 168.5 | 167.9 | 169.0 | 168.0 | 164.9 | 166.8 | ${ }^{+} 170.8$ | 172.9 | 174.8 |  |
| Nondurable consumer goods.........do...- | 139.6 | 142.8 | 141.3 | 141.8 | 141.7 | 141.6 | 142.4 | 143.1 | 144.4 | 144. 3 | 144.8 | 146.2 | $\stackrel{+146.5}{+}$ | -146.5 | 146.9 | 147.1 |
| Clothing....-.......................... do...- | 125.2 | 125.5 | 122.4 | 124.9 | 125.4 | 124.8 | 125.1 | 126.6 | 128.9 | 128.3 | 129.0 | 130.1 | r 130.1 r151.0 | 129.5 $r 151.2$ |  |  |
| Consumer staples ..................... do | 143.6 | 147.6 | 146.4 | 146.6 | 146.2 | 146.3 | 147.3 | 147.8 | 148.8 | 148.8 | 149.2 | 150.6 | +151.0 +1421 | - 151.2 | 151.7 | 152.1 |
| Consurner foods and tobacco.....do | 135.5 | 140.1 | 138.7 | 140.8 | 139.9 | 139.0 | 140.2 | 140.8 | 141.2 | 140.4 158.5 | 141.0 | 143.0 | r 142.1 +161.3 | -142.6 | 143.7 160.9 |  |
| Nonfood staples..-............---.-- - | 152.9 | 156.2 | 155.3 | 153.3 | 153.4 | 154.8 | 155.5 | 155.9 | 157.4 | 158.5 | 158.8 | 159.6 | - 161.3 | - 161.2 | 160.9 | 162.0 |
| Equipment.-............................... do | 123.2 | 133.1 | 129.1 | 130.8 | 131.6 | 133.0 | 134.7 | 136.3 | 136.4 | 137.0 | 137.3 | 138.7 | r 139.5 | 140.1 | 141.3 | 140.5 |
|  | 149.2 | 162.0 | 157.4 | 159.3 | 160.2 | 161.8 | 163.8 | 165.4 | 165.8 | 166.9 | 167.2 | 168.7 | 169.7 | r +170.5 1 | 172.0 | 170.8 |
| Industrial equipment $\%$--..........- do | 138.5 | 149.9 | 146.9 | 147.8 | 149.7 | 150.9 | 151.9 | 152.8 | 152.7 | 152.9 | 151.8 | 152.2 | 154.7 | T 1555 | 156.5 | 155.9 |
| Building and mining equipment do.... | 202.5 | 223.4 | 221.7 | 225.1 | 226.0 | 227.3 | 228.9 | 228.1 | 226.3 | 226.5 | 223.8 | 222. 3 | +222.3 +127 | r 223.6 $>1289$ | 223.6 | 223.6 |
| M anufacturing equipment.......do.... | 113.9 | 121.9 | 118.3 | 119.0 | 121.3 | 122.8 | 122.6 | 123.9 | 124.4 | 125.0 | 124.2 | 124.7 | -127.9 | r 128.9 | 129.4 | 129.0 |
| Commercial, transit, farm eq. ¢...do | 161.6 | 176.0 | 169.4 | 172.6 | 172.3 | 174.4 | 177.5 | 179.9 | 180.8 | 182.9 | 184.9 | 187.8 | -187. 1 | +187.4 | 190.0 | 187.9 |
| Commercial equipment | 191.6 | 208. 6 | 202.0 | 203.8 | 204. 2 | 206.9 | 210.6 | 212.2 | 214.1 | 215.1 | 214.9 | 217.1 | + 218.1 | $\stackrel{+218.8}{ }$ | 220.8 | 221.1 |
| Transit equipment...................d.d....- | 117.8 | 133.8 | 126.1 | 133.7 | 132.2 | 132.3 | 134.9 | 138.5 | 138.6 | 142.6 | 147.5 | 151.0 | + 148.2 | ${ }^{\text {r }} 146.2$ | 149.4 | 142.6 |
| Defense and space equipment | 79.6 | 84.5 | 81.9 | 82.9 | 83.6 | 84.6 | 85.9 | 87.1 | 87.1 | 86.7 | 87.2 | 87.9 | 88. ${ }^{-}$ | r 89.1 | 89.7 | 89.4 |
| Intermediate products.-.................... ${ }^{\text {d }}$ | 145.1 | 155.3 | 151.4 | 152.1 | 152.6 | 154.7 | 155.6 | 156.4 | 157.0 | 158.0 | 159.3 | 161.8 | - 162.6 | +163.1 | 162.7 | 162.1 |
| Construction supplies................................ | 140.8 | 153.3 | 147.9 | 148.5 | 150.4 | 152.1 | 153.5 | 154.7 | 155.6 | 157.0 | 159.0 | 160.8 | - 161.2 | 161.7 | 162.0 |  |
| Business supplies.......................................... | 149.5 | 157.3 | 155.0 | 155.6 | 155.0 | 157.0 | 157.6 | 158.2 | 158.4 | 159.2 | 159.9 | 162.7 | - 163.3 | 164.1 |  |  |
| Materials..-................................... do | 136.9 | 146.5 | 139.9 | 143.7 | 145.1 | 146.4 | 147.9 | 148.6 | 149.7 | 151.4 | 152.7 | 153.8 | - 153.1 | 152.7 | 154.1 | 153.0 |
| Durable goods materials | 134.5 | 146.9 | 138.6 | 142.7 | 143.9 | 145.4 | 148.7 | 150.4 | 152.1 | 154.0 | 154.9 | 156.8 | - 155. 4 | r 154.6 | 155.4 | 153.2 |
| Durable consumer parts...-.......----.-.- do | 132.0 | 140.3 | 133.1 | 136.8 | 137.9 | 138.7 | 142.0 | 142.2 | 144.8 | 147.3 | 147.4 | 148.4 | 147.8 | 144.6 | 145.2 | 135.8 |
|  | 143. 1 | 159.1 | 151.3 | 154.8 | 155.8 | 157.4 | 161.7 | 16.9 | 164.6 | 166.0 | 167.6 | 170.5 | 170.5 +168 | ¢ 171.6 | 173.0 | 172.4 |
| Nondurable goods materials | 153.5 158.3 | 162.9 167.9 | 160.5 165.7 | 162.0 166.4 | 163.5 167.9 | 164.8 | 162.5 168.3 | 162.7 167.0 | 170.0 170.0 | 165.7 171.0 | 167.8 173.3 | 172.3 | +168.3 <br> +173.7 | r 169.4 175.1 | 176.2 | 171.1 177.2 |
| Energy materials............. | 122.4 | 125.2 | 117.5 | 163.9 129 | 16.9 12.2 | 127.5 | 127.9 | 127.0 | 126.0 | 128.0 | 128.4 | 129.6 | -128.7 | +127.6 | 130.7 | 130.3 |
| B y indusiry groupings: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 144.9 |
| Mining and utilities | 136.2 117.8 | 141.6 124.2 | 138.2 119.3 | 140.9 127.2 | 140.9 126.7 | 142.5 128.0 | 142.6 127.1 | 142.5 126.0 | 124.1 | 144.1 127.6 | 114.5 | 145.0 127.6 | +144.2 +124.0 | + 143.6 +121.8 | 124.1 | 123.8 |
|  | 105.4 | 121.0 | 127.6 | 122.3 | 120.0 | 121.1 | 117.0 | 117.9 | 115.6 | 122.1 | 125.3 | 123.9 | - 123.5 | + 124.1 | 126.4 |  |
| Coal. | 118.0 | 115.7 | 78.4 | 129.5 | 131.7 | 136.4 | 131.7 | 124.9 | 114.7 | 144.0 | 145.1 | 146.8 | 116.0 | 104.0 | 124.0 | 129.3 |
| Oil and gas extraction $9 .$. | 118.0 | 124.7 | 123.3 | 127.3 | 126.3 | 127.1 | 126.8 | 126.2 | 124.9 | 124.5 | 124.9 | 123.8 | -123.2 | r 121.7 | 121.7 | 120.7 |
|  | 92.4 | 96.8 | 94.0 | 99.4 | 95.4 | 97.3 | 97.8 | 97.7 | 97.6 | 97.1 | 98.0 | 98.3 | 98.2 | 95.6 | 96.6 |  |
|  | 110.4 | 109.1 | 109.9 | 107.6 | 112.2 | 113.2 | 112.6 | 110.5 | 106.0 | 106. 6 | 106.4 | 107.1 | 106.8 |  |  |  |
| Stone and earth minerals....................d. | 124.9 | 131.1 | 128.2 | 128.9 | 130.1 | 130.7 | 131.3 | 131.6 | 133.8 | 134.0 | 132.9 | 134.2 | r 136.7 | r 137 | 36. |  |
| Utilities.......................................d. ${ }^{\text {do }}$ | 156.5 | 161.0 | 150.5 | 156.0 | 157.0 | 158.6 | 159.9 | 160.8 | 162.3 | 162.4 | 162.9 | 164.3 | r 166.8 | r 167.8 | 168.1 | 168.4 |
|  | 175.5 | 182.2 | 178.8 | 175.0 | 177.1 | 180.1 | 182.1 | 183.2 | 184.4 | 184.1 | 185.0 | 186.6 | 189.4 |  |  |  |
|  | 137.1 | 145.7 | 141.4 | 143.5 | 144.3 | 145.5 | 146.7 | 147.6 | 148.7 | 149.5 | 150.4 | 151.8 | ${ }^{+} 151.9$ | - 152.0 | 152.9 | 151.3 |
|  | 148.1 | 154.8 | 151.4 | 153.2 | 154.0 | 154.9 | 155.0 | 155.6 | 157.1 | 157.4 | 158.5 | 159.2 | +160.4 +145 | ${ }^{\sim}$ | 161.2 | 161.2 |
|  | 137.9 | 142.9 | 141.1 | 143.1 | 142.8 | 141.8 | 142.9 | 144.0 | 144.4 | 143.2 | 144.2 | 145.7 | ${ }^{+} 1145.5$ | ${ }^{+146.5}$ | 117.1 |  |
| Meat products..........-......-......... do | 114.0 | 113.8 | 113.8 | 116.1 | 113.6 | 111.4 | 115.2 119.8 | 115.2 | 113.4 | 112.8 | 114.2 | 113.9 | 110.8 | 112.3 | 114.5 |  |
| Dairy products.-......................... do | 117.4 167.6 | 120.4 180.9 | 119.7 172.6 | 119.8 181.1 | 118.9 177.8 | 119.4 | 119.8 185.3 | 120.6 186.7 | 121.5 185.7 | 122.5 184.8 | 123.2 | 122.7 186.9 | $\begin{array}{r}121.8 \\ \hline 184.4\end{array}$ | $\begin{array}{r}122.3 \\ \hline 194.5\end{array}$ | 123.2 |  |
| Beverages.---.-.-...............---.... do. | 167.6 | 180.9 | 172.6 | 181.1 | 177.8 | 175.7 | 18.3 | 186.7 | 185.7 | 184.8 | 184.1 | 186.9 | r 184.4 | r 194.5 | 187.2 |  |
| Tobacco products.....................-. - do | 114.3 | 119.2 | 115.6 | 121.0 | 120.2 | 122.7 | 120.8 | 118.6 | 120.6 | 119. 0 | 121.5 | 122.0 | ${ }_{-} 120.0$ | +118.8 |  |  |
| Textile mill products................................. | 137.1 | 140. 0 | 135.1 | 138.1 | 138.5 | 140.4 | 141.0 | 139.5 | 142.2 | 142.1 | 143.9 | 144.9 | $\begin{array}{r}\text { r } \\ \sim \\ \hline 133.5\end{array}$ | + 141.3 | 143.2 |  |
| Apparel products..-...........................d. do...- | 124.2 | 126.3 | 122.8 | 126. 1 | 125.8 | 126.8 | 124.5 | 127.2 | 130.9 <br> 142 | 130.6 | 129.9 | 147.8 | r 132.3 | $\begin{array}{r}130.2 \\ -148 \\ \hline\end{array}$ | 149.1 | 148.9 |
| Paper and products...........................do...- | 137.4 | 144.5 | 144.9 | 145.7 | 146.6 | 148.0 | 140.5 | 141.9 | 142.3 | 145.8 | 145.3 | 147.8 | 144.9 | -148.0 | 149.1 | 148.9 |
| Printing and publishing--...............do. | 124.7 | 129.9 | 129.1 | 128.6 | 128.2 |  | 130.3 | 129.5 | 131.0 | 130.5 195.9 | 132.1 | 133.0 197.9 | $\begin{array}{r}135.8 \\ \hline 200.8\end{array}$ |  | 136.8 201.3 | 137.0 |
| Chemicals and products.......................... | 180.7 | 190.7 | 185.2 167.3 |  | 188.1 174.9 | 178.7 | 192.3 174.5 | 192.2 177.3 | 194.2 179.2 | 195.9 176.7 | 197.6 180.2 | 197.9 178.7 | 1200.8 179.6 | + <br>  <br>  <br> +181.2 |  |  |
| Basic chemicals..............................-do. | 165.3 | 173.7 | 167.3 | 171.0 | 174.9 | 178.7 | 174.5 | 177.3 | 179.2 | 176.7 | 180.2 | 178.7 | 179.6 | ${ }^{+} 181.2$ | 183.4 |  |
| Petroleum products .-...-.-.-.-.-.-..... do | 141.0 | 144.2 | 140.1 | 141.7 | 143.4 | 142.8 | 144.3 | 144.1 | 147.1 | 147.9 | 148.9 | 149.9 | - 147.9 | r 145.5 +266.9 | 145.0 | 146.1 |
| Rubber and plastics products....-.......do | 232.2 | 254.8 | 243.1 | 249.1 | 252.7 | 255.5 | 259.1 | 261.1 | 263.1 | 264.1 | 262.2 | 267.0 | 268. 1 | + 266.9 | 269.4 73.0 |  |
| Leather and products....................do.... | 75.3 | 74.1 | 72.1 | 76.0 | 75.7 | 75.1 | 74.5 | 74.0 | 74.1 | 73.8 | 74.1 | 74.0 | г75.1 | r 73.3 | 73.0 |  |

${ }^{\circ}$ Revised. ${ }^{p}$ Preliminary. ${ }^{1}$ Estimated. $\sigma^{7}$ Monthly revisions back to 1967 will be tion $o$ Includes data for items not shown separately.

[^54]| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as sho wn in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sopt. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. ${ }^{\text {d }}$ | Apr. ${ }^{1}$ |


| INDUSTRIAL PRODUCTION $\ddagger-$ Continued <br> Federal Reserve Board Index of Quantity Output-Continued |
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## GENERAL BUSINESS INDICATORS—Continued

Mfg. and trade sales (unadj.), total $\dagger \oplus \Delta \ldots$. mil. \$.-
Mfg. and trade sales (seas. adj.), total $\dagger \oplus \Delta \ldots$. do....


## BUSINESS INVENTORIES §

Mfg. and trade inventories, book value, end of year
or month (unadj.), total $\dagger \triangle \oplus$......... $\$$.
Mig. and trade inventories, book value, end of year
or month (seas. adj.), total $\dagger \triangle \oplus \ldots \ldots . .$. mil. $\$ \ldots$
 business inventory-sales ratios Manufacturing and trade, total $\dagger \oplus$...........ratio.
 Nondurable goods establishments........................ MANUFACTURERS' SALES, INVENTORIES,
AND ORDERS
Manufacturers' export sales: © Durable goods industries:

Shipments (not seas. adj.), total $\dagger \oplus$ Durable goods industries, total of $\dagger$ Stone, clay, and glass products..............do.-
 Nonferrous and other prima
${ }_{3}$ Revised. ${ }^{p}$ Preliminary. ${ }^{1}$ Estimated. ${ }^{2}$ Based on data not seasonally adjusted Advance estimate; total mirs. shipments for Mar. 1979 do not reflect revisions for selected
components. $\ddagger$ See note marked "on $p$. S-4. §The term "business" here includes only manufacturing and trade; business inventories as shown on p. S-1 cover data for all types of producers, both farm and nonfarm. Unadjusted data for manufacturing are shown below on pp. S-6 and S-7; those for wholesale and retail trade on pp. S-11 and S-12. tSee

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| 129.5 |
| 73.9 |
| 133.4 |
| 110.6 |
| 140.9 |
| 146.1 |
| 110.2 |
| 103.4 |
| 97.4 |
| 105.3 |
| 122.4 |
| 130.9 |
| 144.8 |
| 141.9 |
| 121.1 |
| 159.7 |
| 84.7 |
| 159.1 |



| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

GENERAL BUSINESS INDICATORS-Continued


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

GENERAL BUSINESS INDICATORS—Continued

## MANUFACTURERS' SALES, INVENTORIES,

Inventories, end of year or montht-Continued
Book value (seasonally adjusted)-Continued


Unfilled orders, end of year or month (unadjusted), totalt
Durable goods industries, total
Nondur. goods ind. with unfilled orders $\oplus .-$ do
Nondur. goods ind. with unfilled orders $\oplus$-.do....
Unfilled orders, end of year or month (seasonally By industry group
By industry group:
Durable goods industries, total of
Primary metals...........................................
Blast furnaces, steel mills.-.
Nonferrous and other primary met.
Fabricated metal products.
Machinery, except electrical. Machinery, except electrical
Electrical machinery.......
Transportation equipment Aircraft, missiles, and parts
Nondur. goods ind. with unfilled orders $\oplus$-do By market category: $\dagger$
Home goods apparel
Home goods, apparel, consumer staples . do...
Equip. and defense prod., incl auto Equip. and defense prod., incl. auto. Construction materials and supplies.......do.-.
Other materials and supplies.................
Supplementary series:
Household durables
Household durables.
Capital goods industries.
Nondefense
Defense....

## BUSINESS INCORPORATIONS©

New incorporations (50 States and Dist. Col.):


## INDUSTRIAL AND COMMERCIAL

Failures, total.
Commercial service
Manufacturin
Retail trade...-
Liabilities (current), total.
Commercial service...................................
Retail trade....
ailure annual rate (seasonally adjusted)
r Revised.
orders for Mar. 1979 do not reflect revisions for selected components.
${ }_{2}$ A Based on unadjusted data. † See corresponding note on p. S-6. FIncludes data for items not shown sepa rately. $\triangle$ See note marked " $\oplus$ " on p. S- 5 . $\oplus$ Includes textile mill prod., leather and prod., paper and allied prod., and print. and pub. ind.; unfilled orders for other nondurable goods are zero.

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| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

COMMODITY PRICES

| PRICES RECEIVED AND PAID BY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prices received, all farm products ..-- 1910-14=100 | 457 | 524 | - 501 | - 521 | 536 | 543 | 536 | 526 | 538 | 544 | 538 | 555 | 579 | 602 | 615 | 609 |
|  | 432 | 456 | \% 444 | ${ }_{-} 468$ | 476 | 485 | 478 | 457 | 458 | 452 | 452 | 461 | 470 | 485 | 482 | 477 |
|  | 499 | 512 | r 528 | ${ }^{-693}$ | 576 | 066 | 509 | 441 | 455 | 442 | 457 | 542 | 638 | 700 | r 621 | 596 |
|  | 511 | 465 | 432 | 441 | 454 | 463 | 477 | 485 | 475 | 503 | 516 | 490 | 473 | 458 | ${ }^{*} 443$ | 433 |
| Feed grains and hay..----------------- do | 316 275 | 330 | 325 328 | 334 <br> 344 | 348 340 | 342 337 | 324 335 | 307 337 | 302 336 | 302 | 309 | 319 | 322 | 330 | ${ }_{5} 334$ | ${ }^{335}$ |
|  | 370 | 516 | 459 | 441 | 511 | 593 | 595 | 564 | 336 634 | 343 | 349 | 347 | 346 | ${ }_{514}$ | $\checkmark 344$ | 345 |
| Frubace | 972 | 1,060 | 1,006 | 1,017 | 1,018 | 1,017 | 1,030 | 1,078 | 1,144 | 1,107 | 1,115 | 1,138 | 1, 134 | 1,124 | 1,120 | 508 1,132 |
| Livestock and products | 481 | 593 | 560 | 576 | 597 | 603 | 597 | 598 | 621 | 639 | 627 | 653 | 693 | 726 | 754 | 749 |
|  | 594 | 647 | 624 | ${ }_{7} 618$ | 612 | 612 | 618 | 642 | 667 | 691 | 709 | 722 | 728 | 728 | 722 | 709 |
|  | 564 | 754 | 700 | $\begin{array}{r}730 \\ \hline 25\end{array}$ | 779 | 789 | 763 | 765 | 796 | 830 | 792 | 829 | 904 | 964 | 1,018 | 1,019 |
|  | 228 |  | 238 | 245 | 237 | 238 | 258 | 243 | 247 | 238 | 248 | 260 | 264 | 269 | 276 | 265 |
| Prices paid: |  | 638 | 621 | 629 | 637 |  |  |  |  |  |  |  |  |  |  |  |
| All commodities and services..........---.-- ${ }_{\text {domily }}$ | $\stackrel{591}{573}$ | 616 | 598 | 602 | 637 608 | 640 613 | 642 620 | 643 <br> 624 | 650 628 | 655 | ${ }_{658}^{658}$ | 664 641 | 676 644 | 688 650 | - 706.2 | 713 664 |
|  | 579 | 626 | 611 | 20 | 630 | 631 | 631 | 629 | 638 | 643 | 645 | 652 | 668 | 683 | 704 | 713 |
| All commodities and services, interest, taxes, and <br> wage rates (parity index) $1910-14=100$ | 687 | 744 | 728 | 736 | 744 | 747 | 749 | 750 | 757 | 761 | 764 | 770 | 796 | 808 | r 826 | 834 |
|  | 66 | 70 | 69 | 71 | 72 | 73 | 72 | 70 | 71 | 71 | 71 | 72 | 73 | 75 | +74 | 73 |
| CONSUMER PRICEST <br> (U.S. Department of Labor Indexes) <br> Not Seasonally Adjusted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ALL TTEMS, WAGE EARNERS AND CLERICAL WORKERS, REVISED (CPI-W)9 $1967=100$. | 181.5 | 195.3 | 189.7 | 191.4 | 193.3 | 195.3 | 196.7 | 197.7 | 199.1 | 200.7 | 201.8 | 202.9 | 204.7 | 207.1 | 209.3 | 211.8 |
| ALL ITEMS, ALL URBAN CONSUMERS <br> (CPI-U)9................................... $1967=100$.- | 181.5 | 195.4 | 189.8 | 191.5 | 193.3 | 195.3 | 196.7 | 197.8 | 199.3 | 200.9 | 202.0 | 202.9 | 204.7 | 207.1 | 209.1 | 211.5 |
| Special group indexes: |  | 191.3 | 186. | 188.1 | 189.9 | 191.8 | 192.7 | 193.5 | 194.5 | 195.8 | 196.7 | 197.8 | 199.5 | 201.6 | 203.7 | 206.0 |
| All items less shelter.......................- ${ }^{\text {do }}$ do...- | 178.4 | 191.2 | 185. 9 | 187.4 | 189.0 | 190.6 | 192.0 | 193.3 | ${ }_{197.9}^{195.1}$ | 196.7 | 197.8 | 198.6 | 199.8 | 201.8 | 203.8 | 206.3 |
| All items less food...a | 180.3 | 194.0 | 188.3 | 190.1 | 191.9 | 193.9 | 195.3 | 196.3 | 197.9 | 199.4 | 200.5 | 201.5 | 203.2 | 205.5 | 207.6 | 210.1 |
| Commoditi | 174.7 | 187.1 | 181.6 | 183.5 | 185.5 | 187.5 | 188.6 | 189.3 | 190.5 | 191.8 | 192.9 | 194.2 | 195.8 | 198.3 | 200.5 | 203.3 |
| Nondurabl | 178.9 | 192.0 | 186.8 | 188.8 | 190.7 | 192.7 | 193.6 | 194.4 | 177.4 | 196.6 | 197.5 | 198.8 | 201.0 180.3 | 204.0 | 185.7 | 209.9 189.6 |
| Nondurab | 166.5 | 174.3 | 170.7 | 171.8 | 172.8 | 173.7 | 174.1 | 175.4 175.9 | 177.2 | 178.1 | 179.1 | 180.0 | 182.0 | 183.6 | 184.9 | 187.2 |
| Durables | 163.2 | 173.9 | 168.3 | 169.9 | 173.0 173.0 | 173.9 | 175.3 175.4 | 176.3 | 177.8 | 179.1 | 180.3 | 181.3 | 181.9 | 183.7 | 185.9 | 188.9 |
| Commodities less | 165.1 | 174.7 | 170.0 204.9 | ${ }^{171.3}$ | 208.0 | 174.4 209.9 | 211.7 | 213.4 | 215.6 | 217.6 | 218.6 | 219.2 | 221.1 | 223.3 | 225.1 | 227.0 |
|  | 194.3 | 210.9 | 204.9 213.0 | 206.5 214.6 | 216.2 | 218.3 20.9 | 220.4 | 222.2 | 224.6 | 226.7 | 227.8 | 228.2 | 230.4 | 232.9 | 235.0 | 237.1 |
| Foodo. | 192.2 | 211.4 | 204.2 | 207.5 | 210.3 | 213.8 | 215.0 | 215.4 | 215.6 | 216.8 | 217.8 | 219.4 | 223.9 | 228.2 | 230.4 | 232.3 |
| Food | 190.2 | 210.2 | 202.5 | 206.5 | 209.7 | 213.9 | 214.7 | 214.5 | 214.1 | 215.4 | 216.1 | 217.9 | 223.1 | 228.0 | 229.9 | 231.7 |
|  | 186.5 | ${ }^{1} 202.8$ | 1 196.7 | 1198.3 | ${ }^{1} 199.9$ | 1202.0 | 1203.8 | ${ }^{1} 205.2$ | ${ }^{1} 207.5$ | 1209.5 | 1210.6 | 211.5 | 213.1 | ${ }^{1} 215.6$ | 217.6 | ${ }^{1} 219.8$ |
| Shelter | 191.1 | 210.4 | 202.9 | 204.7 | 206.6 | 208.9 | 211.3 | 213.3 | 216.2 | 218.6 | 220.1 | 221.0 | 222.8 | 225.9 | 228.0 | ${ }_{2}^{230.7}$ |
| Rent | 153.5 | ${ }^{2} 164.0$ | 2160.5 | ${ }^{2} 161.5$ | ${ }^{2} 162.7$ | ${ }^{2} 163.6$ | ${ }^{2} 164.2$ | ${ }^{2} 165.1$ | 1634.4 | ${ }^{2} 167.4$ | ${ }^{2} 168.5$ | ${ }^{2} 169.5$ | ${ }^{2} 170.3$ | 2171.0 | ${ }^{2} 171.3$ | ${ }^{2517}{ }^{172}$ |
| Homeownership | 204.9 | 227.2 | 218.3 | 220.4 | 222.5 | 225.3 | ${ }_{3}^{2288} 3$ | 230.6 | + 2218.8 | , 2377.0 | ${ }_{3} 2388.8$ | 239.5 3219 | 3221.5 | ${ }_{3} 223.3$ | ${ }^{2} 225.9$ | 3227.5 |
| Fuel and utilities | 202.2 | ${ }^{3} 216.0$ | ${ }^{3} 212.6$ | 3 <br>  <br> 4 <br> 296.6 | 3 <br> 4 <br> 4295.5 <br> 235 | 3217.5 4295.1 | 3 4 4 294.5 |  |  |  | 4218.5 4 306.1 | 3219.9 4311.8 | 4316.4 | 4326.1 | ${ }^{1} 339.5$ | ${ }^{4} 349.8$ |
|  | 283.4 | ${ }^{4} 298.3$ | $\begin{array}{r}+297.2 \\ 226.6 \\ \hline 1\end{array}$ | $\begin{array}{r}+296.6 \\ 229.2 \\ \hline\end{array}$ | 1295.6 232.5 | $\begin{array}{r}4295.1 \\ 236.5 \\ \hline 1\end{array}$ | 294.5 237.2 | $\begin{array}{r}294.2 \\ \\ \hline 236.9\end{array}$ | $\begin{array}{r}295.9 \\ \hline 23.9\end{array}$ | 400.1 240.0 | $\begin{array}{r}\text { + } \\ \text { 234. } \\ +1 \\ \hline\end{array}$ | $\begin{array}{r}411.8 \\ 236.2 \\ \hline\end{array}$ | 239.5 | 241.2 | 244.0 | 245. 3 |
| Grs (piped) and electricity................do | 213.4 | 232.6 1177.7 | + $\begin{array}{r}226.6 \\ 1173.6\end{array}$ | 229.2 1175.0 | 232.5 1176.0 | 236.5 1177.6 | $\begin{array}{r}237.2 \\ \hline 178.1\end{array}$ | 236.9 1178.9 | ${ }^{2} 180.5$ | ${ }^{2} 181.9$ | 1183.0 | ${ }_{1} 184.0$ | ${ }^{1} 184.8$ | 1186.0 | 1187.4 | ${ }^{1} 188.6$ |
| Household furnishings and operation.....do | 167.5 | 1177.7 | 1173.6 | 175.0 | 176.0 159.8 |  |  |  | 161.9 |  |  |  | 160.7 | 161.4 | 164.3 | 165.4 |
| Apparel and upkeep....................----- - do | 154.2 177.2 | 159.6 185.5 | 156.5 179.9 | 158.4 | 159.8 183.2 | 159.9 185.5 | 188.0 187.2 | 159.6 188.1 | 188.7 | 189.7 | 191.4 | 192.6 | 193.9 | 195. 6 | 198.1 | 202.9 |
| Transportation................................-. - do | 177.2 176.6 | 185.5 | 179.9 179.1 | 181.1 | 183.2 | 185.0 | 186.8 | 187.7 | 188.3 | 189.4 | 191.1 | 192.5 | 193.8 | 195.5 | 198.1 | 203.2 |
|  | 142.9 | 153.8 | 151.1 | 151.2 | 152.5 | 153.5 | 153.9 | 153.8 | 153.5 | 155.5 | 158.5 | 159.8 | 161.2 | 162.3 | 162.7 | 164.3 |
| Used c | 182.8 | 186.5 | 172.3 | 177.3 | 184.6 | 191.5 | 195.9 | 196.7 | 195.9 | 195.4 | 194.7 | 194. 0 | 193.6 190.0 | 193.4 190.7 | 195.4 191.5 | 200.0 192.6 |
|  | 182.4 | 187.8 | 187.2 | 187.3 | 187.4 216.9 | 187.2 217.9 | 187.7 219.4 | 187.6 221.4 | ${ }_{222.6}$ | ${ }_{224.7}^{189.3}$ | ${ }_{227.0}^{189}$ | ${ }_{227.8}^{189.1}$ | 230.7 | 232.6 | 233.9 | 235.1 |
|  | 202.4 | 219.4 | 214.5 | 215.7 | 216.9 | 21.9 |  | 221.4 |  | 224.7 | 22.0 |  |  |  |  |  |
| Seasonally Adjusted $\triangle \oplus$ |  |  |  |  |  |  |  |  | 0.9 |  |  |  | 0.9 | 2 | . 0 | 1 |
| All items, percent change from previous month .-.- |  |  | 0.8 | 0.8 | 115.8 | 0.9 18.9 | 187.7 | 188.7 | 190.2 | 191.7 | 193.0 | 194.6 | 196.7 | 199.1 | 201.3 | 203.8 |
|  |  |  | 182.3 170.7 | 183.9 171.6 | 185.3 | 173.7 | 174.7 | 175.7 | 177.2 | 178.5 | 179.8 | 181.3 | 182.9 | 184.8 | 186.9 | 189.4 |
|  |  |  | 204.7 | 208.1 | 210.5 | 213.5 | 213.7 | 214.6 | 216.0 | 217.9 | 219.2 | 221.3 | 224.5 | 228.1 | 230.5 | 232.7 |
| Food at hom |  |  | 202.8 | 207. 1 | 209.9 | 213.1 | 212.7 | 213.2 | 214.5 | 216.5 | 217.8 | 220.1 | 223.7 | 227.7 | 230.0 | 232.4 |
|  |  |  | ${ }^{3} 211.8$ | 3213.5 | 3215.5 | 3217.6 | ${ }^{3} 218.2$ | ${ }^{3} 218.9$ | ${ }^{3} 219.6$ | ${ }^{3} 221.0$ | ${ }^{3} 218.9$ | ${ }^{3} 220.0$ | ${ }^{3} 2220.9$ | ${ }^{3} 222.6$ | ${ }^{3} 2225.1$ | ${ }^{3} 2287.2$ |
|  |  |  | 4293.6 | + 295.0 | ${ }^{4} 295.9$ | 4296.8 | 4297.0 | 4297.9 | 4300.3 | 4303.2 | +306.8 | ${ }^{4} 310.3$ | ${ }^{1} 312.3$ |  |  | ${ }^{4} 348.1$ |
| Apparel an |  |  | 157.4 | 158.9 | 159.7 | 160.0 | 159.2 | 160.0 | 160.9 | 61.7 | 61.9 | 161.8 | 162.2 | 162.7 | 165.2 | 166.0 |
|  |  |  | 181.4 | 181.8 | 182.9 | 184.2 | 185.6 | 186.9 | 188.2 | 189.0 | 191.2 | 193.2 | 195.4 | 197.5 | 199.9 | 203.8 |
|  |  |  | 180.8 | 181.1 | 182.3 | 183.8 | 185.2 | 186.5 | 187.9 | 188.8 | 191.1 | 193.2 | 195.4 | 197.5 161.0 | 162.1 | 204.0 |
|  |  |  | 150.5 | 151.2 | 152.7 | 154.2 |  | 156.2 | 156.9 | 155.3 | 157.0 | 157.3 |  |  |  |  |
|  |  |  | 205.1 | 206.9 | 208.7 | 210.5 | 212.2 | 213.8 | 215.7 | 217.6 | 218.7 | 219.5 | 220.7 | 223.1 | 22.1 | 227.2 |
| PRODUCER PRICES ${ }^{\circ}{ }^{\top}$ <br> (U.S. Department of Labor Indexes) <br> Not Seasonally Adjusted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spot market prices, basic commodities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 229.6 240.8 |  | 236.2 241.4 |  |  | 252.2 248.3 | 250.8 249.1 | 255.3 250.9 |  | 277.4 261.8 | 276.3 251.8 |
|  | ${ }^{5} 208.2$ | ${ }^{5} 239.1$ | 236.0 | 237.9 | 243.7 | 240.8 | 234.9 | 241.4 | ${ }_{239.7}^{248.7}$ | 253.1 249.4 | 248.3 | 249.1 251.8 | 250.9 258.3 | 260.2 273.5 | 288.5 | 294.5 |
|  | 5210.4 | ${ }^{5} 230.6$ | 219.8 | 216.5 | 217.8 | 221.1 | 224.7 | 23 | 239.1 | 249.4 | 254.8 | 251.8 | 258.3 | 273.5 |  |  |
|  | 194.2 | 209.3 | 203.7 | 206.5 | 208.0 | 209.6 | 210.7 | - 210.6 | +212.4 | + 214.9 | 215.7 | - 217.5 | 220.7 | 223.9 | 226.4 | 229.7 |
| By stage of processing: Crude materials for further processing | 21 |  |  |  |  |  | 245.4 | 240.2 | - 244.8 |  |  |  | 260.2 |  | 276.5 | 279.9 |
| Intermediate materials, supplies, etc......do | 201.7 | 377.5 | 210.7 | 212.5 | 213.9 | 215.1 | 216.0 | 217.3 | 218.7 | +220.8 | $\begin{array}{r}248.4 \\ \hline 222.0\end{array}$ | + 223.0 | 225.7 | 228.3 | 231.1 | 235.3 |
|  | 180.6 | 194.6 | 189.1 | 191.5 | 193. 1 | 194.5 | 196.0 | 195.6 | + 197.1 | $r 199.6$ | - 200.3 | - 202.5 | 205.3 | 207.4 | 208.8 | 211.2 |
| Finished consumer goods......-...........-do | 178.9 | 192.6 | 186.8 | 189.7 | 191.4 | 193.0 | 194.6 | 193.6 | ${ }_{+} 195.4$ | ${ }^{\sim} 197.5$ | - 197.9 | -200.5 | 203.6 | 206.1 | 207.6 | 210.0 |
|  | 184.5 | 199.1 | 194.6 | 195.6 | 196.9 | 198.1 | 199.2 | 200.0 | - 201.1 | - 204.4 | +206. 1 | - 207.0 | 209.2 | 210.5 | 211.4 | 213.6 |
| By durability of product: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 188.1 | 204.9 | 199.3 | 201.5 | 202.8 | r 204.1 | 205.3 | 207.3 | 208.0 | 210.7 | 212.1 | 213.0 | 216. 1 | 218.6 | 220.6 | 223.4 |
| Nondurable goods. | 198.4 | 211.9 | 206.5 | 209.5 | 211.3 | r 213.2 | 213.9 | 212.1 | 214.7 | -217.3 | $\stackrel{217.6}{ }$ | 219.9 | 223.5 | 227.2 | 230.1 | 233.9 |
|  | 190.1 | 204.2 | 198.9 | 201.0 | 202.5 | 203.9 | - 205.0 | 205.7 | ${ }_{-207.3}$ | '209.7 | 210.6 | 212.0 | 214.9 | 217.2 | 219.4 | 222.8 |
|  | 188.1 | 204.7 | 199.1 | 201.3 | 202.6 | 203.9 | 「205. 3 | 207.1 | $\stackrel{208.0}{ }$ | 210.5 | 21.8 | 212.7 | 215.5 | 217.7 | 219.4 | 222.2 |
| Nondurable manufactures.-.-------------- | 191.8 | 203.0 | 198.1 | 200.0 | 201.7 | 203.2 | 203.9 | 203.4 | + 205.7 | - 208.0 | 208.5 | 210.5 | 213.5 | 215.9 | 218.6 | 222.6 |
|  | und eq | ipment | and rep | irs form |  | work | rs, revis | d (CPI- | W), and | 11 urba | consum | (CPI | ). The | index | reflecti | nproved |
| in "health and recreation," 2 Residential. ${ }^{3}$ In | cludes a | ditional | tems n | $t$ previo |  | pricin | $g$ metho | ds, upda | ted exp | nditure | pattern | etc.; | aplete | etails a | e availa | de from |
| priced. ${ }^{\text {a }}$ Includes bottled gas. ${ }^{5}$ Computed b | BEA. | $\ddagger$ Data | revised | back to | 965 | Bure | u of La | or Stat | tics, W | shingt | D.C. | 20212. | $\triangle$ Begin | ning Ja | 1978, | CPI-U. |
| to reflect new base weights; comparable data for earl | er period | will be | hown | ter. | In- | $\sigma^{1} \mathrm{E}$ | or actua | produc | r prices | of indiv | dual co | moditi | see res | ective | mmodi | ies. All |
| des data for items not shown separately. \& R | Ratio of | rices rec | ived to | prices | paid | data | ubject t | revision | four mo | ths af | origina | publica | ion. |  |  |  |
| (parity index). IData through December 1977 workers; beginning January 1978, there are two inde | es, all $u$ | ban wag | earners | and cle | ical | $\stackrel{\odot}{\text { have }}$ | Goods to been revis | sed (bacl | to 1967) | refle | new seas | $\oplus \mathrm{Be}$ onal fact | nning <br> rs. | arch 1 | 79 Surv | EY, data |


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

COMMODITY PRICES-Continued

| PRODUCER PRICES $\sigma^{3}$-Continued (U.S. Department of Labor Inderes)-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All commodities-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Farm prod., processed foods and feeds $1967=100$ Farm products 9. | ${ }_{192.5}^{188.8}$ | ${ }_{212}^{206.7}$ | 200.0 204.2 | ${ }_{2}^{205.5}$ | ${ }_{215.8}^{207.6}$ | 210.4 219.5 | 210.3 219.9 | ${ }_{210}^{205.3}$ | 215 | 213.2 219.4 | ${ }_{218.2}{ }^{212}$ | $\stackrel{+}{+216.2}$ | ${ }_{2230.0}^{221}$ | 227.0 240.5 | 228.8 242.5 | ${ }_{245}^{231.2}$ |
| Fruits and vegetables, fresh and dried. do | 192.2 | ${ }^{218.2}$ | 201.2 | 227.3 | 220.1 | 230.3 | 252.4 | 215.3 | 208.0 | 214.2 | +207.0 | , 2221.6 | ${ }_{230.7}^{230.1}$ | 259.5 | 232.5 232.2 | ${ }_{237.2}$ |
| Grains. | 165.0 | 182.5 | 178.9 | 198.7 | 189.2 | 188.1 | 183.8 | 178.9 | 176.9 | 182.0 | 189.0 | 184.7 | 184.4 | 189.3 | 192.0 | 198.3 |
| Live poultry | 175.4 | 199.8 | 187.9 | 196.0 | 194.5 | ${ }_{221.6}$ | 246.5 | 204.8 | 212.1 | 184.9 | 192.4 | 198.5 | 206.0 | 217.8 | 217.6 | 209.4 |
| Livestock. | 173.0 | 220.1 | 208.3 | 218.1 | 230.3 | 236.2 | 226.8 | 216.6 | 226.8 | 235.1 | 222.4 | 230.1 | 247.3 | 266.5 | 275.8 | 284.0 |
| Foods and feeds, processed 9 -.---......do | 186.1 | 202.6 | 196.9 | 200.2 | 202.4 | 204.6 | 204.2 | 201.8 | 205.5 | 209.0 | 208.2 | $\stackrel{711.8}{ }$ | 215.3 | 218.7 | 220.4 | 222.3 |
| Beverages and beverage mat | 201.0 173.4 | 200.1 | 200.1 | 200.1 | 199.5 | 200.0 190.0 | 198.4 | 196.9 | 197.8 | ${ }^{201.1}$ | 201.4 | ${ }^{-201.0}$ | 201.4 | 201.3 | 201.4 | 201.6 |
| Cereal and bakery products..........-do | 173.4 173.4 | 190.2 188.4 | 186.4 180.3 | 188.8 184.5 | 188.2 | 195.0 185.4 | 191.0 | 192.5 190.8 | 192.0 1929 | 193.3 | 196.2 | -196.8 | 196.9 | 199.1 | 200.0 | 203. 0 |
| Dairy products-7-.................do | 173.4 187.4 188 | 188.4 202.6 | 180.3 195.6 | 184.5 196.5 | 184.5 | 185.4 198.8 | 1860.4 202.4 | ${ }_{203.3}^{190.8}$ | 192.9 205.1 | 197.0 210.1 | 199.6 | - 218.8 | 203.4 218.4 | ${ }_{219.3}^{203.1}$ | 204.8 219 | 207.0 220.4 |
| Meats, poultry, and fish .................do | 182.0 | 217.1 | 204.7 | 211.7 | 220.4 | 226.2 | 224.4 | 215.9 | 224.4 | 228.2 | 220.9 | - 229.2 | 240.3 | 248.5 | 250.5 | 252.9 |
| Industrial commodities ....................do. | 195.1 | 209.4 | 204.1 | 206.1 | 207.4 | 208.7 | 210.1 | 211.4 | 212.5 | 214.7 | 216.0 | - 217.2 | 219. | 222.4 | 225.1 | 228.6 |
| Chemicals and allied products 9 .-.......do | 192 | 198 | 196.1 | 196.9 192 | 198.6 | 198.9 | 199.8 | 199.5 | 200.3 | 201.6 | 202.3 | r 202.3 | 204.9 | 207.0 | 209.5 | 214.7 |
| Agric. chemicals and chem. prod.......do. | 187.8 22.9 | 198.2 | 192.0 | 192.3 224.2 | 203.5 |  |  | ${ }_{226}^{202.1}$ | 202.7 | 203.4 | -202.3 | - 201.9 | 20.4 | 202.9 | 205.6 | 209.4 |
| Chemicals, industrial | $\begin{array}{r}223.9 \\ 140.5 \\ \hline 1\end{array}$ | 225.5 148.1 | 145.3 | 146.2 18 | 224.0 146.6 | 224.0 | 225.1 148.5 | 226.4 | 1229.4 | 228.1 150.3 | + 2227.4 | '229.1 | 233.4 155.4 | 236.4 | 239.5 | $\underline{247.5}$ |
| Fats and oils, inedible. | 279.0 | 315.8 | 294.6 | 301.3 | 315.2 | 313.2 | 335.6 | 312.9 | 338.5 | 340.0 | 361.2 | ${ }_{332.9}$ | 336.1 | ${ }_{3}^{157.8} 8$ | 156.4 398 |  |
| Prepared paint-...... | 182.4 | 192.4 | 189.5 | 191.6 | 192.6 | 192.6 | 192.6 | 192.6 | 192.6 | 192.6 | - 196.5 | -198.7 | 198.9 | 202.3 | 398.5 202.3 | ${ }_{203.3}^{448}$ |
| Fuels and related prod., and power $\%$...-do | 302. | 322.5 | 315.3 | 317.3 426.4 | 319.7 | 323.2 | 324.5 | 324.9 | 326.7 | 328.5 | 329.7 | - 334.3 | 338.3 | 342.4 | 350.5 | 361.9 |
| Coal.-..............................- do | 389.4 | ${ }^{430.0}$ | 407.0 | 425.4 25.6 | ${ }_{25}^{43.4}$ | 434.5 | 437.1 | 441.7 | 442.7 | 443.9 | - 442.2 | - 443.8 | 444.6 | 444.7 | 445.3 | 447.5 |
| Electric | 232.9 387.8 | 250.7 429.1 | 249.8 424.8 | 2528.6 438.6 | 2528.6 428 | 256.9 | 254.8 430.6 | ${ }_{4253}^{253}$ | 252.5 431.4 | 252.7 429.2 | r 250.3 433.9 |  | 251.6 450.4 | 252.2 458.6 | 25.3 471.4 47 | 260.8 478.1 |
| Petroleum products, rer | 308.2 | 321.0 | 310.9 | 311.7 | 314.5 | 318.4 | 321.1 | 323.3 | 325.7 | 429.4 329 | 433.9 3 | - 338.2 | 343.7 | 458.6 348.8 | 471.3 359.4 | 478.1 379.2 |
| Furniture and household | 151.5 | 160.1 | 157.7 | 158.4 | 159.2 | 159.5 | 161.4 | 161.8 | 162.0 | 162.9 | 163.5 | ${ }^{+} 164.6$ | 165.8 | 166.7 | 167.5 | 167.8 |
| Appliances, household | 145.1 | 1152.8 |  | 152.4 169.9 | 152.4 170.7 |  |  | 154.0 | 154.2 | 154.5 | -153. 6 | +155.7 | 156.6 | 157.9 | 158.4 | 158.6 |
| Furniture, household...... | 162.2 87.7 | 173.4 89.3 | 169.3 89.1 | ${ }_{88.7}^{16.9}$ | ${ }_{90.0}^{170.7}$ | 172.3 88.5 | 174.6 90.8 | 175.6 90.8 | ${ }^{176.1}$ | 177.9 | ' $\begin{array}{r}178.8 \\ \hline 91.5\end{array}$ | r $\mathbf{1 7 9 2 . 3}$ $\mathbf{9 2 . 3}$ | 180.9 89.6 | 181.2 | 181.5 | 182.6 |
| Home electronic equipment |  |  |  |  |  |  |  |  |  | 91.3 |  |  | 89.6 | 89.6 | 89.6 | 89.7 |
| Hides, skins, and leather products $9 . .$. - - do | 179.3 | 200.1 | 187.9 | 191.9 | 193.6 | 195.3 | 197.3 | 205.1 | 210.7 | 213.0 | 215.8 | - 216.2 | 223.8 | 232.8 | 254.1 | 259.3 |
| Footwear | 168.7 <br>  <br> 286 | 183.2 | 175.7 296.0 | ${ }_{320.5}^{181}$ | 180.9 321.7 | ${ }_{34615}^{181.1}$ | 181.7 360.7 | 184.0 400 | 186.0 | 190.7 | - 192.2 | +194.3 | 196. 9 | 203.6 | 210.5 | 212.6 |
| Hides and | 286.7 201.0 | 360.5 | 215.3 | 217.4 | 217.3 | 217.4 | 324.5 26 | 250.8 251.9 | 435.3 269.4 | 427.9 269 | 417.0 278.7 | 401.3 279.6 | 452.8 292.8 | 505.7 3092 | 647.5 3719 | 64.2 |
| Lumber and wood | 236.3 | 275.9 | 266.2 | 269.6 | 273.4 | 278.5 | 277.5 | 281.6 | 282.8 | 234.2 | 290.0 | - 288.6 | 290.1 | 292.3 | 299.3 | 393.6 304.5 |
| Lumber | 276.5 | 322.1 | 312.5 | 316.7 | 316.5 | 320.8 | 319.1 | 326.7 | 332.2 | 334.5 | - 342.0 | - 339.1 | 336.6 | 339.9 | 350.1 | 355.1 |
| Machinery and equipment? | 181.7 | 196.0 | 191. 6 | ${ }_{209}^{192.7}$ | 193.9 | 195.3 | 196.5 | 197.5 | 198.8 | 200.5 | 202.7 | +203.8 | 205.0 | 206.2 | 207.4 | 209.2 |
| Agricultural machinery and equip | 197.9 | 212.8 | ${ }_{23}^{208.1}$ | 2209.0 | 209.7 | 210.8 | 212.2 | 214.1 | 217.8 | 218.6 | - 220.6 | +221.9 | 221.8 | 222.7 | 223.6 | 225.1 |
| Construction machinery and equip | 213.5 | 232.8 | ${ }_{16125}^{225}$ | 162.4 | ${ }_{163}^{230.3}$ | 231.1 | 232.8 | ${ }^{234.6}$ | 237.0 | 240.4 | -242.3 | +243.8 | 245.2 | 247.1 | 247.7 | 250.6 |
| Electrical machinery and equip .-...- d | 154.1 | 164.9 2169 | ${ }_{210.8}^{161.8}$ | ${ }_{212.2}^{162}$ | 163.4 214.0 | ${ }_{215.6}^{164.6}$ | 165.4 216.7 | ${ }_{218.2}^{165.8}$ | 166.4 | 167.5 | 169.6 | +170.5 | ${ }_{231}^{171}$ | 172.4 | 173.7 | 174. 6 |
| Metalworking machinery and equip | 188.5 | 216.9 |  |  | 214.0 | 215.6 | 216.7 | 218.2 | 220.3 | 223.8 | 226.3 | ' 228.2 | 230.1 | 231.8 | 232.7 | 234.9 |
|  | 209.0 | 227.1 | 221.1 | ${ }_{172}^{223.9}$ | 224.6 | 225.9 | 227.3 | 231.0 | 231.4 | 234.1 | 235.5 | 236.6 | 241.6 | 247.3 | 251.6 | 255.5 |
| Heating equipment.....................do | 165.5 | 174.4 | ${ }_{2417} 17$ | ${ }_{252.0}^{172}$ | 173.4 | ${ }^{175.9}$ | 174.4 | 176.2 | 176.0 | 176.9 | 177.2 | -179.1 | 180.1 | 181.2 | 183.6 | 183.9 |
| Iron and steel. | 230.4 | 253.5 | ${ }_{2}^{247.6}$ | ${ }_{202} 25$ | ${ }_{253}^{25.0}$ | 252.5 | $\stackrel{253}{25.9}$ | $\stackrel{258.6}{ }$ | 258.5 | 259.9 | 261.7 | -263.2 | 272.0 | 274.6 | 279.8 | 279.8 |
| Nonferrous metals | 195.4 | 207.7 | 201.1 | 202.9 | 203.2 | 205.4 | 205.9 | 211.1 | 211.4 | 217.1 | 218.2 | - 219.0 | 223.2 | 238.8 | 246.0 | 257.9 |
| Nonmetallic | 200.5 | 222.8 | 215.9 | 218.4 | 219.3 | 222.0 | 224.7 | 227.2 | 228.2 | 229.1 | 230.0 | 231.1 | 37.7 | 240.3 | 240.5 |  |
| Clay prod., structural, excl. re | 179.8 | 197.1 | 192.6 | 193.7 | 194.2 | 195.5 | 196.6 | 197.7 | 202.3 | 202.4 | 204.4 | 206.5 | 209.7 | 210.7 | 212.8 | 214.8 |
| Concrete products .-......... | 191.8 | 214.0 | ${ }_{21}^{206.0}$ | 207.9 | 209.7 | 211.8 | 214.4 | 219.7 | 221.4 | 222.2 | 222.9 | 224.2 | 235.0 | ${ }^{236.3}$ | 237.8 | 239.9 |
| Gypsum products | 183.5 | 229.1 | 217.0 189 |  | ${ }_{193}^{228.2}$ | 230.2 | 234.0 | 235.9 | 236.0 | 236.8 | 242.1 | 242.7 | 2476 | 250.6 | 251.0 | 252.2 |
| Pulp, paper, and allied products.......- do | 186.4 | 195.5 | 189.7 | 1902.7 | 193.2 | 193.5 | 195.5 | 195.8 | 199.0 | 202.4 | 203.9 | ${ }^{2} 205.2$ | 2068 | 208.4 | 211.8 | ${ }^{214.5}$ |
| Paper-...-.......---.................d | 194.3 | 206.1 | 1198.8 | 172.8 | 204.0 | 205. 17 | 206.8 | 208.0 | 210.2 | 213.0 | - 214.0 | ${ }^{\text {r } 214.6}$ | 217.4 | ${ }_{183}^{220.8}$ | 222.9 | 225.9 |
| Rubber and plastics | 167.6 | 174.7 179 | 171.4 172.3 | 175.1 | 178.8 | 174.5 179.5 | 174.9 | 175.7 | 176.7 1804 | 178.1 | 179.4 |  | ${ }^{180.7}$ | 183.8 <br> 188. <br> 1 | 185.5 | 188.2 |
| Tires and | 169.9 | 179.1 | 172.3 | 175.1 | 178.8 | 179.5 | 179.9 | 180.0 | 180.4 | 184.5 | -187.7 | -188.8 | 191.4 | 193.8 | 194.7 | 194.8 |
| Textile products and apparel \$-.......do | 154.0 | 159.7 | 157.4 | 157.9 | 158.6 | 159.2 | 160.0 | 160.5 | 161.3 | 162.3 | 163.2 | + 163.6 | 164.6 | 165.0 | 165.1 | 166.0 |
| Synthetic fibers...........-Dee. $1975=100$ | 107.3 | 109.7 | 109.9 | 109.2 | 109.5 | 108.9 | 108.9 | 109.1 | 109.1 | 109.4 | +110.6 | - 110.6 | 113.3 | 113.7 | 113.8 | 115.4 |
| Processed yarns and threads...........do | 100.9 | 102.3 | 101.2 | 101.1 | 101.0 | 101.6 | 101.9 | 102.4 | 103.3 | 104.0 | 105.3 | -104. 7 | 105.3 | 105.3 | 106.7 | 106.0 |
| Gray fabrics...............-..............do | 104.7 | 118.6 | 112.2 | 113.9 | 117.3 | 117.8 | 119.2 | 120.9 | 124.2 | 126.5 | 126.7 | 125.9 | 125.6 | 123.2 | 123.2 | 124.4 |
| Finished fabrics | 103.7 | 103.8 | 103.0 |  | 103.3 | 103.1 | 103.2 | ${ }_{153.4}^{103.4}$ | 1104.1 | 104.5 | +104.8 | - 106.0 | 106.4 | 106.8 | 105.1 | 105.6 |
|  | 147.3 | 152.4 | 150.2 | 176.1 | 1751.0 | 152.1 | 178.0 | 173.5 | 153.3 | 154.1 | + 155. 3 | -155. 5 | 157.1 | ${ }^{157.5}$ | 158.1 | 159.3 |
| Textile house furnishings-..............do | 171.3 | 178.6 | 176.3 | 176.1 | 177.0 | 178.7 | 179.4 | 179.2 | 180.3 | 181.0 | 180.5 | 183.4 | 181.8 | 186.0 | 187.4 | 187.6 |
| Transportation equipment $¢$ | 161.3 | 173.4 | 169.6 | 170.5 172.9 | 172.0 | 172.4 | 172.8 | 173.1 | 173.6 | 179.2 | 180.1 | -180.5 | 182.4 | $\begin{aligned} & 183.5 \\ & 185.9 \end{aligned}$ | 183.5 185.8 |  |
| Motor vehicles and equip..........1967=100.. | 163.7 | 175.9 | 171.9 | 172.9 | 174.6 | 175.0 | 175.5 | 175.8 | 175.9 | 181.8 | 182.5 | -182.8 | 184.7 | $185.9$ | 185.8 | 189.2 |
| Seasonally Adjusted $\ddagger$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All commodities, percent change from |  |  | 0.8 | 1.1 | 0.7 | 0.8 | 0.4 | 0.3 | 0.8 | 1.3 | 0.7 | 0.6 | 1.4 | 1.3 | 1.2 | 1.2 |
| By stage of processing: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Crude materials for further processing.. $1967=10$ |  |  | 229.2 | 233.8 | 235.9 | 240.9 | 241.5 | 241.5 | 245.7 | 253.4 | 256.0 | ${ }_{225}^{257.3}$ | ${ }_{2}^{263.4}$ | 272.2 | 275.0 | $\stackrel{273.9}{ }$ |
| Intermediate materials, supplies, etc.-.....do |  |  | 210.9 | 212.0 | 2193 | 219.4 | 215.4 | 216.8 | ${ }^{218.7}$ | 220.7 | 222.4 | 224.0 | 226.6 | ${ }_{207} 2$ | 2093 | ${ }^{231.7}$ |
| Finished goods $\mathcal{O}$ Finished consume |  |  | 188.5 | 189.7 | 190.8 | 199.3 | 193.7 | 194.0 | 195.8 | 199.4 | 199.1 | 200.5 20.9 | 203.2 203 | 206.1 | 208.4 | ${ }_{210.0}^{21.2}$ |
| Food... |  |  | 201.7 | 203.8 | 204.4 | 207.2 | 207.4 | 206.6 | 209.7 | 213.6 | 215.1 | 217.3 | 221.2 | 224.7 | 227.5 | 226.9 |
| Finished goods, exc. foods.................do |  |  | 178.5 | 180.8 | 182.2 | 183.0 | 184.9 | 185.9 | 186.9 | 187.9 | 189.2 | 190.7 | 193.0 | 194.7 | 196.8 | 199.5 |
| Durab |  |  | 158.8 | 163.0 | 165.3 | 165.6 | 168.5 | 169.8 | 171.0 | 170.5 | 171.2 | 172.1 | 174.1 | 175.4 | 176.4 | 177.9 |
| Nondurable. |  |  | 191.7 | 192.4 | 193.3 | 194.4 | 195. 5 | 196.3 | 197.2 | 199.2 | 200.9 | 203.0 | 205.5 | 207.4 | 210.2 | 213.7 |
| Capital equipment |  |  | 194.4 | 195.7 | 197.2 | 198.7 | 200.1 | 201.0 | 202.1 | 203.1 | 204.9 | 206.4 | 208.4 | 210.1 | 211.3 | 213.7 |
| By durability of product: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total manufactures |  |  | 199.3 | 200.8 | 202.1 | 203.5 | 204. 4 | 205.5 | 207.3 | 209.6 | 211.0 | 212.6 | 215.3 | 217.6 | 219.8 | 222.6 |
| Durable manufactures |  |  | 199.1 | 201.1 | 202.4 | 203.9 | 205.5 | 207.3 | 208.4 | 209.9 | 211.8 | 213.1 | 215.7 | 217.7 | 2 | 222.0 |
| Nondurable manufactures |  |  | 198.7 | 199.8 | 201.5 | 202.0 | 202.5 | 203.2 | 205.3 | 208.1 | 209.3 | 211.3 | 214.1 | 216.8 | 219.3 | 222.4 |
| Farm products. |  |  | 205.2 | 212.8 | 212.8 | 217.8 | 216.0 | 210.8 | 215.4 | 221.7 | 224.1 | 225.2 | 231.4 | 239.0 | 243.9 | 245.1 |
| Processed foods and fee |  |  | 198.3 | 200.6 | 202.0 | 203.0 | 201.7 | 201.9 | 204.9 | 209.6 | 210.4 | 212.4 | 215.0 | 218.9 | 222.1 | 222.7 |
| PURCHASING POWER OF THE DOLLAR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | \$0.554 | \$0, 514 $\mathbf{. 5 1 2}$ | \$0.529 | $\underset{.522}{ }$ | \$0.518 | $\$ 0.514$ .512 | $\$ 0.510$ .508 | $\$ 0.511$ .506 | $\$ 0.507$ .502 | $\$ 0.501$ .498 | $\$ 0.499$ .495 | \$0.494 | $\begin{array}{r}\text { \$0. } \\ \hline \\ .487 \\ \hline 89\end{array}$ | \$0.482 | $\begin{array}{r} \mathbf{\$ 0} 0.479 \\ .478 \end{array}$ | \$0.473 .473 |

- Revised. $\oplus$ Beginning Jan. 1978, based on CPI-U; see note "q" for p. S-8. ${ }^{\circ}$ © See tive with Jan. 1976 reporting, the textile products group has been extensively reclassified; no comparable data for earlier periods are available for the newly introduced indexes. $\ddagger \mathrm{Be}-$
ginning in the March 1979 Surver, data have been revised (bark to 1967) to reflect now seasonal factors. month and annual data have been restated to reflect the purchasing power of the dollar as measured by finished goods; comparable data prior to Nov. 1977 will be shown later.

| Uniess otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

CONSTRUCTION AND REAL ESTATE


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

CONSTRUCTION AND REAL ESTATE-Continued

| CONSTRUCTION COST INDEXES-Con. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Engineering News-Record: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Building --........................... $1967=100 .$. | 240.6 2280 | 258.7 258 | 250.7 |  | $\stackrel{244.6}{254}$ | ${ }_{256.3}^{246.2}$ | ${ }_{262.6}^{251.0}$ | ${ }_{263.3}^{252.3}$ | 254.5 265.4 | 264.8 | 256.3 266.4 | 286 | 267.4 | 2857.9 | 268.7 | ${ }_{1}^{1} 268.8$ |
| Federal Highway Adm.-Highway construction: Composite (avg. for year or qtr.) $\ldots \ldots .1967=100$. | 216.4 | 264.9 | 219.5 |  |  | 258.1 |  |  | 296.1 |  |  | 302.7 |  |  | 277.2 |  |
| Output index: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| omposite, unadjusted $\% 0^{0} \ldots \ldots \ldots . . .1947-49=100 .$. | 180.4 |  | 186.6 ${ }_{193.9}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iron and steel products, unadjusted....-do. | 147.3 | 158.6 | 161.9 | 158.9 | 176.4 | 180.9 | 153.2 | 173.8 | 159.4 | 173.2 | 158.8 | 152.6 |  |  |  |  |
| Lumber and wood products, unadjusted.do.... |  |  | 212.7 | 194.2 | 209.6 | 205.0 | 177.6 | 207.2 | 198.7 | 204.8 | 193.4 |  |  |  |  |  |
| Portland cement, unadjusted............do.... | 208.7 | 225.2 | 188.1 | 226.5 | 268.6 | 297.8 | 261.6 | 301.2 | 266.4 | 289.9 | 226.4 | 173.2 |  |  |  |  |
| REAL EState $\dagger$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mortgage applications for new home construction: FHA net applications................... thous. units. | 113.3 | 118.8 | 10.4 | 11.0 | 12.0 | 9.7 | 10.9 | 11.1 | 8.6 | 11.6 | 11.1 | 8.0 | 9.4 | 8.3 | 12.7 | 12.2 |
| Seasonally adjusted annual rates.........do.. |  |  | 112 | 133 | 113 |  | 132 | 122 | 101 | 133 | 148 | 120 | 145 | 113 |  |  |
| Requests for VA appraisals. - .-.-.-.-.--- do - | 211.8 | 192.7 | 18.1 $r$ | 18.9 + | ${ }_{1}^{16.3}$ | 16.7 | $\stackrel{15.4}{ }$ | 17.7 | 14.9 | 17.0 | ${ }_{-}^{15.5}$ | 13.2 | 15.7 | 14.6 | 21.4 | 18.8 |
| Seasonally adjusted annual rates..........-do....- |  |  | ${ }_{5} 193$ | r 210 | 171 | r 177 | r 188 | -187 | 188 | +190 | r 207 | + 222 | 217 | 194 | 238 | 199 |
| Home mortgages insured or guaranteed by- <br> Fed. Hous. Adm.: Face amount............... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fed. Hous. Adm.: Face amount...............mil. \$ <br> Vet. Adm.: Face amount $\delta$. | $\begin{aligned} & 8.840 .84 \\ & \mathbf{1 3}, 753.02 \end{aligned}$ | $\begin{aligned} & 11,139.97 \\ & 14,470.40 \end{aligned}$ | $\left\lvert\, \begin{aligned} & 983.10 \\ & 1,344.91 \end{aligned}\right.$ | $\begin{aligned} & 714.60 \\ & 988.96 \end{aligned}$ | $\begin{array}{r} 868.92 \\ 1,180.30 \end{array}$ | $\begin{array}{r} 805.68 \\ 1,108.57 \end{array}$ | 886.60 $1,178.68$ | $\left\|\begin{array}{l} 1,049.48 \\ 1,319.00 \end{array}\right\|$ | 867.76 $1,536.24$ | $11,916.27$ | $\begin{array}{r} 905.02 \\ 1,115.62 \end{array}$ | $\begin{array}{r} 565.36 \\ 1,176.51 \end{array}$ | $\begin{aligned} & 1,420.67 \\ & 1,418.91 \end{aligned}$ | $1,422.09$ | 1,467.69 | $\left\lvert\, \begin{aligned} & 1,045.24 \\ & 1,074.90 \end{aligned}\right.$ |
| Federal Home Loan Banks, outstanding advances to member institutions, end of period.......mil. \$ | 20,173 | 32, 670 | 21,278 | 22,957 | 23,664 | 25, 274 | 26,605 | 27,869 | 29,158 | 30, 104 | 30,975 | 32,670 | 32,489 | 31,738 | 31,881 | 33, 149 |
| New mortgage loans of all savings and loan associations, estimated total.....................-. mil. \$. | 107, 368 | 110, 294 | 9,418 | 9,026 | 10,436 | 11,472 | 9,031 | 10,398 | 9,305 | 9,674 | 9,165 | 8,426 | 6, 679 | r 5,691 | 7,621 |  |
| By purpose of loan: | 20,717 | 22,495 | 2,113 | 2,011 | 2,259 | 2,266 | 1,811 | 1,981 | 1,807 | 2,017 |  | 1,692 | 1,420 |  | 1,670 |  |
| Home purchase......................................... | ${ }^{66,060}$ | 68, 380 | 5,501 | 5, 260 | 6,423 | 7,358 | 5, 756 | 6,830 | 6,049 | 6,077 | 5,775 | 5,117 | 3,961 | +3, ${ }_{+}$ | 4,566 |  |
| All other purposes....-.......................do... | 20,591 | 19,419 | 1,804 | 1,755 | 1,754 | 1,848 | 1,464 | 1,587 | 1,449 | 1,580 | 1,596 | 1,617 | 1,298 | r 1,097 | 1,385 |  |
| Foreclosures................................number. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fire losses (on bldgs., contents, etc.)........mil. \$.. | 3,764 | 2 3, 689 | 385 | 370 | 311 | 355 | 351 | 320 | 295 | 302 | 311 | (2) |  |  |  |  |

DOMESTIC TRADE


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

DOMESTIC TRADE—Continued

| RETAIL TRADE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All retail stores: I <br> Estimated sales (unadj.), totall .............mil. \$.- | 724,020 | 798,818 | 64,764 | 63,838 | 67,952 | 69,056 | 66,557 | 69, 102 | 66, 219 | 68,615 | 71, 297 | 84,597 | 61,878 | -60,653 | r71,998 | ${ }^{171,495}$ |
| Durable goods stores ¢ .........-..........-do. | 247, 832 | 277,916 | 22,777 | 23,165 | 25, 085 | 25,685 | 23, 932 | 24,898 | 22,563 | 24,596 | 24,463 | 25,872 | 21,100 | -21,131 | '25,972 | 126,409 |
| Building materials, hardware, garden supply, and mobile home dealers $\%$ _mil. \$- | 38,641 | 44, 125 | 3, 170 | 3,665 | 4, 115 | 4, 260 | 4, 074 | 4,308 | 4,034 | 4,219 | 3,918 | 3,560 | 2, 873 | -2,708 | -3,730 | ${ }^{14} 4,248$ |
| Building materials and supply stores. do...- | 26,509 | 29,991 | 2,114 | 2,382 | 2, 653 | 2,897 | 2,841 | 3, 079 | 2,861 | 2,985 | 2,699 | 2, 263 | 1,925 | -1,790 | 2,439 | 1,248 |
|  | 6,516 | 6,881 | , 504 | - 571 | ${ }^{2} 625$ | 2,631 | ${ }^{2} 585$ | , 582 | -600 | -624 | -632 | 749 | +496 | - 452 | 624 |  |
|  | 148, 444 | 163, 668 | 14,560 | 14,382 | 15, 415 | 15,718 | 14, 294 | 14,642 | 12,733 | 14, 401 | 13, 610 | 12,452 | 12,805 | -13,100 | -16,123 | 115,996 |
|  | 135, 777 | 149, 664 | 13,462 | 13,234 | 14, 250 | 14, 464 | 13,090 | 13,835 | 11, 512 | 13, 118 | 12,322 | 11, 169 | 11,703 | r12,084 | 14,877 |  |
| Auto and home supply stores..-.....do | 12,667 | 13,993 | 1,098 | 1,148 | 1,165 | 1,254 | 1, 204 | 1,257 | 1,221 | 1,283 | 1,288 | 1,283 | 1,102 | r1,016 | 1,246 |  |
| Furniture, home furn., and equip | 34,761 | 37,430 | 2,902 | 2,901 | 3,074 | 3,107 | 3, 021 | 3,224 | 3, 138 | 3,231 | 3,566 | 4, 216 | 2,959 | + 2,882 | - 3,317 | 13,274 |
| Furniture, home furnishing stores...-d | 2,295 | 22,719 | 1,758 | 1,825 | 1,935 | 1,943 | 1,853 | 1,999 | 1,897 | 1,973 | 2,197 | 2, 290 | 1, 833 | +1,796 | 2, 122 |  |
| Household appliance, radio, TV......do | 10,801 | 10,991 | 852 | 804 | 868 | 892 | 883 | 930 | 930 | 943 | 1,034 | 1,359 | 851 | 842 | 923 |  |
| Nondurable goods store | 476,188 | 520,902 | 41,987 | 40,673 | 42,867 | 43, 371 | 42, 625 | 44, 204 | 43, 656 | 44, 019 | 46,834 | 58,725 | 40,778 | -39,522 | - 46,026 | 145,086 |
| General merch. group | 90, 133 | 99,505 | 7,366 | 7,472 | 8,017 | 8,106 | 7,497 | 8, 165 | 8,024 | 8,262 | 9,883 | 15,784 | 5,946 | r 5,925 +4 | r 7,932 | ${ }^{1} 8,128$ |
| Department stores. | 72,333 | 79,732 | 5,894 | 6,010 | 6, 431 | 6,522 | 5,965 | 6, 520 | 6, 468 | 6,610 | 7,908 | 12,635 | 4,747 | + 4,700 | -6,303 | ${ }^{18} 6,473$ |
| Variety stores..... | 7,602 | 7,809 | 611 | 582 | 629 | 627 | 605 | 649 | 605 | 631 | 712 | 1,273 | 476 | r 483 | 617 |  |
|  | 158, 519 | 174, 458 | 14,529 | 13,865 | 14,528 | 14,936 | 15,006 | 14,858 | 14,942 | 14, 417 | 14,834 | 16,690 | 14,944 | r14,215 | -16,212 | 115,084 |
| Grocery st | 147, 142 | 161,527 | 13,482 | 12,862 | 13, 455 | 13,848 | 13,941 | 13,781 | 13, 892 | 13,295 | 13,695 | 15, 243 | 13,769 | r13,024 | r14,923 | ${ }^{1} 13,789$ |
| Gasoline service | 58, 231 | 60,884 | 4,906 | 4,889 | 5,156 | 5,256 | 5,283 | 5,387 | 5,191 | 5,264 | 5,197 | 5,318 | 5,059 | r 4,898 | - 5, 435 | 15,499 |
| Apparel and accessory sto | 34, 341 | 37,828 7,353 | 2,940 | 2,816 | 2,906 542 | 2,892 | 2,754 508 | 3,194 554 | 3,236 552 | 3,273 609 | 3,675 763 | 5,698 1,293 | 2,689 $\mathbf{5 6 1}$ | r 2,416 $r$ | $\begin{array}{r} \mathrm{r} \\ \mathbf{3}, 143 \\ 553 \end{array}$ | ${ }^{1} 3,366$ |
| Women's clothing, spec. stores, furriers d | 13,106 | 14,660 | 1,143 | 1,088 | 1, 122 | 1,104 | 1,095 | 1,249 | 1,310 | 1,320 | 1,396 | 2,144 | 996 | г 948 | 1,242 |  |
| Shoe stores..................-.-.-.-.-.--- | 5,852 | 6,593 | 570 | 528 | 529 | 518 | 467 | 571 | 594 | 578 | 617 | 823 | 478 | + 402 | 575 |  |
| Eating and drinking places...---......-do | 63,556 | 70,083 | 5,579 | 5,719 | 6,024 | 6,220 | 6, 395 | 6,527 | 6, 134 | 6, 006 | 5,775 | 6,141 | 5,389 | +5,339 | -6,311 | 16,361 |
| Drug and proprietary stores....-.-.-....- do | 22,918 | 25,337 | 2,070 | 1,940 | 2,060 | 2, 069 | 2,016 | 2,109 | 2, 041 | 2, 106 | 2,164 | 3, 040 | 2,139 | + 2,058 | - 2, 214 | 1 2, 204 |
|  | 12, 832 | 13, 616 | 1,038 | 1,010 | 1,086 | 1,138 | 1,181 | 1,161 | 1,147 | 1,123 | 1,196 | 1,675 | 1,061 | r 1,034 | 1, 160 |  |
| Mail-order houses (dept. store mdse.) ¢- do | 6,705 | 7,073 | 594 | 538 | 534 | 497 | 499 | 588 | 552 | 776 | 902 | 722 | 439 | ${ }^{\text {r }} 374$ | 459 |  |
| Estimated sales (seas. adj.), |  |  | 64,075 | 65, 146 | 65, 522 | 65, 964 | 66, 224 | 67,303 | 68, 085 | 68,971 | 70,158 | 70,918 | 70,855 | -71,122 | r71,852 | 1 72,197 |
| Durable goods stores |  |  | 21,813 | 22,617 | 22,730 | 22,947 | 23,049 | 23,617 | 23,872 | 24, 422 | 24,954 | 25, 163 | 25,250 | r25,035 | -25,356 | 1 25,253 |
| Building materials, hardware, garden supply, and mobile home dealers $\$$.........mil. \$. |  |  | 3,397 | 3, 609 | 3,590 | 3, 651 | 3,707 | 3, 809 | 3.798 | 3,911 | 3,971 | 4,009 | 3, 956 | - 3,676 | r 4,043 | 1 4,069 |
| Building materials and supply stores.do. |  |  | 2, 251 | 2,451 | 2,429 | 2,502 | 2,546 | 2,625 | 2,613 | 2, 675 | 2, 667 | 2,727 | 2,577 | - 2, 380 | 2,611 |  |
| Hardware stores..............-.-.-.-.....d |  |  | 545 | 547 | 552 | 552 | 558 | 580 | 599 | 609 | 621 | 631 | 667 | +608 | 678 |  |
| Automotive dea |  |  | 13, 132 | 13,537 | 13,520 | 13,638 | 13, 490 | 13,895 | 14, 033 | 14, 352 | 14,431 | 14,558 | 15,011 | ${ }^{14,932}$ | r14,893 | ${ }^{1} 14,648$ |
| Motor vehicle dealers...-....................do |  |  | 12, 330 | 12,426 | 12,413 | 12,501 | 12,337 | 12, 699 | 12,791 | 13,105 | 13, 179 | 13,296 | 13,736 | r13,654 | r13,649 |  |
| Auto and home supply stores...-.-.- do |  |  | 1,102 | 1,111 | 1,107 | 1,137 | 1,153 | 1,196 | 1,242 | 1,247 | 1,252 | 1,262 | 1,275 | r 1,278 | 1,244 |  |
| Furniture, home furn., and equip. ¢ ...do |  |  | 2,924 | 3,061 | 3,116 | 3, 071 | 3,091 | 3,170 | 3,228 | 3,248 | 3,303 | 3,307 | 3,337 | + 3,333 | - 3,358 | ${ }^{1} 3,414$ |
| Furniture, home furnishings stores...do |  |  | 1,734 | 1,885 | 1,918 | 1,872 | 1,883 | 1,922 | 1,978 | 1,967 | 2, 003 | 2,014 | 2,067 | r 2,062 | 2,124 |  |
| Household appliance, radio, TV.......do |  |  | 883 | 877 | 902 | 895 | 893 | 935 | 938 | 962 | 975 | 956 | 966 | - 996 | 947 |  |
| Nondurable goods stor |  |  | 42, 262 | 42,529 | 42,792 | 43, 017 | 43, 175 | 43,686 | 44, 213 | 44,549 | 45, 204 | 45, 755 | 45,605 | -46,087 | -46,496 | 1 46,944 |
| General merch. group |  |  | 7,952 | 8,048 | 8,236 | 8, 294 | 8, 287 | 8, 361 | 8, 379 | 8, 394 | 8,549 | 8,716 | 8,402 | - 8, 378 | - 8, 680 | ${ }^{1} 8,599$ |
| Department stores |  |  | 6, 420 | 6,462 | 6,609 | 6,662 | 6,650 | 6,701 | 6,696 | 6,684 | 6,806 | 6,897 | 6,791 | - 6,734 | - 6,942 | ${ }^{1} 6,864$ |
|  |  |  | 622 | 654 | 659 | 656 | 660 | 660 | 658 | 660 | 663 | 649 | 685 | r 660 | 663 |  |
| Food stor |  |  | 14, 177 | 14, 298 | 14, 375 | 14,420 | 14, 609 | 14,629 | 14,775 | 14,947 | 15, 125 | 15, 284 | 15,659 | -15,639 | -15,609 | 1 15,832 |
|  |  |  | 13, 153 | 13, 273 | 13,335 | 13,393 | 13,574 | 13,577 | 13,687 | 13,835 | 13,960 | 13,984 | 14,358 | -14,357 | ${ }^{1} 14,335$ | 1 14,530 |
| Gasoline service stations.....................do |  |  | 4,996 | 4,994 | 5,020 | 5,030 | 4,887 | 5, 082 | 5,191 | 5,222 | 5,276 | 5,292 | 5,353 | ${ }^{r} 5,566$ | - 5, 512 | ${ }^{1} 5,606$ |
| Apparel and accessory store |  |  | 2,983 | 3,046 | 3,062 | 3,074 573 | 3, 126 | 3,221 | 3, 261 | 3,271 | 3,388 685 | 3,376 675 | 3, 273 | - 3 3, 214 | - 3, 428 | ${ }^{1} 3,390$ |
| Men's and boys' clothing.....-........-d |  |  | ${ }^{581}$ | + 585 | , 577 | + 573 | 588 1.237 | 614 | 629 | + 636 | +685 | 675 1.313 | - 6325 | $\begin{array}{r}\text { r } \\ \hline\end{array}$ | 633 1,323 |  |
| Women's clothing,spec. stores,furriers_do |  |  | 1,169 | 1,201 | 1,176 | 1,182 | 1,237 | 1, 272 | 1,274 | 1,262 | 1,287 | 1, 313 | 1, 2288 |  | 1,323 |  |
|  |  |  | 528 | 548 | 552 | 552 | 532 | 543 | 547 | 568 | 590 | 586 | 580 | ${ }^{5} 533$ | 620 |  |
| Eating and drinking places...............d |  |  | 5,787 | 5,794 | 5,672 | 5,770 | 5,867 | 5,923 | 5,996 | 6,018 | 6,003 | 6,184 | 6, 041 | -6,274 | - 6, 499 | ${ }^{1}$ 6,504 |
|  |  |  | 2,050 | 2,042 | 2, 058 | 2,075 | 2,102 | 2,135 | 2, 158 | 2,180 | 2,240 | 2, 232 | 2, 278 | - 2, 257 | - 2, 225 | ${ }^{1} 2,270$ |
| Liquor stores...-.-...-.-.............-.- do...- |  |  | 1, 110 | 1,098 | 1, 105 | 1, 109 | 1,122 | 1, 151 | 1,167 | 1,158 | 1,181 | 1, 194 | 1,225 | ${ }^{\text {r }} 1,235$ | 1, 212 |  |
| Mail-order houses (dept. store mdse.) §..do...- |  |  | 571 | 584 | 586 | 597 | 598 | 584 | 593 | 595 | 598 | 604 | 604 | r 482 | 443 |  |
| Estimated inventories, end of year or month: T |  |  |  |  |  |  |  |  | 97, 799 |  |  |  |  |  |  |  |
| Book value (unadjusted), totalף.........-mil. \$.- Durable goods stores $\%$..............do... | 88,148 43,170 | 98, 4788 | 93, 45 | 46, 475 | 95, 752 | 46, 308 | 45,652 | 43, 855 | 44, 411 | 102, 344 | 105, 37,798 | 98, 4788 | r98,759 49,125 | 49, 498 |  |  |
| Building materials and supply stores do | 7,187 | 7,792 | 7,929 | 8, 665 | 8, 062 | 8, 100 | 8,016 | 7,911 | 7,922 | 7,891 | 7,910 | 7,792 | - 8, 115 | 8,225 |  |  |
| Automotive dealers.-.-.--.-........- do | 21,875 | 25,011 | 23, 403 | 23, 478 | 23, 564 | 23, 201 | 22, 564 | 20, 542 | 20,778 | 22, 201 | 23, 346 | 25, 011 | '25,736 | 26, 141 |  |  |
| Furniture, home furn., and equip...-d | 6, 808 | 7,133 | 6,918 | 7, 110 | 7, 127 | 7,105 | 7,121 | 7,241 | 7,313 | 7,538 | 7,441 | 7,133 | r 7, 141 | 7,190 |  |  |
| Nondurable goods stores \% ....-.-....... do | 44,978 | 50,639 | 47,597 | 48,459 | 48,816 | 49,386 | 49,919 | 51,693 | 53, 388 | 55,987 | 57,532 | 50,639 | -49,634 | 49,637 |  |  |
|  | 15,895 | 17,926 | 17, 610 | 18, 298 | 18,465 | 18,560 | 18,770 | 19,631 | 20, 574 | 21,894 | 22, 452 | 17,926 | -17,660 | 17, 891 |  |  |
| Department stores.-........--------- | 11, 932 | 13, 638 | 13, 307 | 13,899 | 14, 063 | 14, 137 | 14, 086 | 14, 686 | 15, 459 | 16, 602 | 17,113 | 13,638 | -13,376 | 13, 456 |  |  |
|  | 9,558 | 10,734 | 9,714 | 9,687 | 9,864 | 10, 083 | 10,082 | 10, 186 | 10, 312 | 10, 734 | 11,008 | 10,734 | -10,655 | 10,588 |  |  |
| A pparel and accessory stores....-.-.-.-do... | 7,149 | 7,957 | 7,392 | 7,584 | 7,622 | 7,661 | 7,922 | 8, 324 | 8,767 | 9, 127 | 9,271 | 7,957 | r 7,536 | 7,771 |  |  |
| Book value (seas. adj.), totalT............- do | 90,120 | 100, 818 | 92, 712 | 94, 290 | 94, 033 | 95,607 | 96,521 | 97, 824 | 98,350 | 99, 279 | 100, 483 | 100.818 | -101,739 | 101,000 |  |  |
| Durable goods stores ${ }^{\circ}$.-....-..........-do. | 43,414 | 48, 161 | 44, 624 | 45, 619 | 45, 525 | 45, 502 | 45,704 | 46,116 | 46,444 | 47,006 | 47,555 | 48,161 | 49,302 | 49, 411 |  |  |
| Building materials and supply stores.do | 7,494 | 8,125 | 7,691 | 8,372 | 7,804 | 7,988 | 8, 024 | 7.991 | 7,986 | 7,987 | 8,047 | 8,125 | -8,332 | 8,217 |  |  |
| Automotive dealers....................do.... | 21,594 | 24, 690 | 22,099 | 22, 775 | 22,485 | 22, 438 | 22, 474 | 22, 673 | 22, 985 | 23, 493 | 23, 849 | 24, 690 | r25,281 | 25, 330 |  |  |
| Furniture, home furn., and equip....do.... | 6,808 | 7,140 | 7,009 | 7,124 | 7, 156 | 7, 134 | 7,215 | 7,299 | 7,248 | 7, 262 | 7,176 | 7,140 | г 7,287 | 7,367 |  |  |
| Nondurable goods stores $\%$...---.-..... do | 46, 706 | 52,657 | 48, 088 | 48,671 | 49,408 | 50, 105 | 50, 817 | 51, 708 | 51, 906 | 52, 273 | 52,928 | 52,657 | -52,437 | 51,589 |  |  |
| General merch. group stores...........-d | 17,376 | 19,622 | 18, 006 | 18, 319 | 18, 522 | 18,768 | 19,053 | 19,401 | 19,607 | 19, 661 | 19,877 | 19,622 | r19,629 | 19,229 |  |  |
| Department stores. | 13, 026 | 14, 905 | 13,579 | 13, 844 | 14, 035 | 14, 323 | 14,447 | 14, 642 | 14, 836 | 14, 850 | 14,933 | 14,905 | -14,895 | 14, 531 |  |  |
| Food stores. | 9,426 | 10, 596 | 9,743 | 9,716 | 9, 884 | 10,093 | 10,215 | 10, 373 | 10,406 | 10,503 | 10,595 | 10,596 | 「10,795 | 10,738 |  |  |
| Apparel and accessory stores .........do | 7,478 | 8,332 | 7,535 | 7,707 | 7,834 | 7,922 | 8,067 | 8,217 | 8,240 | 8,305 | 8,413 | 8,332 | ז 8,147 | 8,154 |  |  |

Revised. ${ }^{1}$ Advance estimate. $\quad$ Effective Mar. 1979 SUrver, estimates have been
revised to reflect a new sample design, benchmarking to the 1967 and 1972 Censuses, redefinition of sales to exclude sales taxes and finance charges, classifications based on the 1972 Standard Industrial Classification (SIC), and revision and updating of seasonal adjustment factors.

Revisions for retail sales (Jan. 1967-Dec. 1977) and for retail inventories (Jan. 1973-Dec. 1977), as well as a summary of the changes, are available from the Census Bureau, Washington,
D.C. 20233 . \&Includes data not shown separately. §Includes sale of mail-order catalog desks within department stores of mail-order firms.

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

DOMESTIC TRADE-Continued


LABOR FORCE, EMPLOYMENT, AND EARNINGS

| POP ULATION OF THE UNITED STATES Total, incl. armed forces overseas $\dagger$ $\qquad$ mil. | 2216.82 | 2218.50 | 217.94 | 218.09 | 218.22 | 218.36 | 218.50 | 218.67 | 218.86 | 219.03 | 219.19 | 219.34 | 219.48 | 219. 62 | 219.74 | 219,93 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LABOR FORCEY <br> Not Seasonally Adjusted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Labor force, total (including armed forces), persons 16 years of age and over. $\qquad$ thous. | 99,534 | 102,537 | 100,565 | 100, 984 | 101, 422 | 104, 276 | 104,755 | 104, 169 | 102,961 | 103, 677 | 103,776 | 103,740 | 102, 961 | 103, 343 | 103, 755 | 103, 318 |
|  | 97, 401 | 100,420 | 98, 443 | 98, 866 | -99,309 | 102, 178 | 102,639 | 102, 047 | 100, 838 | 101, 555 | 101, 659 | 101,632 | 100, 867 | 101, 249 | 101, 665 | 101, 236 |
|  | 90,546 | 94,373 | 91, 964 | 93, 180 | 93,851 | 95, 852 | 96, 202 | 96, 116 | 95, 041 | 96,095 | 96,029 | 95,906 | 94, 436 | 94, 765 | 95,501 | 95, 675 |
|  | 3,244 | 3,342 | 2,913 | 3,151 | 3,369 | 3, 983 | 3,997 | 3,856 | 3, 549 | 3, 553 | 3,100 | 2,990 | 2,762 | 2,796 | 2,925 | 3,074 |
| Nonagricultural industries...................d. do | 87, 302 | 91,031 | 89, 051 | 90, 029 | 90, 483 | 91, 869 | 92, 204 | 92,261 | 91,492 | 92,541 | 92,929 | 92, 916 | 91, 673 | 91, 969 | 92,576 | 92, 601 |
|  | 6,855 | 6,047 | 6,479 | 5,685 | 5,457 | 6,326 | 6,438 | 5,931 | 5,797 | 5,460 | 5,629 | 5,725 | 6,431 | 6,484 | 6,165 | 5,561 |
| Seasonally AdjustedT $\odot$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Civilian labor force |  |  | 99,435 | 99,767 | 100,109 | 100,504 | 100,622 | 100,663 | 100,974 | 101,077 | 101,628 | 101,867 | 102, 183 | 102,527 | 102, 714 | 102, 111 |
| Employed, total |  |  | 93, 282 | 93,704 | 93,953 | 94, 640 | 94, 446 | 94,723 | 95,010 | 95,241 | 95,751 | 95,855 | 96, 300 | 96,647 | 96,842 | 96, 174 |
| Agriculture |  |  | 3,334 | 3,274 | 3,243 | 3,424 | 3,377 | 3,351 | 3,406 | 3,374 | 3,275 | 3,387 | 3,232 | 3,311 | 3,343 | 3,186 |
|  |  |  | 89,948 | 30,430 | 90, 710 | 91,216 | 91,069 | 91, 372 | 91, 604 | 91, 867 | 92,476 | 92,468 | 93,088 | 93,335 | 93,499 | 92,987 |
| Unemployed. |  |  | 6,153 | 6,063 | 6,156 | 5,864 | 6,176 | 5,940 | 5,964 | 5,836 | 5,877 | 6,012 | 5,883 | 5,881 | 5,871 | 5,937 |
| Long-term, 15 weeks and over...........do.....- | 1,911 | 1,379 | 1,488 | 1,486 | 1,404 | 1,266 | 1,314 | 1,234 | 1,268 | 1,317 | 1,196 | 1,208 | 1,251 | 1,260 | 1,305 | 1,235 |
| Rates (unemployed in each group as percent of total in the group): <br> All civilian workers | 7.0 | 6.0 | 6.2 | 6.1 | 6.1 |  |  |  |  |  |  | 5.9 |  |  |  |  |
| Men, 20 years and ove | 5.0 | 6.0 4.2 | 6.2 4.5 | 6.1 4.3 | 6.1 | 5.8 4.0 | 6.1 | 5.9 4.1 | 4.9 | 5.8 4.0 | 5.8 3.9 | 5.9 4.1 | 5.8 4.0 | 5.7 4.0 | 5.7 4.0 | 5.8 4.0 |
| Women, 20 years and ove | 7.0 | 6.0 | 5.9 | 6.0 | 6.2 | 6.1 | 6.4 | 5.9 | 5.9 | 5.6 | 5.8 | 5. 8 | 5. 7 | 5.7 | 5.7 | 5.7 |
| Both sexes, 16-19 years. | 17.7 | 16.3 | 17.0 | 16.7 | 16.5 | 15.1 | 16.3 | 15.7 | 16.3 | 16.2 | 16.2 | 16.5 | 15.7 | 16.1 | 15.5 | 16.5 |
| White. | 6.2 | 5.2 | 5.3 | 5.2 | 5.3 | 5.0 | 5.2 | 5.2 | 5.2 | 5.1 | 5.0 | 5.2 | 5.1 | 4.9 | 5.0 | 4.9 |
| Black and other | 13.1 | 11.9 | 12.5 | 12.0 | 12.3 | 12.0 | 12.3 | 11.5 | 11.3 | 11.3 | 11.7 | 11.5 | 11.2 | 11.9 | 11.2 | 11.8 |
| Married men, wife present | 3.6 | 2.8 | 3.0 | 2.8 | 2.9 | 2.7 | 2.7 | 2.8 | 2.6 | 2.6 | 2.4 | 2.5 | 2.6 | 2.6 | 2.6 | 2.7 |
| Occupation: White-collar workers. | 4.3 | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.7 | 3.5 | 3.5 | 3.3 | 3.2 | 3.5 | 3.3 | 3.4 | 3.4 | 3.3 |
| Industry of last job-collar workers..............- | 8.1 | 6.9 | 7.2 | 6.7 | 6.7 | 6.6 | 6.7 | 6.9 | 6.8 | 6.8 | 6.4 | 6.8 | 6.4 | 6.4 | 6.6 | 6.9 |
| Private wage and salary workers | 7.0 | 5.9 | 6.1 | 5.9 | 6.0 | 5.7 | 6.0 | 5.8 | 5.8 | 5.6 | 5.6 | 5.8 | 5.7 | 5.6 | 5.5 | 5.7 |
| Construction. | 12.7 | 10.6 | 11. 0 | 9.8 | 9.6 | 9.5 | 9.6 | 9.4 | 10.6 | 11.2 | 10.8 | 12.1 | 10.6 | 11.5 | 10.2 | 10.3 |
| Manufacturing | 6.7 | 5.5 | 5.6 | 5.4 | 5.7 | 5.6 | 5.5 | 5.6 | 5.3 | 5.1 | 5.1 | 5.0 | 5.0 | 4.8 | 5.2 | 5.4 |
| Durable goods | 6.2 | 4.9 | 5.0 | 4.5 | 5.1 | 4.9 | 5.0 | 5.4 | 4.8 | 4.6 | 4.6 | 4.4 | 4.4 | 4.1 | 4.3 | 4.6 |

[^55] available. ${ }^{2}$ As of July 1 .
$\ddagger$ See note " q " on p. S-12.
$\dagger$ Revisions back to
Oct
tRevisions back to Oct. 1973 appear in "Population Fstimates and Projections: Estimates of the Population of the United States and Components of Change-1930-75," P-25, No. 632
(July 1976), Bureau of the Census.

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. ${ }^{\text {P }}$ | Apr. ${ }^{\text {d }}$ |

LABOR FORCE, EMPLOYMENT, AND EARNINGS-Continued


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. ${ }^{\text {p }}$ | Apr. ${ }^{\text {p }}$ |

## LABOR FORCE, EMPLOYMENT, AND EARNINGS-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline AVERAGE HOURS PER WEEK $\dagger$ Seasonally Adjusted $\dagger$ \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Avg. weekly hours per worker on private nonagric. payrolls: $\uparrow$ Seasonally adjusted $\dagger$. $\qquad$ hours. \& \& \& 36.0 \& 36.1 \& 35.9 \& 35.9 \& 35.9 \& 35.8 \& 35.8 \& 35.9 \& 35.8 \& 35.9 \& 35.7 \& - 35.7 \& 35.9 \& 35.4 <br>
\hline Not seasonally adjusted....... do.... \& 36.0 \& 35. 8 \& 35.8 \& 35.8 \& 35.7 \& 36.2 \& 36.3 \& 36.2 \& 36.0 \& 35.9 \& 35.8 \& 36.1 \& 35. 2 \& 35.4 \& -35.7 \& 35.1 <br>
\hline  \& 43. 4 \& 43.4 \& 43.7 \& 44.0 \& 43.4 \& 43.4 \& 43.0 \& 43.6 \& 43.0 \& 43.0 \& 43.3 \& 43.7 \& 43.4 \& - 43.0 \& + 43.5 \& 43.0 <br>
\hline Contract construction-.....-.......-.-. - do \& 36.5 \& 36.7 \& 36.9 \& 37.3 \& 36.6 \& 37.3 \& 37.3 \& 37.1 \& 37.0 \& 36.9 \& 36.8 \& 37.2 \& 35.9 \& 36.4 \& + 37.6 \& 35.8 <br>
\hline Manufacturing: Not seasonally adjusted.... do. \& 40.3 \& 40.4 \& 40.4
40.6 \& 40.4
40.8 \& 40.4
40.4 \& 40.8
40.5 \& 40.3 \& 40.4 \& 40.7 \& 40.6 \& 40.9 \& 41.4 \& 40.1 \& + 40.2 \& 40.6 \& 38.9

39 <br>
\hline Seasonally adjusted....... do. \& \& \& 40.6 \& 40.8 \& 40.4 \& 40.5 \& 40.5 \& 40.3 \& 40.4 \& 40.5 \& 40.7 \& 40.7 \& 40.7 \& 40.7 \& 40.8 \& 39.1 <br>
\hline Overtime hours....-.-..................- do \& 3.4 \& 3.6 \& 3.7 \& 3.8 \& 3.5 \& 3.6 \& 3.6 \& 3.4 \& 3.6 \& 3.6 \& 3.7 \& 3.8 \& 3.8 \& 3.8 \& 3.8 \& 2.7 <br>
\hline Durable goods.--.....-.................... do \& 41.0 \& 41.1 \& 41.3 \& 41.4 \& 41.0 \& 41.2 \& 41.2 \& 41.0 \& 41.1 \& 41.2 \& 41.4 \& 41.5 \& 41.5 \& 41.5 \& ¢ 41.6 \& 39.4 <br>
\hline Overtime hours ....-..-.---.-.-.-.-. . . do \& 3.7 \& 3.8 \& 3.9 \& 4.0 \& 3.7 \& 3.7 \& 3.8 \& 3.6 \& 3.8 \& 3.9 \& 4.0 \& 4.1 \& 4.2 \& 4.2 \& 4.1
4.1 \& 3.4
2.8 <br>
\hline Lumber and wood products..-......... do do \& 39.8 \& 39.7 \& 39.9 \& 40.2 \& 39.5 \& 40.0 \& 39.8 \& 39.3 \& 39.6 \& 40.1 \& 40.1 \& 40.0 \& 40.0 \& + 39.5 \& +39.9 \& 39.0 <br>
\hline Furniture and fixtures..-...-.-.......do do \& 39.0
41.3 \& 39.3

41.6 \& | 40.1 |
| :--- |
| 41.8 | \& 40.1

42.0 \& 39.4
41.6 \& 39.5
41.9 \& 39.3 \& 39.0 \& 38.8 \& 39.0 \& 39.2 \& 39.2 \& 39.2 \& 38.8 \& - 39.5 \& 38.4 <br>
\hline Stone, clay, and glass products.........do \& 41.3
41.3 \& 41.6
41.8 \& 41.8
41.5 \& 42.0
41.5 \& 41.6
41.7 \& 41.9
41.8 \& 41.7
41.8 \& 41.6
42.0 \& 41.8
41.8 \& 41.8
42.1 \& 41.9
42.3 \& 42.0 \& 41.4 \& r 41.5 \& +42.2
-421 \& 41.2 <br>
\hline Fabricated metal products $\Theta$------..........do \& 41.0 \& 41.8
41.0 \& 41.5
41.3 \& 41.5
41.4 \& 41.1 \& 41.8
41.0 \& 41.8
41.0 \& 4.0
40.9 \& 41.8
40.9 \& 42.1
40.8 \& 42.3
41.1 \& 42.2
41.4 \& 42.4 \& 42.3
41.4 \& 42.0
41.4 \& 40.6
38.9 <br>
\hline Machinery, except electrical............ do \& 41.5 \& 42.0 \& 42.3 \& 42.3 \& 42.1 \& 42.3 \& 42.2 \& 41.8 \& 41.9 \& 42.0 \& 42.2 \& 42.5 \& 42.2 \& 42.6 \& 42.6 \& 40.3 <br>
\hline Electric and electronic equip. $\triangle$..-......do \& 40.4 \& 40.3 \& 40.6 \& 40.4 \& 40.2 \& 40.2 \& 40.7 \& 40.4 \& 40. 1 \& 40.3 \& 40.4 \& 40.5 \& 40.7 \& -40.9 \& -41.0 \& 49.0 <br>
\hline Transportation equipment $\oplus$. \& 42.5
40.6 \& 42.1
40.9 \& 42.1
41.3 \& 42.4
41.4 \& 41.8
40.8 \& 42.0
40.8 \& 42.1 \& 41.8 \& 42.5 \& 42.6 \& 42.9 \& 42.9 \& 43.0 \& 42.7 \& 42.3 \& 38.2 <br>
\hline Miscellaneous manufacturing ind.-.---- do \& 38.8 \& 38.8 \& 39.0 \& 39.1 \& 38.8
38 \& 40.8
38.8 \& 40.7
38.8 \& 41.0
39.0 \& 40.9
39.0 \& 38.8 \& 40.9
38.8 \& 40.9
38.8 \& 41.1
39.1 \& 41.1
+39.0 \& 41.4
+39.2 \& 40.0
37.6 <br>
\hline Nondurable goods.-.--.................... do \& 39.4 \& 39.4 \& 39.7 \& 39.8 \& 39.5 \& 39.4 \& 39.4 \& 39.3 \& 39.4 \& 39.3 \& 39.6 \& 39.5 \& 39.6 \& 39.4 \& 39.6 \& 38.8 <br>
\hline  \& 3.2 \& 3.2 \& 3.3 \& 3.4 \& 3.2 \& 3.1 \& 3.2 \& 3.2 \& 3.2 \& 3.2 \& 3.2 \& 3.3 \& 3.6
3.2 \& 3.2 \& 3.3 \& 38.8
2.6 <br>
\hline Food and kindred products...........- do \& 40.0 \& 39.8 \& 40.0 \& 40.1 \& 39.8 \& 39.6 \& 39.8 \& 39.5 \& 39.5 \& 39.9 \& 40.0 \& 40.0 \& 40.1 \& 39.7 \& 40.2 \& 39.9 <br>
\hline Tobacco manufactures. ..................... do \& 37.9
40.4 \& 38.2

40.4 \& | 38.9 |
| :--- |
| 40.8 | \& 38.7

40.9 \& | 38.7 |
| :--- |
| 40.5 | \& 39.6

40.3 \& 38.6
40.2 \& 37.7
40.4 \& 37.9
40.4 \& 36.7

40.3 \& 37.4 \& 38.1 \& \begin{tabular}{l}
36.7 <br>
\hline

 \& 

36.7 <br>
\hline
\end{tabular} \& +37.6

+40.6 \& 36. 9 <br>
\hline A pparel and other textile products..-- do \& 35.6 \& 35.6 \& 36.0 \& 36.3 \& 35.9 \&  \& 35.8 \& 35.6 \& 35.7 \& 45.3
3.2 \& 30.4
35.7 \& 40.4
35.6 \& 40.9
35.3 \& 40.0
35.6 \& r 40.6
$\mathbf{3 5 . 5}$ \& 38.9
34.4 <br>
\hline Paper and allied products.............. do \& 42.9 \& 42.9 \& 43.4 \& 43.5 \& 42.9 \& 42.9 \& 42.9 \& 42.7 \& 42.7 \& 42.6 \& 43.1 \& 42.7 \& 42.9 \& 42.9 \& 42.9 \& 42.3 <br>
\hline Printing and publishing-...-........... do \& 37.7 \& 37.6 \& 38.0 \& 37.9 \& 37.3 \& 37.5 \& 37.6 \& 37.4 \& 37.8 \& 37.7 \& 37.9 \& 37.6 \& 37.7 \& - 37.7 \& + 37.8 \& 37.3 <br>
\hline Chemicals and allied products.......... do \& 41.7 \& 41.8 \& 42.1 \& 42.0 \& 41.9
4 \& 41.9 \& 41.8 \& 41.9
44 \& 41.8 \& 41.9
439 \& 42.1 \& 41.8 \& 42.0 \& + 41.9 \& - 42.0 \& 41.9 <br>
\hline Petroleum and coal products.......... do \& 42.7
41.0 \& 43.5
40.9 \& 43.3
40.7 \& 43.6
41.3 \& 42.9
41.1 \& 43.4
41.1 \& 43.9
40.9 \& 44.3
40.9 \& 43.8
41.0 \& 43.9
41.0 \& 44.2
41 \& 43.7 \& 43.4
41 \& r
-43.4
-415 \& 43.1 \& 43.3 <br>
\hline Leather and leather products. \& 36.9 \& 37.1 \& 37.1 \& 38.1 \& 37.6 \& 37.4 \& 37.2 \& 37.1 \& 37.2 \& 37.1 \& 41.1
36.8 \& 41.2
36.7 \& 41.5
37.0 \& +
+
+36.5 \& $\begin{array}{r}\text { + } \\ \hline \\ 31.4 \\ \hline\end{array}$ \& 39.9
35.6 <br>
\hline Trans., comm., elec., gas, etc............... do \& 39.9 \& 40.0 \& 40.4 \& 40.0 \& 40.2 \& 40.1 \& 39.6 \& 39.9 \& 40.1 \& 40.1 \& 40.0 \& 40.0 \& 40.2 \& 40.0 \& + 40.3 \& 39.4 <br>
\hline Wholesale and retail trade. .-............... do \& 33.3 \& 32.8 \& 33.0 \& 33.0 \& 32.9 \& 32.8 \& 32.9 \& 32.8 \& 32.8 \& 32.9 \& 32.8 \& 32.9 \& 32.4 \& 32.5 \& + 32.8 \& 39.4
32.8 <br>
\hline Wholesale trade \& 38.8 \& 38.8 \& 38.9 \& 39.0 \& 38.7 \& 38.8 \& 38.7 \& 38.8 \& 39.0 \& 38.9 \& 32.8
38 \& 38.9 \& 38.7 \& 38.7 \& +39.8 \& 38.7 <br>
\hline Retail trade................................ do \& 31.6 \& 31.0 \& 31.2 \& 31.2 \& 31.1 \& 31.0 \& 31.1 \& 30.9 \& 30.9 \& 31.0 \& 30.9 \& 31.0 \& 30.5 \& 38.6 \& r 30.8 \& 30.9 <br>
\hline Finance, insurance, and real estate.........do \& 36.4 \& 36.5 \& 36.3 \& 36.7 \& 36.3 \& 36.5 \& 36.6 \& 36.5 \& 36.5 \& 36.6 \& 36.3 \& 36.3 \& 36.3 \& 36.3 \& $\begin{array}{r}\text { + } 36.3 \\ \hline\end{array}$ \& 36.4 <br>
\hline Services........................--.............. do \& 33.0 \& 32.8 \& 33.0 \& 33.0 \& 32.9 \& 32.8 \& 32.8 \& 32.7 \& 32.8 \& 32.8 \& 32.7 \& 32.5 \& 32.6 \& -32.6 \& ${ }^{-} 32.7$ \& 32.7 <br>
\hline AGGREGATE EMPLOYEE-HOURS \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Seasonally Adjusted \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Employee-hours, wage \& salary workers in nonagric. establish, for 1 week in the month, seasonally adjusted at annual rate $\dagger$. $\qquad$ bil. hours. \& 156.31 \& r 162. 49 \& 161.30 \& 162.90 \& 162.48 \& 163.31 \& 163.47 \& 162.91 \& 162.93 \& 163.68 \& 165.19 \& 165.53 \& 165.73 \& r165.96 \& 167.90 \& 5.64 <br>
\hline Total private sector...-....................d. do. \& 126.67 \& 132.02 \& 130.93 \& 132.21 \& 131.79 \& 132.60 \& 132. 56 \& 132.29 \& 132.61 \& 133.51 \& 134.22 \& 134.89 \& -135.00 \& r135. 49 \& 137. 16 \& 165.64
136.60 <br>
\hline  \& 1.83 \& 1.89 \& 1. 59 \& 1.98 \& 1.96 \& 1.98 \& 1.99 \& 2.03 \& 1.99 \& 2.01 \& 2.06 \& 2.07 \& +2.03 \& - 2.04 \& $\begin{array}{r}2.08 \\ \hline\end{array}$ \& 13.06
2.06 <br>
\hline  \& 7.28 \& 8.03 \& 7.62 \& 8.10 \& 7.94 \& 8.36 \& 8.39 \& 8.29 \& 8. 26 \& 8.32 \& 8.33 \& 8.51 \& -8.27 \& 8.27 \& 8.80 \& 8.46 <br>
\hline Manufacturing-.......-.----------.-.- do \& 40.96 \& 42.47
+1011 \& 42.53 \& 42.57 \& 42.44 \& 42.49 \& 42.54 \& 42.22 \& 42.30 \& 42.60 \& 43.14 \& 43.51 \& - 43.76 \& + 43.93 \& 44. 17 \& 43.97 <br>
\hline Transportation, comm., elec., gas..-.... do \& 9.74 \& + 10.11 \& 10.12 \& 10.11 \& 10.15 \& 10.18 \& 9. 93 \& 10. 05 \& 10. 11 \& 10. 21 \& 10.27 \& 10.35 \& $\ulcorner 10.37$ \& 10.45 \& 10.52 \& 10.27 <br>
\hline Wholesale and retail trade --........... do \& $\begin{array}{r}32.14 \\ 8.44 \\ \hline\end{array}$ \& $\begin{array}{r}+33.27 \\ 8.87 \\ \hline 8\end{array}$ \& 33.129
8.72 \& 33. 22 \& 33. 21 \& $\begin{array}{r}33.36 \\ 8.88 \\ \hline\end{array}$ \& 33. 42 \& 33.38
8.93 \& 33.47
8.96 \& 33.66
9.01 \& 33. 63 \& 33.64 \& - 33.60 \& + 33.75 \& 34. 13 \& 14. 28 <br>

\hline | Finance, insurance, and real estate ....... do |
| :--- |
| Services | \& 8.44

26.28
29 \& $\begin{array}{r}8.87 \\ 27.38 \\ \hline\end{array}$ \& 8.72
27.26 \& 8.84
27.39 \& 8.78
27.30 \& 8.88
27.34 \& 8.94
27.35 \& 8.93
27.39 \& $\begin{array}{r}8.96 \\ 27.52 \\ \hline\end{array}$ \& 9.01
27.70 \& 9.03
27.76
27 \& 9.05
27.76 \& 9.12
+2786 \& r
+
+2.14
+270.9 \& 9. 17 \& 9.21
28.34 <br>
\hline Government. \& 29.64 \& - 30.55 \& 30.36 \& 30.69 \& 30.69 \& 30.71 \& 30.92 \& 30.62 \& 30.32 \& 30.18 \& 30.97 \& 30.63 \& +37.86

+30.73 \& $$
\begin{array}{r}
\ulcorner 27.92 \\
\mathbf{r} 30.47
\end{array}
$$ \& 28.31

30.73 \& 28.34
29.03 <br>
\hline Indexes of employee-hours (aggregate weekly) :If \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Private nonagric. payrolls, total $\ldots . . . . .1967=100 .$. \& 115.4 \& 120.2 \& 119.1 \& 120.4 \& 120.0 \& 120.6 \& 120.6 \& 120.4 \& 120.8 \& 121.6 \& 122.4 \& 122.9 \& 122.6 \& - 123.2 \& r 124.7 \& 122.6 <br>
\hline Goods-producing.-.-..................-... do.... \& 100.2 \& 105.1 \& 103.6 \& 106.0 \& 105.1 \& 106.0 \& 106.1 \& 105.4 \& 105.5 \& 106.5 \& 108.0 \& 109.1 \& 108.7 \& + 109.1 \& +111.1 \& 106.4 <br>
\hline  \& 133.4 \& 135.9 \& 111.3 \& 144.2 \& 143.1 \& 144.0 \& 143.5 \& 145.7 \& 144.4 \& 145.2 \& 148.0 \& 149.1 \& 149.2 \& r 149.3 \& -150.6 \& 148.4 <br>
\hline Contract construction.................. do \& 105.8 \& 118.2 \& 111.5 \& 118.8 \& 117.1 \& 122.8 \& 124.2 \& 122.8 \& 122.6 \& 123.8 \& 124.3 \& 126.5 \& 120.6 \& r 122.4 \& r 131.8 \& 125.3 <br>
\hline  \& 98.0 \& 101.8 \& 102.0 \& 102.5 \& 101.6 \& 101.7 \& 101.6 \& 101.0 \& 101.2 \& 100.1 \& 103.7 \& 104.6 \& 105.2 \& r 105.4 \& + 106.0 \& 101.6 <br>
\hline Durable goods --...-......-.......... do - \& 98.7 \& 104.2 \& 103.9 \& 104.2 \& 103.5 \& 103.8 \& 104.0 \& 103.5 \& 103.9 \& 105.5 \& 107.1 \& 108.3 \& 108.8 \& r 109.6 \& r 110.2 \& 104.2 <br>
\hline  \& 97.1 \& 98.2 \& 99.2 \& 99.9 \& 98.9 \& 98.7 \& 98.1 \& 97.2 \& 97.2 \& 97.2 \& 98.8 \& 99.1 \& 99.9 \& r 99.2 \& r 99.8 \& 97.9 <br>
\hline Service-producing-...-..........-. .-...... do. \& 126.0 \& 130.6 \& 129.8 \& 130.5 \& 130.5 \& 130.7 \& 130.7 \& 130.8 \& 131.4 \& 132.0 \& 132.3 \& 132.5 \& 132.3 \& - 132.9 \& + 134.1 \& 133.8 <br>
\hline Transportation, comm., elec., gas....- do \& 105.9 \& 108.6 \& 109.1 \& 108.7 \& 109.0 \& 109.4 \& 106.5 \& 107.7 \& 108. 2 \& 109.9 \& 110.2 \& 110.3 \& 111.2 \& + 111.2 \& +112.4 \& 108.5 <br>
\hline Wholesale and retail trade.............. do
Wholesale trade \& 123.0 \& 126.8 \& 125.9 \& 126.4 \& 126.8 \& 126.8 \& 127.4 \& 127.2 \& 127.5 \& 128.2 \& 128.4 \& 128.7 \& 127.6 \& r 128.4 \& - 129.7 \& 129.9 <br>
\hline Wholesale trade.......-................. do \& 120.6 \& 126.0 \& 125.3 \& 126.0 \& 125.2 \& 126.1 \& 125.7 \& 126. 1 \& 127.1 \& 127.4 \& 127.6 \& 128.5 \& 128.4 \& 128.9 \& - 130.6 \& 129.9 <br>
\hline Retail trade....................... \& 123.1 \& 127.1 \& 126.1 \& \& 127.3 \& 127.0 \& 128.0 \& 127.7 \& 127.7 \& 128. 5 \& 128.7 \& 128.8 \& 127.3 \& r 128.2 \& r 129.4 \& 129.9 <br>
\hline Finance, insurance, and real estate....- do \& 131.3
138.8 \& 138.0
144.0 \& 135.4
143.3 \& 137.5 \& 136.2
143.8 \& 137.9
143.9 \& 139.0 \& 134.2 \& 139.6 \& 140.5
145.0 \& 140.6 \& 140.9 \& 141.7 \& 142.0 \& r 142.4 \& 143.4 <br>
\hline Services......-.-................................... do \& 138.8 \& 144.0 \& 143.3 \& 144.1 \& 143.8 \& 143.9 \& 144.1 \& 144.1 \& 145.1 \& 145.0 \& 145.6 \& 145.4 \& 145.8 \& - 146.6 \& r 147.8 \& 148.2 <br>
\hline HOURLY AND WEEKLY EARNINGS \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Average hourly earnings per worker: $\mathbb{I}$ Not seasonally adjusted: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Private nonagric. payrolls.-........-....dollars.. \& 5. 24 \& 5.68 \& 5. 52 \& 5.59 \& 5.62 \& 5.65 \& 5.69 \& 5.71 \& 5.82 \& 5. 86 \& 5.88 \& 5.91 \& 5.96 \& - 6.00 \& 6.02 \& 6.02 <br>
\hline  \& 6.94
8.09 \& 7.61 \& 6.95
8.40 \& 7.62 \& 7.64 \& 7. 69 \& 7.82 \& 7.79 \& 7.94 \& 7.97 \& 8.05 \& 8.05 \& 8.20 \& -8.20 \& +8.23 \& 8.28 <br>
\hline Contract construction..................... do \& 8.09
5.67 \& 8.62
6.16 \& 8.40
6.00 \& 8.39
6.03 \& 8.52
6.07 \& 8. 56 \& 8.63 \& 8.72 \& 8.87 \& 8. 88 \& 8.88 \& 8. 91 \& 8.96 \& +9.01 \& -8.97 \& 9.02 <br>

\hline | Manufacturing. |
| :--- |
| Excluding overtime | \& 5.67 \& 6.16 \& 6.00

5.75 \& 6.03
5.79 \& 6.07
5.82 \& 6. 511 \& 6. 17
5
5 \& 6. 16
5
50 \& 6.28
5 \& 6.32 \& 6.38 \& 6. 47 \& 6. 49 \& 6.52 \& -6.55 \& 6.53 <br>
\hline  \& 6.06 \& 6.57 \& 5.75
6.40 \& 5.79
6.44 \& 5.82
6.47 \& 5.85 \& 5.92 \& 5.90
6.57 \& 5.99 \& 6.04 \& 6.10 \& 6.18 \& 6.22 \& 6.25 \& -6.28 \& 6.32 <br>
\hline Excluding overtime...................d. do \& \& \& 6.12 \& 6. 16 \& 6.19 \& 6.23 \& 6. 29 \& 6.58
6.28 \& 6.71

6.39 \& | 6.76 |
| :--- |
| 6.44 | \& 6.81

6.49 \& 6.92
6.59 \& 6.91 \& 6.95 \& 「6.99 \& 6. 94 <br>
\hline Lumber and wood products.........do \& 5.09 \& 5.59 \& 5. 40 \& 5.43 \& 5. 49 \& 5.66 \& 5.71 \& 5.68 \& 5.75 \& 5.77 \& 5.76 \& 5. 79 \& 6.61
5.79 \& 6.64
5.82 \& $\begin{array}{r}\text { r } 6.67 \\ +5.82 \\ \\ \hline\end{array}$ \& 6.71 <br>
\hline Furniture and fixtures..-........... do. \& 4.34 \& 4.67 \& 4. 56 \& 4.59 \& 4.61 \& 4.66 \& 4.68 \& 4.72 \& 4.76 \& 4.78 \& 4.80 \& 4.86 \& 4.87 \& 3.82
4.93 \& + 4.85 \& 5. 84
4.94 <br>
\hline Stone, clay, and glass products.....do \& 5.80 \& 6.31 \& 6.08 \& 6.18 \& 6.25 \& 6.33 \& 6.37 \& 6.40 \& 6.46 \& 6.48 \& 6.53 \& 6.57 \& 6.56 \& 4.93
6.57 \& +4.93
-6.62 \& 6. 72 <br>
\hline Primary metal industries........... do \& 7.40 \& 8.19 \& 7.94 \& 7.98 \& 8.04 \& 8.10 \& 8.19 \& 8.31 \& 8.42 \& 8.42 \& 8.52 \& 8.56 \& 8.62 \& 8.75 \& - 8.74 \& 8.82 <br>
\hline Fabricated metal products $\oplus$ - .-......do \& 5.90 \& 6.33 \& 6.19 \& 6.25 \& 6.27 \& 6. 29 \& 6.32 \& 6.35 \& 6.45 \& 6.49 \& 6. 54 \& 6.62 \& 6.61 \& + 6.65 \& r 6.73
r \& 6. 63 <br>
\hline Machinery, except electrical.-.-.... do \& 6.25 \& 6.75 \& 6.61 \& 6.61 \& 6.63 \& 6.70 \& 6.73 \& 6.74 \& 6.88 \& 6.94 \& 7.00 \& 7.13 \& 7.09 \& r 7.14 \& r 7.17 \& 7.08 <br>
\hline Electric and electronic equip. $\triangle$----do \& 5.39 \& 5.82 \& 5.68 \& 5.70 \& 5.73 \& 5.75 \& 5.83 \& 5.87 \& 5.94 \& 5.96 \& 5.98 \& 6. 10 \& 6.12 \& r 6.14 \& 6.18 \& 6.14 <br>
\hline Transportation equipment $\oplus$.......d \& 7.28 \& 7.89 \& 7.69 \& 7.74 \& 7.75 \& 7.81 \& 7.84 \& 7.78 \& 8.04 \& 8. 21 \& 8.27 \& 8.40 \& 8.34 \& +8.34 \& -8.42 \& 8.28 <br>
\hline Instruments and related prod.......d \& 5.29 \& 5.70 \& 5.60 \& 5.62 \& 5.65 \& 5.65 \& 5.70 \& 5.73 \& 5.76 \& 5.79 \& 5.83 \& 5.95 \& 5.98 \& +6.01 \& +6.03 \& 5.98 <br>
\hline Miscellaneous manufacturing ind.. do. \& 4.36 \& 4.69 \& 4.60 \& 4.63 \& 4.64 \& 4.66 \& 4.70 \& 4.70 \& 4.74 \& 4.77 \& 4.80 \& 4.86 \& 4.93 \& r 4.95 \& r 4.96 \& 5.00 <br>
\hline
\end{tabular}

r Revised. ${ }^{p}$ Preliminary. IProduction and nonsupervisory workers.
$\dagger$ See corresponding note, p. S-14. $\quad \oplus$ See corresponding note, p. S-14.

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. ${ }^{\text {P }}$ | Apr.p |

## LABOR FORCE, EMPLOYMENT, AND EARNINGS-Continued



| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

LABOR FORCE, EMPLOYMENT, AND EARNINGS-Continued

| UNEMPLOYMENT INSURANCE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unemployment insurance program |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Insured unemployment, all programs, average weekly $8 \%$..................................thous. | 3,304 | 3,311 | 3,212 | 2,659 | 2,369 | 2,297 | 2,581 | 2,394 | 2,064 | 1,999 | 2,148 | 2,567 | 3,198 | 3,209 | p 2,921 |  |
| State programs (excl. extended duration prov.) : |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 19,488 2,655 | 18,002 2,358 | 2,901 | 2, $\begin{aligned} & 1,211 \\ & 2,37\end{aligned}$ | 2,051 | 1,349 | 2, 268 | 2,168 | 1,059 1,860 | $\xrightarrow{\mathbf{1}, 288}$ | 1,526 | 2, 1,882 | $\stackrel{2,386}{3,037}$ | $\begin{array}{r} p 1,552 \\ 3,053 \end{array}$ | D2,750 |  |
| Percent of covered employment: $\triangle$--- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unadjusted | 3.9 | 4.0 | 4.2 | 3.4 | 2.9 | 2.8 | 3.2 | 3.0 | 2.6 | 2.4 | 2.7 | 3.2 | - 3.9 | ग 4.0 | P3.6 |  |
| Seasonally adjusted...-- |  |  |  | 3.1 | 3.1 | 3.1 | 3.4 | 3.6 | 3.3 | 3.1 | 3.1 | 3.1 | ${ }^{\circ} 3.1$ | ${ }^{p} 3.1$ | >3.0 |  |
| Beneficiaries, average weekly .........thous.- | 2,178 | 8 1,944 | 2,615 | ${ }_{2}^{2,140}$ | 1,724 | 1.653 | 1,680 | 1,811 | 1,552 | 1,456 | p 1,536 | ${ }^{p} 1,883$ | 2, 474 | ${ }^{p} 2,713$ |  |  |
| Benefits paid \$.-.....................mil. \$. | 8,357.2 | 8,226.6 | 1,002.0 | 704.6 | 638.9 | 579.0 | 557.8 | 677.4 | 521.0 | 519.7 | 550.7 | p 646.1 | 970.8 | ${ }^{\text {p } 917.6}$ |  |  |
| Federal employees, insured unemployment, average weekly $\qquad$ thous. | 46 | 34 | 38 | 32 | 29 | 28 | 31 | 32 | 31 | 34 | 32 | 34 | 37 | 35 | 33 |  |
| Veterans' program (UCX): | 354 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Insured unemployment, avg. weekly .-. do. | 354 <br> 81 <br> 78 | 53 | 59 | 5 | 47 | ${ }_{45}^{23}$ | 49 | ${ }^{25}$ | 23 48 |  |  | 5 | $\begin{array}{r}724 \\ \hline 54 \\ \hline\end{array}$ | 53 | 52 |  |
| Beneficiaries, average weekly -.-.......do- | 78 |  | 60 | 55 | 47 | 46 | 46 | 51 | 53 | 46 | $\pm 51$ | ${ }^{2} 54$ | ${ }^{\square} 59$ |  |  |  |
|  | + 470.7 | 248.3 | 24.5 | 19.7 | 19.2 | 18.2 | 17.8 | 21.5 | 18.3 | -18.9 | \$20.6 | > 21.0 | - 25.1 | P21.1 |  |  |
| Railroad program: | 104 |  |  |  |  |  |  |  |  |  |  |  |  | 6 |  |  |
| Insured unemployment, avg weekly...do.... | 21 |  | 35 | 22 | 13 | 11 | 16 | 33 | 31 | ${ }_{23}$ | 17 | 17 | ${ }_{24}^{13}$ | 25 | 23 |  |
| Benefits pałd .........................mil. $\$$. | 99.8 | 89.0 | 18.4 | 10.4 | 5.3 | 5.9 | 3.9 | 1.5 | 1.4 | 1.0 | 5.4 | 5.7 | 9.6 | 9.9 |  |  |

FINANCE

-Revised. ${ }^{p}$ Preliminary. ${ }^{1}$ A verage for Dec. ${ }^{2}$ Data no longer available. *New series. See note " $\ddagger$ " on page S-18. $\oplus$ See corresponding note on p. S-18. § Insured unemployment (all programs) data include claims filed under extended duration provisions of regular State laws; amounts paid under these programs are excluded from state benefits paid data.
Insured unemployment as \% of average covered employment in a
OIncludes data not shown separately.
o'For demand deposits, the term "adjusted
ncludes data not s

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## FINANCE-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline BANKING-Continued \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Commercial bank credit (last Wed. of mo., except for June 30 and Dec. 31 call dates), seas adj.: \(\dagger\) \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline  \& 865.4 \& 967.3
709.0 \& \({ }_{6}^{888.8} 8\) \& \({ }_{645} 904\) \& 917.9
6579 \& \({ }_{661.2} 92\) \& \({ }^{935.2}\) \& \({ }^{939.2}\) \& 947.1
684.4 \& 955.4 \& \({ }_{7}^{966.3}\) \& \({ }_{709.3}^{967}\) \& \& \& \& \\
\hline U.S. Government securities \& 93.5 \& 88.4 \& 96.5 \& 98.4 \& 97.1 \& 98.4 \& 99.7 \& 97.0 \& 96.3 \& 94.3 \& 90.3 \& 88.4 \& \& \& \& \\
\hline Other securities............................-do \& 159.0 \& 169.9 \& 158.8 \& 161.4 \& 162.9 \& 162.8 \& 163.5 \& 165.0 \& 166.4 \& 167.4 \& 169.3 \& 169.9 \& \& \& \& \\
\hline Money and interest rates:\% \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline \begin{tabular}{l}
Bank rates on short-term business loans: \\
In 35 centers. \(\qquad\) percent per annum..
\end{tabular} \& (3) \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline New Y ork City--.-.-...................do...- \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline 7 other northeast centers..........-....-do \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline  \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline  \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline 4 west coast centers.-.........................do \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Discount rate (N.Y.F.R. Bank), end of year or month. percent.- \& 6.00 \& 9.50 \& 6. 50 \& 6.50 \& 6.84 \& 7.00 \& 7.23 \& 7.43 \& 7.83 \& 8.26 \& 9.50 \& 9.50 \& 9.50 \& 9.50 \& 9.50 \& 9.50 \\
\hline Federal intermediate credit bank loans.....do. \& \({ }^{1} 6.93\) \& \({ }^{1} 8.01\) \& 7.64 \& 7.76 \& 7.86 \& 7.94 \& 8.05 \& 8.18 \& 8.27 \& 8.38 \& 8.50 \& 8.70 \& 9.16 \& 9.48 \& 9. 69 \& 9.89 \\
\hline \begin{tabular}{l}
Home mortgage rates (conventional 1st mortgages):T \\
New home purchase (U.S. avg.)....... percent.
\end{tabular} \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline New home purchase (U.S. avg.) .-.-.- percent.Existing home purchase (U.S. avg.)......do...- \& 18.80
18.83 \& 19.30
19.36 \& 9.03
9.04 \& 9.07
9.14 \& 9.14
9.17 \& 9.23
9.27 \& 9.34
9.41 \& 9.45
9.55 \& 9.50
9.62 \& 9.60
9.68 \& 9.63
9.74 \& 9.76
9.85 \& 9.92 \& 9.94
10.14 \& 10.02
10.22 \& 10.04
10.29 \\
\hline Open market rates, New York City: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline  \& 25.59
25.60 \& 28.11
27.99 \& 6.79
6.80 \& 6.92
6.86 \& 7.32
7.11 \& 7.75
7
7 \& 8.02
7.91 \& 7.98
7.90 \& \begin{tabular}{l}
8.54 \\
8.44 \\
\hline 8
\end{tabular} \& 9.32
9.03 \& 10.53
10.23 \& 10.55
10.43 \& 10.29
10.32 \& 10.01
10.01 \& 9.94
9.96 \& 9.90
9.87 \\
\hline Finance co. paper placed directly, 3-6 mo_do.... \& \({ }_{2} 2.49\) \& \({ }^{2} 7.78\) \& 6.89
6.73 \& 6.74 \& 6. 98 \& 7.41 \& 7.66 \& 7.65 \& 8.18 \& 8.78 \& \({ }_{9.82}\) \& 10.06 \& 10.10 \& \({ }_{9.85}\) \& \({ }_{9.73}\) \& \({ }_{9.64}\) \\
\hline \begin{tabular}{l}
Yield on U.S. Government securities (taxable): \\
3-month bills (rate on new issue)....-percent.- \\
3-5 year issues. \\
.-..........................do...-
\end{tabular} \& 2

5
26.265 \& 27.221
28.30 \& 6.319
$\mathbf{7 . 7 6}$ \& 6.306
7.90 \& 6.430
8.10 \& 6.707
8.31 \& $\begin{array}{r}7.074 \\ 8.54 \\ \hline\end{array}$ \& 7.036
8.31 \& 7.836
8.88 \& 8.132
8.61 \& 8.787
8.97 \& 9.122
9.23 \& 9.351
9.36 \& 9.265
9.16 \& 9.457
9.25 \& 9.493
9.32 <br>
\hline CONSUMER INSTALLMENT CREDIT $\ddagger$ \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Total extended and liquidated: Unadjusted: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline  \& ${ }_{218}^{254,071}$ \& 253,508 \& ${ }_{21,318}^{24,611}$ \& 19,970 \& 21,383 \& 21,750 \& 21,234 \& 22,596 \& 21,086 \& 22,845 \& 22,079 \& 21, 283 \& 22,902 \& ${ }_{21,325}^{21,797}$ \& 24,086 \& <br>

\hline | Seasonally adjusted; |
| :--- |
| Extended totalo | \& \& \& 23,925 \& 24,682 \& 25,104 \& 25,565 \& 25,022 \& 25,669 \& 25,537 \& 25,758 \& 26,214 \& 26,500 \& 25, 544 \& 26, 202 \& 26,698 \& <br>

\hline  \& \& \& \& \& \& \& \& \& \& \& \& 12,521 \& \& \& 12,412 \& <br>
\hline  \& \& \& -3,857 \& 4,158 \& 4,179 \& - \& 4,261 \& 4.348 \& 4,372 \& 4,605 \& 4,512 \& 4,679 \& 4,547 \& 4,822 \& 5,123 \& <br>
\hline  \& \& \& 3,282 \& 3,257 \& 3,484 \& 3,445 \& 3,271 \& 3, 379 \& 3,360 \& 3,401 \& 3, 330 \& 3, 526 \& 3,241 \& 3,238 \& 3,250 \& <br>
\hline  \& \& \& 3,438 \& 3,337 \& 3,408 \& 3,552 \& 3,477 \& 3,725 \& 3,718 \& 3,518 \& 3,571 \& 3,612 \& 3,565 \& 3,460 \& 3,611 \& <br>

\hline | By major credit type: |
| :--- |
| Automobile | \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>

\hline Revolving $\qquad$ do \& \& \& 8,398 \& 8,523 \& 8,563 \& 9,062 \& 8,700 \& 9,028 \& 9,006 \& 8,846 \& 9,176 \& 9,424 \& 9,417 \& 9,357 \& 9,714 \& <br>
\hline  \& \& \& 493 \& 529 \& ${ }^{8} 527$ \& 510 \& ${ }^{509}$ \& ${ }^{531}$ \& 494 \& 604 \& 486 \& 502 \& 369 \& 454 \& 516 \& <br>
\hline  \& \& \& 19,849 \& 20,576 \& 20,824 \& 21,358 \& 21,556 \& 22,037 \& 21,857 \& 22, 384 \& 22,115 \& 22, 100 \& 22,483 \& 22,894 \& 22,967 \& <br>
\hline By major holder: \& \& \& \& \& \& \& \& \& \& \& \& \& 10,823 \& \& 10,947 \& <br>
\hline  \& \& \& 3,178 \& 3,279 \& 3,318 \& 3,599 \& 3,590 \& 3,612 \& 3,525 \& 3,742 \& 3,494 \& 3, 581 \& 3, 206 \& 3,617 \& 3,789 \& <br>
\hline Credit unions \& \& \& 2,517 \& 2,587 \& 2,635 \& 2,648 \& $\xrightarrow{2,758}$ \& $\xrightarrow{2,766}$ \& $\xrightarrow{2,721}$ \& $\xrightarrow{2,757}$ \& $\xrightarrow{2,751}$ \& 2,753 \& 2,881 \& ${ }^{2}, 836$ \& $\stackrel{2,722}{ }$ \& <br>
\hline  \& \& \& 3,228 \& 3,279 \& 3,273 \& 3,318 \& 3,333 \& 3,383 \& 3,390 \& 3,403 \& 3,385 \& 3,416 \& 3,655 \& 3,681 \& 3,468 \& <br>
\hline By major credit type: Automobile \& \& \& \& \& \& 5,953 \& 5,941 \& 6,140 \& 6,010 \& 6,126 \& 6,032 \& 6,053 \& 5,865 \& 6,191 \& 6,311 \& <br>
\hline  \& \& \& 7,566 \& 7,840 \& 7,919 \& 8,107 \& 8,100 \& 8,291 \& 8,384 \& 8,500 \& 8,511 \& \& 8,984 \& 9,040 \& 8,972 \& <br>
\hline  \& \& \& ${ }^{3} 398$ \& ${ }_{4}{ }_{4}$ \& ${ }_{426}$ \& ${ }_{4} 40$ \& 426 \& 452 \& ${ }_{4} 42$ \& 579 \& 411 \& 431 \& 329 \& \& 408 \& <br>
\hline Total outstanding, end of year or month $\%$.-.do.... \& 230,829 \& 275,640 \& 233,842 \& 237,855 \& 243,371 \& 249,865 \& 253,897 \& 259,614 \& 263,387 \& 265, 821 \& 269,445 \& 275, 640 \& 275, 346 \& 275, 818 \& 278,347 \& <br>
\hline By major holder: Commercial banks \& \& \& \& \& 120, 440 \& \& 126, 619 \& 129,622 \& 131, 403 \& 132, 702 \& 133.908 \& 136, 189 \& 136, 452 \& 136,671 \& \& <br>
\hline  \& 44, 868 \& 54, 309 \& 45,608 \& 46, 463 \& 47,580 \& ${ }^{48,637}$ \& 49,502 \& 50, 558 \& 51, 280 \& 51,984 \& 53,099 \& 54,309 \& 55, 004 \& 55, 728 \& 56, 885 \& <br>
\hline  \& 37, 605 \& 45,939 \& ${ }^{38,724}$ \& ${ }^{39,236}$ \& 40, 481 \& -41,936 \& ${ }^{42,355}$ \& ${ }^{43,499}$ \& 44, 325 \& 44, 635 \& ${ }_{2}^{45,305}$ \& 45,939 \& 45, 526 \& 45,661 \& 46, 301 \& <br>
\hline  \& 23,490 \& 24, 876 \& 21,639 \& 21,570 \& 21,744 \& 21,813 \& 21,828 \& 22,093 \& 22,302 \& 22,464 \& 23,006 \& 24,876 \& 23,962 \& 23, 246 \& 22, 929 \& <br>
\hline By major credit \& \& \& \& \& 90359 \& 93, 361 \& 95, 289 \& 97,687 \& 99,062 \& \& \& 102, 468 \& 102, 890 \& 103,780 \& \& <br>
\hline Automobile \& 39, 274 \& 47,051 \& \& 38, 426 \& \& \& 40,553 \& 41,629 \& 42, 420 \& 42,579 \& 43,523 \& 47, 051 \& 46, 516 \& 45, 586 \& 45, 240 \& <br>
\hline  \& 15, 141 \& 16,042 \& 15, 149 \& 15, 287 \& 15, 396 \& 15, 532 \& 15,663 \& 15,799 \& 15,910 \& 15,925 \& 16,017 \& 16, 042 \& 16, 004 \& 16,008 \& 16,092 \& <br>
\hline
\end{tabular}

- Revised. p Preliminary. ${ }^{1}$ Average for year. 2 Daily average. ${ }^{3}$ Data no longer available.
$\bigcirc$ Adjusted to exclude interbank loans. \& For bond yields, see p. S-21. † Beginning Jan. 1959, monthly data have been revised to reflect new seasonal factors and adjustment to benchmarks for the latest call date (Dec. 31, 1975). Revisions are available from the Federal Reserve Board, Washington, D.C. 20551. $\ddagger$ Beginning Jan. 1979 SUR VEY, the consumer credit group has been completely restructured. Comparable data prior to Nov. 1977 are avaliable rom the Federal revisions for Jan. 1973-April 1975 will be shown later. $\%$ Includes data for items not shown separately.

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

FINANCE-Continued

| Federal government finance |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Budget receipts and outlays: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 $\begin{aligned} & 1357,762 \\ & 14027\end{aligned}$ | ${ }^{1} 401,997$ | 24, 879 | 42, 343 | 34,961 | 47,657 | 29, 194 | 35,040 | 42,591 | 28,745 | 33,227 | 37,477 | 38,364 | 32,639 |  |  |
| Outlays (net) .-..---.----...............-- do...- | ${ }^{1} 402,725$ | ${ }^{1} 450,836$ | 40, 004 | 35, 724 | 36,670 | 38,602 | 36,426 | 39, 572 | 38, 935 | 42,691 | 39,134 | 41,392 | 41,095 | 37, 739 |  |  |
| Budget surplus or deficit ( - )...-.-........d. do.... |  |  | -15, 125 | 6,618 | -1,709 | 9,055 | -7,232 | -4, 532 |  | -13,946 | -5, 907 | -3,915 | -2, 731 | -5,100 |  |  |
| Budget financing, total..---...................-do | ${ }^{1} 44,963$ | 148,839 | 15, 125 | -6,618 | 1,708 | -9,055 | 7,232 | 4,532 | -3,655 | 13,946 | 5,907 | 3,915 | 2,731 | 5,100 |  |  |
| Borrowing from the public | 53,516 | 1 59, 106 | 9,656 | -2, 263 | -555 | 5,401 | 3,195 | 9,039 | 2,821 | 6,484 | 5,236 | 3,533 | 3,312 | -668 |  |  |
| Reduction in cash balances..................do.... ${ }^{1}$ | -8,553 | c-10,267 | 5,469 | -4,355 | 2,263 | -14,456 | 4,037 | -4, 507 | -6, 476 | 7,462 | 671 | 382 | -581 | 5,768 |  |  |
| Gross amount of debt outstanding -.-.-......do...- | ${ }^{1}$ 709,138 | 1780,425 | 747,844 | 746,431 | 751, 412 | 758, 804 | 760, 203 | 773, 340 | 780, 425 | 785, 267 | 791, 563 | 797, 694 | 798, 733 | 800, 470 |  |  |
| Held by the public.-...........-.-.-.....-.-do..-- | 1551,843 | 1610,948 | 593, 310 | 591,048 | 590, 493 | 595, 894 | 599,089 | 608, 128 | 610,948 | 617, 433 | 622,669 | 626, 202 | 629, 513 | 628,845 |  |  |
| Budget receipts by source and outlays by agency: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts (net), total -.......-..........mil. \$-. | 1357,762 1 157,626 | 1401,997 1180,988 | 24,879 | 42,343 | 34, 961 | 47,657 | 29, 194 | 35,040 | 42,591 | 28,745 | - $\begin{aligned} & 33,227 \\ & 16,609\end{aligned}$ | 37,477 | ${ }_{23,667}^{38,364}$ | 32,639 |  |  |
| Individual income taxes (net)--.........d. ${ }_{\text {do }}$ Corporation | 154,892 | 159,952 | $\stackrel{5,258}{8,023}$ | 18,883 8,850 | 14,293 1,183 | 14, 655 | 1,785 | 1, 122 | 9,753 | 1, 684 | 1,048 | 10, 386 | 2, 146 | 1,281 |  |  |
| Social insurance taxes and contributions (net) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other mil. m-. | ${ }_{1}^{136,556}$ | 1-37,647 | $\xrightarrow{8,537}$ | -1, 2,831 | 16,092 | $\begin{aligned} & 9,287 \\ & 3,414 \end{aligned}$ | 9, 518 | ${ }_{3,547}^{15,587}$ | 8,315 3,439 | 7,805 3,335 | $\underset{3,647}{11,923}$ | 7,716 3,309 | 9,429 3,121 | 13,614 |  |  |
|  | 1402,725 | 1450,836 | 40,004 | 35,724 | 36,670 | 38,602 | 36, 426 | 39,572 | 38, 935 | 42,691 | 39, 134 | 41,392 | 41,095 | 37, 739 |  |  |
| Agriculture Department......................do | '16,738 | 120,368 | 1,879 | 781 | 1,229 | 819 | 1,336 | 1,200 | 1,865 | 1,696 | 2,654 | 2,859 | 3, 352 | 1,712 |  |  |
| Defense Department, military ............-do...- | 195,650 | 1 103,042 | 9,168 | 8,315 | 8,870 | 8,854 | 8,285 | 9,552 | 8,811 | 9, 164 | 9,224 | 9,383 | 9,218 | 8,920 |  |  |
| Health, Education, and Welfare Department mil. \$.. | ${ }^{1} 147,455$ | 1 162,856 | 14,387 | 12,756 | 13,826 | 14, 142 | 13, 122 | 14,417 | 14, 402 | 14, 103 | 14,512 | 15,017 | 14.416 | 14,584 |  |  |
| Treasury Department.-.----.-.-.....-.-do | ${ }^{1} 50,384$ | 1 56,355 | 3, 386 | 5,647 | 3,657 | 6, 837 | 5,180 | 3,727 |  | 5, 714 | 3, 990 | 7,479 | 5,068 | 4,470 |  |  |
| National Aeronautics and Space Adm....do | 13,944 118,019 | ${ }^{1} 3,980$ | 370 | -316 | ${ }^{361}$ | 320 | ${ }^{3} 324$ | 1 320 | ${ }_{1} 344$ | ${ }^{300}$ | 1,560 | ${ }^{333}$ | ${ }_{754}^{354}$ | ${ }^{365}$ |  |  |
| Veterans Administration ....-.............do | ${ }^{1} 18,019$ | ${ }^{\text {: } 18,962}$ | 2,676 | 556 | 1,751 | 2, 432 | 608 | 1,528 | 1,440 | 1,645 | 1,665 | 2,648 | 754 | 1,620 |  |  |
| Receipts and expenditures (national income and product accounts basis), qtrly. totals seas. adj. at annual rates: $\dagger$ <br> Federal Government receipts, totalt bil $\$$ | 374.5 | 431.4 | 396.2 |  |  | 424.7 |  |  | 441.7 |  |  | 463.1 |  |  | 469.9 |  |
| Federal Government receipts, totalf.......-bil. \$.. | 374.5 | 431.4 | 396.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Personal tax and nontax receipts. | 169.4 | 193.2 | 176.8 |  |  | 186.7 |  |  | 199.7 |  |  | 209.7 |  |  | ז 208.3 |  |
| Corporate profit tax accruals.-.....-.-.-. -do | 61.3 | 71.6 | 59.6 |  |  | 72.6 |  |  | 73.6 |  |  | 80.6 88 88 |  |  | 75.3 |  |
| Indirect business tax and nontax accruals-do...- | 25.0 118.7 | 27.9 138.7 | 26.5 |  |  | 27.9 |  |  | 140.1 |  |  | 144.0 |  |  | ${ }_{r}{ }^{r} 157.1$ |  |
| Contributions for social insurance........do...- |  | 138.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Federal Government expenditures, totalt...do | 422.6 | 461.4 | 448.8 |  |  | 448.3 |  |  | 464.5 |  |  | 483.8 |  |  | + 488.4 |  |
| Purchases of goods and service | 145.1 | 153.8 | 151.5 |  |  | 147.2 |  |  | 154.0 99.6 |  |  | 162.5 |  |  | ${ }^{1} 164.5$ |  |
| National defense................-.......-do |  |  | 97.9 |  |  | 98.6 |  |  |  |  |  | 102.1 |  |  | 103.9 |  |
| Transfer payments | 172.7 | 185.4 | 180.2 |  |  | 180.7 |  |  | 188.8 |  |  | 191.9 |  |  | 196.5 |  |
| Grants-in-aid to State and local govts....do | 67.4 | 76.9 35 | 73.9 |  |  | 75.9 34 |  |  | 77.5 36.3 |  |  | 80.3 |  |  | $\begin{array}{r}7 \\ \hline \\ \hline\end{array} 71.0$ |  |
| Net interest paid........................-do...- | 29.1 | 35.5 | 33.2 |  |  | 34.6 |  |  |  |  |  | 38.1 |  |  |  |  |
| Subsidies less current surplus of government enterprises | 8 | 9.7 | 10.0 |  |  | 10.0 |  |  | 8.0 |  |  | 11.0 |  |  | r 8.7 |  |
| Less: Wage accruals less disbursements..d | 0 | . 0 | . 0 |  |  | . 0 |  |  | . 2 |  |  | 0 |  |  | -. 2 |  |
| Surplus or deficit ( - ........................do..... | -48.1 | -29.9 | $-52.6$ |  |  | -23.6 |  |  | -22.8 |  |  | -20.8 |  |  | -18.4 |  |
| LIFE INSURANCE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Institute of Life Insurance: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Assets, total, all U.S. life insurance cos...- bil. \$-- Government securities | ${ }_{23.56}$ | 389.02 25.94 | 34.03 | ${ }^{363.27}$ | 366.94 | 369.88 24 | 374.42 | ${ }_{24.71}$ | ${ }_{25.18}$ | ${ }_{25}{ }^{35} 2.65$ | ${ }_{26.01}$ | ${ }_{25.94}$ | 26.40 | ${ }_{26.61}$ |  |  |
| Government securities....-...............-. - do | 171.65 | 190.98 | 176.98 | 180.37 | 182.34 | 183.70 | 187.18 | 189.47 | 190.61 | 189.98 | 191,32 | 190. 98 | 194.49 | 195.18 |  |  |
|  |  | ${ }^{105.53}$ | ${ }^{98.02}$ | 98. 58 | ${ }_{89} 9.19$ | 100.04 | 100.60 | 101.60 | ${ }_{92}^{102.36}$ | 103.16 | ${ }_{0}^{104.11}$ | 105.93 | 106. 40 | 107. 14 |  |  |
| Monfarm.-.....-........................................................... | 88.01 | 95.56 | 88.82 | 89.21 | 89.67 | 90.34 | 90.78 | 91.65 | 92.26 | 92.90 | 93.75 | 95.56 | 96.00 | 96.59 |  |  |
| Real estate................................ do | 11. 06 | 11.78 | 11.21 | 11.27 | 11.54 | 11.54 | 11.56 | 11.54 | 11. 58 | 11.69 | 11.71 | 11.78 | 11.84 | 11.92 |  |  |
| Policy loans and premitm notes............do | 27.56 | 30.20 | ${ }^{18 .} 1.02$ | 28.25 | 28.43 | 28. 65 | 28.84 | ${ }^{29.07}$ | 29. 29 | ${ }^{12.52}$ | ${ }_{1}^{29.82}$ | 30. 20 | 30.51 | 30.84 |  |  |
| Cash-...-................................- do- | 2.13 18.92 | 2.14 22.05 | ${ }_{19.27}^{19}$ | 1.48 19.44 | 19.64 | 20.27 | 1.42 | 1.45 20.28 | 20.60 | 21.01 | 1.46 21.14 | 22.14 22.05 | 22. 32 |  |  |  |
|  | 18.92 | 22.05 | 19.27 | 19.44 | 19.62 | 20.27 | 20.44 | 20.28 | 20.60 | 21.01 | 21.14 | 22.05 | 22.32 | 22.66 |  |  |
| Life Insurance Agency Management Association: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Insurance written (new paid-for insurance): | 367, 335 | 407, 042 | 36,588 | 31,740 | 33,802 | 37,472 | 28,660 | 32,685 | 34,616 | 34,172 | 34,801 |  | 32, | 31, 459 | 38,278 |  |
| Ordinary (incl mass-marketed ord.) -...do...- | 242,842 | 279, 044 | 24,463 | 22,848 | 24,651 | 24,494 | 21,028 | 23,912 | 22,486 | 25,007 | 24,321 | 28,484 | 21, 480 | 22, 204 | 26,819 |  |
| Group. | 117,960 | 121, 729 | 11,545 | 8,320 | 8,569 | 12,458 | 7,138 | 8,255 | 11,644 | 8,509 | 9,946 | 20,573 | 10, 200 | 8,842 | , 913 |  |
|  | 6,533 | 6, 269 | 580 | 572 | 582 | 520 | 494 | 518 | 486 | 656 | 534 | 440 | 432 | 413 |  |  |
| MONETARY STATISTICS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gold and silver: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monetary stock, U.S. (end of period)....mil. \$.. |  |  |  |  |  |  |  | 11,679 |  | 11,655 |  |  |  |  | 11,479 |  |
| Net release from earmarks................do...- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1,042,625 | 1,113,795 | 36,552 | 188,866 | 32, 674 | 23, 118 | 40,906 | 29, 538 | 269, 917 | 45, 804 | 207, 133 | 18, 078 | 247, 736 | 292, 397 | 349,738 |  |
|  | 674,026 | 903,023 | 138, 032 | 90,620 | 49,529 | 82,745 | 32,994 | 71,754 | 58, 454 | 121, 231 | 74, 477 | 75, 253 | 53,828 | 37, 323 | 56,015 |  |
| Production:T |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Africa................................................................. Canada | $\begin{array}{r} 2951.6 \\ 273.7 \end{array}$ | 955.4 70.4 | 80.6 6.4 | 82.8 6.2 | 80.2 5.8 | 78.5 6.0 | 81.1 5.9 | 82.8 5.8 | ${ }^{83.6} 5$ | 79.8 6.0 | 79.4 58.8 | 74.3 6.1 | 77.3 | 78.1 | 80.6 |  |
| Silver: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 84,645 | 119,125 | 7,936 | 13,665 | 5,758 | 6. 194 | 6, 079 | 12,468 | 21,038 | 12,472 | 8,444 | 5,539 | 8,873 | 15, 264 | 11, 213 |  |
| Imports | 354,818 4.623 | 389,015 5.401 | $\begin{array}{r}35,775 \\ 5.273 \\ \hline\end{array}$ | 33,807 5.118 | 29,915 5 5 | 33,206 5.316 | 32,209 5.331 | 33,105 5. 495 | 30,572 5.575 | 35,716 5.918 | 29,985 5.866 | 30,556 5.928 | 32,158 6.255 | 38,667 | 95,445 | 7.492 |
| Production: |  |  |  |  |  | 1,802 | , 52 | 1,434 | 2,456 | 2,045 | 1,645 | 3,870 | 1,467 | 1,690 | 2,473 |  |
| $r$ Revised. $\quad p$ Preliminary. ${ }^{1}$ Data are for fiscal year ending Sept. 30 of respective year and include revisions not distributed to the months. Data for 1976 and earlier years are for fiscal year ending June 30 of respective year. ${ }^{2}$ Reported annual total; revisions not distributed to the months. \&Includes data for items not shown separately. |  |  |  |  |  | $\dagger$ Data have been revised back to 1946 (see table 3.2 in the Jan. 1976 and July 1978 Survers for earlier data). <br> §Or increase in earmarked gold ( - ). TValued at $\$ 38$ per fine ounce from Jan. 1972-Sept 1973; at $\$ 42.22$ thereafter. ${ }^{\circ}$ Corrected. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

FINANCE-Continued


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as sho wn in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

FINANCE—Continued


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as sho wn in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

FINANCE-Continued


## FOREIGN TRADE OF THE UNITED STATES

| VALUE OF EXPORTS <br> Exports (mdse.), incl. reexports, totalo'-...-mil. \$.- | 121,212.3 | 1143,659.9 | 12,079.4 | 12,069.7 | 12, 494.6 | 12,487.3 | 10,944.7 | 11,621.8 | 12,714.4 | 13,157.4 | $13,672.3$ <br> $13,655.4$ <br> , 5 | $13,532.9$ <br> $13,531.0$ | 12,561.3 | 12,932.5 | 15,586.7 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Excl. Dept. of Defense shipments..........do.... Seasonally adjusted $\oplus$.................................. |  |  | 12,074.2 | 12,064.2 | 12, 4788.9 | 12, 477.3 | 10, 11.664 .5 | 112, 293.7 | 12,713.1 | 13, 153.6 | 13,655.4 | 13,531.0 | 12,558.1 | 12,928.5 | $\left\lvert\, \begin{aligned} & 15,584.4 \\ & 14,452.0 \end{aligned}\right.$ |  |
| By geos | 5,545. 6 | 5,885. 5 | 529.3 | 582.7 | 510.5 | 567.1 | 544.4 | 435.2 | 486.6 | 510.2 | 427.3 | 504.3 | 425.6 | 506.0 |  |  |
|  | 31,435.8 | 39, 628.2 | 3, 366. 1 | 3, 174.2 | 3, 297.0 | [3,390. 2 | 3, 209.4 | 3.346.8 | 3,589.0 | 3,583.3 | 3,720.0 | 3,910.3 | 3, 358. 8 | 3, 669.6 |  |  |
| Australia and | 2,876.5 | 33,462.1 | 253.2 | ${ }^{233.2}$ | ${ }_{2} 293.6$ | 289.7 | ${ }^{256.8}$ | ${ }_{3}^{2607} 7$ | ${ }^{355.8}$ | 3 3784.7 | 433.2 | 4 303.9 | 395. 9 | 274.1 |  |  |
|  | 37,304.2 | 43, 614.9 | 3, 723.9 | 3, 846.8 | , 726.0 | 3, 690.2 | 3,076.2 |  | 3,829.2 | 3,786.4 |  | 4,154.0 | 4, 048.3 | 4,222.2 |  |  |
| Northern North America | 25,7 | $\begin{gathered} 28,373.1 \\ 11,026.5 \end{gathered}$ | 2, $\begin{array}{r}\text { 412.0 } \\ 898.4\end{array}$ | $2,451.8$ 867.7 |  | $2,612.6$ | $\begin{array}{r} 1,995.5 \\ 868.9 \end{array}$ | 2,143.8 | 2,397.0 | $2,806.0$ $1,033.1$ | 2,583.7 | 2,512.3 | 2, 424.8 | $2,378.9$ $1,041.9$ |  |  |
| Southern North | $8,676.5$ $9,283.5$ | $\begin{aligned} & 11,026.5 \\ & 10,989.5 \end{aligned}$ | 888.0 | 840.0 | ${ }_{970.8}$ | ${ }_{932.2}$ | ${ }_{927.9}$ | 901.6 | 1,047.4 | 1 -981.2 | t, i , 23.5 | 1,072.6 | 879.9 | 839.8 |  |  |
| By leading countries: <br> Afrlea: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1,054 | 1,134.1 | 111.4 81.5 | 129.6 91.5 | 75.2 94.5 | 118.9 89.5 | ${ }_{76.1}^{110.7}$ | 80.8 90.7 | 86.7 92.2 | $\begin{array}{r} 86.6 \\ 118.0 \end{array}$ | 80.6 90.6 | ${ }_{112.3}^{115.6}$ | 76.7 85.9 | 130.3 103.5 |  |  |
| Republic of South Africa -------------do | 1,054 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Asia; Australia and Oceania: <br> Australia, including New Guinea.......do. | 2,375. 6 | 2,941.9 | 209.8 | 193.0 | 249.7 | 243.2 | 219.4 | 216.4 | 312.5 | 296.6 | 382.7 | 254.7 | 340.7 | 232.2 |  |  |
| India............................................ | 778.6 | 947.9 | 75.9 | 75.8 | 65.8 | 128.8 | 84.7 | 70.1 | 86.7 | 49.0 | ${ }^{63.6}$ | 84.7 | 61.2 | 110.4 |  |  |
| Pakistan-............................................................................... | ${ }_{560.7}^{292.7}$ | 495.7 728.4 | 72.9 59.7 | 46.8 54.8 | 35.5 56.6 | 30.2 58.4 | 16.3 72.6 | 40.0 59.4 | 54.8 70.9 | 48.9 69.5 | 21.1 58.0 | 64.9 66.4 | 42.0 58.0 | 73.6 61.3 |  |  |
| on | 763.2 | 751.4 | 69.1 | 57.6 | 55.2 | 89.3 | 59.2 | 53.8 | \% 2 | . 0 | 1 | 53.1 | 4 | 7 |  |  |
| Pbillpp | 875.9 | 1,040.0 | 79.4 | 76.6 | 90.0 | 91.8 | . 2 | 87.3 | 8 | 87.1 | 109.3 | 99.6 | 112.6 | 100.4 |  |  |
|  | 10,528.9 | 12,885. 1 | 1,015.9 | 969.9 | 1, 009.3 | 1,046.1 | 1,046.7 | 1,092.3 | 1,193.5 | 1,248.9 | 1,369.1 | 1,280.8 | 1,225.2 | 1,365.4 |  |  |
| Europe: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grance- ${ }_{\text {German }}$ Democratic Republic (formerly E .- | 3,503.2 | 4,166.3 | 325.3 | 340.8 | 325.1 | 338.6 | 280.1 | 415.2 | 395.5 | 373.9 | 431.4 | 375.2 | 443.5 | 368.7 |  |  |
| Germany) --..................mil. \& | 36.1 | 170.4 | 5.6 | 2.2 | 18.8 | 21.5 | . 3 | 11.5 | 15.4 | 17.2 | 30.6 | 23.7 | 9.9 | 6.6 |  |  |
| Germany $\qquad$ mil. $\$$ | 5,988.8 | 6,956.9 | 625. | 4.3 | 3.2 | 518.3 | 72.7 | 42. | 802.6 | 668.4 | 694. | 85. | 626. | 06.5 |  |  |
| Ita |  | 3, 360.4 | 280.6 | 9.2 |  | 342.5 | 258.0 | 222.6 |  |  | 286.5 |  |  | 315.6 |  |  |
| Unlon of Soviet Socialist Republics..-. do | ${ }_{1}^{1,627.5}$ | 2, 2522.3 | 241.7 635.1 | 308.3 791.2 | ${ }_{533.7}^{356.5}$ | 265.4 574.2 | 170.9 460.6 | 163.0 534.0 | 97.0 575.9 | 96.0.5 | 779.4 | 121.2 | 152.1 | 174.5 812.3 |  |  |
| United Kingdom | 5,950.9 | 7,118.7 | 635.1 | 791.2 | 533.7 | 574.2 | 460.6 |  | 575.9 | 593.1 | 761.5 |  |  | 812.3 |  |  |
| North and South America: <br> Canada do | 25,788.1 | 28, 371. 6 | 2,411.9 | 2,451.8 | 2,654.6 | 2,612.5 | 1,995. 4 | 2,143.8 | 2,396.9 | 2,805.9 | 2,583. 6 | 2,512.1 | 2, 424.7 | 2,378.7 |  |  |
| Latin American Republics, total $\%$.-...d | 16,371.1 | 20, 182.7 | 1,631.6 | 1,562.6 | 1,729.2 | 1,708. 2 | 1,662.7 | 1,720.5 | 1,843.7 | 1,853.9 | 1,952.3 | 1,950.5 | 753.5 | 720.2 |  |  |
| Argentina_..-...-.-.-.-...............d. | 731.1 | 841.8 | 53.0 | 60.5 | 70.0 | 55.1 | 73.3 | 67.5 | 76.2 | 83.1 | 79.3 | 121.3 | 147.9 | 84.3 |  |  |
|  | 2, 489.8 | 2,978. 3 |  | 224.1 |  |  |  |  | 278.6 |  | 289.2 | 253.8 | 186.6 | 207.9 |  |  |
|  | 520.2 782.0 | $\begin{array}{r} 724.6 \\ 1,046.0 \end{array}$ | 38.5 81.7 | 42.5 87.4 | 56.2 73.3 | 64.4 78.4 | 76.3 73.3 | 69.5 81.0 | 77.2 96.1 | $\begin{array}{r} 70.7 \\ 122.7 \end{array}$ | 71.1 11.1 | 90.3 116.1 | 53.4 80.0 | 56.9 91.2 |  |  |
| Mexico | 4, 806. 1 | 6,680.5 | ${ }_{3}^{5156.2}$ | 505.0 | 535.2 | 547.9 | 543.3 | 597.9 | 598.8 | 663.2 | 705.3 | 863.9 | 659.4 | 678.3 |  |  |
| Venezuela | 3, 170.5 | 3,726.9 | 336.0 | 301.5 | 357.0 | 338.6 | 289.6 | 292.3 | 375.9 | 316.3 | 327.6 | 320.4 | 281.1 | 265.9 |  |  |
| Exports of U.S. merchandise, totalor ${ }^{\text {a }}$.-...... do | 119,005.5 | 141,154.2 | $11,835.8$ | 11,859.6 | 12,250.0 | 12,271.7 | 10,780.0 | 11,429.3 | 12,505.7 | 12,926.4 | 13,433.5 | 13,303.9 | 12,352.5 | 12,708.7 | 15,300. 1 |  |
| Excluding military grant-aid.-.-.-..........do | 118,943.7 | 141,068.9 | 11,830.5 | 11,854.1 | 12,234.3 | $12,261.7$ | 10,769.4 | 11,421.4 | 12,504.4 | 12,922.6 | 13,416.5 | 13,302.1 | 12,349.4 | 12,704.7 | 15,297.8 |  |
| Agricultural product | 23, ${ }^{2371.0} \mathbf{2 9 1 . 8}$ | $\xrightarrow{29,406.9}$ | ${ }_{9.316 .4}^{2.519 .4}$ | 2, 2 , 351.6 | ${ }^{2,722.3}$ | 2, $\begin{aligned} & 2,639.8 \\ & 9661.9\end{aligned}$ | $2,133.8$ $8,646.2$ | $\xrightarrow{2,391.1}$ | ${ }^{2,268.0} 10$ | $2,665.8$ $10,260.6$ | $\left.\right\|_{10,626.8} ^{2,866.7}$ | 12,738.3 | 2, 2 921.9 | 2, 3156.4 |  |  |
| By commodity groups and principal commodities: <br> Food and live animals 9 _mil. |  |  |  |  | 1,684.2 |  |  |  |  | 1,597.9 |  |  |  |  | 881.0 |  |
| Meats and preparations (incl. poultry) do | 796.9 | ${ }_{957.8}$ | 1, 76.3 | 1, 78.1 | 1, 77.6 | 74.1 |  | 1, 90.7 | 93.2 | 1, 98.4 | 1,95.0 | 1, 88.6 | 78.8 | 77.2 |  |  |
| Grains and cereal preparations.......-.do..-- | 8,754. 8 | 11,634.0 | 920.1 | 942.7 | 1,168.0 | 1,193.0 | 1,008.5 | 1, 107.2 | 1,049.2 | 937.8 | 885.2 | 945.4 | 766.9 | 788.6 |  |  |
| Beverages and tobacco...................- ${ }^{\text {do }}$ | 1,846.8 | 12,292.8 | 213.6 | 44.3 | 143.6 | 141.5 | 161.6 | 213.3 | 176.9 | 251.3 | 281.1 | 259 | 135.4 | 171 | 223.2 |  |
| Crude materials, inedible, exc. fuels $8 .-$ - do | 13,086.3 | 15,552.8 | 1,337.5 | 1,388.6 | 1,466.5 | 1,353.9 | 992.5 | 1, 083.4 | 1,111.9 | 1,470.4 | 1,678.4 | 1,556.5 | 1, 550.4 | 1,513.5 | 1,837.5 |  |
| Cotton, raw, excl. linters and waste... | 1, ${ }^{1,529.5} 4$ | 1,739.6 | ${ }_{431.5}^{203.8}$ | 182.8 513 | 143.8 <br> 583 <br> 8 | 154.2 | 132.2 | 153.7 | 114.4 | 7 | 112.5 | 154.3 | 175.0 | 192.4 |  |  |
| Soybeans, exc. canned or prepared.....do- | 4,393.2 | 5, 210.4 $1,838.9$ | 112.5 | 143.3 14.9 | 583.4 149.5 | 468.2 162.3 | 238.6 152.0 | 271.9 162.1 | 262.6 179.8 | 593.2 176.6 | 696.7 201.4 | 493.7 202.1 | 557.3 182.5 | 393.5 201.9 |  |  |
| - Revised. ${ }^{1}$ Beginning Jan. 1978, data are bas clude nonmonetary gold; the overall total and the co in the groups) have been revised back to Jan. 1977 not equal the sum of the geographic regions, or comn | mmodit odity gr | groups (b <br> these chan ups and pi | at not the rincipal | stem and e items w $0^{\circ}$ Data commodi | may, | $\begin{aligned} & \text { oeceus In } \\ & \text { justed } \\ & \text { prior t } \end{aligned}$ | data ha <br> to Dec. 1 | ve been 977 will | revised to be shown | parately later. | sums of | ective mmod | comp | $\begin{aligned} & \text { SURV } \\ & \text { nent } \end{aligned}$ | compara | $\begin{aligned} & \text { ad- } \\ & \text { lata } \end{aligned}$ |


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## FOREIGN TRADE OF THE UNITED STATES-Continued



| Uniess otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## FOREIGN TRADE OF THE UNITED STATES-Continued

| VALUE OF IMPORTS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General imports-Continued <br> By commodity groups and principal commodi-ties-Continued |  | b47.625.6 | 4,050.7 | 4,085. 5 | 4,020. 4 | 4,132.9 |  | 3, 578.5 |  |  |  |  |  |  | 4,438.3 |  |
| Machinery, total \% .-.......-.........do.... | 17,663.8 | 24,404.0 | 1, 1.979 .7 | 2, 003.1 | 2,011.6 | 2.073.3 | 2,217.6 | 2,046.5 | 2,077.1 | 4,277.2 | ${ }_{2,162.8}^{4,28.3}$ | 2, 483.3 | 2, 206. 2 | 3,932.6 | 4,438.3 |  |
| Metalworking | 433.5 |  |  |  |  |  |  |  |  | 76.8 | 80.8 | 93.5 | 105.8 | 82.0 |  |  |
| Electrical....................................do. | 8,432.0 | 5,170.8 | 407.7 | 408.4 | 411.5 | 446.4 | 465.2 | 453.3 | 467.7 | 494.0 | 451.1 | 480.6 | 474.1 | 399.5 |  |  |
| Transport equipment ................... do | 17,829.9 | 23,221. 6 | 2,071.0 | 2,082.3 | 2,008.8 | 2,059.6 | 1,890.6 | 1,532.0 | 1,754.9 | 2,017.4 | 2,075.5 | 2,135.4 | 2,309.8 | 1,961.6 |  |  |
| Automobiles and parts...................do | 15,842.0 | 20,631.2 | 1,854.8 | 1,854.4 | 1,776. 3 | 1,840.3 | 1,676.3 | 1,361.0 | 1,547.1 | 1, 117.8 | 1,889.0 | 1,891.2 | 1,996.8 | 1, 639.4 |  |  |
| Miscellaneous manufactured articles.....do.... | 13,809.4 | b19,062.1 | 1, 611.1 | 1, 439.7 | 1,469.0 | 1,651.5 | 1,782.5 | 1,756.5 | 1,751.9 | 1,827.1 | 1,799.9 | 1,560.3 | 1,619.7 | 1,426.4 | 1.569 .2 |  |
| Commodities not classified.....-....-.....do. | 3,335.7 | b3, 981.1 | 369.2 | 334.8 | 316.0 | 335.2 | 327.0 | 323.6 | 304.2 | 383.3 | 321.4 | 384.4 | 309.4 | 283.9 | 350.8 |  |
| Indexes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Exports (U.S. mdse., excl. military grant-aid): <br> Unit ralue $1967=100$ | 210.2 | - 231.5 | P 219.4 | ¢ 223.0 | - 224.0 | p 232.2 | p 231.3 |  | - 238.8 | - 237.3 | p248. 1 | ¢ 250.7 | 2250.2 |  | 250.5 |  |
|  | 183.1 | - 198.8 | P 211.1 | - 208.2 | ${ }^{2} 213.9$ | p206. 8 | ${ }^{\text {p } 182.3}$ | D190.9 | P 205.0 | $\nu 213.3$ | ${ }^{2} 211.7$ | ${ }_{p} 207.8$ | ${ }^{2} 193.2$ | ${ }^{2} 199.9$ | - 239.1 |  |
| Value.....................................................- | 384.7 | D 460.3 | ${ }^{\text {p } 463.3}$ | p 464.2 | p 479.0 | p408. 1 | - 421.7 | ${ }^{\text {P } 447.2}$ | ${ }^{-} 489.6$ | $\bigcirc 506.1$ | p 525.3 | ${ }^{2} 520.9$ | 2483. 5 | ${ }^{2497.4}$ | - 599.0 |  |
| General imports: <br> Unit value. | 269.9 | จ 292.7 |  |  | 292.6 |  |  | 295.0 |  |  |  |  |  |  |  |  |
|  | 200.8 | $\bigcirc 220.1$ | 226.4 | 224.5 | 218.4 | 222.3 | 225.1 | 213.4 | 220.5 | 228.7 | 222.8 | 222.9 | ${ }_{232.6}$ | 199.1 | ${ }_{222.9}$ |  |
| Value.........................................................- | 541.9 | จ 644.4 | 655.2 | 651.9 | 639.1 | 652.7 | 660.4 | 629.6 | 649.0 | 677.7 | 677.0 | 670.6 | 709.0 | 616.8 | 704.5 |  |
| Shipping Weight and Value |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Waterborne trade: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Exports (inel. reexports): <br> xports (incl. reexp Shipping weight. $\qquad$ thous. sh. tons. | 274, 413 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Value $\qquad$ mil. \$.: | 65, 376 | 77, 289 | 6,431 | 6,313 | 6,912 | 6,842 | 5,989 | 6,385 | 6,646 | 6, 958 | 7,356 | 7,402 | 6,508 |  |  |  |
| General imports: <br> Shipping weight $\qquad$ thous. sh. tons.- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 103, 037 | 115, 484 | 9,680 | 9,838 | 9,400 | 9,657 | 10,143 | 9,880 | 9,780 | 9,850 | 9,759 | 9,685 | 10,928 |  |  |  |

TRANSPORTATION AND COMMUNICATION

| TRANSPORTATION <br> Air Carriers (Scheduled Service) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Certificated route carriers: |  |  |  |  |  |
| Passenger-miles (revenue).....................bil.. | 194.75 | 226. 78 | 18.45 | 17.58 | 17.96 |
| Passenger-load factor 8.-...-----.- percent.. | 56.2 26,100 | 61.5 29,679 | 60.6 1,460 | 59.9 | 62.1 2 |
| Ton-miles (revenue), total甲-....---.........mil.. | 26,100 | 29,679 | 1,460 | 2,344 | 2,363 |
| Operating revenues (quarterly) $¢ \odot \ldots . .$. mil. \$.- | 19,925 | 22,887 | 5,115 |  |  |
| Passenger revenues.......................- do...-- | 16,274 | 18,812 | 4, 226 |  |  |
| Cargo revenues.-----------------....... do | 1,719 | 1,985 | 432 |  |  |
|  | ${ }^{390}$ | -383 | 89 |  |  |
| Operating expenses (quarterly) $\odot . . . . . . .$. do....- | 19, 017 | 21,512 | 5,011 |  |  |
| Net income after taxes (quarterly) $\bigcirc_{\text {- }}$.....do. | 731 | 1,184 | 63 |  |  |
| Domestic operations: |  |  |  |  |  |
| Passenger-miles (revenue).....-..............bil.- | 156.61 | 182.67 | 15.32 | 14.32 | 14.48 |
| Cargo ton-miles..-.-............................mil.- | 3, 125 | 3,506 808 | 309 74 | 293 68 | 293 68 |
| Operating revenues (quarterly) $\odot . . . . . . . m i l . ~ \$ .-~$ | 15, 821 | 18, 184 | 4,151 |  |  |
| Operating expenses (quarterly) $\bigcirc$ | 15, 165 | 17,151 | 4,053 |  |  |
| Net income after taxes (quarterly) $\odot . . . .$. do...- | 497 | 858 | 67 |  |  |
| International operations: |  |  |  |  |  |
| Passenger-mile (revenue) .-.-...........--.-.bil.- | 36. 61 | 44.11 | 3.12 | 3.25 | 3.50 |
| Cargo ton-miles...--.......................--mil.- | 2,302 | 2, 314 | 199 | 193 | 177 |
| Mall ton-miles...-.....................-....-. - do.-.- | 397 | 374 | 33 | 32 | 30 |
| Operating revenues (quarterly) ©.......mil. \$.- | 4, 104 | 4,703 | 964 |  |  |
| Operating expenses (quarterly) $\odot$--...-.-. do...- | 3,852 | 4,361 | 958 |  |  |
| Net income after taxes (quarterly) ©.....do | 234 | 326 | -5 |  |  |
| Urban Transit Systems |  |  |  |  |  |
|  | 5,979 | 9,7,636 | r 693 | 816 | 670 |
| Motor Carriers |  |  |  |  |  |
| Carriers of property, large, class I, qtrly.:* Number of reporting carriers. | 100 |  | 100 |  |  |
|  | 2 13,853 | + 16,618 | 3,569 |  |  |
| Net income, after extraordinary and prior period charges and credits. mil. \$. | 2,853 2452 | r r 495 | 3,56 46 |  |  |
| Tonnage hauled (revenue), common and contract carrier service......................................... | 217 | 236 | 54 |  |  |
| Freight carried-volume indexes, class I and II intercity truck tonnage (ATA): |  |  |  |  |  |
| Common and contract carriers of property (qtrly.) o'.......average same period, $1967=100 .$. | 148 |  | 152 |  |  |
| Common carriers of general freight, seas. adj. $\dagger$ $1967=100$. | 166.2 | 181.7 | 177.3 | 192.5 | 182.8 |
| Class I Railroads $\triangle$ |  |  |  |  |  |
| Financial operations, qtrly. (AAR), excl. Amtrak: Operating revenues, total $\oplus \circ$ |  |  | -4,770 |  |  |
|  | - 18,658 | 20, 333 | 4,440 |  |  |
|  | ${ }^{137}$ | ${ }^{3} 56$ | 85 |  |  |
| Operating expenses $\oplus$-.......-.................- do.... | - 19,299 | 21,124 | 4,905 |  |  |
| Tax accruals and rents.-................-...- do...- | 3, 377 |  |  |  |  |
|  | ${ }^{5} 433$ | 443 | r-136 |  |  |
| Net income (after taxes) $\oplus$.....................do. | - 1359 | ${ }^{1} 260$ | >1-254 |  |  |

${ }^{2}$ Revised. ${ }^{p}$ Preliminary. ${ }^{1}$ Before extraordinary and prior period items. ${ }_{3}$ Annual total; quarterly revisions not available. ${ }^{3}$ Beginning Jan. 1978, data are for total unlinked passenger trips; revenue passenger data no longer available.
separately. miles as a percent of available seat-miles in revenue service reflects proportion of seating capacity actually sold and utilized. ©Total revenues, expenses, and income for all groups data prior to 1972).


TRANSPORTATION AND COMMUNICATION—Continued

| TRANSPORTATION-Continued Class I Railroads $\Delta$--Continued <br> Traffic: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ton-miles of freight (net), total, atrly.-....--bil.. | 86.6 |  | 192.7 |  |  | 235.8 |  |  |  |  |  |  |  |  |  |  |
|  | 826.2 2.289 | 856.2 |  |  |  | 203.4 |  |  | 210.5 |  |  | 227.1 |  |  | 203.4 | ${ }^{2} 70.6$ |
| Price index for railroad freight..........1969=100.. | 199.1 | 213.1 | 207.7 | 207.8 | 207.9 | 208.2 | 215.2 | 215.7 | 215.8 | 215.8 | 216.3 | 231.1 | 231.7 | 231.7 | 232.3 | 232.7 |
| Travel |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hotels and motor-hotels: <br> Restaurant sales index.... same month $1967=100$. . | 139 |  | 1.7 | 1.55 | 164 | 169 | 174 | 163 | 160 | 167 | 154 | 155 | 129 |  |  |  |
| Hotels: A verage room saley..............-dollars.- | 34.96 | 38.83 | 38.09 | 39.37 | ${ }^{39.83}$ | 39. 14 | 36.77 | 38.39 | 38.20 | 42.06 | 39.30 | 38.02 | 44.19 |  |  |  |
| Rooms occupied............-.-\% of total.- | 65 |  |  | 74 | 73 |  | ${ }^{66}$ | 69 |  | 77 | 66 | 50 | 61 |  |  |  |
| Motor-hotels: A verage room saleq..-.-. dollars.- | 24.65 | 28.45 | 27.42 | 27. 074 | 28.55 | 28.91 | 29. 28 | 29.67 | 29.00 | 28. 99 | 29.90 | 29.71 | 29.69 |  |  |  |
| Foreign travel: ${ }^{\text {Rooms occupied........-\% of total.- }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 8,201 | 8,903 | 711 | 706 | 718 | 785 | 1,024 | 1,077 | 742 | 740 | 612 | 584 | 683 | 607 | 747 |  |
|  | 8 8,198 | 8,883 | 721 | 662 | 804 | 917 | 858 | 901 | 910 | 624 | 593 | 714 | 678 | 599 | 752 |  |
| Aliens: Arrivals $\odot$ - ${ }^{\text {- }}$ - | 6,492 | 7,861 | 567 | 550 | 603 496 | ${ }_{5}^{686}$ | 925 | 948 | 741 | ${ }_{6}^{640}$ | 581 | 664 | 672 | 532 | 671 |  |
| Passports issued ${ }^{\text {Departures } \odot . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ d o ~}$ | 5,364 | ${ }^{6,325}$ | ${ }_{379}^{420}$ | 420 | 496 | 522 | 545 | 844 | ${ }_{6}^{698}$ | 539 | 517 | 548 | 555 | 378 | 488 |  |
| National parks, visits | 69, 980 | 3, 62,910 | 2,757 | - 3,439 | 4,986 | 8,232 | 12,047 | 11,037 | 6,375 | 5,284 | 2,732 | $\begin{array}{r}1561 \\ \hline 1921\end{array}$ | 1,574 | 1,695 | 2,541 | $\begin{aligned} & p 356 \\ & 3,523 \end{aligned}$ |
| COMMUNICATION |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Telephone carriers: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 40,754 | 45, 905 | 3,788 | 3,715 | 3,820 | 3, 828 | 3,783 | 3,924 1 1725 | 3.942 | 3,959 1739 | 3,967 | 3,953 | 4,068 | 3,977 |  |  |
| Station revenues.......................... do.. | ${ }_{18}^{18,667}$ | 20,462 | 1.683 | 1,688 | 1,692 | 1,694 | 1,680 1 | 1,725 | 1,765 | 1,739 | 1,765 | 1,744 | 1,782 | 1,777 |  |  |
| Operating exspenses (excluding taxes).......-do... | 26, 120 | 18,630 <br> 36,314 | 2, 1,447 | - | 2,470 | 2, 1,424 | - | $\underset{2,532}{1.636}$ | 2.527 | - | - | 8,687 | -1,692 | - |  |  |
| Net operating income (after taxes)........-do. | 7,298 | 8.191 | ${ }^{2} 660$ | , 685 | ${ }^{6} 673$ | 702 | 712 | 703 | 718 | 708 | ${ }^{1} 662$ | ${ }^{8,654}$ | 2,757 | 2,737 |  |  |
| Phones in service, end of period.....-......mil.- | 149.9 | 150.4 | 146.1 | 146.4 | 146.9 | 147.2 | 147.5 | 146.6 | 148.9 | 149.5 | 149.6 | 150.4 | 151.0 | 151.4 |  |  |
| Telegraph carriers: Domestic: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operating revenues.......................mil. \$.- | 554.8 | ¢76. 4 | 47.9 | 46.6 | 49.1 | 48.1 | 46.8 | 50.4 | 47.9 | 51.1 | 49.7 | 49.5 | 49.9 | 49.9 |  |  |
| Operating expenses-...-.-.-........-....do.... | 439.6 | 470.0 | 35.9 | 36.6 | 37.5 | 37.5 | 37.0 | 39.1 | 37.9 | 53.9 | 41.0 | 41.8 | 42.8 | 40.0 |  |  |
| Net operating revenues (before taxes).... do.... overseas, total: $\sigma^{7}$ | 86.9 | 85.6 | . 2 | 7.3 | 9.0 | 8.5 | 7.2 | 8.8 | 7.5 | 5.9 | 6.1 | 3.9 | 4.5 | 7.1 |  |  |
| Orerating revenues. ......................d. ${ }^{\text {d }}$ | 396.9 | 454.8 | 38.7 | 36.5 | 38.0 | 39.2 | 36.7 | 39.3 | 38.0 | 39.9 | 39.6 | 39.3 | 41.4 | 37.2 |  |  |
| Operating expenses .-.-...........-.... do | 279.4 | 313.5 | 25.3 | 24.4 | 25.0 | 25.4 | 24.8 | 26.0 | 25.3 | 31.7 | 26.8 | 31.5 | 27.2 | 24.7 |  |  |
| Net operating revenues (before taxes)....do...- | 108.4 | 123.3 | 11.8 | 10.4 | 10.3 | 11.0 | 9.6 | 11.6 | 11.0 | 12.1 | 11.0 | 6.3 | 12.5 | 10.8 |  |  |

CHEMICALS AND ALLIED PRODUCTS

| CHEMICALS <br> Inorganic Chemicals <br> Production: <br> Aluminum sulfate, commercial ( $17 \% \mathrm{Al}_{2} \mathrm{O}_{3}$ ) $\ddagger$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| orine gas $\left(100 \% \mathrm{Cl}_{2}\right)$ t................. don. ${ }^{\text {d }}$ do | 1,162 10,664 | 1,185 10,805 | 102 813 | $\begin{array}{r}95 \\ 890 \\ \hline\end{array}$ | 107 | $\begin{array}{r}98 \\ 884 \\ \hline\end{array}$ | ${ }_{951}^{98}$ | ${ }_{925}^{115}$ | 92 919 | ${ }_{950}^{101}$ | ${ }_{971}^{96}$ | 91 986 | $\begin{array}{r}92 \\ +865 \\ \hline\end{array}$ | 899 |  |  |
| Hydrochloric acid (100\% IICl) | 2, 568 | 2,733 | 230 | 253 | 824 284 | 828 | ${ }_{237} 9$ | 210 | 226 | ${ }_{232}$ | ${ }_{233}$ | 240 | +218 | 231 |  |  |
| Phosphorus, elen entalf ........-.....-.-.-. do | 431 | 440 | 36 | 38 | 37 | 39 | 39 | 33 | 36 | 39 | 39 | 38 |  | 37 |  |  |
| Sodium carbonate (soda ash), synthetic (58\%\% | 1,812 |  | (6) | (6) | (6) | (6) | (6) | (c) | ${ }^{(8)}$ | (9) |  |  | (11) |  |  |  |
|  | 10, 481 | 10,619 | 823 | 867 | ${ }_{861}$ | 864 | ${ }^{941}$ | 906 | 885 | 918 | ${ }_{9} 97$ | 1,001 | 1889 +88 | 26 |  |  |
| Sodium silicete, enhydroust.-.---.-.......do |  |  |  | -64 | 68 114 | 67 104 | 62 97 | 64 102 | 63 97 | $\begin{array}{r}73 \\ 107 \\ \hline\end{array}$ | $\begin{array}{r}73 \\ 103 \\ \hline\end{array}$ |  |  | 98 |  |  |
| Sod Sodium trypolyphosphate ( $100 \% \mathrm{Na}_{3} \mathrm{P}_{3} \mathrm{O}_{10}$ ) $\qquad$ | 1,241 | 1,237 | 104 | 115 | 114 | 104 | 97 | 102 | 97 | 107 | 103 | 91 | r 88 | 98 |  |  |
| $\text { Titanium dioxide (composite and pure) } f \text {...do. }$ | 709 679 | 735 721 | 61 60 | 63 67 | 58 68 | 59 69 | ${ }_{63}^{58}$ | 63 60 | 60 63 | 66 60 | 66 60 | 65 58 58 | 60 57 | 59 52 |  |  |
| Sulfur, native (Frasch) and recovered: Production..........................thous. 1g. tons. | ${ }^{19,389}$ | 19,557 | 809 | 780 | 826 | 811 | 810 | 795 | 776 | 86 | 790 |  |  | 16 |  |  |
| Stocks (producers') end of period........do | 5,469 | 5,261 | 5.389 | 5,352 | 5,368 | 5,437 | 5,519 | 5,498 | 5,472 | 5,386 | 5,245 | 5,260 | 5,127 | 5,009 |  |  |
| Inorganic Fertilizer Materials |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production: <br> Ammonia, synthetic anhydrous $\ddagger$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 16,951 | 1,435 | ${ }^{1.558} 6$ | 1,553 | 1,424 | 1,374 512 | 1, ${ }_{537}$ | 1, 296 | 1,425 | 1,422 | 1,536 | $\underset{r}{\text { r }} \underset{r}{1,349}$ | 1,249 | 1,551 |  |
| Ammonium sulfatet -.......................do | ${ }^{3} 1,904$ | $12 \mathrm{I}, 757$ | 160 | 177 | 168 | 164 | 172 | 182 | 153 | 883 | (8) | 155 | (8) | (6) | 189 |  |
| Nitric acid ( $100 \% \mathrm{HNO}_{3}$ ) F - | 7.877 | 8,058 | 767 | 736 | 719 | 625 | 604 | 627 | 603 | 733 | 681 | 725 |  | 647 | 771 |  |
| Nitrogen solutions (100\% N) $\ddagger$. | 2, 640 | 12 2, 323 | 227 | 224 | 218 | 210 | 191 | ${ }^{-176}$ | - 168 | - 200 | ${ }^{9} 168$ | ${ }^{8} 169$ | 173 | ${ }^{\circ} 144$ | 212 |  |
| Phosphoric acid (100\% $\mathrm{P}_{2} \mathrm{O}_{5}$ | 8.456 | 9,563 | 830 | 830 | ${ }_{8}^{222}$ | 768 | 732 | ${ }_{8}^{803}$ | ${ }^{796}$ | $\begin{array}{r}853 \\ 3 \\ \hline 46\end{array}$ | 882 |  | $\begin{array}{r}758 \\ 3 \\ \hline\end{array}$ |  |  |  |
|  | 35,821 | 39,648 | 3,365 | 3,319 | 3,410 | 3,250 | 3,107 | 3,350 | 3,337 | 3,476 | 3,459 | 3,503 | 3,311 | 3,289 | 3,615 |  |
| Superphosphate and other phosphatic fertilizers $\left(100 \% \mathrm{P}_{2} \mathrm{O}_{8}\right)$ : |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production--.--...........thous. sh. tons.. | 6,699 | 7,341 | 673 | 627 | 639 | 569 | 573 | ${ }_{6}^{614}$ | 169 379 | ${ }_{659}^{651}$ | 599 | 659 500 | 599 +469 | 594 | 679 359 |  |
| Stocks, end of reriod......................do- |  |  | 506 | 400 | 471 | 494 | 461 | 595 |  |  | 425 |  |  | 435 |  |  |
| Exports, totalq..... | 23,108 | 4 26,247 | 2,150 | 1,690 |  | 2,293 | 2,596 | 2,651 | 2,690 | 1,985 | 1,781 | 2,493 | 1,975 | 2,008 |  |  |
| Nitrogenous material | 1,169 | ${ }_{4}^{4} 2,622$ | ${ }_{1} 192$ | 73 | -129 | 148 | , 364 | 406 | ${ }^{2354}$ | 290 | 170 | ${ }^{2} 176$ | ${ }_{10} 1212$ | 216 |  |  |
| Phosphate materials | 16,741 | 116,741 | 1,448 | 1,321 | 1,306 | 1,368 | 1,431 | 1,496 | 1,571 | 1,347 | 1,241 | 1,599 | 1,048 | 1,179 |  |  |
| Imports: ${ }^{\text {Potash ma }}$ | 1,650 | 41,827 | 162 | 58 | 119 | 205 | 210 | 237 | 169 | 122 |  | 242 | 195 | 107 |  |  |
| Amrionium nitrate......................... do. |  |  |  |  |  |  |  | 13 | 14 |  |  |  |  | 17 |  |  |
| A mmonium sulfate.........................-do | 327 | 326 | 31 | 69 | 26 | 37 | 3 | 11 | 11 | 18 | 34 |  | 4 | 17 |  |  |
| Potassium chloride | 8,229 | 8,390 | 851 16 | 669 13 | 812 | 849 5 | 735 15 | 682 0 | ${ }_{6} 619$ | 654 15 | ${ }_{11}^{648}$ | 716 0 |  |  |  |  |
| R Rerised. ${ }^{p}$ Preliminary. ${ }^{1}$ Annual total: monthly revisions are not availahle. overall revision to the export commodity classification system effective Jan. 1, 1978, data may not be strictly comparable with those for earlier periods. "Less than 500 short tons. <br> - Data are being withheld to avoid disclosing figures from individual companies. ${ }^{7}$ See " $\oplus$ " note, this page. ${ }^{8}$ Excludes data for byproduct (other than coke oven); withheld to avoid disclosure of figures from individual companies. - Represents solutions containing ammonia and ammonium nitrate/urea solutions; not comparable with data prior to Aug. 1978. <br> ${ }^{10}$ Beginning Jan. 1979, data include chemically-treated fertilizer and sodium nitrate containing over $16.3 \%$ nitrogen by weight; not strictly comparable with data shown for earlier periods. <br> ${ }^{11}$ Effective Jan. 1979, data are no longer reported separately. data where available; not comparable with earlier periods. <br> ${ }^{12}$ Annual total for monthly |  |  |  |  |  | $\Delta$ See " $\Delta$ " note, p. S-24. It Average daily rent per occupied room, not scheduled rates. <br> $\odot$ Includes data not shown separately. $\oplus$ Beginning Jan. 1977, data exclude potassium magnesium sulfate, not strictly comparable with those shown for earlier periods. <br> OEffective 1976, data are compiled by U.S. Dept. of Transportation from INS records and refer to air travei; travel by sea is omitted (for 1973-75, average annual arrivals and departures by sea are as follows-units and order as above: 814; 784; 159; 129). <br> 8 Effective Jan. 1976, data include visits to Voyageurs National Park (no count of visits for earlier periods is availahle); data for Mar.-July 1976 are restated to delete visits to Platt Na- |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | include visits to Bad Land and Theo. Roosevelt National Parks (lormerly classined as recreational areas). |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | $\sigma^{7}$ Includes data for Western Union Int. Cable \& Wireless. tMonthly revisions back to 1971 are available upon request. |  |  |  |  |  |  |  |  |  |  |


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## CHEMICALS AND ALLIED PRODUCTS—Continued

| CHEMICALS-Continued Industrial Gases $\ddagger$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5,972 | 5,262 | 422 | 450 | 434 | 449 | 402 | 448 | 415 | 468 | 475 | 455 | 428 | 412 |  |  |
| (haus. sh. tons.- | 2. 256 84.459 | - $\begin{array}{r}2,287 \\ 90\end{array}$ | 189 7809 | 190 7 | $7 \begin{array}{r}200 \\ 7\end{array}$ | 7 204 | ${ }_{7} 205$ | ${ }_{7}^{210}$ | ${ }_{7} 205$ | $7 \begin{gathered}206 \\ 7\end{gathered}$ | ${ }^{180}$ | $\begin{array}{r}193 \\ 8 \\ \hline 09\end{array}$ | $\begin{array}{r}+167 \\ \sim \\ \hline 805\end{array}$ | 154 |  |  |
| Hydrogen (high and low purity) .......................... | 84, 81,545 | -980,248 | 7, 3 , 899 | 31,776 | 3, 3 , 3235 | 7, ${ }^{\text {32,273 }}$ | 31,879 | -74,001 | 32,663 | - 74,606 | 73, 765 |  | +7,395 | -7,163 |  |  |
|  | 392,984 | 428,014 | 34,409 | 33,694 | 37,805 | 36,298 | 36,295 | 37, 354 | 36,904 | $\stackrel{38,016}{ }$ | 37,605 | 37, 421 | ${ }_{-34,291}$ | 31,449 |  |  |
| Organic Chemicalso ${ }^{\text {r }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production: <br> Acetylsalicylic acid (aspirin) $\qquad$ mil. lb. | 131.4 | 32.2 | 3.0 | 2.4 | 3.2 | 3.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.9 | 2.8 | 2.8 | 2.5 | 3.0 |  |
| Creosote oil | ${ }^{1} 161.2$ | ${ }_{1} 143.2$ | 13.6 | 13.1 | 11.9 | 13.9 | 10.1 | 11.6 | 12.9 | 11.8 | 12.8 | 12.5 | r 10.9 | 10.8 | 13.9 |  |
| Ethyl acetate (85\%) - | ${ }^{1} 217.8$ | ${ }^{1226.7}$ | 17.1 | 12.4 | 18.4 | 22.5 | 19.8 | 20.4 | 17.9 | 20.8 | 21.7 | 20.8 | r 15.4 | 24.4 | 24.0 |  |
| Formaldehyde (37\% HCHO)............- do...- | ${ }^{1} 6,046.5$ | 16,433.2 | 571.3 23 4 | 555.1 | 550.4 | 549.1 | 535.8 | $\begin{array}{r}522.8 \\ 29.4 \\ \hline\end{array}$ | 546.6 | 588.0 | 531.3 | 548.1 | - 496.2 | 484.0 | 582.9 |  |
|  | + 2871.8 | $\begin{array}{r}290.5 \\ 1957 \\ \hline\end{array}$ | 23.4 57.7 | 23.5 87.3 8 | 26.3 78.0 | ${ }_{77}^{21.8}$ | ${ }_{83}^{20.0}$ | 29.4 79.8 | 26.4 87 8 | 28.3 73 | 24.7 60.9 | 21.9 | 21.4 | ${ }^{+24.2}$ | 29.4 |  |
|  | 1926.0 | 19938 1 | 85.2 | 81.5 | 92.7 | 93.4 | 87.2 | 80.1 | 79.6 | 73.9 | 76.5 | 94.6 | -80.0 | 76.5 | 100.6 |  |
| ALCOHOL $\ddagger$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ethyl alcohol and spirits: Production |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{r}405.3 \\ \\ \hline 1\end{array}$ | - 420.2 | 37.3 | ${ }_{32.1}^{42.2}$ | 31.2 | 38.5 37 | 25.4 | 36.6 | 30.3 | 40.3 40.3 | 38.0 38.6 | ${ }^{40.1}$ | 42.8 36.6 | 4 |  |  |
| Taxable withdrawals | 81.0 | 90.2 | 7.5 | 7.3 | 7.2 | 7.5 | 5.9 | 7.7 | 7.4 | 8.2 | 7.4 | 11.6 | 6.7 | 5.8 |  |  |
| Stocks, end of period | 71.4 | 71.2 | 78.9 | 80.8 | 74.6 | 76.2 | 85.8 | 88.4 | 96.8 | 76.8 | 64.6 | 71.2 | 66.7 | 62.2 |  |  |
| Denatured alcohol: Production | 223.8 | 227.7 | 19.9 | 17.7 | 21.3 | 20.3 | 17.0 | 19.9 | 16.9 | 21.7 | 16.6 | 20.1 | 21.3 | 19.0 |  |  |
| Consumption (withdrawals)................do.... | 224.6 | 228.8 | 19.9 | 17.7 | 21.3 | 20.2 | 17.0 | 19.9 | 17,4 | 21.4 | 17.2 | 20.5 | 21.6 | 18.7 |  |  |
| Stocks, end of period.........................do....- | 2.6 | 2.7 | 2.8 | 2.9 | 2.9 | 3.0 | 3.1 | 3.0 | 2.6 | 2.9 | 2.9 | 2.7 | 2.3 | 2.7 |  |  |
| plastics and resin materials |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production: <br> Phenolic resins mil. lb.. | $11,797.1$ | 11,764. 2 | 154.9 | 149.1 | 148.2 | 143.5 | 128.8 | 142.7 | 151.8 | 169.5 | 151.7 | 138.8 | -149.9 | ${ }^{-143.4}$ | 165.6 |  |
| Polyethylene and copolymers..............do-... | 110,100.1 | 111,083.4 | 916.7 | ${ }^{905.2} 2$ | 915.4 | 900.8 | 937.1 | 960.4 | ${ }^{962.2}$ | 967.0 | 937.5 | 961.2 | 896. 4 | ${ }^{922.6}$ | 1,042. 4 |  |
| ${ }^{\text {Polypropylene-........................... do }}$ Po | 1 $\begin{aligned} & 1 \\ & 1 \\ & 5,203.0 \\ & 5\end{aligned}$ |  | 253.0 467.1 | 226.8 474.9 | 232.3 479.6 | 233.2 483.4 | 232.0 450.5 | 260.5 427.5 | 257.3 473.4 | 246.8 477.8 | 268.2 434.8 | 244.3 481.5 | + + -282.2 504 | - $\begin{array}{r}267.5 \\ \hline 467.6\end{array}$ | 307.7 569.9 |  |
| Polystyrene and copolymers..............-. do..... | $1{ }^{1} 5,267.3$ | 15,653.8 | 477.2 | 481.0 | 501.6 | 480.6 | 458.1 | 469.8 | 459.1 | 500.3 | 479.7 | 493.5 | 470.9 | 473.5 | 531.2 |  |
| MISCELLANEOUS PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Explosives (industrial), shipments, quarterly | 2,675.1 | 12,821.1 | 445.6 |  |  | 809.5 |  |  | 786.7 |  |  | 790.4 |  |  | 628.1 |  |
| Paints, varnish, and lacquer, factory shipments: Total shipments $\qquad$ |  |  | ${ }^{3} 500.6$ |  | 589.0 |  |  |  |  |  |  |  |  |  |  |  |
| Trade products............................................ | ${ }^{2} 2,763.3$ | 3, 183.1 | -3 252.8 | 273.2 | 324.5 | 324.7 | 296.1 | 336.9 | ${ }_{292.7}^{530.7}$ | 268.4 | 238.6 | 200.5 |  |  |  |  |
|  | + $2,544.2$ | 2,825.0 | - ${ }^{3} 2478$ | 243.8 | 264.5 | 261.5 | 222.2 | 252.1 | 243.3 | 248.2 | 231.6 | 203.8 |  |  |  |  |

## ELECTRIC POWER AND GAS

| ELECTRIC POWER |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Production (utlility and industrial), total |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Electric utilities, total.......................do. | 22,124,078 | ғ2,203,891 | 173,157 | 159,749 | 175, 184 | 187, 408 | 202,595 | 205,637 | 185, 597 | 175, 621 | 176,295 | 191,703 | 209, 525 | 186, 324 |  |  |
| By fuels...................................-do. | 1,903,643 | 1,922,953 | 148, 496 | 134, 406 | 146, 409 | 162, 166 | 178, 037 | 183,505 | 164, 338 | 155,957 | 156, 292 | 169, 600 | 184, 430 | 164, 982 |  |  |
| By waterpower.............................-d. ${ }^{\text {d }}$ | 220,435 | 280, 938 | 24, 661 | 25,343 | 28,775 | 25, 242 | 24, 558 | 22, 132 | 21,259 | 19,664 | 20,003 | 22, 103 | 25, 094 | 21, 342 |  |  |
| Industrial establishments, total_...........do. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| By fuels-..................................d. ${ }^{\text {do }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| By waterpower.-.-....................-- - do. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sales to ultimate customers, total (Edison Electric Institute) $\qquad$ mil. kw.-hr. | 1,950,791 | 2,017,818 | 164, 064 | 153, 146 | 153,813 | 165, 403 | 176,403 | 181,386 | 108, 454 | 167, 770 | 160, 614 | 170, 554 | 182, 796 |  |  |  |
| Commercial and industrial: ${ }^{\text {a }}$ - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Small light and power8 | $\begin{aligned} & 469,227 \\ & 757,168 \end{aligned}$ | 480,749 | $\begin{aligned} & 38,467 \\ & 60,150 \end{aligned}$ | 36,001 61,706 | $\begin{aligned} & \begin{array}{l} 36,252 \\ 65,057 \end{array} \end{aligned}$ | 40,365 | $\begin{aligned} & 44,071 \\ & 65,894 \end{aligned}$ | 44, 918 | 44, 2098 | $\begin{aligned} & 40,144 \\ & 68,723 \end{aligned}$ | $\begin{gathered} 37,700 \\ 67,247 \end{gathered}$ | 39,207 66,025 | $\begin{aligned} & 41,615 \\ & 66,261 \end{aligned}$ |  |  |  |
| Railways and railroads...-........-.........do | 4,212 | 4,336 | 377 | 336 |  |  |  |  |  |  | 370 |  |  |  |  |  |
| Residential or domestic.-........................do. | 652, 345 | 679, 156 | 59, 283 | 49,722 | 46,764 | 51, 533 | 60, 266 | 62,366 | 60,883 | 52,656 | 49,440 | 57, 458 | 68,345 |  |  |  |
| Street and highway lighting...............do. | 14,418 | 14, 803 | 1,227 | 1,170 | 1,119 | 1,101 | 1,129 | 1,168 | 1,218 | 1,285 | 1,330 | 1,401 | 1,359 |  |  |  |
|  | 46, 242 7,179 | 149,509 7,125 | 1,978 583 | 1,643 568 | $\begin{array}{r}1,719 \\ \hline\end{array}$ | + ${ }_{\text {4, }}^{4}$ | $\begin{array}{r}1,103 \\ \hline 606\end{array}$ | $\begin{array}{r}1,173 \\ \hline 598\end{array}$ | 1,201 605 | 1,009 609 | - ${ }^{1,913}$ | 1,456 610 | 4, 637 |  |  |  |
| Revenue from sales to ultimate customers (Edison Electric Institute)......................................... | 62,610.0 | 69, 852.9 | 5,646.4 | 5,277.1 | 5, 278.2 | 5,802.3 | 6, 318.6 | 6,510.8 | 6,420.2 | 5,918.6 | 5,552.0 | 5,828.2 | 6,339.5 |  |  |  |
| GAS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total utility gas, quarterly <br> (American Gas Association): <br> Customers, end of period, totai <br> thous. | 45,725 | 46, 269 | 46, 172 |  |  | 45,580 |  |  | 45,355 |  |  | 46, 269 |  |  |  |  |
| Residential..............................do | 42,108 | 42, 623 | 42, 445 |  |  | 41,984 |  |  | 41,816 |  |  | 42,623 |  |  |  |  |
| Commercial.-..................................do. | 3,400 | 3,430 | 3,490 |  |  | 3, 373 |  |  | 3, 332 |  |  | 3, 430 |  |  |  |  |
| Industrial......................................................................................... | $\begin{array}{r}2175 \\ \\ \hline 242\end{array}$ | 174 42 | 183 54 |  |  | 172 51 |  |  | 169 38 |  |  | 174 42 |  |  |  |  |
| Sales to customers, total................tril. Btu.. | 14,341 | 14,726 | 5,312 |  |  | 3,180 |  |  | 2,551 |  |  | 3,683 |  |  |  |  |
| Residential.-...............................do. |  | 5,083 | 2,439 |  |  | 960 |  |  | 429 |  |  | 1,254 |  |  |  |  |
|  | 2,409 | 2,476 | 1,066 |  |  | 492 |  |  | 306 |  |  | 1612 |  |  |  |  |
| Industrial...................................................... | $\begin{gathered} 26,711 \\ 2,274 \\ 2 \end{gathered}$ | 6.858 309 | $\begin{array}{r} 1,692 \\ 115 \end{array}$ |  |  | 1,662 66 |  |  | 1,758 59 |  |  | 1,747 70 |  |  |  |  |
|  |  |  | 11, 166 |  |  | 6,861 |  |  | 5,503 |  |  | 8,416 |  |  |  |  |
| Revenue from sales to customers, total....-mil. \$.- | 28,303 | 31,945 | 11,160 |  |  | 6,861 |  |  |  |  |  | 8,416 |  |  |  |  |
| Residential...............................-do...- | 11, 541 | 12,857 | 5,685 |  |  | 2,517 |  |  | 1,332 |  |  | 3, 323 |  |  |  |  |
| Commercial | 4,980 211,385 | 5,617 $\mathbf{1 3 , 0 4 6}$ | $\stackrel{2,330}{3,019}$ |  |  | 3,1188 |  |  |  |  |  | - ${ }^{1,456}$ |  |  |  |  |
|  | 2 ${ }^{11,385}{ }^{2} 397$ | 13,046 425 | +132 |  |  |  |  |  |  |  |  | 3, 111 |  |  |  |  |
|  |  | ision | not d | istribu |  |  | one cla | ificatio | to anoth |  | Data are | reported | on the b | basis of 10 | percent | content |
| the monthly data. ${ }^{2}$ Beginning 1976, Industrial in electric generation was included with other. 3 M electric generation was included with other. ${ }^{3} \mathrm{M}$ be shown later. | ncludes on a y | lectric gen evisions b to year ba | eration, sis becau | prior to oct. 197 se of ch | $\begin{aligned} & 1976, \\ & \text { will } \\ & \text { nges } \end{aligned}$ |  | e specifie | d materia n reques | al unless | otherwis | e indicat | d. | onthly | revisions | back to | 1973 are |


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

FOOD AND KINDRED PRODUCTS; TOBACCO


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

FOOD AND KINDRED PRODUCTS; TOBACCO-Continued


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nor. | Dec. | Jan. | Feb. | Mar. | Apr. |

## FOOD AND KINDRED PRODUCTS; TOBACCO—Continued

| MEATS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pork (exeluding lard): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{r}13,051 \\ 3186 \\ \hline\end{array}$ | 13,209 242 | 1,179 216 | $\begin{array}{r}1,093 \\ \hline 282 \\ \hline\end{array}$ | 1,125 | 1,047 260 | 964 220 | ${ }^{1,1701}$ | $\begin{array}{r}1,095 \\ 178 \\ \hline\end{array}$ | $\begin{array}{r}1,176 \\ 207 \\ \hline\end{array}$ | 1,236 245 | 1,129 | 1,147 | 1,001 $r$ 220 | 1,251 | 279 |
| Exports. | 289 | ${ }^{8} 346$ | 26 | 25 | 31 | 25 | 23 | 31 | 32 | 35 | 36 | 26 | 23 | 18 | 23 |  |
| Imports | 298 | 347 | 35 | 32 | 28 | 26 | 29 | 23 | 23 | 36 | 29 | 29 | 31 | 27 | 33 |  |
| Prices, wholesed Hams, smoked composite...........s per lb.- | 1.865 | . 900 | . 822 | . 759 | . 820 | . 808 | . 803 | . 887 | . 905 | 1. 038 | 1.086 | 1.078 | . 885 | . 880 | . 939 | . 788 |
| Fresh licins, $8-14 \mathrm{lb}$. average (New York)...do.. | . 952 | 1.091 | 1.022 | 1.001 | 1. 091 | 1. 129 | 1. 102 | 1. 067 | 1. 147 | 1. 212 | 1.124 | 1.097 | 1. 254 | 1.251 | 1.119 | 1. 114 |
| POULTRY AND EGGS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Poultry: Slauter (commercial production) mil lb | 11,916 | 12,553 | 981 | 901 | 1,088 | 1,127 | 1, 052 | 1,234 | 1,119 | 1,229 | 1,081 | 978 | 1,057 | 878 |  |  |
| Stocks, cold storage (frozen), end of period, total |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| mil. 1b. | 310 | 280 | 233 | 210 | 213 | 257 | 326 | 416 | 489 | 538 | 346 | 280 | 280 | - 259 | 239 | 236 |
| Turkeys --..-.................-.-do. | 168 | 175 | 113 | 101 | 104 | 153 | 214 | 301 | 373 | 425 | 236 | 175 | 171 | . 156 | 136 | 130 |
| , in Georgia producing area, live hroilers | . 237 | . 260 | r. 250 | r. 275 | r. 275 | -. 310 | r. 305 | -.260 | r. 265 | . 245 | . 245 | 250 | 265 | 280 | . 290 | 285 |
| Eggs: <br> Producticn on farms $\ddagger$ $\qquad$ mil. | 179.5 | 186.2 | 15.8 | 15.4 | 15.9 | 15.2 | 15.4 | 15.4 | 15.2 | 15.9 | 15.8 | 16.5 | 16.3 | 14.6 | 16. 3 | 15.8 |
| Stocks, cold storage, end of period: | 189.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shell .......................... thous. cases $\odot$ | 39 | ${ }_{25}^{38}$ | ${ }_{23}^{25}$ | 36 | 29 | $\stackrel{26}{ }$ | 26 | 48 | 43 | 23 | 35 | 38 | 22 | 18 | 24 | 19 |
| Frozen............-.-............mil. Ib.. |  |  | 23 | 23 | 22 | 27 | 28 | 29 |  | 28 |  | 25 | 26 | 24 | 21 |  |
| Price, wholesale, large (delivered; Chicago) $\$$ per doz_- | . 624 | . 603 | . 620 | . 570 | . 520 | . 493 | . 612 | . 618 | . 632 | . 608 | . 672 | . 716 | . 713 | . 677 | . 735 | . 687 |
| miscellaneous food products |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cocoa (cacao) beans: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Imports (incl. shells) | 10 2.174 | ${ }_{10}^{209.500}$ | $\begin{array}{r} 27.9 \\ 2.500 \end{array}$ | $\begin{array}{r} 20.5 \\ 2.500 \end{array}$ | $\begin{array}{r} 16.5 \\ 2.500 \end{array}$ | $\begin{array}{r} 12.4 \\ 2.500 \end{array}$ | $\begin{aligned} & 16.1 \\ & 2.500 \end{aligned}$ | $\begin{array}{r} 14.7 \\ 2.500 \end{array}$ | $\begin{array}{r} 7.3 \\ 2.500 \end{array}$ | $\begin{array}{r} 15.9 \\ 2.500 \end{array}$ | $\begin{array}{r} 18.6 \\ 2.500 \end{array}$ | $\begin{array}{r} 20.2 \\ 2.500 \end{array}$ | $\begin{array}{r} 27.3 \\ 2.500 \end{array}$ | $\begin{array}{r} 26.7 \\ 2.500 \end{array}$ | $\begin{array}{r} 14.6 \\ 102.500 \end{array}$ | 1.570 |
| Coffee (green): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inventories (roasters', importers', dealers'), end | 1,684 | 2,331 |  |  |  | 2,202 |  |  |  |  |  |  |  |  |  |  |
| Roasting (green weight)......................do.... | 14, 233 | 16, 299 | 4,467 |  |  | 3, 254 |  |  | $\stackrel{2,181}{3,781}$ |  |  | 4,497 |  |  | 4,655 |  |
| Imports, total | 14,808 | 18, 133 | 1,707 | 1,557 | 1,345 | 1,249 | 1,316 | 1,124 | 1,337 | 1,901 | 1,689 | 1,651 | 1,747 | 1,353 | 1,631 |  |
| From ${ }^{\text {razil }}$ | 2,453 | 2,679 | 115 | 1,319 | 1,329 | ${ }^{2} 206$ | 1,337 | 1, 56 | 57 | ${ }^{1} 334$ | , 308 | ${ }_{1}, 280$ | ${ }_{3} 33$ | 1 |  |  |
| Price, wholesale, Santos, No. 4 (N.Y.).-\$ per 1 lb Confectionery, manufacturers' | 3,059 | 21.484 3,111 | 271 | 207 | 211 | 193 |  | 1. 350 | 1. 540 | 1.540 | 1.530 | 1. 460 | 1.460 | 1. 270 | 1. 360 | 1.380 |
| Conlectionery, manulacturers sales..........min. |  |  |  |  |  |  | 174 | 314 | 306 | 312 | 289 | 291 | 「258 | 288 | 24 | -.-.... |
| Fish: <br> Stocks, cold storage, end of period $\ddagger$. ......mil. 1b.. | 420 | 422 | 336 | 319 | 324 | 342 | 364 | 408 | 425 | 427 | 426 | 422 | 379 | - 343 | 292 | ${ }^{\text {2 } 292}$ |
| Sugar (United States): <br> Deliveries and supply (raw basis):§ Production and receipts: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production..................-thous. sh. tons.. | 5, 054 | 4,575 | 280 | 130 | 189 | 135 | 48 | 35 | 115 | 658 | 1,046 | 963 | 710 | 494 |  |  |
| Deliveries, total | 11, 242 | 10,892 | 930 | 864 | 891 | 1,033 | 905 | 1,122 | 1,020 | 894 |  | 840 | 842 | 777 |  |  |
| For domestic consumption. | 11, 207 | 10, 841 | 927 | 861 | 888 | 1.029 | 901 | 1,109 | 1,014 | 888 | 849 | 840 | 835 | 771 |  |  |
| Stocks, raw and ref., end of perio | 4,349 | 3,734 | 3, 850 | 3,451 | 3,326 | 3,059 | 2,729 | 2,264 | 2,054 | 2,324 | 3,084 | 3,734 | 3,927 | -4,034 | 23,736 |  |
| Exports, raw and refined................sh. tons.. | 20,335 | ${ }^{8} 14,138$ | 970 | 802 | 682 | 613 | 841 | 747 | 1,019 | 1,020 | 1,077 | 1,174 | 865 | 464 | 1,177 |  |
| Imports: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Raw surar, total-.............thous. sh. tons.. From the Philippines............do... | 5,130 1,136 | ${ }^{7} 4,177$ | $\begin{array}{r}447 \\ 53 \\ \hline\end{array}$ | ${ }^{67}$ | 300 | 330 | 607 | 335 | 550 | 400 | 327 | 348 | 343 | 214 | 276 |  |
| From the Philippines | 1, 1356 | ${ }_{\text {(8) }}{ }^{7822}$ | 53 | 28 | 63 | 56 | 16 | 54 | 131 | 114 | 66 | 134 | 0 | 0 |  |  |
| Prices (New York): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Raw, wholesale........................- \$ per lb.. | 109 | 5. 143 | . 114 | . 114 | . 114 | . 114 | . 114 | s. 135 | . 144 | . 150 | . 142 | . 14 | . 138 | . 15 | . 15 | . 139 |
| Refined: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Retail (incl. N.E. New Jersey) .... $\$$ per 5 lb | 1.118 | -1.211 | 1. 212 | 1.270 | 1. 268 | 1. 189 | ${ }^{(9)}$ |  |  |  |  |  |  |  |  |  |
| Wholesale (excl. excise tax) -..---.-. \$ per lb.- | . 169 |  | . 193 | . 201 | . 200 | . 198 | . 191 | . 205 | . 213 | . 223 | . 214 | . 220 | . 223 | . 21 | . 220 | . 222 |
| Tea, imports............................thous. lb.. | 4203,012 | 151,751 | 18,648 | 15,450 | 17,523 | 8,286 | 13, 141 | 13,788 | 9, 390 | 12,502 | 8,877 | 12,332 | 14,797 | 10,568 | 15,584 |  |
| fats, oils, and related products |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Baking or frying fats (incl. shortening): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production $\ddagger$ - | 3,841.1 113 | 4,044.6 ${ }^{106.7}$ | 368.2 112.1 | 328.0 128.4 | ${ }_{141.1}^{335.5}$ | 302.2 126.1 | 293.0 124.2 | 360.4 107.2 | 356.0 106.9 | 381.5 107.9 | $370.1$ $110.0$ | 332.2 106.7 | $\begin{aligned} & 334.0 \\ & 121.3 \end{aligned}$ | $\begin{array}{r} \mathrm{r} 314.1 \\ 128.5 \end{array}$ | 378.4 |  |
| Salad or cookin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production $\ddagger$---...-........................do....- | 4,352.9 | 4,849.2 | 459.0 | 435.0 | 413.1 | 406.8 | 368.8 | 410.6 | 389.2 | 407.1 | 401.3 | 389.1 | 397.3 | -365. 6 | 424.8 |  |
| Stocks, end of period $\oplus . . .$. .-..............-do.... | 105.4 | 123.0 | 112.7 | 133.8 | 128.1 | 123.7 | 130.8 | 132.9 | 121.6 | 106.8 | 120.4 | 123.0 | 117.1 | -109.8 | 110.6 |  |
| Margarine: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2, 533.0 | 2,519.5 | 243.0 | 186.8 | 183.7 | 194.6 | 166.0 | 200.6 | 207.6 | 222.2 | 220.6 | 250.0 | 233.1 | 214.8 | 241.9 |  |
| Price, wholesale (colored; mfr. to wholesaler or |  |  | 59.3 | 72.3 | 63.4 | 68.8 | 67.8 | 60.3 | 66.0 | 68.9 | 58.9 | 69.5 | 66.8 | 82.1 | 67.5 |  |
| large retailer; delivered)................ ${ }^{\text {d }}$ per | . 507 | . 529 | . 514 | . 552 | . 552 | . 552 | . 552 | . 525 | . 522 | . 521 | . 533 | . 528 | . 523 | . 523 | . 535 | . 551 |
| Animal and fish fats: Tallow, edible: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production (quantities rendered).......mil. 1b.. | 769.4 | 835.0 | 74.1 | 60.8 | 70.0 | 65.5 | 61.7 | 70.3 | 68.8 | 79.3 | 78.8 | 80.9 | 77.8 | 68.6 | 81.8 |  |
| Consumption in end products..-.......-.do...- | 787.9 | 847.8 | 82.8 | 74.8 | 71.4 | 63.7 | 62.0 | 70.6 | 74.8 | 77.3 | 72.1 | 64.7 | 67.5 | 68.6 | 73.0 |  |
| Stocks, end of period\%--..................do.. | 42.4 | 55.1 | 40.6 | 38.3 | 38.8 | 45.4 | 45.1 | 46.3 | 41.8 | 44.4 | 45.0 | 55.1 | 63.4 | 57.6 | 46.2 |  |
| Tallow and grease (except wool), inedible: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production (quantities rendered) $\ddagger \ldots \ldots . .$. do.... | 6,106.4 | 5,815.9 | ${ }^{537.4}$ | ${ }^{4633} 3$ | 500.1 | 464.9 | 442.5 | 491.8 | 474.1 | 505.9 | 501.8 | 486.7 | 503.6 | F 432.8 | 483.9 |  |
| Consumption in end produc | $3,180.5$ 347.2 | $3,219.5$ <br> 346.6 | 294.4 352.3 | 281.7 289 | ${ }_{292 .}^{296}$ | 263.1 | ${ }_{3}^{242.5}$ | 273.6 | 250.3 394 | 286.0 | 270.1 348 | 244.8 346 | 267.7 398 | 2 2.55 .1 | 282.5 |  |

F Revised. ${ }^{p}$ Preliminary. ${ }^{1}$ A verage for July-Dec.: beginning July 1977, prices represent Midwest and Los Angeles and are not comparable with those for earlier periods. ${ }^{2}$ Aver age for 5 mos. (Aug.-Dec.) ${ }^{3}$ See " $\triangle$ " note. this page. ${ }^{4}$ Reflects revisions not distributed to the months. ${ }^{5}$ Beginning Aug. 1978, prices are estimated; not strictly compar able with those for earlier periods. Annual average for 1978 represents Aug.-Dec. ${ }^{6}{ }^{6} \mathrm{Be}$ cause of an overall revision to the export commodity classification system effective Jan. 1 , 1978, data may not be strictly comparable with those for earlier periods. ${ }^{7}{ }^{7}$ Beginning Jan. 1978, data are for hoth raw and refined sugar and are not comparable with thoce for earlier ginning July 1978, data no longer available. Annual average for 1978 represents Jan.-June.
${ }^{10}$ Prices for Sept. 1977-Mar. 1979 are estimated; actual data not available. Annual averages for 1977 and 1978 reffect these estimates and are not comparable with other periods. OCases of 30 dozen. $\overbrace{}^{2}$ Bags of 132.276 lb . \$Monthly data rellect cumulative revisions
 stocks. $\ddagger$ Monthly revisions back to 1974 are available. $\triangle$ Effective A April 1977 SURVEY,
data beginning Feb. 1976 are restated to exclude cooler pork; comparable earlier data will $\stackrel{\text { data beginning Fob. }}{\text { be shown later. }} \begin{aligned} & 1976 \text { are restated to exclude cooler pork; comparable earlier data will } \\ & \text { Revised series. Begiming May } 1977 \text { SURVEY, data represent total com- }\end{aligned}$
 (p. S-28), represents a different market. Comparable data prior to Mar. 1976 will be shown later.

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

FOOD AND KINDRED PRODUCTS; TOBACCO-Continued

| FATS, OILS, AND RELATED PRODUCTS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetable oils and related products: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Coconut oil: Production, refined.....................mil. $1 \mathrm{~m} .$. | 729.4 | 768.3 | 73.0 | 70.4 | 68.1 | 69.0 | 65.3 | 70.3 | 613 | 69.6 | 59.7 | 46.7 | 60.0 | 55.9 |  |  |
| Consumplion in end produets.............do | 878.7 | 914.2 | 81.5 | 88.9 | 87.6 | 76.1 | 73.6 | 79.0 | 72.4 | 84.0 | 75.4 | 55.4 | 72.7 | -66.3 | 82.9 |  |
| Stacks, refined, end of period T.-.........-do | 39.9 | 44.4 | 46.0 | 48.2 | 41.2 | 40.7 | 38.7 | 39.0 | 43.0 | 40.6 | 40.3 | 44.4 | 45.0 | r 41.3 | 41.8 |  |
| Imports...................................do.. | 994.3 | 1,022.5 | 102.9 | 72.4 | 98.3 | 79.9 | 104.5 | 83.7 | 47.0 | 80.4 | 100.7 | 60.1 | 167.2 | 83.7 | 87.7 |  |
| Corn oil: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 671.9 577.0 | 720.0 581.1 | 58.7 51.1 | 57.1 44.4 | 68.0 53.3 | 64.7 48.1 | 60.5 41.4 | 59.7 5.1 | 63.8 52.7 | 65.4 | 59.8 46.3 | ${ }^{55.8} 8$ | 47.6 | 54.9 | 69.5 54.3 |  |
| Consumption in end product | $\stackrel{537.6}{ }$ | ${ }_{537.9}$ | ${ }_{48.7}$ | 37.5 | 41.2 | 44.9 | 37.7 | ${ }_{47.3}$ | 50.9 | 50.8 | 46. 4.7 | 47.3 4.8 | 49 | ${ }_{41.6}^{41.6}$ | 54.3 |  |
| Stocks, crude and ref., end of period ¢T....do | 33.4 | 70.4 | 33.4 | 41.2 | 52.3 | 62.9 | 69.3 | 71.0 | 72.6 | 70.1 | 74.6 | 70.4 | 61.0 | - 71.5 | 69.4 |  |
| Cottonseed oil: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1,254.6 | 1, $1,344.7$ | $\xrightarrow{141.8}$ | 122.1 | 109.2 109.9 | 1113.9 | 107.8 110.0 | 103.5 117.5 | 82.0 84.7 | 108.8 83 | 134.0 116.0 | 123.5 100.4 | 134.4 118.8 | - 1138.1 | 136.0 126.7 |  |
| Consumption in end products.............-do | -625.3 | ${ }^{1,697.3}$ | ${ }_{5}{ }^{18.6}$ | 55.7 | 63.4 | 65.9 | 62.3 | 60.0 | 57.3 | 55.6 | 64.6 | 54.6 | 55.9 | - 57.0 | 58 |  |
| Stocks, crude and ref., end of period $\uparrow \ddagger . .$. do | 142.3 | 127.1 | 188.4 | 193.4 | 165.4 | 139.7 | 114.3 | 102.3 | 84.8 | 101.4 | 123.0 | 127.1 | 152.2 | ${ }^{+} 152.9$ | 136.4 |  |
| Exports (erude and refined).............do | 731.2 .299 | 728.8 .332 | 84.9 315 | 61.6 .315 | 59.8 .335 | 63.5 .333 | 70.2 .340 | 50.0 .355 | 82.3 .405 | 25.9 .340 | $\xrightarrow{29.2}$ | 82.5 .330 | 56.7 .335 | 71.2 .380 | 89.9 .385 |  |
| Price, wholesale (N.Y.) |  |  | . 315 |  |  |  |  |  |  |  |  |  | . 385 |  | . 385 | . 395 |
| Soyhean oil: ${ }_{\text {Yroducion: }}$ Crude |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production: Crude - $\begin{aligned} & \text { Refined.................................................... }\end{aligned}$ | 8, | 10,621.4 | 943.3 819.9 | 866.9 752.3 | ${ }_{7}^{908.2}$ | ${ }_{6625.5}^{795}$ | 777.9 649.2 | 815.8 725.3 | 783.3 679.9 | $\stackrel{\text { 984. }}{ } 9$ | 974.8 77 | 1,050.4 | 989.1 753.3 | $\xrightarrow{+902.3}$ | 981.7 764.8 |  |
| Consumption in end products...............do | 7,451.1 | 8,175.2 | 771.7 | 686.5 | 662.4 | 640.5 | 596.2 | 699.8 | 672.5 | 715.9 | 709.3 | 707.5 | 695.1 | - 636.2 | 758.5 |  |
| Stocks, crude and ref., end of period $\$$ Exports (crude and refined) | 864.0 $1,660.9$ | 8, <br> 970.6 <br> $51,944.5$ <br> 309 | 808.3 <br> 252.6 <br> 30 | 826.9 <br> 218.9 | 833.8 176.4 .3 | $\begin{array}{r}839.3 \\ 147.2 \\ \hline\end{array}$ | $\begin{array}{r}825.6 \\ 165.5 \\ \hline\end{array}$ | 777.5 <br> 108.8 <br> 16 | 728.6 <br> 193.4 <br> 330 | $\begin{array}{r}813.4 \\ 96.8 \\ \hline 329\end{array}$ | $\begin{array}{r}837.1 \\ 154.8 \\ \hline 203\end{array}$ | $\begin{array}{r}970.6 \\ 175.4 \\ \hline 305\end{array}$ | 932.2 219.1 209 | $\begin{array}{r}\text { r } \\ \hline 942.8 \\ 2498 \\ \hline .8\end{array}$ | $1,001.3$ 199.0 180 |  |
| Price, wholesale (refined; N.Y.)........... per ib.. TOBACCO | . 289 | . 309 | . 320 | . 319 | . 336 | . 315 | . 320 | . 316 | . 330 | . 329 | . 293 | . 305 | . 309 | . 325 | . 321 | . 319 |
| Production (crop estimate) ................mil. 1b. | ${ }^{11,912}$ | ${ }^{112,026}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stocks, dealers' and manufacturers', end of period |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Exports, incl. scrap and stems.........thous. 1 l .-- | 2628,564 | 687, 772 | 73,157 | 40,904 | 32, 316 | 29, 178 | 42,661 | 52,266 | 41, 319 | 85, 785 | 95,786 | 86, 258 | 35,559 | 50,142 | 57,079 |  |
| Imports, incl. scrap and stems..--.---......-do....- | 316,236 | 335,981 | 27,773 | 29, 161 | 31, 446 | 29,661 | 35, 184 | 28, 032 | 26,755 | 32,049 | 21, 474 | 21,548 | 42,866 | 31,267 | 28,917 |  |
| Manufactured: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Consumption (withdrawals): Cigarettes (small): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 592,006 | 614, 208 | 55,317 | 50, 268 | 54, 690 | 58,267 | 44, 397 | 54,308 | 50, 321 | 53,387 | 53, 889 | 42, 125 | $\stackrel{+6,842}{55,455}$ | 48,778 |  |  |
|  | 3,776 | 3,621 |  | 282 | 319 | 345 | 235 | 298 | 322 | 346 | 323 | 271 | ז 246 | 243 |  |  |
|  | 66,835 | 74,359 | 6,580 | 5,361 | 6,050 | 6,616 | 5,523 | 7,205 | 7,823 | 6,328 | 6,846 | 6,160 | 4,398 | 5,639 | 7,758 |  |

LEATHER AND PRODUCTS

| HIDES AND Skins |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exports: <br> Yalue totals <br> thous. $\$$ | 582,906 | : 694,617 | 58,535 | 61, 297 | 55,370 | 55, 846 | 47,511 | 58,797 | 54,396 | 60,090 | 58,503 | 91, 186 | 61,605 | 77,390 | 98,309 |  |
| Calf and kip skins.......................thous. skins.. | 2,508 | 2,665 | ${ }^{288}$ |  | 194 |  | , 222 | 189 | , 339 | 181 | 177 | 241 | 207 | ${ }_{264}$ | ${ }^{233}$ |  |
| Cattle hides.......-.-.-.-.-.-.-.........-thous. hides.. | 24,488 | 24, 792 | 2,270 | 2,375 | 2,122 | 2,078 | 1,725 | 2,176 | 1,779 | 1,922 | 1,754 | 2,676 | 1,635 | 2, 056 | 2,405 |  |
| Imports: |  |  |  |  |  |  |  |  | 7600 |  |  |  |  |  |  |  |
|  | 90, 15.468 | 105,600 | $\xrightarrow{2} \mathbf{2}, 080$ | -12,541 | 2,245 | 1,577 | 1,848 | 1,323 | 1,093 | ${ }^{7} 920$ | -935 | -739 | 1, 321 | 1,581 | 1,835 |  |
| Goat and kid skins..-.-.......................- ${ }^{\text {do.-. }}$ | 1,137 | 1,762 | ${ }^{2} 143$ | ${ }^{275}$ | 128 | 45 | 190 | 75 | 117 | 112 | 175 | 158 | 352 | 145 | 191 |  |
| Prices, wholesale, f.o.b. shipping point: <br> Calfskins, packer, heavy, $9 \mathrm{~L} / 2 / 15 \mathrm{lb}$..... $\$$ per lb. | ${ }^{3} \cdot 914$ | $\begin{array}{r}1.346 \\ \hline\end{array}$ | 1.000 | 1.100 .413 | 1.100 .418 | 1.100 .458 | ${ }^{1.200}$ | 1.850 .530 | 1.850 .590 | 1.850 .573 | 1.650 .548 | 1.650 .518 | 1.800 .603 | 2.000 .653 | 2.200 .913 | 2.200 1.060 |
| LEATHER |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production: Caff and whole kip................thous. skins.. | (0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cattle hide and side kip.-thous. hides and kips.. | (6) | ---1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Goat and kid.-...................--thous. skins.- | (6) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ${ }^{(5)}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Exports: <br> Upper and lining leather $\qquad$ thous. sq. ft.- | 2206,276 | 208, 799 | 16,408 | 16,720 | 18,899 | 21, 427 | 14, 160 | 19,726 | 16,224 | 17,438 | 17,947 | 17, 176 | 13,854 | 16,014 | 18,833 |  |
| Prices, wholesale, f.o.b. tannery: <br> Sole, bends, light................index, $1967=100$ | 206.1 | 4235.2 | 208.5 | 207.1 | 210.0 |  | 227.2 | 241.6 | 270.4 | 261.7 | 270.4 | 267.5 | 284.7 | 284.7 | 338.0 | 366.7 |
| Upper, clurome calf, B and C grades index, 1967=100 | ${ }^{(9)}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Leather manufactures |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Footwear: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production, total thous. pairs. xcept athletic | $\begin{array}{r}\text { r 406,004 } \\ +315,741 \\ \hline\end{array}$ | \% 403,252 $\times 314,806$ | $\begin{array}{r}+38,473 \\ \hline 30,519\end{array}$ | r 34,381 $\mathrm{r} 26,669$ | $\begin{array}{r}\text { 38,051 } \\ \hline 29,506\end{array}$ | r 35,382 <br> 27,130 | r 25,314 $\cdot 20,470$ | r 35,626 $\times 27,421$ $r$ | - 32,695 | r 34,710 $r$ 25,633 | $\begin{array}{r}\text { r 32,428 } \\ \cdot \\ \hline 24,751\end{array}$ | + $\begin{array}{r}\text { 29,167 } \\ \text { r } 23,475\end{array}$ | r 3,981 27,325 | 31,795 25,243 | 35, 146 |  |
| Slippers. $\qquad$ thou . pair do. | r 22,441 | $\xrightarrow{+} \begin{array}{r}\text { r } 314,806 \\ r 66,589\end{array}$ | -5,906 | r 5 , 829 | - 6 - 6,410 | $\xrightarrow{2} \mathbf{r , 2 3 8}$ | r 2 2,475 |  | r 6 r,204 |  | $\begin{array}{r} 24,81 \\ -5,863 \end{array}$ | $\left[\begin{array}{r} 23,475 \\ r 3,916 \end{array}\right.$ | $\begin{array}{\|l} 27,325 \\ r 4,700 \end{array}$ | 25,43 4,679 | - ${ }^{2,1312}$ |  |
|  | r 14,667 | ${ }^{+17,648}$ | r 1,671 | r 1,494 | - 1,783 | -1,666 | ${ }_{7} 1,070$ | ${ }^{+1,539}$ | ${ }^{+1,507}$ | - 1,696 | \% 1 , 476 | -1,488 | - 1,595 | 1,484 | 1,349 |  |
| Other footwear...................................d. ${ }^{\text {do.... }}$ | r 3, 155 | ${ }^{\text {r 4, }} 209$ | 377 | ${ }^{\text {r }} 389$ | ${ }^{\text {r }} 352$ | ${ }^{\text {r }} 348$ | 299 | 399 | 380 | 425 | 338 | 288 | r 361 | 389 | 385 |  |
| Exports....................................-do....- | 5,411 | 6,179 | 585 | 495 | 448 | 514 | 454 | 605 | 467 | 546 | 612 | 679 | 549 | 526 | 657 |  |
| Prices, wholesale f.o.b. factory: <br> Men's and boys' oxfords, dress, elk or side upper, Goodyear welt. index, $1967=100$ | 193.3 | 7211.3 | 206.8 | 211.4 | 211.4 | 211.4 | 211.4 | 213.8 | 218.6 | 221.0 |  |  |  |  |  |  |
| Wounen's oxfords, elk side upper, Goodyear welt |  |  |  |  |  |  |  |  |  | 197.3 | 197.3 | 197.3 | 197.3 | 197.3 | 204.6 | 207.0 |
| Women's pumps, $\mathrm{low-medium} \mathrm{quality...do..}$. | 144.9 | ${ }_{7} 157.5$ | 146.8 | 157.4 | 161.3 | 161.3 | 161.3 | 161.3 | 161.3 | 170.9 |  |  |  |  |  |  |

[^56]| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## LUMBER AND PRODUCTS



METALS AND MANUFACTURES

| IRON AND STEEL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exports: <br> Steel mill products $\qquad$ thous. sh. tons | 2,003 | 2,508 | 191 | 205 | 255 | 271 | 174 | 208 | 174 | 218 | 194 | 248 | 193 | 165 | 217 |  |
| Scrap..........................................-do....- | 6,175 | 9,278 | 628 | 695 | 821 | 786 | 756 | 777 | 834 | 977 | 973 | 944 | 853 | 1,145 | 871 |  |
| Pig iron....-...........-..-...........-.....-do...- | 51 | 51 | 5 | ${ }^{(3)}$ | 1 | 1 | 5 | 7 | 1 | 11 | 8 | 11 | 5 |  |  |  |
| Imports: <br> Steel mill products. do | 19,307 | 21, 135 | 1,988 | 2,175 | 1,511 | 1,360 | 1,785 | 1,870 | 1,584 | 1,715 | 2,016 | 1,372 | 1,264 | 1,329 | 1,096 |  |
|  | ${ }^{625}$ | 794 | 71 | 45 | 127 |  | 77 | 71 | 70 | 51 | 67 | 60 | 46 | 48 | ${ }^{68}$ |  |
| Plg iront.-............---...........-......-do...- | 373 | 655 | 61 | 35 | 38 | 99 | 42 | 78 | 88 | 41 | 75 | 48 |  |  |  |  |
| Iron and Steel Scrap ${ }^{\text {d }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 149,523 | 151,960 | 4,730 | 4,477 | 4,581 | 4,605 | 4, 070 | 4, 565 | ${ }_{4}^{4,426}$ | 4,699 | 4,442 | 4,323 | ${ }^{4} 4,222$ | ${ }^{p} 4,111$ |  |  |
|  | ${ }^{1} 147.873$ | 151,804 199133 | 4,396 8,347 | 4,265 8,488 8 | 4,851 8,938 8 | 4,509 8.579 | 4,144 78.659 | - ${ }_{8,279}^{4,426}$ | 4, 186 | ${ }_{8}^{4,443}$ | 4, 4,342 | 4,239 8,300 | r 4,147 $r 8,200$ | ${ }^{p} 4,014$ |  |  |
|  | 192,090 19,360 | 199, 18,313 | $\xrightarrow{8,347}$ | 8,488 8,779 | 8,938 8,738 | 8,747 | 8,865 | $\stackrel{8}{9,018}$ | 8,808 | 8 8,536 | 8 8,458 | ${ }_{8,313}^{8,300}$ | -8,008 | ${ }^{\text {p 7, }} 791$ |  |  |
| Prices, steel scrap, No. 1 heavy melting: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Composite (5 markets) ..........-- $\$$ per lg. ton | 255.99 80.35 | 73.84 78.29 | 71.90 77.00 | 75.42 80.50 | 71.46 75.50 | 71.38 75.00 | $\begin{aligned} & 76.00 \\ & 82.50 \end{aligned}$ | $\begin{aligned} & 75.40 \\ & 78.50 \end{aligned}$ | $\begin{aligned} & 72.81 \\ & 75.50 \end{aligned}$ | $\begin{aligned} & 71.67 \\ & 75.50 \end{aligned}$ | $\begin{aligned} & 79.05 \\ & 83.50 \end{aligned}$ | $\begin{aligned} & 85.95 \\ & 88.50 \end{aligned}$ | 93. 94 | 108.50 | 133.00 | 111. 50 |
| Pittsburgh dis |  |  |  |  |  | SURVEY, scrap excludes imports of rerolling rails and pig iron excludes sponge iron imports previously included. TEffective with 1974 annual and Jan. 1975 figures, data reflect expanded sample and exclusion of direct-reduced (prereduced) iron, previously included in scrap series. |  |  |  |  |  |  |  |  |  |  |
| - Revised. $\quad$ Preliminary. 1 Annual data; monthly revisions are not available. <br> ${ }^{2}$ Effective with Feb. 1977, composite reflects substitution of Los Angeles for San Francisco; effective July 1977, it reflects addition of Detroit and Houston. Avg. for 1977 is for July-Dec. <br> ${ }^{3}$ Less than 500 short tons. ${ }^{4}$ Average for 11 months; price not available for Nov. 196 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## METALS AND MANUFACTURES-Continued

| IRON AND STEEL-Continued <br> Ore |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Iron ore (operations in all U.S. districts): |  |  |  | 6,034 | 7751 |  | 7.559 | 7593 | 7.314 | 7.032 | 6,546 | 6,552 | 6,144 |  |  |  |
| Mine production-.................thous. I g. ${ }^{\text {d }}$ do | 54, 50.53 | 80,78 | 6,485 2,489 | 5, 299 | 8,558 | 8,754 | 9,757 | 9,779 | 8,707 | 8,088 | 7,667 | 6,095 | 3,296 | 2, 486 |  |  |
|  | 37,905 | 29,924 | 1,643 | 1,291 | 2,102 | 2,182 | 3,686 | 4,488 | 4,534 | 1,610 | 4,015 | 3,057 | 2, 108 | 1,479 | 854 |  |
| U.S. and foreign ores and ore agglomerates: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts at iron and steel plants - .i.t...do | -94,944 | 114, ${ }^{11627}$ | -4,639 | ${ }_{9}^{6.369}$ | 10,907 | 11,448 | 11,787 | 14,658 10,137 | 12,291 ${ }^{1}$ | 12,285 10,323 | -11, ${ }_{9} 954$ | 9,732 10,341 | 4,711 9 | 3,633 8,988 | 4,436 10,540 |  |
| Consumption at iron and steel plants....................- ${ }^{\text {do }}$ | 2, 143 | 3,762 |  | , 390 | ${ }^{3} 393$ | 403 | 143 | 348 | 520 | 317 | 733 | 435 | 183 | 31 | 20 |  |
| Stocks, total, end of period...............do | 59,390 | 55,339 <br> 12469 | 53,084 | 50, ${ }^{560}$ | 49, 862 | 51, 887 | ${ }_{18}^{51,561}$ | 53, 791 16,461 | 54,681 15.165 | 55,500 | 56,432 12,982 | 55, 339 | 53,028 | 50,685 |  |  |
| At mines_- ${ }^{\text {a }}$ - | 14,140 42,271 | 12,469 | 21, 687 | 26, 199 | ${ }_{26}^{26,598}$ | 20, 968 | ${ }_{29}^{18,772}$ | 16, 461 | ${ }_{36}^{15,738}$ | 14, 104 | 12,982 | 12,469 39,301 | 14, ${ }^{14,473}$ | 18,000 29,059 | 22,862 |  |
|  | 42, 2,979 | $\stackrel{39,301}{3,569}$ | 29,195 2,202 | 26, 1,750 | 20, $\begin{array}{r}\text { 260 } \\ 1,361\end{array}$ | 22, 792 | 2,850 | - ${ }_{2,981}$ | 2, ${ }^{\text {36, }}$ | rer ${ }^{3811}$ | 4,401 | 3,569 | - ${ }^{34,703}$ | 29,626 | - ${ }_{3}^{2,053}$ |  |
| anganese (mn. content), general imports | 834 | 842 | 113 | 49 | 71 | 55 | 82 | 42 | 97 | 62 | 64 | 63 | 62 | 50 | 60 |  |
| Pig Iron and Iron Products |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pig iron: <br> Production (excluding production of ferroalloys) thous. sh. tons. | 81, 328 | 87,687 | 6,894 | 7,189 | 7,936 | 7,754 | 7,637 | 7,518 | 7,391 | 7,809 | 7,533 | 7,658 |  | 6,636 |  | 7,726 |
| Consumption ...................-........d. do... | 82,017 | 88, 384 | $7{ }_{7} 7,013$ | 7,316 | 7,969 | 7,770 | 7,611 | 7.527 | 7,463 | 7,887 | 7,594 | 7,721 | 7,098 | -6,678 | p8,032 | 7,720 |
| Stocks, end of period......................... do.. | 1,309 | 889 | 1,108 | 1,916 | 997 | 1,014 | 1,068 | 1,080 | 1,047 | 983 | 965 | 889 | 852 | 835 | ${ }^{2} 847$ |  |
| Price, basic furnace............... $\$$ per sh. ton.. | ${ }^{3} 183.11$ | 196.00 | 191.00 | 191.00 | 191.00 | 191.00 | 191.00 | 203.00 | 203.00 | 203.00 | 203.00 | 203.00 | 203.00 | 203.00 | 203.00 | 203.00 |
| Castings, gray and ductile iron: <br> Orders, unflled, for sale, end of period thous. sh. tons. | 935 | 912 | 1,009 | 1,969 | 976 | 984 | 946 | 1.000 | ${ }^{963}$ | 917 | 907 | 912 | r929 | 1,016 |  |  |
| Shipments, total............................do... | 15, 318 | $\begin{array}{r}15,294 \\ 7 \\ \hline\end{array}$ | 1,327 | 1,301 | 1,423 | 1,406 | 1,148 | 1,330 | 1,279 | 1,444 | 1,312 | 1,136 | $\underset{+}{+1,239}$ | 1,223 |  |  |
| For sale. | 7,496 | 7,840 | 646 | 663 | 737 | 734 | 587 | 711 | 673 | 729 | 663 | 561 | $r 600$ | 574 |  |  |
| Castings, malieable iron: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Orders, unfilled, for sale, end of period thous. sh. tons. |  | 66 | 63 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shipments, total...........................do.... | 829 | 816 | 75 | 70 | 74 | 74 | 56 | 68 | 68 | 75 | 71 | ${ }_{6}^{61}$ | 70 | 69 |  |  |
| For sale............................................- ${ }^{\text {do }}$ |  | 446 | 42 | 39 | 41 | 41 | 29 | 37 | 35 | 41 | 39 | 35 | 36 | 36 |  |  |
| Steel, Raw and Semifinished |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Steel (raw): <br> Production <br> thous. sh. tons. | 125,333 78.4 | 136,689 86.6 | 11,083 83.1 | 11,528 88.5 | 12,320 91.5 | 11,861 91.1 | 11,388 85.1 | 11,550 86.3 | 11,467 88.6 | 12,105 89.8 | 11,654 89.4 | 11,812 | 11,105 83.5 | $\begin{array}{r} 10,562 \\ 87.9 \end{array}$ | $\begin{array}{r} 12,576 \\ 94.5 \end{array}$ | 12,196 93.4 |
| Rate of capability utilization*--......-percent.Steel castings: |  | $86.6$ |  |  | 91.5 |  |  |  |  |  |  |  |  | 87.9 | 94.5 | 93.4 |
| Orders, unfilled, for sale, end of period thous. sh. tons.. | 451 | 797 | 502 | 512 | 492 | 501 | 592 | 634 | 668 | 711 | 734 | 797 | 「926 | 938 |  |  |
| Shipments, total...........................do.... | 1,718 | 1,863 | 158 | ${ }^{153}$ | 168 | 162 | 124 | 156 | 159 | 173 | 161 | 155 | + 171 | 169 |  |  |
| For sale, total...............................do | 1,488 | 1,627 | 138 | 133 | 145 | 140 | 108 | 134 | 139 | 153 | 141 | 136 | ${ }^{+153}$ | 150 |  |  |
| Steel Mill Products |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Steel products, net shipments: <br> Total (all grades). $\qquad$ thous. sh. tons | 91,147 | 186,187 | 8,718 | 8,055 | 8,610 | 8,787 | 7,608 | 8,293 | 8,252 | 8, 599 | 7,813 | 8,196 | 8,206 | 7,996 | 10,293 |  |
| Total (all grades)......................thous. sh. tons.. By product: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bemifinished products..................do. | ${ }^{1} 3$ 3,991 | ${ }^{13} 3,922$ | 425 | 434 | 491 | 467 | 593 | 457 | 491 | 463 | 423 | 461 | 411 | 410 | 545 |  |
| Structural shapes (heavy), steel piling-- do | 4, 382 7,529 | 14,383 16,588 | ${ }_{738}^{421}$ | 413 | 460 767 | ${ }_{772}^{44}$ | 393 <br> 694 <br> 1 | 426 697 | 419 68 | 422 701 | 424 690 | 424 | 460 662 | 391 648 | 542 850 |  |
|  | 1,863 | 1,677 1 | 157 | 146 | 155 | 141 | 111 | 123 | 140 | 156 | 145 | 154 | 155 | 155 | 183 |  |
| Bars and tool steel, total.................do | 15,420 | ${ }^{1} 13,807$ | 1,438 | 1,423 | 1,509 | 1,524 | 1,272 | 1,463 | 1,465 | 1,531 | 1,370 | 1,430 | 1,401 | 1,440 | 1,851 |  |
| Bars: Hot rolled (incl. light shapes)....do | ${ }^{9,362}$ | 17,428 | 854 | 827 | 884 | 904 430 | 661 <br> 609 <br> 59 | 845 | 877 | 916 | 796 | 856 | ${ }_{8}^{805}$ | 858 | 1,109 |  |
| Reinforcing-.................................. do Cold fo | 1,794 | ${ }^{1} 11,691$ | 381 191 | 177 | 480 180 | 182 | 339 149 | 436 174 | 173 | 185 | 155 | 159 | 391 191 | ${ }_{193}^{380}$ | ${ }_{232}^{499}$ |  |
| Pipe and tubing.........................-do | 7.490 | ${ }^{1} 6,547$ | 804 | 737 | 779 | 737 | 643 | 698 | 683 | 699 | 652 | 619 | 641 | 601 | 781 |  |
| Wire and wire products.-................-do | 2,400 | 2,457 6,100 | ${ }_{566}^{235}$ | ${ }_{449}^{231}$ | ${ }_{502}^{228}$ | ${ }_{549}^{235}$ | 175 | ${ }_{498}^{211}$ | ${ }_{536}^{204}$ | 219 | 199 | 184 | 199 | 195 | 245 |  |
|  | 6, 41,687 | 1 6 6, 706 | - | 3,509 | 3,719 | 3,948 | 3,455 | 3,720 | 3, ${ }_{\text {, } 630}$ | 3,921 | 3,499 | 3,653 | - 3 , 812 | ${ }_{3} \mathbf{4 6 1}$ | 4,543 |  |
| Sheets and strip (incl. electrical), total.--do Sheets: | 14,558 | 1 14, 114 | 1,406 | 1,207 | 1,297 | 1,349 | 1,176 | 1,316 | 1,288 | 1,391 | 1,292 | 1,384 | 1,315 | 1, 322 | 1,674 |  |
|  | 17, 684 | 117,235 | 1,644 | 1,445 | 1,527 | 1,629 | 1,430 | 1,512 | 1,473 | 1,588 | 1,398 | 1,420 | 1,607 | 1,499 | 1,800 |  |
| By market (quarterly shipments): |  |  | 4,179 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Construction, incl. maintenance $\oplus$-.......-do... | 7,553 | 9,582 | 2,079 |  |  | 2,497 |  |  | 2,432 |  |  | 2,463 |  |  | 2,345 |  |
| Contractors' products | 4,500 21 | $\begin{array}{r}3,789 \\ 21 \\ 21 \\ \hline\end{array}$ | -939 |  |  | 5, ${ }^{226}$ |  |  | 5, 936 |  |  | 5,922 |  |  | 1,017 |  |
|  | $\begin{array}{r}21,490 \\ 3,238 \\ \hline\end{array}$ | 21,254 3,555 | 5, 117 |  |  | 5,276 |  |  | 5,365 |  |  | 1,015 |  |  | 5,850 |  |
| Rail transportation--..........-......do | - ${ }_{5}^{1,566}$ | 6,040 | 1,477 |  |  | 1,577 |  |  | 1,497 |  |  | 1,486 |  |  | 1,579 |  |
| Containers, packaging, ship. materials...do. | ${ }^{6,714}$ | 6,601 6, | 1,790 |  |  | 1,652 |  |  | 1,615 |  |  | 1,544 |  |  | 1,847 |  |
|  | 26,740 | 29,738 | 7,179 |  |  | 7,977 |  |  | 7.287 |  |  | 7,330 |  |  | 8,112 |  |
| Steel mill shapes and forms, inventories, end of period-total for the specified sectors: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Producing mills inventory end of meriod. sh. tons.. | 34.1 | 37.2 | 32.6 | 32.5 | 33.7 | 33.6 | 34.9 | 35.1 | 35.0 | 34.9 | 35. 6 | 37.2 | 36.4 |  |  |  |
| Producing mils, inventory, end of period. Steel in tons |  | 11.7 | 9.1 |  | 9.5 | 9.7 | 10.6 | 10.6 | 10.7 | 10.9 | 11.0 | 11.7 | 11.2 | 10.8 |  |  |
| Finished steel....-.-......-..........-do-- | 7.6 | 8.0 | 6.8 | 7.0 | 7.3 | 7.0 | 7.1 | 7.2 | 7.3 | 7.4 | 8.0 | 8.0 | 8.2 | 8.2 |  |  |
| Service centers (warehouses), inventory, end of period $\qquad$ | 6.6 | 7.1 | 6.7 | 6.6 | 7.1 | 7.1 | 7.1 | 7.1 | 7.0 | 6.6 | 6.9 | 7.1 | 7.0 |  |  |  |
| Consumers (manufacturers only): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inventory, end of period.....................do. | 9.8 63.5 | 10.4 67.5 | 10.0 5.9 | 9.7 5.7 | 9.8 6.2 | 9.8 6.1 | 10.1 5.0 | 10.2 5.8 5 | 10.0 5.4 | 10.0 6.1 | 9.7 5.3 | 10.4 5.7 | 10.0 5.4 | 9.9 |  |  |
| Coceipts during period-.-.................do.. | 63.5 63.9 | 666 | 5.9 | 6.7 | 6.1 | 6.1 | 5.7 4.7 | 5.8 | 5.6 | 6.1 | 5.3 5.6 | 5.3 | 5.4 5.8 | 5. 5 |  |  |
| $\begin{aligned} & \text { Revised. }{ }^{p} \text { Preliminary. }{ }^{1} \text { Annual data; } \\ & \text { available. }{ }^{2} \text { For month shown. }{ }^{\text {A Avg. for } 11} 1 \\ & \text { *New series. Source: American Iron and Stel } \\ & \text { pability utilization is based on onnage capability } \\ & \text { based on the current availability of raw matarials. } \end{aligned}$ |  |  |  | ions ble. rate of indus |  | coke $\oplus$ B gas su utors | iron, ste pply ho and " | Jan. 19 uses and Construc | , rolling pipeline tion, inc | and fini which . maint | hing fac were for nance,' |  | ata prio those for ely, are | to 1975 ervice c now incl | are not periods uded in | available. nce oil "Other." Other |


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as sho wn in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

METALS AND MANUFACTURES—Continued


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## METALS AND MANUFACTURES-Continued

| MACHINERY AND EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Heating, combustion, atmosphere equipment, new orders (domestic), net, qtrly. $\%$...........mil. \$. | ${ }^{1} 240.8$ | 286.8 | 67.3 |  |  | 75.0 |  |  | 65.5 |  |  | 78.9 |  |  |  |  |
| Electric processing heating equip...---.....-do... | 168.0 | 71.4 | 14.8 |  |  | 15.3 |  |  | 16.8 |  |  | 24.4 |  |  |  |  |
| Fuel-fired processing heating equip.-.------d | ${ }^{1} 92.5$ | 118.2 | 28.8 |  |  | 36.5 |  |  | 23.3 |  |  | 29.6 |  |  |  |  |
| Material handling equipment (industrial): <br> Orders (new), index, seas. adj $\ldots-\ldots . .-1967=100$. | 232.3 | 336.1 | 298.6 | 334.0 | 362.1 | 351.0 | 318.2 | 433.5 | 308.0 | 353.0 | 346.2 | 392.5 | 396.4 | 357.4 |  |  |
| Industrial trucks (electric), shipments: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 18,000 | 20,994 | 1,897 | 1,539 <br> 2,173 | 2,043 | 1,815 | 1,297 | 1,699 | 1,882 | 1,986 | 1,842 | 1, 856 | 1,847 | 1,774 | 2, 163 |  |
|  | 21,409 | 25, 119 | 2, 441 | 2,173 | 2,241 | 2,128 | 1,609 | 2,190 | 2, 214 | 2,275 | 2, 191 | 2,131 | 2, 472 | 2, 326 | 2,605 |  |
| engines), shipments...................-number.- | 43,289 | 51,986 | 4,675 | 4,312 | 3,839 | 5,200 | 3,106 | 4,645 | 4,972 | 5,054 | 4,486 | 4, 100 | 4,729 | 4,837 | 5,142 |  |
| Industrial supplies, machinery and equipment: <br> New orders index, seas. adjusted. ... $1967-69=100$.. <br> Industrial suppliers distribution: | 199.2 | 231.1 | 218.6 | 222.8 | 226.2 | 228.3 | 227.5 | 225.4 | 232.7 | 251.3 | 258.0 | 253.4 | 266.0 | 287.6 | 261.7 |  |
| Sales index, seas. adjusted...-...--1967=100 | 207.4 | 236.5 | 224.0 | 233.6 | 233.9 | 242.2 | 238.6 | 243.3 | 253.7 | 250.6 | 253.3 | 247.2 | 255.5 | 256.4 | 263.0 | 269.1 |
| Price index, not seas. adj. (tools, material handling equip., valves, fittings, abrasives, fasteners, metal products, etc.) .................... $1967=100$. | 191.4 | 205.3 | 200.6 | 201.5 | 202.3 | 203.7 | 205.6 | 206.9 | 207.8 | 210.1 | 212.5 | 213.8 | 215.7 | 217.0 | 218.5 |  |
| Machine tools: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Metal cutting type tools: <br> Orders, new (net), total $\qquad$ mil | 2,202.05 | 3,375. | 258.90 |  |  |  |  |  |  |  |  |  | 420.75 |  |  |  |
|  | ${ }_{1}^{2,980.70}$ | 3,043.15 | 230,80 | ${ }_{273.70}$ | 235. 30 | 280.55 | 231.20 | 255.10 | 234.40 | ${ }_{312.00}^{334.05}$ | ${ }_{335.95}^{352.90}$ | ${ }_{238} \mathbf{3} .70$ | 377.25 | $\stackrel{+}{+310.95}$ | ${ }_{\text {p }}{ }^{\text {p }} 374.95$ |  |
| Shipments, total.-.------------------- do | 1,650.80 | 2,188.50 | 206.00 | 178.70 | 189.45 | 216.05 | 137.75 | 161.70 | 193.60 | 195.05 | 188.85 | ${ }^{218.50}$ | 177.30 | $\stackrel{\square}{\square} 208.95$ | ¢ 244.00 |  |
| Dorrestic. Order backlog, | 1, $1,469.85$ | $1,960.10$ $2,980.6$ | 288.35 | ${ }_{2,137.1}^{158.65}$ | 175.25 | 1933.05 | 2,427.5 | 142.90 $2,540.5$ | + $\begin{array}{r}172.40 \\ 2,594.9\end{array}$ | 173,10 | 164.60 | 196,95 | [ $\begin{array}{r}158.60 \\ 3,224.1\end{array}$ | ${ }_{\text {r }}+18,37.70$ |  |  |
| Metal forming type tools: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Orders, new (net), total Domestic | 794.85 730.70 | ' 9668.55 | 65.40 62.60 | 76.70 70.80 | 87.45 80.20 | 75.80 69.60 | 72.25 66.95 | ${ }_{93.95}^{100.15}$ | 88.70 | 79.95 74.55 | 88. 15 | 80.25 73.75 | 97.60 92.85 | ¢ 86.95 r 77.85 | $p 105.40$ $p 99.00$ |  |
|  | 629.95 | 824.95 | 66.35 | 64.25 | ${ }_{61}^{66} 25$ | ${ }^{76.90}$ | 70.65 64.40 | 53.70 | 65. 15 | 71.75 | 85.55 | 91.40 | 67.25 | $\stackrel{+72.30}{ }+$ | 刀 85.05 |  |
| Domestic | 560.35 384.1 | 728.50 517.7 | 61.40 420.9 | 5.45 433.4 | 61.20 454.6 | 68.95 453.5 | 64.40 455.1 | 49.00 501.5 | 57.55 518.0 | f5.45 526.3 | 70.85 528.9 | 74.40 517.7 | 58.60 548.0 | ' 67.60 562.7 | $\begin{aligned} & p_{79.10} \\ & { }^{5} 583.1 \end{aligned}$ |  |
| Tractors used in construction, shipments, qtrly: <br> Tracklaying, total.....-................................... |  | 22,058 | 5,820 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wrek | 1,136.3 | 1,376.9 | 350.1 |  |  | 361.0 |  |  | 304.3 |  |  | 361.5 | ${ }^{3} 110.0$ | ${ }^{3} 124.1$ |  |  |
| Wheel (contractors' off-highway) ...........units.- mil. ${ }_{\text {- }}$ | $\begin{array}{r} 5,271 \\ 330.1 \end{array}$ | ........ | 1,537 107.7 |  |  | 1,546 119.1 |  |  | 1,464 105.7 |  |  |  |  |  |  |  |
| Tractor shovel loaders (integral units only), wheel and tracklaying types. -units. | 42,763 | 49,809 | 11,825 |  |  |  |  |  | 2,031 |  |  | 13, 103 |  |  |  |  |
| actors, wheel, farm, nonfarm (ex. garden and. | 1,331.8 | 1,712.6 | 394.7 |  |  | 464.9 |  |  | 400.9 |  |  | 453.5 |  |  |  |  |
| $\begin{array}{r} \text { Tractors, Wheei, farm, nontarm (ex. garden and } \\ \text { construction types), ship., qtrly } \end{array}$ | $\begin{array}{r} 206.4 \\ 2,752.5 \end{array}$ | $\begin{aligned} & 173.106 \\ & 2,662.7 \end{aligned}$ | $\begin{array}{r} 45,912 \\ 693.5 \end{array}$ |  |  | $\begin{array}{r} 47,931 \\ 706.6 \end{array}$ |  |  | $\begin{array}{r} 37,911 \\ 552.8 \end{array}$ |  |  | $\begin{array}{r} 41,352 \\ 709.8 \end{array}$ | $\left\lvert\, \begin{aligned} & 316,778 \\ & r 3251.6 \end{aligned}\right.$ | $\begin{array}{\|l\|l} { }^{3} \mathbf{1 7 , 0 5 4} \\ { }^{283} . \end{array}$ |  |  |
| ELECTRICAL EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Batteries (auto.type replacement), ship...-.thous | 54,601 | 56,389 | 3,975 | 3,287 | 3,456 | 3,695 | 3,703 | 5,247 | 5,972 | 6,442 | 5,692 | 5,818 | 5,364 | 4,254 | 4,068 |  |
| Radio sets, production, total market --..-- tho | 52,926 | 48,036 | ${ }^{2} 5,422$ | 3,272 | 3,883 | 25,585 | 4,328 | 4,313 | 24,831 | 3,937 | 3,246 | 23,610 | 3,552 | 2,872 | ${ }^{2} 3,951$ | 2,114 |
| Television sets (incl. combination models), production, total market...........................-.-. - thous. | 15, 432 | 17, 406 | ${ }^{2} 1,674$ | 1,368 | 1,288 | ${ }^{2} 1,678$ | 1,225 | 1,279 | 2, 2, 044 | 1,538 | 1,345 | ${ }^{2} 1,666$ | 1,225 | 1,378 | ${ }^{2}$ 1,642 | 1,150 |
| Household major appliances (electrical), factory shipments (dome' tic and export) $\%$......thous. | 30,957 |  |  |  |  |  |  |  | 2,720 |  |  |  |  |  |  |  |
| Air conditioners (room).................do.... | 3, 270 | 4,037 | -569 | ${ }^{+} 703$ | $\begin{array}{r}3.239 \\ \hline\end{array}$ | 3, 591 | 2,307 | 2,111 | + 101 | ${ }^{2} 130$ | 2, 162 | 2,240 | $\begin{array}{r}2,459 \\ \hline 29\end{array}$ | 2,333 |  |  |
| Dishwashers | 3,356 | 3, 556 | 345 | 307 | 330 | 320 | 211 | 301 |  | 342 | 342 | ${ }_{2}^{276}$ | 300 | 260 |  |  |
| Disposers (food waste).-.................- do | 3,941 | 3,313 <br> 3,127 | 291 305 | 280 293 | 277 307 | 280 296 | ${ }_{249}^{255}$ | ${ }_{294}^{278}$ | 287 <br> 274 | 335 <br> 298 | 293 299 | ${ }_{221}^{231}$ | ${ }_{236}^{271}$ | 224 |  |  |
|  | 5,707 |  | 569 | 480 | 536 | 604 | 548 | 586 | 528 | 518 | 431 | 346 | ${ }_{375}^{236}$ | 382 |  |  |
| ${ }^{\text {Freezers }} \mathrm{W}$ | 1,598 <br> 4,933 <br> , 59 | -1,522 | 150 513 | ${ }_{416}^{118}$ | 153 446 | 191 | 163 376 376 | ${ }_{469}^{168}$ | 115 468 | 103 463 | $\begin{array}{r}81 \\ 372 \\ \hline\end{array}$ | 325 | 97 416 | ${ }_{397}^{116}$ |  |  |
| Dryers (ncl. gas) | 4, <br> 3,533 <br> , 538 | 5,038 3,621 | 513 375 | 416 296 | ${ }_{288}^{446}$ | ${ }_{271}^{435}$ | 376 246 | 469 327 | 468 340 | 463 347 | 372 324 | ${ }_{256}^{325}$ | 416 306 | ${ }_{291} 39$ |  |  |
| Vacuum cleaners (qtrly.)...-...-....-..-.-. do | 9,392 | 9,136 | 1,747 |  |  | 3,084 |  |  | 2,162 |  |  | 2,143 |  |  | 1,188 |  |
| GAS EQUIPMENT (RESIDENTIAL) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Furna ces, gravity and forced-air, shipments thous.- | 1,508 | 1,636 | 133 | 130 | 118 | 127 | 126 | 137 | $\begin{array}{r}\text { r } 153 \\ \mathrm{r} \\ \hline 185\end{array}$ | 173 | 142 | 154 | 145 | ${ }^{p} 128$ |  |  |
| Ranges, total, sales.-................-...-.-. do...- | , 1,746 | -1,794 | 157 | 154 | 161 | 168 | 124 | 146 230 | +165 | ${ }_{247}^{154}$ | 148 | 169 | 139 | ${ }^{2} 150$ |  |  |
| ater heaters (storage), automatic, sales.....do. | 4 3,070 | 62,658 | 270 | 286 | 275 | 217 | 217 | 230 |  | 247 | 228 |  |  |  |  |  |

## PETROLEUM, COAL, AND PRODUCTS

 xcluded. nclude shipments to mobile home and travel trailer manufacturers (formerly
exciuded); they are not directly comparable with those for earlier periods. ${ }^{5}$ Average for
Jan.-Apr, and June-Dec. ${ }^{5}$ otai for Jan.-Nov.; sales for Dec. 1978 not available at this
time.

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## PETROLEUM, COAL, AND PRODUCTS—Continued

| COAL-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bltuminous-Continued $\ddagger$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Industrial consumption and retall deliveries, | 2620,476 | 2 218,048 | 43, 810 | 45, 504 | 48,753 | 51, 827 | 55, 428 | 57,215 | 53,921 | 52, 270 | 52,186 | 56,634 | 60, 048 | 53,390 |  |  |
| Electric power utilities...................do... | 2475,671 | ${ }^{2} 480,149$ | 33,923 | 34,545 | 37, 125 | 40, 593 | 44, 035 | 45,952 | 42,556 | 39,770 | 39,659 | 43, 579 | 47,016 | 41,800 |  |  |
| Mfg . and mining industries, total........d. do... | $\xrightarrow{2137,776} 2$ | 129,976 | $\stackrel{9}{398}$ | 10,418 | 11,132 | 10,758 | 10, 934 | 10,820 | 10,839 | 11,723 | 11, 676 | 12, 129 | 11, 857 | 10,879 |  |  |
| Coke plants (oven and beehive)....-.- do...- | ${ }^{2}$ 77,387 | 71,093 | 3,988 | 5,501 | 6,406 | 6,382 | 6,530 | 6,436 | 6, 391 | 6,680 | 6, 486 | 6,729 | 6,426 | 5,816 |  |  |
| Retail deliveries to other consumers...--do.... | 7,020 | 7,914 | 650 | 540 | 495 | 475 | 450 | 442 | 525 | 776 | 850 | 925 | 1,175 | 710 |  |  |
| Stocks, industrial and retail dealers' end of period, total. thous. sh. tons. | 152,264 | 141, 608 | 83,942 | 96, 462 | 110,886 | 121,588 | 119,791 | 122,607 | 125,568 | 143, 564 | 142,643 | 141, 608 | 131,891 | 125,085 |  |  |
| Electric power utilities..................-do...- | 130,898 | 126,036 | 75, 081 | 85,772 | 98, 472 | 107, 498 | 107, 443 | 110,006 | 112, 797 | 129,359 | 127, 118 | 126, 036 | 117, 469 | 112,023 |  |  |
|  | 21,146 12,721 | 15,212 8,162 | 8,747 3,750 | - $\begin{array}{r}10,555 \\ 5,602\end{array}$ | 12, ${ }^{1239}$ | - $\begin{array}{r}13,780 \\ 8,237\end{array}$ | - $\begin{gathered}12,058 \\ 6,604\end{gathered}$ | 12,246 6,276 | 12,407 6,202 | 13,848 7,272 | 15,145 8,520 | 15,212 8,162 | 14,057 7,437 | 12,744 6,553 |  |  |
| Retail dealers............................ do | 220 | 360 | 114 | 135 | 175 | 310 | 290 | 355 | 364 | 357 | 380 | 360 | 365 | 318 |  |  |
| $\underset{\text { Price, wholesale }}{\text { Expor.................................................. }}$ | 53,687 388.6 | 39,825 430.0 | 325 406.5 | 2,594 426.4 | 4,411 432.4 | 5,398 434.5 | 3,531 437.2 | 3,568 441.9 | 3,338 442.9 | 4,911 444.1 | 5,930 442.9 | 4,394 442.8 | 3,526 444.8 | $\begin{aligned} & 2,691 \\ & 445.0 \end{aligned}$ | $\begin{aligned} & 4,592 \\ & 445.5 \end{aligned}$ | 47.8 |
| COKE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production: thous, sh. tons |  | 355 | 29 | 29 | 33 | 29 | 29 | 25 | 29 | 30 | 31 | 32 |  | 35 |  |  |
| Oven (byproduct) $\qquad$ do | 53,060 | 48,238 | 2,661 | 3,753 | 4,398 | 4,362 | 4, 455 | 4, 379 | 4,346 | 4,512 | 4, 383 | 4,645 | ${ }^{+} 4,413$ | 3,980 |  |  |
|  | 26,949 | 26, 208 | 2,321 | 2,137 | 2,286 | 2, 220 | 2,252 | 2,388 | 2,188 | 2,244 | 2,314 | 2,367 |  |  |  |  |
| Stocks, end of period: Oven-coke plants, total $\dagger \ldots . . . . . . . . . . . . . . . d o . . ~$ | 6,444 | 3,461 | 3,461 | 3,189 | 2,993 | 2,938 | 2,846 | 2,954 | 3,008 | 3,128 | 3,277 | 3,461 | 「3,479 | 3,427 |  |  |
|  | 6,308 | 3,323 | 3, 373 | 3,107 | 2,910 | 2, 848 | $\stackrel{2}{2,731}$ | 2,827 | 2,896 | ${ }_{3,029}^{3,128}$ | 3,178 | 3,323 | + ${ }_{\text {r }}^{3}$, 322 | 3, 3 3 257 |  |  |
|  |  | 139 | 87 | 81 | 83 | 90 | 2, 114 | , 127 | 112 | 99 | ${ }^{3} 100$ | 139 | $\underset{\sim}{+157}$ | - 170 |  |  |
| Petroleum coke $\ddagger$....-............................do | 2,050 | 2,214 | 2,270 | 2, 321 | 2,380 | 2,376 | 2,489 | 2,397 | 2,287 | 2,191 | 2,185 | 2,214 |  |  |  |  |
|  | 1,241 | 889 | 42 | 56 | 103 | 74 | 53 | 46 | 125 | 68 | 103 | 78 | 30 | 90 | 88 |  |
| PETROLEUM AND PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Crude petroleum: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 18,886 274.2 | 17,758 300.1 | 1,499 293.4 | 1,369 294.3 | 1,209 295.5 | 1,812 298.9 | 1,503 301.9 | 1,516 302.7 | 1,619 305.7 | 1,406 307.5 | 1,294 310.5 | 1,861 312.2 | 1,372 316.4 | 1,463 322.2 | 1,544 324.4 | 1,138 325.8 |
| Gross input to crude oil distilation units . mil. bbl.. | 5,468.3 | 5,498.0 | 447.9 | 426.3 | 472.2 | 451.2 | 470.3 | 483.2 | 461.9 | 475.9 | 470.6 | 487.6 |  |  |  |  |
| Refinery operating ratio.........-\% of capacity -- | 90 | 88 | 85 | 83 | 89 | 88 | 88 | 91 | 90 | 89 | 91 | 90 |  |  |  |  |
| All oils, supply, demand, and stocks: New supply, mital obl bli.. | 6,832.8 | 6,770.9 | 585.4 | 537.4 | 549.6 | 553.6 | 573.5 | 575.1 | 579.5 | 577.9 | 570.4 | 603.3 |  |  |  |  |
| New supply, total o' $\ddagger$..........................mil. bbl. | 6,832.8 | 6,76.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Crude petrolevm $\ddagger$....................do. | 3,009.3 | 3,175.9 | 237.0 | 261.2 | 272.8 | 264.7 | 271.2 | 272.4 | 263.6 | 273.8 | 261.9 | 268.2 |  |  |  |  |
| Natural-gas plant liquids................d. do.... | 608.8 | 591.6 | 50.9 | 49.9 | 48.9 | 49.0 | 50.1 | 50.0 | 48.0 | 49.4 | 49.6 | 50.3 |  |  |  |  |
| Imports: Crude and unfinished oils $\ddagger \ldots \ldots . . . . . . . . . d o . ~$ | 2, 425.6 | 2,283. 7 | 190.3 | 163.5 | 173.1 |  | 192.8 | 197.0 | 209.1 | 202.1 | 199.0 | 216.3 |  |  |  |  |
| Refined products $\ddagger$-.......................do. | 789.1 | 719.6 | 71.2 | 62.7 | 54.6 | 47.8 | 59.5 | 55.7 | 58.8 | 52.6 | 60.0 | 68.5 |  |  |  |  |
| Change in stocks, all olls (decrease,-) $\ddagger$..-do. | 200.1 | -34.0 | -23.5 | 6.5 | 3.4 | 7.6 | 37.1 | -1.1 | 41.9 | 18.3 | 10.4 | -13.9 |  |  |  |  |
| Demand, total $\ddagger$-..........................-do. | 6,816.1 | 7,001.8 | 616.8 | 541.5 | 571.8 | 560.1 | 556.8 | 589.4 | 552.3 | 582.2 | 587.5 | 631.6 |  |  |  |  |
| Exports: <br> Crude petroleum $\qquad$ do. | 18.3 | 57.5 | 1.9 | 2.8 | 3.8 | 5.9 |  | 5.4 |  | 8.4 | 6.5 | 7.8 |  |  |  |  |
|  | 70.3 | 74.3 | 6.5 | 7.4 | 5.9 | 6.1 | 5.9 | 7.1 | 6.8 | 6.1 | 5.7 | 6.3 |  |  |  |  |
| Domestic product demand, total $\% \ddagger \ldots .$. do | 6,727.5 | 6,869.9 | 608.4 | 531.4 | 562.1 | 548.1 | 546.5 | 576.9 | 538.0 | 570.7 | 575.3 | 617.5 |  |  |  |  |
| Gasoline- - .-...........................d. do | 2,633.5 | 2, 721.0 | 226.2 | 217.3 | 241.0 | ${ }_{238.8}^{238}$ | 236.3 3 3 | 245.6 3.4 | 223.5 | ${ }^{232.6}$ | 226.4 | 232.0 |  |  |  |  |
|  | 64.0 | 63.4 |  | 3.2 | 3.8 | 2.7 | 3.0 | 3.4 | 5.2 | 5.3 | 5.3 | 7.1 |  |  |  |  |
| Distillate fuel oil $\ddagger$.--....................- do | 1,223.3 | 1,245.9 | 126.8 | 92.8 | 94.4 | 85.1 | 77.9 | 86.2 | 79.6 | 95.1 | 107.0 | 128.2 |  |  |  |  |
| Residual fuel oil $\ddagger$..........................do | 1,120.9 | 1,101.7 | 109.6 | 89.7 30.4 | 82.7 308 | 78.5 | 86.2 | 91.1 | 81.4 | 81.6 | 85.5 | ${ }^{96.0}$ |  |  |  |  |
|  | 379.3 | 386.8 | 34.5 | 30.4 | 30.8 | 31.6 | 31.4 | 35.0 | 32.3 | 33.2 | 33.4 | 32.7 |  |  |  |  |
|  | 58.3 | 62.4 | 4.8 | 5.3 | 5.5 | 5.8 | 5.1 | 5.8 | 5.1 | 5.6 | 5.6 | 5.2 |  |  |  |  |
| Asphalt..... | 156.0 | 170.1 | 7.7 | 10.4 | 15.2 | 20.8 | 21.1 | 24.1 | 19.8 | 21.2 | 13.2 | 7.5 |  |  |  |  |
| Liquefied gases $\ddagger$ | 518.9 | 515.0 | 44.2 | 34.7 | 36.2 | 33.6 | 34.7 | 33.7 | 40.1 | 45.7 | 47.5 | 56.6 |  |  |  |  |
| Stocks, end of period, total..................do. | 1,311.9 | 1,277.9 | 1, 167.7 | 1, 174.2 | 1,177.6 | 1,185. 2 | 1,222.3 | 1,221. 2 | 1,263. 1 | 1,281.4 | 1,291.8 | 1,277.9 |  |  |  |  |
| Crude petroleum.................................. | 1,347. 7 | ${ }^{376.8}$ | ${ }^{363.8}$ | 365.0 | 354. 6 | 363. 4 | 3677.9 | 357.7 | 368.3 | 377.9 | ${ }^{381.6}$ | 376.8 |  |  |  |  |
| Unfinished oils, natural gasoline, etc.-... do.- | 121.7 842 | 116.7 784 | 123.4 680.6 | 123.0 686.1 | 124.0 699.0 | 121.0 700.8 | 732.8 | 119.1 74.5 | 1159.0 79.8 | 122.0 781.6 | 120.8 789.4 | 116.7 784.5 |  |  |  |  |
| Refined products........................-do.- | 842.5 | 784.5 | 680.6 | 686.1 | 699.0 | 700.8 | 732.8 | 744.5 | 779.8 | 781.6 | 789.4 | 784.5 |  |  |  |  |
| Refined petroleum products: Gasoline (incl. aviation): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2,581.2 | 2,630.5 | ${ }_{\text {(1) }}^{210.1}$ | ${ }_{\text {(1) }}^{201.2}$ | ${ }_{\text {(1) }}^{220.1}$ |  | 226.6 |  | 223.4 .1 | ${ }^{223.6}$ | ${ }_{\text {(1) }}^{228}$ | 243.9 |  |  |  |  |
|  | 260.7 | 240.7 | ${ }_{262.3}^{(1)}$ | ${ }_{251.6}$ | ${ }_{236.1}^{(1)}$ | $\stackrel{(1)}{(1)}_{222.2}$ | 219.1 | ${ }_{211.8}^{(1)}$ | 219.3 | 216.1 | ${ }_{223.2}$ | 240.7 |  |  |  |  |
| Prices (excl. aviation) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wholesale, regu lar $\ddagger$......-Index, $2 / 73=100 \ldots$ | 253.6 | 265.0 | 252.0 | 253.0 | 255.5 | 260.5 | 266.4 | 271.3 | 275.1 | - 278.1 | 277.3 | 282.8 | 286.9 | 292.5 | 300.2 | 314.0 |
| Retall (regular grade, excl. taxes), 55 cities (mid-month) | . 507 | . 531 | . 510 | . 512 | . 517 | . 524 | . 533 | . 542 | . 545 | . 547 | . 554 | . 564 | ${ }^{3} .684$ | . 700 | . 732 | . 772 |
| Aviation gasoline: Production |  |  |  |  |  |  | 1.4 | 1.6 | 1.4 | 1.1 | 1.2 |  |  |  |  |  |
| Production-.................................................. | 14.2 | (4) ${ }^{13.9}$ | . 8 | 1.1 | 1.3 | 1.4 | 1.4 | 1.6 | . 4 | 1.1 |  | 1.1 |  |  |  |  |
| Stocks, end of period.-......................- ${ }^{\text {do }}$ | 3.0 | 2.8 | 2.4 | 2.4 | 2.4 | 2.5 | 2.6 | 2.5 | 2.6 | 2.4 | 2.7 | 2.8 |  |  |  |  |
| Kerosene: |  |  |  | 4.0 |  | 3.9 | 3.8 | 4.1 | 3.8 | 4.7 | 4.7 | 5.7 |  |  |  |  |
| Production Stocks, end of period.-.........................d. ${ }^{\text {do. }}$ - | 62.6 18.1 | 55.7 14.3 | 11.9 | 12.9 | 13.6 | $\begin{array}{r}14.8 \\ \hline\end{array}$ | 15.9 | 16.7 | 16.1 | 15.8 | 15.5 | 14.3 |  |  |  |  |
| Price, wholesale (light distillate) $\ddagger$ <br> Index $1967=100$ | - 358.5 | 392.6 | 388.4 | 387.9 | 390.7 | 391.4 | 393.1 | 394.4 | 395.8 | r 397.6 | 398.6 | 402.5 | 407.0 | 413.8 | 421. | 433. |
| Revised. 1 Less than 50 thousand barrels | 2 Refl | cts revis | ns not a | vailab |  |  |  |  |  |  |  |  |  |  |  |  |
| months. ${ }^{3}$ Beginning Jan. 1979, price includes Jan. 1978, data for exports of aviation gasoline are no | taxes for $o$ longer $r$ table cat | merly excl eported sep alyst coke. | luded. parately . ${ }^{\prime \prime}$ In | 4 Effect <br> O Inclu <br> ludes sm |  | $\begin{aligned} & \ddagger \text { Mod } \\ & \ddagger \text { petro } \end{aligned}$ | onthly re oleum an | isions b produ | ack to 19 ts and for | 973 for bit r 1977 for | tuminous wholesale | coal, bac price ind | dexes wil | 7 for cok | $\begin{aligned} & \text { e, back t } \\ & \text { vn later. } \end{aligned}$ | 1974 for |


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 p | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## PETROLEUM, COAL, AND PRODUCTS-Continued



## PULP, PAPER, AND PAPER PRODUCTS

| PULPWOOD AND WASTE PAPER |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pulpwood: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 77,025 | ${ }_{6}^{6,789}$ | 6,538 6 6 | 6.463 6.751 | -6,949 | 6,203 6,090 | 6,231 | ${ }_{6}^{6,275}$ | 6,508 | 6, 6 , 358 | 5,980 | $\underset{6}{6,404}$ | 6,287 |  |  |
|  | 5,761 | 6, 64 | ${ }_{5}^{1}, 382$ | 5,151 | 4, 844 | 5,020 | 5, 141 | 5,323 | 5,363 | 5,895 | 5,976 | 6, 244 | 5,820 | 5, 379 |  |  |
| Waste paper: <br> Consumption $\qquad$ thous. sh. tons. |  |  |  |  |  |  | 988 | 1,136 | 1,020 | 1,144 | 1,071 | 1,004 | -1,078 | 1,029 |  |  |
| Consumption -....................thous. sh. tons. <br> Stocks, end of period $\qquad$ do. | 12, 728 | 13, 748 | ${ }^{1,183}$ | ${ }^{1,174}$ | ${ }^{1,275}$ | 1,753 | 732 | 1,732 | ${ }^{1,744}$ | ${ }^{1,721}$ | ${ }^{1,709}$ | 1,740 | $\stackrel{+}{\square} \times 73$ | 616 |  |  |
| WOODPULP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 149,033 | ${ }^{1} 47,075$ | 4,149 | 4, 101 | 4, 100 | 4,109 | 3,672 | 3,848 | 3,878 | 4,051 | 3,954 | 3,628 | r 3,905 | 3,815 |  |  |
| Dissolving and special alpha-............do...- | 1,401 | 1,415 | 142 | 3113 | 136 | 130 | ${ }^{114}$ | ${ }_{2} 117$ |  | . 118 | ${ }_{3} 1005$ |  | + 988 | ${ }^{92}$ |  |  |
| Sulfate-.....................................- do | 3 34,000 2,000 | 1 3 1,739 1,758 | 3,149 | 3, 165 | - ${ }^{173}$ | ${ }^{3} 178$ | ${ }^{2} \mathbf{2} 82$ | ${ }^{2,116}$ | ${ }^{2} 127$ | 3,08 120 | ${ }^{3}, 131$ | ${ }^{2}, 114$ | $\stackrel{+}{7}+104$ | -122 |  |  |
|  | 4,753 | 4,216 | 352 | 342 | 387 | 389 | 304 | 302 | 362 | 375 | 370 | 364 | ${ }^{+} 353$ | 347 |  |  |
| Semichemical----.-.-....................................- | 3 3,569 | 3 3,948 | 340 | 330 | 341 | 325 | 301 | 329 | 345 | 351 | 341 | 316 | '351 | 328 |  |  |
| Stocks, end of period: <br> Total, all mills. do | 4 1,356 | ${ }^{4} 760$ | 1,090 | 1,074 | 1,069 | 898 | 1,014 | 1,048 | 993 | 999 | 788 | 760 | 7845 -819 | 800 |  |  |
| Pulp mills .-...........-....................................... | ${ }^{4} 684$ | ${ }^{4} 254$ | 613 | 613 | 611 | 426 | 516 | 545 | 473 | 486 | 300 | 254 | - 410 | 389 |  |  |
| Paper and board mills | 609 62 | 435 70 | 415 62 | 397 64 | 395 63 | 407 66 | 432 66 | 436 67 | 454 66 | 442 70 | 423 65 | 435 70 | +371 +64 | 34 64 |  |  |
| Exports, all grades, total...-................do.... | ${ }^{1} 2,640$ | ${ }^{1} 2,599$ | 233 | 210 | 227 | 266 | 230 | 174 | ${ }_{2} 26$ | $\stackrel{207}{60}$ | 204 | $\stackrel{210}{47}$ | $\begin{array}{r}165 \\ 41 \\ \hline\end{array}$ | $\begin{array}{r}198 \\ 58 \\ \hline\end{array}$ | 213 60 |  |
| Dissolving and special alpha | ${ }_{1}^{1,844}$ | r 11887 | $\begin{array}{r}83 \\ 150 \\ \hline\end{array}$ | 46 163 | 71 156 | $\begin{array}{r}80 \\ 186 \\ \hline\end{array}$ | 69 161 | $\begin{array}{r}54 \\ 120 \\ \hline\end{array}$ | $\begin{array}{r}73 \\ 196 \\ \hline\end{array}$ | 147 | 152 | 47 163 | 124 | 58 139 | 150 |  |
|  | ${ }^{13,864}$ | ${ }^{14,025}$ | 327 | 300 | 402 | 303 | 327 | 325 | 316 | 351 | 367 | 362 | 331 | 347 | 384 |  |
| Dissolving and special alpha All other. | 13,179 13,686 | 176 | ${ }^{20}$ | 92 | 16 386 | ${ }^{7} 9$ | 20 307 | 320 | 297 | 8 343 | 33 333 | 355 | 16 315 | 341 | ${ }_{3}^{27}$ |  |
| PAPER AND PAPER PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 aper and board: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production (Bu. of the Census): All grades, total, unadjusted...thous. sh. tons.- | 61,869 | 62, 066 | 5, 547 |  |  |  |  | 5,233 | 4,963 | 5,321 | 5, 198 | 4,745 | -5,175 | 4,936 |  |  |
| A Paper................................do...- | 27,491 | 27, 729 | 2,553 | 2,379 | 2,533 | 2,444 | 2,075 | 2,201 | 2, 134 | 2,332 | 2, 287 | 2,144 | r r 2, 316 | 2, 227 |  |  |
| Paperboard --.................................do- | 28,727 | $\begin{array}{r}28,723 \\ \hline 109\end{array}$ | 2,494 10 10 | 2,368 10 | $\begin{array}{r}2,559 \\ \hline 10\end{array}$ | 2,541 | 2,278 | 2,513 10 | 2,374 9 | 2,543 9 | 2,440 9 | 2,172 9 | $\begin{array}{r} \\ +2,411 \\ \hline\end{array}$ |  |  |  |
| Wet-machine board...-...-.........do.... | 5,523 5, | 109 5,505 | 10 489 | 10 484 |  |  | 435 | 509 | ${ }_{446}^{9}$ | 436 | 463 | 421 | 440 | 418 |  |  |
| Producer price indexes: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Book paper, A grade................. $1967=100$. |  |  |  |  |  |  |  | 179.4 | 185.1 | 185.5 | 186.3 | 186.8 | 188.5 | 190.2 | 192.3 | 197.2 |
| Paperboard -.......................do.... | 157.0 | 187.4 | 186.6 | 188.7 | 190.8 | 192.3 | 193.1 | 189.8 | 187.0 | 189.5 | 188.7 | 187.6 | 185.2 | 183.6 | 182.6 | 183.4 |
| r Revised. $\quad$ Preliminary. <br> ${ }^{1}$ Reported annual total; revisions not allocated to | the mon | hs. ${ }^{2}$ | ss than | 0 thous |  | ${ }^{4} \mathrm{D}$ | a excl ual fir | $\text { de } \mathrm{sn}$ s. |  |  |  |  |  |  |  |  |
| barrels. ${ }^{3}$ Beginning with January 1975 , data for cal) is now combined with sulphate; not comparable | oda (form with dat | erly comb for earli | ned with periods | semich |  | $\begin{aligned} & \ddagger \mathrm{M} \\ & \text { produ } \end{aligned}$ | nthly | visions ailable | ack to pon re | 74 for est. | ports Inclu | data | for items | other <br> not sho | wn separ | trolee tely. |


| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

PULP, PAPER, AND PAPER PRODUCTS-Continued

| PAPER AND Paper Products-Con. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Selected types of paper (API): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Groundwood paper, uncoated: $\begin{aligned} & \text { Orders, new }\end{aligned}$ | 1,312 | 1,274 | 118 | 111 | 124 | 132 | 72 |  | 124 | 100 |  |  |  |  |  |  |
| Orders, unfilied, end of period..........do..-- | 1, 134 | ${ }_{1} 133$ | 155 | 133 | 130 | 144 | 138 | 143 | 173 | 160 | 140 | 133 | +174 | +185 | ${ }_{211}^{138}$ |  |
|  | 1,307 | 1,245 | 116 | 111 | 124 | 106 | 83 | 81 | 95 | 110 | 110 | 105 | r 106 | r 102 | 119 |  |
| Coated paper: Orders, new | 4, 279 | 4,413 | 419 | 337 | 385 | 376 | 333 | 382 | 342 | 360 |  |  |  |  |  |  |
| Orders, unfiled, end of period...............do | , 398 | 4, 391 | 403 | 391 | 390 | 397 | 405 | 408 | 405 | 367 | 356 | ${ }_{391}^{363}$ | - | + ${ }_{+} 420$ | ${ }_{412}$ |  |
| Shipments .................................do. | 4,261 | 4, 435 | 402 | 359 | 394 | 370 | 326 | 381 | 353 | 390 | 379 | 333 | - 363 | ${ }^{\text {r }} 353$ | 396 |  |
|  | 6,878 | 7,462 | 702 | 658 | 709 | 666 | 572 | 636 | 592 | 598 |  | 568 | ${ }^{\text {r } 657}$ | 「594 |  |  |
|  | 7, 170 | 7,546 | 691 | 644 | 661 | 648 | 575 | 659 | 597 | 648 | 630 | 602 | ${ }_{r}{ }^{+646}$ | ${ }_{+}{ }^{6} 694$ | 694 |  |
| Unbleached kraft packaging and industrial converting papers: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Orders, new- Orders, unfiled, end of period |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shipments.................-...-.........do | 3,815 | 3,894 | 347 | 345 | 348 | 320 | 301 | 293 | 301 | 319 | 305 | 292 | -321 | - 320 | 341 |  |
| 'Tissue paper, production........................do. | 4,286 | 4,218 | 373 | 364 | 388 | 369 | 317 | 338 | 327 | 360 | 344 | - 328 | ${ }^{+} 376$ | ${ }_{r} 348$ | 380 |  |
| Newsprint: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada: ${ }_{\text {Production..............................-do....- }}$ | 8, 988 | 9,713 | 826 | 834 | 843 | 807 | 838 | 823 | 759 | 855 | 782 | 768 | 828 | 750 |  |  |
| Shipments from mills.........................do.... | 9,005 | 9,792 | 927 | 798 | 895 | 853 | 833 | 813 | 770 | 868 | 792 | 834 | 779 | 725 |  |  |
| Stocks at mills, end of period................do.-.- | 282 | 203 | 350 | 386 | 333 | 287 | 293 | 303 | 292 | 279 | 269 | 203 | 252 | 276 |  |  |
| United States: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3,871 | 3,806 3,818 | 352 | 328 | 336 | 339 |  | ${ }_{2}^{279}$ | 319 | 331 | 322 | 311 | 318 | 311 |  |  |
|  | 3,866 34 | $\begin{array}{r}3,818 \\ \hline 22\end{array}$ | $\begin{array}{r}360 \\ 34 \\ \hline\end{array}$ | $\begin{array}{r}323 \\ 38 \\ \hline\end{array}$ | $\begin{array}{r}340 \\ 34 \\ \hline\end{array}$ | 342 30 | 255 33 | $\begin{array}{r}284 \\ 28 \\ \hline\end{array}$ | 316 30 | 337 25 | $\begin{array}{r}323 \\ 24 \\ \hline\end{array}$ | 312 22 | 318 22 | 309 24 |  |  |
| Consumption by publishersorn -.......... do | 6,772 | 7, 106 | 600 | 620 | 631 | 586 | 560 | 558 | 566 | 624 | 657 | 630 | 555 | 547 |  |  |
| Stocks at and in transit to publishers, end of period. thous. sh. tons. | 796 | 728 | 818 | 818 | 835 | 876 | 898 | 868 | 829 | 840 | 761 | 728 | 705 | 713 |  |  |
| Imports. | 6, 559 | 7,484 | 611 | 604 | 639 | 747 | 649 | 680 | 580 | 672 | 648 | 532 | 623 | 613 | 651 |  |
| Price, rolls, contract, f.o.b. mill, freight allowed or delivered....................Index, $1967=100$ | 215.4 | 226.2 | 216.7 | 228.2 | 228.2 | 228.2 | 228.2 | 230.5 | 230.5 | 230.5 | 230.5 | 230.5 | 230.5 | 238.9 | 241.7 | 244.7 |
| Paperboard (American Paper Institute): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Orders, new (weekly avg.) .......thous. sh. tons.. | ${ }_{1}^{558}$ | $\begin{array}{r}600 \\ \hline 180\end{array}$ | ${ }_{1}^{610}$ | ${ }_{1}^{622}$ | ${ }_{1}^{634}$ |  | 560 | 598 | 584 | 605 | 566 | 546 | 618 | 621 | 657 | ${ }^{630}$ |
| Orders, unflled ${ }^{\text {¢ }}$ - | 1,037 | 1,370 | 1,306 | 1,385 | 1,546 | 1,556 | 1,560 | 1,600 | 1,470 | 1,479 | 1,412 | 1,370 | 1,451 | 1,482 | 1,583 | 1,638 |
| Production, total (weekly avg.).............do..... | 557 | 582 | 595 | 598 | 616 | 611 | 542 | 587 | 576 | 597 | 600 | 531 | 593 | 612 | 628 | 619 |
| Paper products: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shipping containers, corrugated and solid fiber shipments......................ilil. sq. ft. surf. area. | 227, 198 | 2243,898 | 21,655 | 19,970 | 21,759 | 22,116 | 17,583 | 22, 311 | 20,548 | 22,654 | 20,407 | 18,675 | 20,923 | 19,537 | 22,884 | 20,572 |
| Folding paper boxes, shipments..thous. sh. tons.- | 2,639.0 | 2,734.0 |  | 216.2 | 236.3 | 230.1 |  |  |  |  |  |  |  | +207.8 |  |  |
| mil. \$.- | 2, 105.0 | T2,278. 1 | 195.9 | 178.2 | 195.0 | 193.1 | -167. 4 | 207.6 | 195.5 | 210.7 | 193.3 | 202.3 | r 187.4 | r 180.2 | 217.4 |  |

## RUBBER AND RUBBER PRODUCTS

| RUBBER |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Natural rubber: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Consumption-1.-.........thous. metric. tons.- | ${ }_{1}{ }_{127} 8.65$ |  | ${ }_{117.10}^{63.79}$ | ${ }^{615.23}$ | ${ }_{122.76}{ }^{67.98}$ | ${ }_{123.39}{ }^{61.88}$ | 125.41 | ${ }_{126.06}^{69.13}$ | 127.65 | ${ }_{133.48}^{69.47}$ | 123.95 | 125.58 |  |  |  |  |
| Imports, incl latex and guayule. thous. ig. tons.- | 792.41 | 746.23 | 71.77 | 83. 44 | ${ }^{75.96}$ | 54.36 | 47.79 | 71.02 | 77.07 | 54.90 | 46.05 | 71.51 | 72.84 | 64.22 | 72.80 |  |
| Price, wholesale, smoked sheets (N.Y.). \$ per lb.- | . 416 | . 496 | . 455 | . 439 | . 450 | . 490 | . 494 | . 520 | . 544 | . 543 | . 581 | . 558 | . 544 | . 570 | . 615 | . 674 |
| Synthetic rubber: thous metric tons |  |  |  |  |  |  | 195 | 205.67 | 20737 | 212.33 | 21210 | 219.09 |  |  |  |  |
| Production--................thous. metric tons.- | 2,464.09 | 2, 436. 40 | 206. 16 | - 197.47 | -212.71 | +194.69 | - 170.59 | -213.94 | +211,70 | +220.29 | r212.14 | ${ }_{209.84}^{219.8}$ |  |  |  |  |
| Stocks, end of period.-.-.......................do | 426.83 |  | 434. 49 | 446.93 | 411.41 | 433.09 | 456.46 | 445.08 | 437.67 | 425.32 | 419.91 | 424.07 |  |  |  |  |
| Exports (Bu. of Census) ...........thous. lg. tons.. | 239.98 | 254. 36 | 22.55 | 19.48 | 24.90 | 22.28 | 19.35 | 20.04 | 20.77 | 22.22 | 23.81 | 23.77 | 23.62 | 22.29 | 27.74 |  |
| Reclaimed rubber: <br> Production. $\qquad$ thous. metric tons.- | 478.47 |  | 9.61 | 10.05 | 9.85 | 9.88 | 9. 53 | 10.79 | 5.00 | 10.40 |  | 9.91 |  |  |  |  |
| Consumption-................................do...- | 4103.12 |  | 9. 39 | 10.11 | 10.28 | 10.26 | 8.75 | 9.60 | 10.01 | 11.28 | 9. 58 | 10. 58 |  |  |  |  |
| Stocks, end of period.........................do..... | 16.26 |  | 14.52 | 13.45 | 13.70 | 13.56 | 13.67 | 15. 14 | 15.51 | 14.84 | 15. 25 | 14. 12 |  |  |  |  |
| TIRES AND TUBES |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pneumatic casings, automotive: <br> Production. thous.. | 231, 638 |  | 18,987 | 18,828 | 19,148 | 18,946 | 15, 108 | 19,245 | 19,155 | 20,497 | 18,299 | 18,869 | 20,352 | 19,592 |  |  |
| Shipments, total.............................do. | 2226, 583 |  |  | 21,738 | 20,597 | 22,599 | 17, 584 | 20, 516 | 22, 214 | 22,727 | 18,872 | 16,946 | 17,227 | 16, 422 |  |  |
| Oripinal equipment.-........................ do | ${ }^{2} 265,998$ |  | 6,386 | 6,161 | 6,300 | 6, 121 | 4, 077 | 4,680 | 5,933 | -6,408 | 5,911 | 5,065 | 5,644 | 15,451 |  |  |
| Replacement equipment........................................................................... Exports........ | $\begin{array}{r} 2155,195 \\ 25,390 \end{array}$ |  | $\begin{array}{r} 15,373 \\ 439 \end{array}$ | $15,224$ | $\begin{array}{r} 13,888 \\ 409 \end{array}$ | $\begin{array}{\|r\|} \hline 16,008 \\ 440 \end{array}$ | $\begin{array}{r} 13,265 \\ 242 \end{array}$ | $\begin{array}{r} 15,464 \\ \quad 372 \end{array}$ | $\begin{array}{r} 15,888 \\ 392 \end{array}$ | $\begin{array}{r} 15,871 \\ 447 \end{array}$ | 12,597 | $\begin{array}{\|} 11,486 \\ 396 \end{array}$ | $\begin{array}{r} 11,148 \\ 436 \end{array}$ | $\begin{array}{r} 10,530 \\ 442 \end{array}$ |  |  |
|  | $\begin{array}{r} 247,181 \\ 6,023 \end{array}$ | 5,328 | 51,986 | 50,006 406 | 49, ${ }_{458}$ | 46,293 483 | 44,280 314 | $\begin{array}{r} 44,057 \\ 462 \end{array}$ | 41,796 | 40, 135 | 40,394 | 43,472 541 | $\begin{array}{\|r} 47,212 \\ 560 \end{array}$ | $\begin{array}{r} 51,284 \\ 437 \end{array}$ |  |  |
| Inner tubes, automotive: <br> Production. | (3) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | (3) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Exports (Bu. of Census) .......................- ${ }^{\text {do }}$ | 2,298 | 3,015 | 240 | 198 | 268 | 188 | 143 | 223 | 223 | 342 | 274 | 343 | 312 | 218 |  |  |

-Revised. ${ }^{1}$ Beginning Jan. 1977, producers' stocks are included; comparable data for earlier ceriods will be shown later. ${ }^{2}$ Beginning Jan. 1977, data cover passenger car and
truck and bus tires; motorcycle tires and tires for mobile homes are excluded Jan. 1977, data no longer available. 4 Reported total; revisions not distributed to the
months.

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the 1975 edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## STONE, CLAY, AND GLASS PRODUCTS

| PORTLAND CEMENT <br> Shipments, finlshed cement. $\qquad$ thous. bbl. Clay construction products <br> Shipments: <br> Brick, unglazed (common and face) | 1418,862 | 1451,739 | 31,452 | 37,239 | 44,904 | 49,782 | 43,755 | 50,340 | 44,617 | 48,468 | 37, 851 | 28, 952 | 16,628 | 18,713 | 32, 420 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Structural tile, except facing...- mill standard brit tons.. | $8,300.5$ 45.0 | 9,053.1 76.2 | 713.6 7.4 | 788.8 10.5 | 893.6 6.6 | 914.6 6.3 | 807.1 5.4 | ${ }_{9}^{911.6}$ | 784.9 6.9 | 875.4 5.7 | 769.2 6.0 | 656.4 4.9 | - $\begin{array}{r}501.5 \\ 3.6\end{array}$ |  |  |  |
| Sewer pipe and fittings, vitrifed .-.......do.-- | 1,106.8 | 941.9 | 70.9 | 82.1 | 95.6 | 101.0 | 94.8 | 106.4 | 91.3 | 94.5 | 72.5 | 50.4 | ${ }^{\text {r }} 37.2$ | 37.1 |  |  |
| Fring tile (hollow, glazed mil. brick equivalent.- | 61.8 | 58.3 | 4.6 | 4.9 | 5.8 | 5.7 | 4.9 | 5.6 | 5.4 | 5.6 | 4.6 | 5.0 | 3.5 | 3.2 |  |  |
| Floor and wall tile and accessories, glazed and unglazed.................................mil. sq. ft | 266.2 | 297.6 | 27.9 | 25.0 | 27.1 | 26.2 | 21.0 | 27.0 | 24.3 | 27.6 | 25.7 | 23.7 | 25.2 | 23.8 |  |  |
| Prlee index, brick (common), fiob. plant or N.Y. dock $\oplus$...................................... $1967=100$ | 204.0 | 234.4 | 228.0 | 230.1 | 230.6 | 230.7 | 231.9 | 234.1 | 243.2 | c 243.3 | 244.6 | 247.9 | 253.2 | 255.3 | 257.3 | 261.4 |
| glass and glass products |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Flat glass, mfrs.' shlpments --............thous. \$.. | 739,919 | 820, 216 | 202,552 |  |  | 210,640 |  |  | 202,475 |  |  | 204, 549 |  |  |  |  |
| Sheet (window) glass, shipments. ................... Plate and other flat glass, shipments.......... | (V) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Glass containers: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Productiont.........................thous. gross..- | 303,452 | 326,634 | 28,884 | 28,767 | 29,150 | 28,759 | 26,930 | 29,428 | 26, 175 | 30,031 | 25,710 | 21,443 | - 26,132 | 26,090 | 29, 447 |  |
| Shlpments, domestlc, total $\ddagger$ Narrow- .-..........-do....- | 304,785 | 315, 639 | 27, 383 | 26, 528 | 33,988 | 27, 233 | 24,514 | 29, 484 | 27,674 | 27,359 | 25,547 | 22,823 | - 24,592 | 23,008 | 30, 228 |  |
| Food...................................do- | 25,069 | 26,637 | 2,317 | 2,234 | 2,705 | 2,184 | 1,758 | 2,432 | 3,357 | 2,242 | 1,967 | 1,651 | 1,987 | 1,995 | 2,640 |  |
|  | 67, 466 | ${ }^{60,528}$ | 5,438 | 5, 202 | 6,940 | 6, 015 | 5,317 | 5,683 | 4,914 | ${ }^{4,761}$ | 4,473 | 4,071 | +1,703 | 3,356 | 5,303 |  |
|  | 92,757 24,352 | 106,489 | 8,679 8,321 | ${ }_{2,132}^{8,948}$ | 10,569 | 9,755 | $\xrightarrow{\mathbf{9}, 573}$ | $\underset{\substack{10,519 \\ 2,134}}{ }$ | 9,304 2,060 | $\xrightarrow{\mathbf{9}, 253}$ | ${ }_{2,214}^{8,512}$ | 8,311 1,900 | r 8,744 <br> $r$ <br> 1, | 8, 1,359 | 10,026 2,583 |  |
| Wide-mouth containers: <br> Food (incl. packer's tumblers, jelly glasses, and fruit jars) $\ddagger \odot-\ldots . . . . . .$. .....thous. gross. | 61,330 | 65,062 | 5,806 | 5,226 | 7, 194 | 4,717 | 4,187 | 6,018 | 5,567 | 5,967 | 5,640 | 4,996 | -5,681 | 5,141 | 6,635 |  |
| Narrow-neck and Wide-mouth containers: <br> Medicinal and tollet -............................ <br> Chemical, household and industrial....do.... | $\begin{array}{r} 30,091 \\ 3,720 \end{array}$ | 27,998 3,841 | 2,515 307 | 2,474 | 3.349 461 | 2,375 | 1,906 | 2,371 | 2,147 | $\begin{array}{r}2,415 \\ \hline 31\end{array}$ | 2,440 301 | 1,667 | [ $\begin{array}{r}2,357 \\ \mathrm{r} 315\end{array}$ | 2,306 319 | 2,677 |  |
|  | 36,912 | 44, 250 | 43,764 | 45,739 | 41,461 | 43, 398 | 45,902 | 43, 047 | 43,233 | 46,515 | 46, 371 | 44, 250 | - 45,168 | 48,643 | 45,660 |  |
| GYPSUM AND PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Crude gypsum (exc. byproduct)...thous. sh. tons. Calcined. | $\begin{aligned} & 13,410 \\ & 12,090 \end{aligned}$ | $\begin{aligned} & 14,402 \\ & 13,494 \end{aligned}$ | $\begin{aligned} & 1,222 \\ & 1,071 \end{aligned}$ | $\begin{aligned} & 1,333 \\ & 1,195 \end{aligned}$ | $\begin{aligned} & 1,277 \\ & 1,237 \end{aligned}$ | $\begin{aligned} & 1,208 \\ & 1,121 \end{aligned}$ | $\begin{aligned} & 1,195 \\ & 1,164 \end{aligned}$ | $\begin{aligned} & 1,302 \\ & 1,184 \end{aligned}$ | 1, 1,251 | $\begin{aligned} & 1,212 \\ & 1,206 \end{aligned}$ | $\begin{aligned} & 1,136 \\ & 1,091 \end{aligned}$ | $\begin{aligned} & 1,129 \\ & 1,087 \end{aligned}$ | 1,121 |  |  |  |
| Imports, crude gypsum.......................d. ${ }^{\text {do }}$ | ${ }^{17,074}$ | 7,954 | 493 | 529 | 767 | 684 | 825 | 788 | 811 | 700 | 658 | 688 | 506 |  |  |  |
| Sales of gypsum products: Uncalcined. | 15,759 | 5,434 | 370 | 423 | 458 | 565 | 505 | 568 | 552 | 494 | 462 | 441 | 393 |  |  |  |
| Calcined: <br> Industrial plasters $\qquad$ | ${ }^{1} 326$ | 396 | 35 | 37 | 36 | 38 | 28 | 33 | 33 | 38 | 37 | 29 | 29 |  |  |  |
| Bullding plasters: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & 136 \\ & 312 \end{aligned}$ | $\begin{aligned} & 140 \\ & 306 \end{aligned}$ | $\stackrel{11}{25}$ | $\begin{aligned} & 11 \\ & 26 \end{aligned}$ | $\begin{aligned} & 10 \\ & 27 \end{aligned}$ | $\begin{aligned} & 14 \\ & 29 \end{aligned}$ | +989 | ${ }_{29}^{10}$ | 28 ${ }^{9}$ | $\begin{aligned} & 11 \\ & 31 \end{aligned}$ | 9 25 | $\begin{aligned} & 31 \\ & 23 \end{aligned}$ | 19 |  |  |  |
| Board products, total..................mil. sq. ft.- | 15, 369 | 16,412 | 1,399 | 1,364 | 1,399 | 1,388 | 1,351 | 1,502 | 1,326 | 1,479 | 1,317 | 1,440 | 1,375 |  |  |  |
|  | 165 | ${ }_{4}^{137}$ |  | 12 | 13 | 11 | 12 | $\begin{array}{r}13 \\ 43 \\ \hline\end{array}$ | 10 |  | 8 | 8 | 10 |  |  |  |
| Gypsum sheathing.............................do | 289 |  |  | 22 | 22 | 22 | 21 | 21 | 17 | 17 | 17 | 15 | 14 |  |  |  |
| Regular gypsum board.-.....................-do | 11, 840 | 12,566 | 1,071 | 1,049 | 1,070 | 1,058 | 1. 037 | 1,147 | 1.014 | 1,136 | 1,001 | , 097 | 1,036 |  |  |  |
|  | 2, 423 | 2,786 | ${ }^{232}$ | ${ }^{2} 27$ | , 232 |  | 221 |  |  |  | 237 | 265 | 260 |  |  |  |
| Predecorated wallboard-.----------......do. | 232 | 231 | 20 | 18 | 20 | 20 | 20 | 21 | 20 | 22 | 18 | 18 | 19 |  |  |  |

## TEXTILE PRODUCTS

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline FABRIC (GRAY) \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Knit fabric production off knitting machines (own use, for sale, on commission), atriy* ......mil. lb \& 61,688.6 \& 1,644.5 \& 412.1 \& \& \& 439.7 \& \& \& 403.5 \& \& \& 389.2 \& \& \& \& <br>
\hline Knitting machines activelast working day*-.thous.-- \& ${ }^{1} 684.3$ \& 1, 32.6 \& 34.5 \& \& \& 34.3 \& \& \& 33.9 \& \& \& 32.6 \& \& \& \& <br>
\hline Woven fabric (gray goods), weaving mills: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Production, total 9 .................mil. linear yd.- \& 10,227 \& 10, 147 \& ${ }^{2} 983$ \& 784 \& 786 \& 2970 \& 621 \& 774 \& 2964 \& 863 \& ${ }^{2} 1,015$ \& 752 \& r2 1, 021 \& ${ }^{2} 780$ \& \& <br>
\hline  \& 4,237 \& 3,962 \& ${ }^{2} 388$ \& 303 \& 305 \& 2368
2589 \& 234 \& 298 \& 2375
2579 \& 349 \& 2392
2813 \& 292 \& 2380
-2630 \& ${ }_{2}^{2} 307$ \& \& <br>
\hline Manmade fiber -.....-................... do. \& 5,915 \& 6,070 \& ${ }^{2} 588$ \& 471 \& 471
860 \& $\begin{array}{r}2589 \\ \mathbf{8 8 4} \\ \hline\end{array}$ \& 380
871 \&  \& 2579

851 \& 505
858 \& $\begin{array}{r}2613 \\ \hline 876\end{array}$ \& 452
835 \&  \& 2
483
889 \& \& <br>
\hline  \& 986
340 \& +835 \& 915
306 \& 866
307 \& 860
307 \& 884
298 \& 871
294 \& 871
300 \& 851
294 \& 858
295 \& 876
297 \& 835
244 \& $\begin{array}{r} \\ \\ \\ \hline\end{array} 255$ \& 889
254 \& \& <br>
\hline Cotton-1-.-............................-.-. do \& 340
640 \& 244
+585 \& 306
602 \& 307
553 \& 547 \& 579 \& 294
570 \& + 565 \& 295 \& 558 \& 574 \& 245 \& + 265 \& 229 \& \& <br>
\hline Orders, unflled, total, end of period of-d do \& 2,004 \& - 3,029 \& 2,148 \& 2,388 \& 2,522 \& 2,580 \& 2,811 \& 2,772 \& 2,752 \& 2,923 \& 2, 908 \& 3,029 \& r 2, 938 \& 2,880 \& \& <br>
\hline Cotton......................................... do \& 858 \& 1,230 \& 806 \& 803 \& 797 \& 821 \& 1,082 \& 1,008 \& 1,043 \& 1,166 \& 1, 127 \& 1,230 \& 1,259 \& 1,262 \& \& <br>
\hline  \& 1,146 \& r 1,799 \& 1,342 \& 1,585 \& 1,724 \& 1,759 \& 1,728 \& 1,765 \& 1,709 \& 1,758 \& 1,781 \& 1,799 \& -1,679 \& 1,618 \& \& <br>
\hline COTTON \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Cotton (excluding linters): \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>

\hline | Production: |
| :--- |
| Ginnings $\triangle$ thous. running bales. | \& 3 14,018 \& 1 10,549 \& ${ }^{3} 14,018$ \& \& \& \& 144 \& 672 \& 1,492 \& 4,667 \& 6,678 \& 9,321 \& \& \& 10,549 \& <br>

\hline Crop estimate.....- thous. net welght bales (1).- \& 314,389 \& 4 $\mathrm{r} 10,856$ \& 3 14,389 \& \& \& \& 12 \& \& \& \& 6,678 \& 9,321 \& \& \& 10,856 \& <br>
\hline Consumption...................thous. running bales.Stocks in the United States, total, end of period $\%$ \& 6,393 \& 6,079 \& ${ }^{2} 620$ \& 484 \& 483 \& ${ }^{2} 575$ \& 383 \& 459 \& ${ }^{2} 569$ \& 482 \& ${ }^{2} 595$ \& 435 \& r 603 \& 468 \& 505 \& <br>
\hline thous. running bales. \& 12,890 \& 11,229 \& 9, 525 \& 8.395 \& 7,391 \& 6,285 \& 5,326 \& 15,130 \& 13,976 \& 12,932 \& 12,127 \& 11, 229 \& 10, 066 \& -9,019 \& ${ }^{p} 7,882$ \& <br>
\hline Domestie cotton, total.--...........-....- do-..- \& 12,883 \& 11,220
2 \& 9, 5118 \& 8,388 \& 7,385 \& 6, 281 \& 5,321 \& 15,126 \& 13, 971 \& 12,929 \& 12,124
4

4893 \& 11,226 \& 10,062 \& $$
r 9,016
$$ \& ${ }^{p} 78.878$ \& <br>

\hline On farms and in transit...................do. \& 1,665
10,268 \& 2,316
7,860 \& 1,110 \& 976
6,375 \& 977
5,312 \& 765
4,411 \& 700
3,803 \& 1,606
3,457 \& 950
3,431 \& 6,603
5,312
1,01 \& 4,893 \& 2,316
7,860 \& 1,326

7,687 \& $$
\begin{array}{r}
r \\
r 6,066
\end{array}
$$ \& $\begin{array}{r}\text { p } 749 \\ \hline 6,033\end{array}$ \& <br>

\hline Public storage and compresses. ..........do. Consuming establishments. \& $$
\begin{array}{r}
10,268 \\
950
\end{array}
$$ \& 7,860

1,050 \& 7,398
1,010 \& 6,375
1,037 \& 5,312
1,096 \& 4,411
1,105 \& 3,803
1,118 \& 3,457
1,063 \& 3,431
1,030 \& 5, 312
1,014 \& 6,230
$\mathbf{1 , 0 0 1}$ \& 1,050 \& 1,049 \& r 1,081
r 1,069 \& D
1,
1,096 \& <br>
\hline - Revised. $\quad$ Preliminary. ${ }^{1}$ Annual total; \& visions \& ot alloc \& d to \& e mont \& \& glass \& ontaine \& will be \& shown \& ater. \& $\%$ Inclu \& es data \& not show \& n separ \& tely. \& Stocks <br>
\hline ${ }^{4}$ Dats cover 5 weeks; other months, 4 \& weeks. \& ${ }^{3}$ Crop \& or the \& year 19 \& \& (owne \& d by we \& ving mi \& Is and \& lled and \& held fo \& others) \& xclude \& edsheet \& ng, towe \& ng, and <br>
\hline ${ }^{4}$ Crop for the year 1978. ${ }^{5}$ Beginning 1st Qtr \& 1977, dat \& no long \& er availa \& ble. ${ }^{6}$ \& \& blank \& ding, a \& billed \& and he \& stocks \& of denim \& S. \& Unfilled \& rders \& ver wool \& apparel <br>
\hline ginning 1st Qtr 1977, data exclude garment lengths, \& trimmin \& g , and co \& lars; not \& compara \& \& (inclu \& ding pol \& ester-w \& ol) finis \& ned fabr \& cs; prod \& action a \& nd stock \& exclud \& figures \& for such <br>
\hline with earlier data. (DBales of 480 lbs . OInclud \& des data \& or "dairy \& product \& ." *N \& \& \& d fabric \& Orders \& also ex \& ade beds \& heeting, \& weling \& and bla \& keting. \& $\triangle \mathrm{Cu}$ \& ulative <br>
\hline series. Source BuCensus. Data cover warp and \& d weft kn \& it yard go \& ods and \& nit garm \& ent \& ginni \& gs to en \& of mon \& $h$ indica \& ted. \& Monthl \& revisio \& ns for 19 \& 7 will b \& shown \& ter. <br>

\hline lengths, trimmings, and collars; no quarterly data visions back to 1975 for shipments of clay constructio \& prior to \& 1974 avail \& | able. |
| :--- |
| for Jan | \& | ${ }^{\prime}$ Monthly |
| :--- |
| Mar. 1975 | \& re- \& \& ected \& \& \& \& \& \& \& \& \& <br>

\hline
\end{tabular}

| Unless otherwise stated in footnotes below, data through 1974 and degcriptive notes are as shown in the 1975 edition of Bus | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nor. | Dec. | Jan. | Feb. | Mar. | Apr. |

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{17}{|c|}{TEXTILE PRODUCTS-Continued} \\
\hline \begin{tabular}{l}
COTTON AND MANUFACTURES-Con. \\
Cotton (excluding linters)-Continued
\end{tabular} \& \multirow[b]{4}{*}{\[
\begin{array}{r}
4,448 \\
25 \\
52.1
\end{array}
\]} \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Cotton (excluding inters)--.-.-.thous. running bales.- \& \& \multirow[t]{3}{*}{\[
\begin{array}{r}
8,875 \\
3 \\
\hline 758.5
\end{array}
\]} \& \multirow[t]{3}{*}{704
\(\times(10)\)
\(\times 51.1\)} \& \multirow[t]{2}{*}{\[
\begin{array}{r}
640 \\
040 \\
51.7
\end{array}
\]} \& \multirow[t]{3}{*}{\[
\begin{gathered}
510 \\
(10) \\
53.7
\end{gathered}
\]} \& \multirow[t]{2}{*}{528
1
54.8} \& \multirow[t]{3}{*}{\[
\begin{gathered}
456 \\
(10) \\
56,5
\end{gathered}
\]} \& \multirow[t]{2}{*}{524
0
56.6} \& \multirow[t]{2}{*}{\[
\begin{gathered}
388 \\
(10)
\end{gathered}
\]} \& \multirow[t]{2}{*}{\[
\underset{(10)}{283}
\]} \& \multirow[t]{2}{*}{355
0} \& \multirow[t]{2}{*}{464
0} \& \multirow[t]{2}{*}{\({ }_{(10)}^{517}\)} \& \multirow[t]{2}{*}{577
8} \& \multirow[t]{2}{*}{} \& \multirow[b]{3}{*}{-} \\
\hline Imports...-.-.-.........thous. net-weight(Dbales.. \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Price (farm), American upland 9 ---cents per lb- \& \& \& \& \& \& \& \& \& \& \& 61.1 \& 58.1 \& 56.0 \& 54.2 \& -52.5 \& \\
\hline Price, Strict Low Middling, Grade 41, staple 34 ( \(1118^{\circ}\) ), average 10 markets............cents per lb.. \& 152.7 \& \({ }^{5} 50.8\) \& 55.0 \& 54.7 \& 57.6 \& 57.4 \& 57.0 \& 59.8 \& จ 60.0 \& 64.1 \& 65.6 \& 64.4 \& 61.5 \& 60.6 \& 58.7 \& 58.0 \\
\hline Spindle activity (cotton systern spindles): \& 16.6 \& 16.4 \& 16.5 \& 16.6 \& 16.4 \& 16.3 \& 16.3 \& \& \& \& \& \& \& \& \& \\
\hline Active spindles, last working day, total..... mil.--
Consuming 100 percent \& \(\begin{array}{r}16.6 \\ 6.7 \\ \hline\end{array}\) \& \(\begin{array}{r}16.4 \\ 6.4 \\ \hline 1\end{array}\) \& 16.5
6.5
10.1 \& 16.6
6.6
8.6 \& \(\begin{array}{r}16.4 \\ 8.4 \\ \hline 8\end{array}\) \& 16.3
6.3 \& 16.3
6.4
6.5 \& 16.3
6.3 \& 16.3
6.3 \& \(\begin{array}{r}16.4 \\ 6.3 \\ \hline 8\end{array}\) \& \begin{tabular}{l}
16.4 \\
6.3 \\
\\
\\
\hline
\end{tabular} \& \(\begin{array}{r}16.4 \\ 6.4 \\ \hline\end{array}\) \& +16.4
6.3
¢ \& \(\begin{array}{r}16.4 \\ 6.3 \\ \hline\end{array}\) \& 16.4
6.3 \& \\
\hline Spindle hours operated, all fibers, total.-..--bil. \& 103.6
398 \& 102.4
394 \& \(2 \quad 10.1\)

403 \& \begin{tabular}{l}
8.2 <br>
\hline 413 <br>
\hline

 \& 

8.2 <br>
408 <br>
\hline
\end{tabular} \& 210.0

402 \& \begin{tabular}{l}
6.5 <br>
\hline 327 <br>
\hline 2

 \& 

7.9 <br>
\hline 95
\end{tabular} \& $\begin{array}{r}29.6 \\ \\ \\ \hline 85 \\ \hline 8\end{array}$ \& 8.1 \& 210.0 ${ }^{2}$ \& 7.3 \& 10.1 \& 7.9 \& 6.3

8.3 \& <br>
\hline Average per working day-..............d. do
Consuming 100 percent \& $\begin{array}{r}4398 \\ \hline\end{array}$ \& 41.5 \& $\begin{array}{r}1403 \\ \hline 4.0\end{array}$ \& - 314 \& . 3.3 \& - ${ }^{4} 4.1$ \& - 2.7 \& 395
3.2 \& $\begin{array}{r}\mathbf{3 8 5} \\ \mathbf{3} 3.9 \\ \hline\end{array}$ \& $\xrightarrow{.406}$ \& + ${ }_{4} \mathbf{4 9 9}$ \& 367
2.9 \& $\begin{array}{r} \\ \\ \cdot \\ \cdot \\ \hline 4.2\end{array}$ \& 393
3.1 \& - 413 \& <br>
\hline Cotton cloth: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>

\hline | Cotton broadwoven goods over $12^{\prime \prime}$ in width: |
| :--- |
| Production (qtrly.).........................il. lin. yd.. | \& 4,356 \& 3,986 \& 1,046 \& \& \& 1,010 \& \& \& 913 \& \& \& 1,017 \& \& \& \& <br>

\hline Orders, unfilled, end of period, as compared with avg. weekly production. $\qquad$ No. weeks' prod.. \& ${ }^{8} 11.7$ \& ${ }^{3} 16.1$ \& 14.4 \& 14.0 \& 13.7 \& 13.9 \& 22.7 \& 17.7 \& 17.2 \& 16.6 \& 17.0 \& 21.1 \& 19.4 \& 19.1 \& 18.9 \& <br>

\hline | Inventories, end of period, as compared with avg. weekly production. |
| :--- |
| No. weeks' prod. | \& ${ }^{3} 4.7$ \& 34.9 \& 4.8 \& 4.9 \& 4.8 \& 4.8 \& 5.9 \& 5.2 \& 4.7 \& 5.7 \& 4.3 \& 4.6 \& 4.1 \& 4.0 \& 3.6 \& <br>

\hline Ratio of stocks to unfiled orders (at cotton mills), end of period. \& 3.40
460.1 \& ${ }^{3} 457.90$ \& ${ }^{\mathbf{3 7}}{ }^{33}$ \& .35
35.2 \& $\stackrel{.35}{34.5}$ \& .35
33.0 \& 31. ${ }^{26}$ \& $\stackrel{.99}{35}$ \& $\begin{array}{r}\text {-28 } \\ \hline 37.9\end{array}$ \& - 44.8 \& ${ }_{50.1}^{25}$ \& 50.4 \& ${ }_{45}{ }^{21}$ \& . 21 \& 19 \& <br>
\hline Exports, raw cotton equiv. thous. net-weight(Dbales. Imports, raw cotton equivalent do \& 460.1
525.2 \& 457.9
676.2 \& 37.1
56.7 \& 35.2
68.7 \& 34.5
53.9 \& 33.0
60.6 \& 31.4
60.8 \& 35.9
51.3 \& 37.9
52.1 \& 44.8
62.2 \& 50.1
51.1 \& 50.4
44.1 \& 45.6
54.0 \& 45.4

48.8 \& $$
\begin{array}{r}
56.7 \\
47.5
\end{array}
$$ \& <br>

\hline \multicolumn{17}{|l|}{MANMADE FIBERS AND MANUFACTURES} <br>

\hline \multirow[t]{2}{*}{| Fiber production, qtrly: |
| :--- |
| Filament yarn (acetate) $\qquad$ mil. lb.- |} \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>

\hline \& 282.0
527.0 \& 300.9
534.6 \& 71.5
129.3 \& \& \& 76.3
131.7 \& \& \& 76.9
133.8 \& \& \& 76.2
139.8 \& \& \& \& <br>
\hline \& 3,659.9 \& 3,814.3 \& 909.9 \& \& \& 951.5 \& \& \& 955.5 \& \& \& \& \& \& \& <br>
\hline Noncellulosic, except textile glass: Yarn and monofilaments. \& 3,653.8 \& 3, 358.8 \& 1,002.1 \& \& \& 996.8 \& \& \& ${ }_{952.1} 9$ \& \& \& 1,001.8 \& \& \& \& <br>
\hline \& 786.7 \& 928.3 \& 225.2 \& \& \& 229.1 \& \& \& 233.7 \& \& \& 1, 240.3 \& \& \& \& <br>
\hline Fiber stocks, producers', end of period: \& \& \& 13.1 \& \& \& 11.7 \& \& \& \& \& \& \& \& \& \& <br>
\hline Filament yarn (acetate) --....-.............- do...- \& 49.8 \& $\stackrel{15.4}{ }$ \& 48.8 \& \& \& 46.1 \& \& \& 12.6
37.4 \& \& \& 15.4
28.7 \& \& \& \& <br>
\hline \multirow[t]{2}{*}{} \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \& 353.0
299.7 \& 343.4
335 \& 353.6

306.3 \& \& \& | 336.5 |
| :--- |
| 347 | \& \& \& 334.3 \& \& \& 343.4 \& \& \& \& <br>

\hline  \& 67.9 \& 39.6
97.6 \& 84.5 \& \& \& 89.4 \& \& \& 889.3 \& \& \& 33.6
97.6 \& \& \& \& <br>
\hline \multirow[t]{2}{*}{} \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \& 6,223.6
2,014 \& $6,602.9$
$2,247.4$ \& 1,648.5 \& \& \& ${ }_{566.8}$ \& \& \& 1,528.5 \& \& \& 1,734.5 \& \& \& \& <br>

\hline \multirow[t]{2}{*}{| Chiefly rayon and/or acetate fabrics....do..... |
| :--- |
| Chiefly nylon fabrics |} \& - 371.5 \& 2, 406.4 \& 98.6 \& \& \& 104.6 \& \& \& 99.9 \& \& \& 614.0

103.4 \& \& \& \& <br>
\hline \& 356,9 \& 384.4
3
30.1 \& 78.4
931.8 \& \& \& 100.6 \& \& \& 87.6 \& \& \& 107.8 \& \& \& \& <br>
\hline Chiefly nylon fabrics $\qquad$ do.... Spun yarn (100\%) fab., exc. blanketing \% _do...- \& , 583.2 \& 3,703. ${ }^{3}$ \& 931.8
84 \& \& \& \& \& \& 863.1 \& \& \& 962.0 \& \& \& \& <br>
\hline \multirow[t]{2}{*}{} \& 2,677.1 \& 331.2
$2,593.1$ \& 84.7
660.8 \& \& \& 83.3
662.3 \& \& \& 79.1 \& \& \& 84.1 \& \& \& \& <br>
\hline \& $2,67.1$
359.5 \& 2,393.1 \& 97.5 \& \& \& 97.3 \& \& \& 596.3
89.2 \& \& \& 673.7 \& \& \& \& <br>
\hline Manmade fiber gray goods, owned by weaving mills: \& \& \& 30 \& \& \& 21 \& \& \& \& \& \& \& \& \& \& <br>
\hline Ratio, stocks to unflled orders, end of period.-.
Prices, manufacturer to mir., f.o.b. mill:
$50 / 50$ moly
polyester/carded \& ${ }^{8} .42$ \& ${ }^{3} .22$ \& . 30 \& . 34 \& . 22 \& . 21 \& 21 \& 20 \& . 19 \& . 17 \& r. 19 \& . 18 \& . 20 \& \& \& <br>

\hline $$
48^{\prime \prime}, 3.90 \text { yds. } / \mathrm{b} ., 78554-56
$$ \$ per yd \& . 405 \& . 492 \& . 475 \& . 495 \& . 515 \& . 493 \& . 496 \& . 496 \& . 516 \& . 514 \& . 496 \& . 495 \& . 491 \& . 470 \& . 469 \& . 475 <br>

\hline $65 \%$ poly. $35 \%$ comb. cot. broadcl. $3.0 \mathrm{oz} / \mathrm{sp} \mathrm{yd}$, 45", 128x72, gray-basis, wh. permpresfin.
$\qquad$ \& . 901 \& 6. 76 \& . 729 \& . 751 \& . 763 \& . 780 \& 778 \& . 776 \& .794 \& . 824 \& \& \& \& \& \& <br>
\hline \multirow[t]{2}{*}{Manmade fiker knit fabric prices, f.o.b. mill:**
$65 \%$ acetote $35 \%$ nylon tricot, gray, 32 gauge, $54^{\prime \prime}$} \& \& \& \& \& \& \& . 78 \& . 78 \& . 784 \& . 824 \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \multirow[b]{2}{*}{$100 \%$ textured polyester DK jacquard, 11 oz./} \& . 501 \& ${ }^{7} .458$ \& . 451 \& . 456 \& . 467 \& . 472 \& \& \& \& \& \& \& \& \& \& <br>
\hline \& c 1.708 \& ${ }^{8} 1.657$ \& 1. 658 \& 1.658 \& 1. 651 \& 1.655 \& \& \& \& \& \& \& \& \& \& <br>

\hline \multirow[t]{2}{*}{| Manmade fiber manufactures: |
| :--- |
| Exports, ranmade fiber equivalent...... mil. lbs |} \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>

\hline \& 367.08 \& 441.70 \& 36.83
22.86 \& 35.57
21.50 \& 39.06
23.30 \& 36.63 \& 32.06 \& 35.38 \& 38. 12 \& \& 44. \& 42.88 \& 42.86 \& 43.91 \& 53.20 \& <br>

\hline Exports, Tranrade fiber equivalent..........ido.... \& 206. 34 \& | 267.28 |
| :--- |
| 165 |
| 174 | \& 22.86

13.07 \& 21.50
12.77 \& 23.30
13.24 \& 20.85
13.82 \& 18.62 \& 20.99 \& 23. 29 \& 27.52
16.95 \& ${ }_{17.93}^{27.15}$ \& 26.82 \& 27.30 \& 27.70 \& 33.37 \& <br>
\hline Cloth, woven.......................................... \& ${ }_{160.74}^{131.35}$ \& 165.71
174.42 \& 13.96 \& 14.07 \& 15.24
15.77 \& 13.79 \& 11. 11 \& 12.48 \& 15.12
14.82 \& 16.95
16.16 \& 17.93
17.26 \& 17.72 \& 17.69 \& 16.39 \& 19.37 \& <br>
\hline Manfactured prods., apparel, furnishings do.... \& 531.13 \& 642.59 \& 46. 34 \& 53.87 \& 59.74 \& 67.70 \& 70.41 \& 64.90 \& 58.31 \& 50.47 \& 41.08 \& 37. 54 \& 15.56
47.07 \& 16.20
36.31 \& 19.83
39.06 \& <br>

\hline \multirow[t]{2}{*}{| Yarn, tops, thread, cloth $\qquad$ do $\qquad$ |
| :--- |
| Cloth, woven. $\qquad$ do. $\qquad$ |} \& 110.11 \& 147.55 \& 13. 29 \& 16.11 \& 13.74 \& 12.36 \& 14.13 \& 12.29 \& 11.79 \& 10.24 \& 8.68 \& ${ }_{8.06}$ \& 10.02 \& ${ }^{7.23}$ \& 10.92 \& <br>

\hline \& 67. 70 \& 87.76 \& 7.27 \& 7.85 \& 8.05 \& 7.94 \& 8. 61 \& 8.51 \& 7.85 \& 6. 86 \& 6. 00 \& 4.93 \& 6.88 \& 4.58 \& 6.72 \& <br>
\hline Manufactured prods., apparel, furnishings do-..-- \& 421.02 \& 495.04
425.18 \& 37. 278 \& 37.76
31.08 \& 46.01
40.00 \& 55.34
48.88 \& 56. 28 \& ${ }^{52.61} 4$ \& 46.52 \& 40.23
34.38 \& 32.40
27.49 \& 29.49 \& 37.05 \& 29.08 \& 28.13 \& <br>

\hline  \& 218.68 \& | 425. |
| :--- |
| 212 | \& 15.78 \& 18. 46 \& 25.09 \& 30.40 \& | 29. 34 |
| :--- |
| 2. | \& $\stackrel{48.10}{48}$ \& 40.24

22.92 \& 18.53 \& 13.53 \& 24.58
12.02 \& 31.64
15.64 \& $\stackrel{24.71}{11.72}$ \& 22.87
11.16 \& <br>
\hline WOOL AND MANUFACTURES \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline W ool consumption, mill (clean basis): \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \multirow[t]{2}{*}{Carpet class.....................................................-} \& ${ }_{12.5} 95$ \& 103.3
13.0 \& ${ }^{2} 1.5$ \& 8.8 \& 9.2
1.0 \& $\begin{array}{r}210.3 \\ 1.5 \\ \hline\end{array}$ \& 7.0
.8 \& 8.4 \& 29.4
1.4 \& 8. 1.2 \& 8.1 \& 7.5 \& -10.1 \& 8.2 \& 8.8 \& <br>
\hline \& 53.0 \& 50.4 \& 4.1 \& 4.9 \& 4.0 \& 3.8 \& 4.7 \& 5.4 \& 3.4 \& 4.0 \& 4.8 \& 4.0 \& 4.4 \& 3.4 \& 4.8 \& <br>
\hline \multirow[t]{2}{*}{Duty-free (carpet class) Wool prices, raw, shorn, clean basis, delivered to U.S. mills: $0^{7}$} \& 18.8 \& 23.4 \& 1.4 \& 2.2 \& 1.5 \& 2.0 \& 2.3 \& 2.5 \& 1.9 \& 1.8 \& 1.5 \& 2.0 \& 1.9 \& 1.3 \& 2.2 \& <br>
\hline \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline  \& 1.83 \& 1.90 \& 1.78 \& \& 1.84 \& 1.92 \& 1.92 \& 1.92 \& \& 1.97 \& 2.02 \& \& \& \& \& <br>

\hline \multirow[t]{2}{*}{| Australian, 64's, Type f2, duty-paid $\qquad$ do. W ool broodwoven goods, exc. felts: |
| :--- |
| Production (qtrly.) $\qquad$ mil. lin. yd . |} \& 2.27 \& 2.34 \& 2.31 \& 2.32 \& 2.33 \& 2.36 \& 2.36 \& 2.36 \& 2.36 \& 2.36 \& 2.37 \& 2.37 \& 2.37 \& 2.49 \& 2.65 \& $\stackrel{2.20}{2.73}$ <br>

\hline \& 101.6 \& 116.4 \& 28.2 \& \& \& 31.2 \& \& \& 27.3 \& \& \& 29.8 \& \& \& \& <br>
\hline FLOOR COVERINGS \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Carpet, rugs, carpeting (woven, tufted, other), shipments, quarterly.................................. sq. yds.- \& \multirow[t]{2}{*}{1,024.6} \& 1,075.9 \& 242.6 \& \& \& 281.3 \& \& \& 269.8 \& \& \& 282.2 \& \& \& \& <br>
\hline APPAREL \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline W omen's, misses', juniors' apparel cuttings:* $\oplus$ \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Coats.................................thous. units.- \& 18,083 \& ${ }_{179}^{18,727}$ \& 17,199 \& \& \& 2,011 \& 1,565 \& 2,242 \& 2,126 \& 1,857 \& 11,434 \& 1,001 \& \& 11,206 \& \& <br>
\hline \multirow[t]{2}{*}{} \& $\begin{array}{r}183,702 \\ 36,904 \\ \hline 2\end{array}$ \& $\begin{array}{r}179,078 \\ 27 \\ \hline 856\end{array}$ \& 17,113
3,006 \& 16,653
2
2 \& 16,161
2,338 \& 15, 675 \& 12,430
1,881 \& 15,664
2,418 \& 15, 493 \& 14, 730 \& 14, 883 \& 12,501 \& $\begin{array}{r}\text { r } 11,293 \\ -2,844 \\ \hline 2871\end{array}$ \& 11,650 \& \& <br>
\hline \& 36,904
23,507 \& 27,856
27,893 \& 3,006
2,610 \& 2,502
2,135 \& 2,338
2,353 \& $\xrightarrow{2,164}$ \& 1,881
1,862 \& 2,418
2,662 \& 2,175
2,452 \& 1,953
2,867 \& 2,247
2,433 \& 1,877
1,883 \& 「2,844
$\cdot 2,710$ \& 2,461
2,650 \& \& <br>
\hline Blouses.............................thous dozen.- \& - ${ }_{\text {5,260 }}$ \& 6,414 \& ${ }^{2,615}$ \& - ${ }_{515}$ \& +6, 612 \& 2, 535 \& 1,862
475 \& 2,662
580 \& 2,452

532 \& 1,867
561 \& 2,433 \& 1,883 \& $+2,710$
$r$ \& 2, 650 \& \& <br>
\hline ${ }^{1}$ Revised. Preliminary. ${ }^{1}$ Season average. \& \multicolumn{5}{|l|}{: For 5 weeks, other months, 4 weeks.} \& \multicolumn{11}{|l|}{\multirow[t]{2}{*}{combing and staple have been changed as shown above. Effective with the May 1976 SUrver}} <br>
\hline \multicolumn{6}{|l|}{\multirow[t]{2}{*}{${ }^{2}$ Monthly average. ${ }^{4}$ Effective Sept. 1976 SURVEY, data omit production and stocks of saran and spandex yarn. ${ }^{5}$ Effective 1976, production of blanketing is included in $100 \%$}} \& \multicolumn{11}{|l|}{\multirow[t]{2}{*}{the foreign wool price is quoted including duty. ${ }^{\text {a }}$ (New series. Apparel (BuCensus)-}} <br>
\hline \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \multicolumn{6}{|l|}{spun yarn fabric (prior to 1976, in "all other group," not shown separately). ${ }^{\text {B A Vg. for }}$} \& \multicolumn{11}{|l|}{\multirow[t]{2}{*}{monthly estimates, from smaller sample. Monthly data for 1975, adjusted to annual totals, are available Coats exclude all fur leather, and raineosts. Suits omit garments purchased}} <br>

\hline \multicolumn{6}{|l|}{\multirow[t]{5}{*}{| Jall.-Oct. Avg. for Feb.-Jun. ${ }^{3}$ Avg. for Jan-Jun. ${ }^{9}$ Effective Jan. 1, 1978, in$p$ price reflects sales as of the 15 th; restated $r$ price reflects total quantity purchased and dollars paid for entire month (r price includes discounts and premiums). F Includes data not shown separately. |
| :--- |
| (1) Net-weight ( $480-\mathrm{lb}$.) bales. |
| $\sigma^{\circ}$ Effective Jan. 1976, specifications for the price formerly designated fine good French |}} \& \& \& \& \& \& \& \& \& \& \& <br>


\hline \& \& \& \& \& \& \multicolumn{11}{|l|}{\multirow[t]{2}{*}{| are available. Coats exclude all fur, leather, and raincoats. Suits omit garments purchased separately as coordinates. Except for the year 1974, earlier monthly data are available, except for suits. Prices (USDL, BLS)-Data not available prior to 1976. |
| :--- |
| $\oplus$ Effective Apr. 1979 |}} <br>

\hline \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \multicolumn{11}{|l|}{\multirow[t]{2}{*}{SURVEX, data include 600 additional firms; comparable data back to Jan. 1977 will be shown later. A Avg. for Jan-Apr.; June-Dec. b Avg. for sales prior to Apr. 1, 1979.}} <br>
\hline \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline
\end{tabular}

| Unless otherwise stated in footnotes below, data through 1974 and descriptive notes are as shown in the $\mathbf{1 9 7 5}$ edition of BUSINESS STATISTICS | 1977 | 1978 | 1978 |  |  |  |  |  |  |  |  |  | 1979 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual |  | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |

## TEXTILE PRODUCTS—Continued

| APPAREL-Con. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men's apparel cuttings: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ${ }^{\text {a }} 17$, 15 , 627 | 23,050 16,029 | 1,612 | 1,488 | 1,543 1,575 | 1,550 | 908 900 | 1,437 1,501 | 1,403 1,698 | 1,621 | $\xrightarrow{1,516} 1$ | ${ }_{7}^{11,267}$ | 1,416 | 1,302 |  |  |
| Trousers (eparate), dress and sporif.......do..... | 124,674 | 112, 750 | 10,408 | 9,156 | ${ }_{9}^{1,282}$ | 8,807 | 5,658 |  |  |  |  | ${ }_{r} \mathrm{r}, 156$ |  |  |  |  |
| Slacks (jean cut), casual $\ddagger$.-........thous. doz.- | 14,627 | 13,500 | 1, 219 | 1,166 | 1,123 | 1,197 | 739 |  |  |  |  | 1,050 |  |  |  |  |
| Shirts, dress, sport, inc. knit outerwear $\ddagger$...do-..- | - 438,445 | - ${ }_{267,887}$ | 3,737 21,859 | - $\begin{array}{r}3,502 \\ 21,183\end{array}$ | - $\begin{array}{r}3,634 \\ 22,541\end{array}$ | 3,853 24,987 | 2,684 22,044 | 3, $\begin{array}{r}3,77 \\ 24,569\end{array}$ | 23, ${ }^{4,064}$ | 3 34,789 24 | - $\begin{array}{r}\text { 3,421 } \\ 24,062\end{array}$ | 12,510 20.383 | 2,979 20,584 | 3,105 22,075 |  |  |
|  | 248, 144 |  | 21,859 | 21,183 | 22,541 | 24,987 | 22,044 |  | 23,664 | 24,889 |  | 20.383 | 20,584 | 22,075 | 23,928 |  |

TRANSPORTATION EQUIPMENT

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline AEROSPACE VEHICLES \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Orders, new (net), qtrly, total...............mil. \$.. \& 38,922 \& 49,937 \& 10,807 \& \& \& 11,632 \& \& \& r 10,491 \& \& \& 17,007 \& \& \& \& \\
\hline  \& 22,682 \& 26,769 \& 5,567 \& \& \& 7,566 \& \& \& - 5,024 \& \& \& 8,612 \& \& \& \& \\
\hline  \& 35,478 \& 46, 602 \& 10,084 \& \& \& 10,774 \& \& \& -9,330 \& \& \& 16, 414 \& \& \& \& \\
\hline Sales (net), receipts, or billings, qtrly, total.... do \& 33, 315 \& 37, 471 \& 8.511 \& \& \& 9,331 \& \& \& - 9,298 \& \& \& 10,331 \& \& \& \& \\
\hline  \& 20,704 \& 21, 961 \& 5,093 \& \& \& 5,622 \& \& \& - 5,364 \& \& \& 5,882 \& \& \& \& \\
\hline Backlog of orders, end of period ¢ ............-do \& 45,309 \& 57,775 \& -47,605 \& \& \& 49,906 \& \& \& \% 51,099 \& \& \& 57, 775 \& \& \& \& \\
\hline  \& 26, 119 \& 30, 937 \& 25, 843 \& \& \& 28,537 \& \& \& + 28,207 \& \& \& 30,937 \& \& \& \& \\
\hline Aircraft (complete) and parts...-............do. \& 19,709 \& 27,929 \& 20,330 \& \& \& 23,193 \& \& \& - 23,600 \& \& \& 27,929 \& \& \& \& \\
\hline Engines (aircraft) and parts..................do....- \& 5,354 \& 5,857 \& 5,192 \& \& \& 5,425 \& \& \& r 4,901 \& \& \& 5,857 \& \& \& \& \\
\hline Missiles, space vehicle systems, engines, propulsion units, and parts...........................il. \$. \& 6,743 \& 7,604 \& 6,163 \& \& \& 6,917 \& \& \& r 7,233 \& \& \& 7,604 \& \& \& \& \\
\hline Other related operations (conversions, modifications), products, services........................mil. \$.- \& \({ }^{5} 5,635\) \& 7,913 \& 6,936 \& \& \& 6,561 \& \& \& - 7,419 \& \& \& 7,913 \& \& \& \& \\
\hline Aircraft (complete): \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline \begin{tabular}{l}
Shipments \(\qquad\) do. \\
Airframe welght \(\qquad\) thous. lb.-
\end{tabular} \& \(4,700.9\)
47,647 \& 6451.8
60,170 \& 478.5
4,287 \& 436.2
3,902 \& 434.8
5,113 \& 662.2
6,293 \& 469.1
4,959 \& 564.1
5,844 \& 679.1
6,071 \& 573.6
5,490 \& \(\mathbf{7 5 2 . 0}\)
\(\mathbf{5 , 6 5 2}\) \& 744.7
6,331 \& - \(7 \times 51.0\) \& \begin{tabular}{l}
576.7 \\
5,104
\end{tabular} \& 1,112.8 \& \\
\hline  \& 2,605 \& - 3,589 \& 172 \& \({ }^{3} 210\) \& \({ }^{5} 165\) \& - 275 \& - 248 \& \({ }^{\text {, }} 379\) \& \({ }^{356}\) \& \({ }_{423}\) \& -504 \& 650 \& 524
4 \& \(\stackrel{484}{ }\) \& \& \\
\hline MOTOR VEHICLES (NEW) \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Passenver cars: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Factory sales (from U.S. plants), total....thous.. \& 9,199 \& 9, 165 \& 809 \& 869 \& 919 \& 886 \& 589 \& 528 \& 738 \& 894 \& 842 \& 660 \& 727 \& 699 \& 867 \& 2723 \\
\hline Domestic.-.---......-.......--........-dio...- \& 8, 511 \& 8, 494 \& +842 \& 806 \& 850 \& 821 \& 553 \& 492 \& 676 \& 828 \& 784 \& 604 \& 675 \& 644 \& 790 \& \\
\hline Retail sales, total, not seasonally adj....... do \& 11,185 \& 11,311 \& 1,078 \& 1,043 \& 1,159 \& 1,137 \& 930 \& 958 \& 828 \& 1,034 \& 909 \& 769 \& 784 \& 840 \& 1,116 \& p 987 \\
\hline Domestics \(\triangle\).-.-..........................-do \& 9,109 \& 9,312 \& 883
195 \& 863 \& 963 \& 950 \& 762 \& 753 \& 662 \& 884 \& 770 \& 646 \& 645 \& 676 \& 865 \& 764 \\
\hline Imports \(\triangle\)-... \& 2,075 \& 2,000 \& 11.8 \& 180 \& 196 \& 187
118 \& 168 \& 205
119 \& 166
10.8 \& 150 \& 139 \& 123 \& 138
11.0 \& 164 \& 251 \& \({ }^{p} 223\) \\
\hline Total, seas, adjusted at annual rate \(\dagger\).----.-. - \({ }_{\text {do }}\) Domestics \(\triangle\). \& \& \& 11.8
9.8 \& 12.3
10.2 \& 12.1
10.0 \& 11.8
9.7 \& 11.0
9.1 \& 11.9
9.9 \& 10.8
8.9 \& 11.1 \& 11.0
9.0 \& 11.2
9.4 \& 11.0
9.0 \& 11.4
9.1 \& 12.6
9.8 \& p 11.1 \\
\hline  \& \& \& 9.8
2.1 \& 10.2
2.1 \& 10.0
2.1 \& 9.7
2.0 \& 9.1
1.9 \& 9.9
2.0 \& 8.9
1.9 \& 9.2
1.9 \& 9.0
2.0 \& 9.4
1.8 \& 9.0
2.0 \& 9.1
2.2 \& 9.8
2.7 \& 8.6
\(>2.6\) \\
\hline Retall inventories, end of mo., domestics: \(\triangle\) \& \& \& \& 2.1 \& \& 2.0 \& 1.9 \& 2.0 \& \& 1.9 \& \& 1.8 \& \& 2.2 \& 2.7 \& \\
\hline Not seasonally adjusted.................- thous. \& 1,731 \& 1,729 \& 1,991 \& 2,008 \& 1,970 \& 1,911 \& 1,729 \& 1,510 \& 1,606 \& 1,629 \& 1,728 \& 1,729 \& 1,885 \& 1,957 \& 1,974 \& 1,914 \\
\hline  \& 1,784 \& 1,780 \& 1,866 \& 1,877 \& 1, 818 \& 1,721 \& 1,694 \& 1,655 \& 1,678 \& 1,737 \& 1,777 \& 1,780 \& 1,819 \& 1,851 \& 1,846 \& 1,780 \\
\hline Inventory-retail sales ratio, domestics \(\triangle \dagger\).... \& 2.3 \& 2.3 \& 2.3 \& 2.2 \& 2.2 \& 2.1 \& 2.2 \& 2.0 \& 2.3 \& 2.3 \& 2.4 \& 2.3 \& 2.4 \& 2.4 \& +2.3 \& 2.5 \\
\hline Exports (BuCensus), assembled cars......thou \& 697.20 \& \({ }^{6} 695.12\) \& 62.84 \& 70.48 \& 69.32 \& 70.63 \& 45.83 \& 36.11 \& 61.60 \& 66.74 \& 58.73 \& 52.03 \& 49.77 \& 64.49 \& 73.17 \& \\
\hline To Canada-.................................do \& 591.51 \& - 540.90 \& 49.56 \& 57.21 \& 57.92 \& 58.20 \& 33.75 \& 25.95 \& 46.61 \& 50.06 \& 43.19 \& 38.36 \& 27.62 \& 42.92 \& 57. 67 \& \\
\hline Imports (BuCensus), complete units ....-. do \& 2,791. 3 \& \({ }^{6} 2,881.8\) \& 299.1 \& 310.1 \& 266.5 \& 281.4 \& 236.8 \& 198.3 \& 212.3 \& 232.8 \& 230.5 \& 244.3 \& + 269.1 \& 216.2 \& 223.2 \& \\
\hline From Canada, total \& 849.2 \& 6832.7 \& 78.9
380 \& 78.1 \& 73.5 \& 86.8 \& 47.6 \& 41.1 \& 78.3 \& 77.2 \& 80.2 \& 74.3 \& 71.8 \& 62.1 \& 71.5 \& \\
\hline Registrations९, total new vehicles........... do \& \({ }^{1} 10,826\) \& 10,946 \& 3870
3
3 \& 4916 \& 4987 \& \({ }^{3} 1,053\) \& \({ }^{4} 1,062\) \& 3 1, 061 \& 4887 \& 4866 \& 4826 \& 4949 \& \(\begin{array}{r}77754 \\ \hline 7132\end{array}\) \& \({ }^{5} 763\) \& 7913 \& \\
\hline Imports, incl. domestically sponsored.-.-.do \& 11,977 \& 1,946 \& \({ }^{3} 163\) \& -162 \& 4162 \& \({ }^{3} 166\) \& 183 \& \({ }^{1} 198\) \& 4185 \& 4149 \& 4140 \& 4158 \& \({ }^{7} 132\) \& \({ }^{5} 150\) \& 7202 \& \\
\hline Trucks and buses: \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Factory sales (from U.S. plants), total....thous. \& 3,440 \& 3,706 \& 341 \& 319 \& 338 \& 355 \& 272 \& 281 \& 305 \& 366 \& 330 \& 290 \& -312 \& 298 \& 354 \& \({ }^{2} 269\) \\
\hline Domestic........-.................-......do. do..- \& 3,178 \& 3,415 \& 311 \& 291 \& 309 \& 324 \& 254 \& 266 \& 281 \& 337 \& 305 \& 266 \& 288 \& 273 \& 326 \& \\
\hline Retail sales, seasonally adjusted:* \& \& \& 292.2 \& 301.4 \& \& 315.5 \& \& \& 261.5 \& \& 309.0 \& \& 299.5 \& \& \& \\
\hline Medium-duty, 14,001-26,000 lbs. GVW \& 3,145.0 \& \(3,547.2\)
164.5 \& 15.1 \& 14.5 \& 303.3
14.2 \& 315.5
14.3 \& 297.7 \& 314.8
11.3 \& 261.5
12.6 \& 308.5
13.5 \& 309.0
13.8 \& 301.0
14.9 \& 299.5
14.5 \& 283.3
+15.3 \& 14.7 \& \\
\hline Heavy-duty, \(26,001 \mathrm{lbs}\). and over GVW..do. \& 169.1 \& 202.3 \& 17.9 \& 16.4 \& 16.7 \& 17.3 \& 18.0 \& 16.8 \& 17.2 \& 17.3 \& 16.8 \& 17.9 \& 19.5 \& + 20.7 \& 19.7 \& \\
\hline Retail inventories, end of period, seasonally adjusted* thous. \& 716.1 \& 763.9 \& 719.7 \& 721.1 \& 702.9 \& 679.9 \& 661.0 \& 641.0 \& 664.7 \& 694.2 \& 732.2 \& 773.9 \& 816.1 \& 847.0 \& 921.7 \& \\
\hline Exports (BuCensus), assembled units...-.-.do...- \& 202.55 \& 6 248.43 \& 21.72 \& 22.86 \& 22.74 \& 24.24 \& 18.05 \& 16.58 \& 22.18 \& 24.90 \& 21.73 \& 21.24 \& 17.53 \& - 25.13 \& 25.80 \& \\
\hline Imports (BuCensus), including separate chassis and bodies. \(\qquad\) thous.- \& 822.43 \& \({ }^{\circ} 1,035.68\) \& 103.13 \& 96.87 \& 92.12 \& 97.00 \& 85.88 \& 63.80 \& 76.23 \& 83.21 \& 90.77 \& 75.85 \& 93.20 \& 70.09 \& 70.43 \& \\
\hline Registrations \(\odot\), new vehicles, excluding buses not produced on truck chassis. thous. \& 3,509 \& 3,963 \& \({ }^{3} 306\) \& 4320 \& \({ }^{4} 342\) \& \({ }^{3} 357\) \& \({ }^{4} 386\) \& \({ }^{3} 396\) \& \({ }^{4} 335\) \& \({ }^{4} 305\) \& \({ }^{4} 314\) \& \({ }^{4} 361\) \& \({ }^{7} 282\) \& \({ }^{5} 275\) \& 317 \& \\
\hline Truck trailers and chassis, complete (excludes detachables), shipments. number.. \& 159, 297 \& + 194,976 \& [17,601 \& r 15,449 \& r 17,585 \& 16,884 \& - 13,896 \& r 17,245 \& \({ }^{\mathrm{r}} \mathrm{r}\) 15,813 \& - 17,953 \& r 17,733 \& - 17,914 \& 15,808 \& 16, 579 \& \& \\
\hline  \& 98,687 \& 128,566 \& [ \(\begin{array}{r}11,733 \\ \text { r }\end{array}\) \& + \(\begin{array}{r}10,000 \\ r\end{array}\) \& - 11,230 \& r 11,047 \& -8,923 \& - 11,665 \& r 10,404 \& - 12,031 \& - 12,424 \& -12,505 \& 10, 321 \& 10,776 \& \& \\
\hline Trailer bodies (detachable), sold separately...do....- \& 7,193 \& - r 6,468 \& + \(\begin{array}{r}\text { r } 616\end{array}\) \& +375
+3026 \& +663
\(r\) \& r 576
+2706 \& +493
+29 \& \(\begin{array}{r}\text { r } \\ \hline\end{array}\) \& r
\(\mathbf{1} 718\) \& r
1
294 \& \({ }^{\text {r }} 624\) \& \({ }_{-}{ }^{\text {r }} 622\) \& 706
1.633 \& - 800 \& \& \\
\hline Trailer chassis (detachable), sold separately --do....- \& 20,662 \& - 29,775 \& ¢ 3,581 \& + 3,026 \& r 2,846 \& +2,706 \& r 2,304 \& 3,170 \& 1,718 \& 1,795 \& 1,993 \& -1,674 \& 1,633 \& 1,139 \& \& \\
\hline RAILROAD EQUIPMENT \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Fralght cars (new), for domestic use; all rallroads and private car lines (excludes rebullt cars and cars for export): \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline  \& 51,729 \& 67,440 \& 4,874 \& 4,702 \& 5,843 \& 6,893 \& 4,753 \& 6,697 \& 5,942 \& 6,465 \& 6,733 \& 6,827 \& 6,048 \& 7,030 \& 8,296 \& \\
\hline Equipment manufacturers....................do. \& 46, 664 \& 62,400 \& 4,489 \& 4,351 \& 5,644 \& 6,113 \& 4,351 \& 6, 198 \& 5, 533 \& 6.174 \& 6,461 \& 6, 524 \& 5,667 \& 6,619 \& 7,787 \& \\
\hline  \& 166.750 \& 125,307 \& 4,346 \& 10,258 \& 16,907 \& 14,815 \& 11,599 \& 13, \(5^{56}\) \& 10,561 \& 9,010 \& 8,802 \& 12,727 \& 15,236 \& 14,506 \& 14,801 \& \\
\hline Equipment manufacturers \& 159.557 \& 124, 862 \& 4,346 \& 10,008 \& 16,907 \& 14,815 \& 11, 265 \& 13, 086 \& 8,911 \& 9,010 \& 8,302 \& 11, 827 \& 14,736
104,818 \& 14,506 \& 14,801 \& \\
\hline Unfilled orders, end of period .-.............do..... \& 35,910 \& 96, 255 \& - 39,574 \& 50, 943 \& 61, 802 \& 69,298 \& 75, 461 \& 82, 733 \& 87,200 \& 87, 605 \& 91,773 \& 96, 255 \& 104,818 \& 113,049 \& 119,312 \& \\
\hline Equipment manufacturers...-.-......-...-do....- \& 29,490 \& 89,944 \& - 33,891 \& 44,861 \& 55, 919 \& 64, 195 \& 70, 426 \& 78, 197 \& 81, 423 \& 82, 119 \& 86,059 \& 89,944 \& 98,388 \& 107,030 \& 113,802 \& \\
\hline \begin{tabular}{l}
Freight cars (revenue), class 1 railroads (AAR):§ \\
Number owned, end of period \\
thous
\end{tabular} \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline Number owned, end of period. Held for repairs, \(\%\) of total owned..................................... \& 1,267
8.9 \& 1,225 \& \(\begin{array}{r}1,247 \\ 9.5 \\ \hline 18\end{array}\) \& 1,247 \& 1,245
9.3 \& 1,242
9.3 \& 1,239
9.0 \& 1,239
8.9 \& 1,232
8.8

1 \& 1,231 \& 1,228
8.1 \& 1,225
7.9 \& 1,222
7.9 \& 1,219
8.0 \& 1,219
8.0 \& <br>
\hline Capacity (carrying), total, end of mo...mil. tons.- \& 96.64 \& 93.96 \& 94.47 \& 94.45 \& 94. 38 \& 94.30 \& 94. 20 \& 94.38 \& 94.05 \& 94.18 \& 94.04 \& 93.96 \& 93.80 \& 93.58 \& 93.69 \& <br>
\hline Average per car................................tons.- \& 75.50 \& 76.68 \& 75.74 \& 75. 73 \& 75.83 \& 75.94 \& 76.04 \& 76. 20 \& 76.31 \& 76.50 \& 76.61 \& 76.68 \& 76. 76 \& 76. 76 \& 76.88 \& <br>
\hline
\end{tabular}

Revised. ${ }^{p}$ Preliminary. ${ }^{1}$ Annual total includes revisions not distributed by ${ }_{8}$ months. ${ }^{2}{ }^{2}$ Productudes 3 States. ${ }^{2}$, neginning 1978 sales. ${ }^{3}$. Excludes 2 States. ${ }^{4} 4$ Excludes 1 State. ${ }^{5}$ Excludes 3 States. ${ }^{6}$ Beginning 1978, data may not be strictly comparable
earlier years because of the revised export sehedule.


o Total includes backlog for nonrelated products and services and basic research.
tSeas. adj. data (1971-74) in the Mar 1976 SURVEY, p. 5, do not reflect end-digit revisions to
imports and total sales introduced in the Feb. 1977 SURVEY
$\Delta$ Domestics include U.S.-type cars produced in the United States and Canada; imports
cover foreign-type cars and captive imports, and exclude domestics produced in Canada. ©Courtesy of R. L. Polk \& Co.: republication prohibited
§Excludes railroad-owned private refrigerator cars and private line cars.
\&New series. Source: Motor Vehicle Manufacturers Assn. of the U.S. (seas. adjustment New series. Source: Motor Vehicle Manuracturers Assin. of the .S. (seas. adjust ment by BEA. Reporting firms do not represent the entire industry. Motor caches are ned).
covered. Sales include imports of U.S. manufactures only (all other imports are not overed.
Units refer to complete vehicles and to chassis sold separately. Gross vehicle weight refers to the weight of the vehicle with full load. Seasonally adjusted monthly data back to 1971 are available. a Excludes leisure-type; not strictly comparable with 1974.

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Official BuSiness

In the first quarter

- Real GNP increased $1 / 2$ percent
- GNP fixed-weighted price index increased $9^{\frac{1}{2}}$ percent
- Real disposable personal income increased 3 percent

Real GNP


Disposable Personal Income


GNP Prices


Corporate Profits With IVA and CCAdj



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[^1]:    6. For discussion of these differences, see the article by Green, and footnote 20.
[^2]:    7. The household survey estimate of workers with secondary jobs differs conceptually from the number of secondary jobs counted by the payroll survey for two reasons. First; some workers hold three or more nonagricultural wage and salary jobs outside private households, and the third and subsequent jobs are omitted from the number of workers with secondary jobs. In July 1958, the household survey found that 7 percent of all multiple jobholders held three or more jobs (Census Bureau, Current Population Reports Series P-50, No. 88, "Multiple Jobholding; July 1958," 1959.) Second, some workers with secondary jobs are absent without pay from their secondary job or jobs during the survey period; the payroll survey does not count such jobs. The July 1957 household survey indicated that about 13 percent of multiple jobholders were absent without pay from their secondary job or jobs. (Census Bureau, Current Population Reports, Series P-50, No. 80, "Multiple Jobholding: July 1957," 1958.)
    1957," 1958.)
    8. The standard error was about $60-80,000$ for each of the estimates in the series. Response error may have been substantial: Whether, in a sample household, the survey counted a multiple jobholder, and whether the multiple jobholder's main secondary job was correctly identified as a nonagricultural wage and salary job may have depended in some cases on which household member responded to the questions of the interviewer, and whether the interview was conducted in person or over the telephone. For discussion of response error in the household survey, see Alfred Tella, "Cyclical Behavior of Bias-Adjusted Unemployment," Methods for Manpower Analysis No. 11, W. E. Upjohn Institute for Employment Research, 1976; and Census Bureau, The Current Population Survey Reinterview Program, January 1961 Through December 1966, Technical Paper No. 19, 1968. Of course, the statistical errors discussed in section 4 of this article also affected to some extent the household survey estimate of workers with secondary jobs.
[^3]:    9. The series declined 13 percent, or about 270,000 , from July 1957 to July 1958, increased 6 percent, or about 100,000 , from December 1959 to December 1960, declined 2 percent, or about 60,000 , from May 1969 to May 1971, and increased 3 percent, or about 70,000, from May 1974 to 1975.
    10. The irregular timing of the surveys before 1962 and possible seasonal variation in the number of secondary jobs may affect the observed changes in the number of workers with secondary jobs. Beginning with 1962 , surveys were taken in May of every year except $1967-68$, when no survey was taken. In 1970, a second survey was taken in November.
[^4]:    11. Service-producing industries include government, and it is not possible to state the exact percentage of workers who held their main secondary job in government, because the household survey data do not identify government workers. However, on the basis of data on workers with secondary jobs in two industries that are entirely or largely governmentali.e., public administration and educational services-it appears that the percentage of workers with secondary jobs who held their main secondary job in government was no larger in May 1977 than the percentage of employees on nonagricultural payrolls who worked in government. Bureau of Labor Statistics, Special Labor Force Reporl 211, "Multiple Jobholders in May 1977," 1978.
    12. This estimate is based on a mail survey of Air Force members taken by the Air Force in August 1975. Among respondents stationed in the United States, 17 percent of the enlisted men and 5 percent of the officers held "a second job." I assume that the same proportions of all Armed Forces members stationed on shore in the United States in August 1975 held second jobs. Majors G. C. Saul Young and Charles M. McNichols, United States Air Force, personal communication to author.
[^5]:    13. There is one exception; For Federal employees, the payroll survey uses the Civil Service Commission count, which includes all regular employees who were on the payroll on the last day of the month, plus a small number of intermittent employees who were on the payroll at any time during the month.
    14. Bureau of Labor Statistics, Pay Period Practices of American Industry, 1954, and Area Wage Surveys: Metropolitan Areas, United States and Regional Summaries, 1969-70, Bulletin 1660-92, 1972, and data from the American Management Association and Census Bureau.
[^6]:    15. Job tenure data indicate that the percentage of workers who have held their jobs for 6 months or less is smaller for workers in State and local government and for office and supervisory workers in the private sector-for whom biweekly and longer pay periods predominate-than for other nonagricultural wage and salary workers. Bureau of Labor Statistics, Special Labor Force Report 172, "Job Tenure of Workers, January 1973." 1975
[^7]:    estimates is relatively high, because they are based on few sample cases; for examrle, the standard error on the May 1969 estimate was almost 10,000 . Also, there may have been response error. Data from unpublished BLS tabulations.

[^8]:    21. The CWHS counts wage and salary jobs covered by Social Security, which are largely but not entirely the same as those covered by the payroll survey. Thus, the CWHS includes some agricultural and private household jobs, and excludes all railroad jobs, most Federal Government jobs, and some State and local government and nonprofit organization jobs.
    As a measure of job changing in covered employment, the CWHS series on jobs per worker has three limitations; none
[^9]:    23. When the length of time it takes to find a new job falls, the number of job changers who leave one job to start another one in the same calendar week may increase. Such persons are not excess job changers, because the intermittent household surveys identify them as multiple jobholders. However, the intermittent surveys indicate that few workers change jobs during the calendar week (see footnote 18), and I assume that cyclical changes in the number of such persons are too small to significantly affect the analysis presented in the text.
[^10]:    24. For a description of the survey methodology, see Seymour Wolfbein, Establishment Reporting in the United States, Background Paper No. 2, National Commission on Employment and Unemployment Statistics, 1978; and Bureau of Labor Statistics, BLS Handbook of Methods for Surveys and Studies, Bulletin 1910, 1976.
    25. There were no benchmarks in 1958, 1960, and 1972. The payroll series used in this article is benchmarked for
[^11]:    March 1977. See Michael Buso and William C. Bennett, Jr., "BLS Estimates Revised to Reflect New Benchmark Levels and 1972 SIC," Employment and Earnings, October 1978.

[^12]:    26. Evidence of some UI tax evasion came to light in the period following the 1972 extension of UI coverage to employers of fewer than four workers, when BLS found that some small firms that were previously covered by UI laws but had not filed ES-202 returns began reporting many hundreds of thousands of workers. BLS attributes the increase to the fact that the new UI law was more nearly selfpolicing than the old one. A UI claim now triggers an investigation if State officials cannot find the worker's former employer in their records• before 1972 this was not the case, because the State officials could not be sure whether the employer was covered by the UI law.
    UI tax evasion would, of course, have no effect on DIFF if respondents systematically lied to household survey interviewers, telling them that such workers in their households are not employed. However, it is implausible that respondents thus conceal all, or even most, workers on whom employers do not pay UI taxes.
[^13]:    27. Irwin Ross, "Why the Underground Economy is Booming," Fortune, October 9, 1978, pp. 92-98.
    28. An analysis of ES-202 returns indicates that, from March 1974 to March 1975, the increase in the number of jobs concealed by tax-evading firms cannot have been very large. In goods-producing industries, which accounted for the entire employment decline, total ES-202 employment declined 10.4 percent, or $2,559,000$, but establishments with fewer than 20 workers-for which one would expect the rate of tax evasion to be much higher than for larger establish-ments-reported an employment decline of only 4.8 percent, or 135,000 . In private service-producing industries, where small firms account for a larger share of employment, total ES-202 employment increased 0.5 percent, or 193,000 , but establishments with fewer than 20 workers reported an em ployment increase of 1.5 percent, or 166,000 . (Employment and
[^14]:    Wagcs: First Quarter 1974, and Employment and Wages: First Quarter 1975 (Based on the 1967 S.I.C.)). The smaller decline and the larger increase in the small establishments indicates that the increase in tax evasion there cannot have been very large. Of course, the true employment decline in the small goods-producing establishments could have been less than 4.8 percent, and the true employment increase in the small service-producing establishments could have been more than 1.5 percent, but 1 know of no evidence or line of reasoning that would suggest that this was the case.
    29. For example, a few employers apparently misunderstand the instructions in the ES-202 report, and state the number of workers who worked or were absent with pay at any time during the quarter, or include workers who were absent without pay. Error may also arise in the processing of the collected data, or in imputations that State agencies make for late reporters.
    30. This analysis assumes that cyclical exaggeration between benchmarks has not been masked by countercyclical fluctuations in uncovered employment.

[^15]:    31. The seasonally unadjusted differences are low in the second and third quarter. This seasonal pattern may reflect, at least in part, a tendency for the payroll survey panel to miss recreational and resort establishments that only exist, or are only active, in summer.
    32. Carol Utter, "BLS Establishment Estimates Revised to March 1973 Benchmark Levels," Employment and Earnto March 1973 Benchmark Levels," Employment and Earnings, December 1974.
[^16]:    35. As used in this section, the term "official" refers to household survey employment and population estimates that are either published or that are unpublished but consistent with published estimates.
[^17]:    36. More specifically, the Census Bureau ascertains the ratios, to CNIP, of nonagricultural wage and salary employment and of each of the adjustment items that I use to compute ANWBW.
[^18]:    37. The implications of the two errors for the accuracy of the household survey employment and unemployment estimates (but not for changes in these estimates) were examined by Robert Yuscavage, David Hirschberg, and Fritz Scheuren in "The Impact on Personal and Family Income of Adjusting the Current Population Survey for Undercoverage," Proceedings of the Social Statistics Section, 1977, American Statistical Association, pp. 70-80; and by Denis F. Johnston and James R. Wetzel in "Effect of the Census Undercount on Labor Force Estimates," Monthly Labor Review, March 1969, pp. 3-13. Unlike the present article, the the study by Johnston and Wetzel implicitly assumed that undercoverage is quantitatively equal to control total error and that the characteristics of persons missed by the sample are precisely the same as those of persons missed by the consus.
[^19]:    38. It should be noted that the official control totals are never revised. Accordingly, official CNIP, as the term is used in this article, is not consistent with revised population estimates that the Census Bureau publishes when more accurate mortality and net immigration become available, or when the next decennial census is taken.
    39. Census Bureau, Estimates of Coverage of Population by Sex, Race, and Age: Demographic Analysis, PHC(E)-4, 1974; Census Bureau, Current Population Reports, Series P-23, No. 56, "Coverage of Population in the 1970 Census and Some Implications for Public Programs," 1975. In a detailed review of Siegel's estimates, Fay concluded that for whites the undercount was 800,000 larger than Siegel estimated, but that the confidence interval around his own estimate encompassed Siegel's estimate. Robert E. Fry III, Statistical Considerations in Estimating the Current Population of the United States, unpublished Ph.D. dissertation, University of Chicsgo, 1974.
    40. Migration is the principal factor that the Census Bureall cannot reliably quantify. See appendix $D$ of this article.
[^20]:    44. The sample is designed, in principle, to include units enumerated in the decennial census, units overlooked in the census, and units constructed after the census. For a brief discussion of design flaws that cause the sample, in practice, to miss some of these housing units, see appendix B. For descriptions of the sample design, see Marvin M. Thompson and Gary Shapiro, "The Current Population Survey: An Overview," Annals of Economic and Social Measurement, April 1973; Census Bureau, The Current Population Survey: Design and Methodology, by Robert H. Hanson, Technical Paper No. 40, 1078; and Margaret E. Schooley, "Revisions in the Current Population Survey in January 1978," Employment and Earnings, February 1978.
    45. Occupied housing units at which the interviewer was unable to conduct an interview ("noninterviews') are implicitly included in the covered population, because the Census Bureau redistributes their selection probabilities among respondent households (see footnote 81). The Census Bureau also adjusts the selection probabilities to compensate for differences-in regard to race, residence, and region-between areas covered by the sample and areas not covered by the sample.
    46. This measure of the uncovered population is conceptually the same as that proposed by Siegel in "Completeness of Coverage of the Nonwhite Population in the 1960 Census and Current Estimates, and Some Implications," Social Statistics and the City, David M. Hear, Editor, Report of a Conference Held in Washington, D.C., June 22-23, 1967, Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, 1968.
[^21]:    47. The full-coverage ANWSW ratio would be the true ANWSW ratio if the two errors under consideration were the only statistical errors in the household survey that affect the ANWSW estimate. In fact, there are other statistical errors. The effect of uncounted migration is discussed in appendix D. There is also response error; see Alfred Tella (see footnote 8). For an extensive review of other statistical errors in the household survey, see Camilla A. Brooks and Barbara A. Bailar, "An Error Profile: Employment as Measured by the Current Population Survey," Statistical Policy Working Paper No. s, Office of Federal Statistical Policy and Standards, 1978.
[^22]:    48. The possibility that uncovered persons differ systematically from their covered counterparts, and that the household survey sample is therefore biased, was recognized by Siegel in 1967. "Completeness of Coverage," p. 28n. 49. "The Distributional Effects of Higher Unemployment," Brookings Papers on Economic Aetivity, 2:1974, p. 312.
[^23]:    50. Correlation between low educational attainment and poverty is suggested, for example, by the following: Among men age $35-44$ with less than 12 years of education, 9.2 percent of whites and 22.3 percent of blacks had 1975 incomes below the poverty level. Among those with 12 or more years of education, only 4.2 percent of whites and 7.5 percent of blacks had 1975 incomes below the poverty level. Census Bureau, Current Population Reports, Series P-60, No. 106, "Characteristics of the Population Below Poverty Level: 1975," 1977.
[^24]:    54. The formula is based on the assumption that the size of the undercount group remains constant.
[^25]:    55. The effect of shifts in age weights is estimated as follows. Suppose that, within each sex-race group of the undercount group, the age distribution was the same as in the corresponding sex-race group of the official CNIP. To compute the change in NWSW for the undercount group under this hypothetical assumption, I multiply the change in the official NWSW ratio for each sex-race group (line 2c) by the size of the corresponding undercount group (line 1), and add the products. NWSW for the undercount group would have declined only 95 thousand, instead of 105,000 . Consequently, the age distribution of the undercount group accounted for 10,000 of the NWSW decline for that group. This occurred because of the interaction of two factors: First, men of working age accounted for a larger share of the male undercount group than of the official male CNIP age 14 and over; and second, the decline in the NWSW ratio was larger for men of working age than for men age 14 and over.
[^26]:    56. The formula is based on the assumption that the size of the uncovered population remains constant.
    57. If I assume that the NSWS ratio declines for residual uncovered persons were only 1.5 times those for their covered counterparts, the estimated NWSW ratio declines for uncovered persons would have been 35.5 percent larger on average than for their covered counterparts.
    58. Undercoverage varies from month to month, due to sampling error, changes in the number of uncovered housing units, and changes in interviewer and respondent behavior.
[^27]:    59. The NWSW decline of $1,280,000$ reflects a decline of $1,190,000$ in ANWSW, and a decline of 90,000 in unpaid absences of nonagricultural wage and salary workers.
    60. These figures are based on the estimate in footnote 57.
[^28]:    61. See p. 30.
[^29]:    62. Although the size of the undercount group increased about 240,000 from 1975 to 1977, I have treated it as constant for the reasons cited in footnote 53. If I assume that the understatement of CNIP increased in 1975-77, the scale element in control total error dampened the ANWSW increase by more than 104,000.
    63. In algebraic notation: $d(x y)=(x+1 / 2 d x) d y+(y+1 / 2 d y)$ $d x$, which can be derived from the more familiar expansion $x d y+y d x+d x d y$.
    64. In estimating that the ANWSW ratio increased 4.8 percentage points, I adjusted for the break in the household survey in January 1967 that is described in footnote 5.
[^30]:    65. The estimate is equal to the product of the ANWSW ratio, 45.5 percent, and 700,000 . It overstates the effect of the January 1972 revision in the control totals, because it does not take account of a nonscale element in the revision. A Census Bureau study of the revision found that CNIP increased 787,000 , and nonagricultural employment increased 288,000 . The small increase in nonagricultural employment, relative to that in CNIP, is due to the fact that persons with low nonagricultural employment ratios-women, particularly women age 65 and over-accounted for a disproportionate share of the increase in CNIP. Gary M. Shapiro and Marvin M. Thompson, "Revisions in Current Population Survey," Employment and Earnings, February 1972, pp. 6-9.
[^31]:    66. See pp. 30 and 33.
    67. See p. 27.
[^32]:    69. To arrive at this estimate I added the illustrative estimate of the error in the 1974-75 ANWSW decline, the average deciine in the number of civilian workers with secondary jobs in the four contractions, an allowance of 10,000 for declines in military jobholding, and the illustrative estimate of the effect on DIFF of the 1973-75 decline in job changing. 70. The period from the first quarter of 1971 to the first quarter of 1972 is unique, in that the adult male unemployment rate remained high, and the smoothed DIFF (see footnote 5) declined about 400,000 . In this period, control total error caused DIFF to decline, as I showed at the end of section 4.
[^33]:    72. Thompson and Shapiro, and Technical Paper No. 40 (see footnote 44); and "Concepts and Methods Used in Labor Force Statistics Derived from the Current Population Survey," jointly published as Bureau of Labor Statistics Report No. 46s, and Census Bureau, Current Population Reports, Series P-23, No. 62, October 1976.
[^34]:    73. Irene C. Montie and Dennis J. Schwanz, "Coverage Improvement in the Annual Housing Survey," Proceedings of the Social Statistics Section, 1977, American Statistical Association, p. 169.
[^35]:    74. The additional units missed by the sample include the following: Units missed by Cen-Sup, units enumerated in the census but lost in the processing of address tapes for the household survey, some new hotels and motels, and now units for which builders-in contravention of their legal obligation-did not take out permits.
    75. Census Bureau, The Current Population Survey Reinterview Program, January 1961 Through December 1966 Technical Paper No. 19, 1968, p. 40. The 1970 census missed 4.8 percent of all housing units, and 3.1 percent of occupied housing units, in rural areas. Census Bureau, The Coverage of Housing in the 1970 Census, PHC(E)-5, 1973, p. 31.
[^36]:    83. The apparently low share of residual uncovered persons in undercoverage in 1969-71 is consistent with the fact that the number of uncovered mobile homes and uncovered units in converted structures must have been larger then than at any other time in the period 1962-71 (appendix B).
    84. Units whose occupants are Armed Forces members or under age 14, or who "usually reside elsewhere" are considered ineligible for interview.
    85. Census Bureau, "CPS Reinterview Results from the Listing Check and the Check of Noninterview Classifications for 1974," memorandum by Irwin Schreiner, March 25, 1975.
    86. For example, an intensive coverage check made in October 1966 found about three times as many false vacancies as did routine reinterviews made in the same year. Technical Paper No. 19 (see footnote 75), p. 41.
[^37]:    87. Robert I. Lerman, "The Family, Poverty, and Welfare Programs: An Introductory Essay on Problems of Analysis and Policy," Marjorie Honing, "The Impact of Welfare Payment Levels on Family Stability," and Carol B. Stack and Herbert Semmel, "The Concept of Family in the Poor Black Community," in U.S. Congress, Joint Economic Committee, Subcommittee on Fiscal Policy, Studies in Public Welfare, Paper No. 12, "The Family, Poverty, and Welfare Programs: Factors Influencing Family Instability," 1973. See also "Finding the Missing Men: The Sampling Problem," an appendix to Six Years in the Lives of the Impoverished: An Examination of the WIN Thesis, by Samuel Z. Klausner, unpublished report to the Employment and Training Administration of the U.S. Department of Labor, 1978.
    88. Alan Harwood, "Participant Observation and Census Data in Urban Research," paper delivered at the annual meeting of the American Anthropological Association, November, 1970; and personal communication to the author. 89. Leon Pritzker and N.D. Rothwell, "Procedural Difficulties in Taking Past Censuses in Predominantly Negro, Puerto Rican, and Mexican Areas," in Social Statistics and the City, pp. 72-73, (See footnote 46).
[^38]:    90. Ibid, p. 64.
    91. Stack and Semmel (See footnote 87); Stack, All our Kin: Strategies for Survival in a Black Community, New York, 1975; Andrew Billingsley, "Black Family Structure: Myths and Realities," in Studies in Public Welfare, Paper No. 12; Charles Valentine, Culture and Poverty: Critique and CounterProposals, Chicago, 1968.
    92. Elliot Liebow, Tally's Corner, Boston, 1967, p. 20n. See also National Academy of Sciences, America's Uncounted People, Report of the Adivsory Committee on Problems of Census Enumeration, 1972; Deborah P. Klein, "Determining the Labor Force Status of Men Missed in the Census," Monthly Labor Review, March 1970.
[^39]:    93. The sample originally included 1,000 men, of whom 290 were out-oi-scope or noninterviews. See Census Bureau, "1970 Census: Preliminary Evaluation Results Memorandum No. 21," prepared by Ralph Novoa, October 1971. For a report on driver's license studies in connection with pretests for the 1980 census, see John Thompson, "The Nonhousehold Sources Coverage Improvement Program," paper presented at the American Statistical Association annual meetings, 1978.
[^40]:    96. Ages $22-44$ are the ones for which Siegel showed that the difference between the undercount for black men and black women was largest. Census Bureau, Estimates of coverage (see footnote 39).
    97. For a description of the migration data that the Census Bureau uses to estimate corrected population control totals, see Census Bureau, Estimates of Coverage p. 15.
[^41]:    100. The estimate is based on a study by Ada Finifter that showed that 338,000 native-born and foreign-born citizens emigrated to 15 foreign countries between the censuses of 1960 and 1970. Finifter's findings are summarized by Warren in "Recent Immigration and Current Data Collection," p. 41.
    101. The apprehensions figures exclude "nonwilliul crew violators," that is, foreign seamen who remained in the United States when their ships left port.
[^42]:    102. "Counting the Uncountable Illegals: Some Initial Statistical Speculations Employing Capture-Recapture Techniques," Proceedings of the Social Statistics Section, 1977, American Statistical Association, p. 533.
    103. Uncounted migration may affect the employment ratios as well as the population control totals, but such changes in the employment ratios cannot cause the household survey to measure changes in the employment of uncounted migrants when the population control totals do not measure the population change associated with uncounted migration. Uncounted migration probably has only a small effect on the employment ratios, because the employment ratios of uncounted migrants probably do not differ greatly from those of citizens and legally-resident aliens. There are some indications that the household survey sample misses a large proportion of illegal aliens.
[^43]:    104. David S. North amd Marion F. Houstoun, The Characteristics and Role of Aliens in the U.S. Labor Market: An Exploratory Study, report to the U.S. Department of Labor, 1976, p. 143; and North, "Interactions Between Illegal Alien Respondents and the Social Security Tax Collection System" July 1976, p. 16.
[^44]:    105. Wayne A. Cornelius, Mexican Migration to the United States: Causes, Consequences, and U.S. Responses, Migration and Development Study Group, Center for International Studies, Massachusetts Institute of Technology, 1978, and personal communication to the author.
    106. Cornelius, personal communication to the author.
    107. Jorge A. Bustamante, "Undocumented Immigration from Mexico: Research Report," International Migration Re view, Summer 1977, p. 170.
    108. Charles B. Keely et al., "Profiles of Undocumented Aliens in New York City: Haitians and Dominicans," Occasional Paper No. 5, the Center for Migration Studies, 1978, and personal communication to the author.
[^45]:    2. For a thorough discussion, see Lawrence Forest, "Capacity Utilization: A Discussion of Concepts and Selected Analytical Applications", Federal Reserve Board Stafi Economic Paper (forthcoming).
[^46]:    3. Thus, Robert Summers has written that "there is no question but that the most recent values of the Wharton Index-the ones of most interest-are somewhat suspect." See "Further Results in the Measurement of Capacity Utilization", American Statistical Association, Proceedings of the Business and Economics Section, 1968, p. 32.
    4. See Allan H. Young and John C. Musgrave, "Estimation of Capital Stock in the United States", Conference on Research in Income and Wealth, October 1976 (to be published).
    5. See Barry Bosworth, "Capacity Creation in Basic Materials Industries", Brookings Papers on Economic Activity, 1976:2, pp. 311-314.
[^47]:    8. The division is based on a 34 -industry break. Of the 20 standard two-digit manufacturing industries, 9 are further subdivided to provide more homogeneous groupings with respect to operating assumptions.
[^48]:    9. The tabulation wes prepared under the supervision of John Tucker, Chief, Division of Industry Employment Statistics, Bureau of Labor Statistics.
[^49]:    10. See James F. Ragan, "Measuring Capacity Utilization in Manufacturing", Federal Reserve Bank of New York, Quarterly Review, Winter 1976, p. 18.
[^50]:    11. The group consisted of industries that met one criterion but not the other for either group 1 or group 2 (or both), and of industries that met neither criterion for either group. 12. This estimate is equal to the difference between group 2 and group 1 (last column of table 3) multiplied by the gr oup 2 proportion of the total ( -2.4 times 0.388 ) plus the difference between group 3 and group 1 multiplied by the group 3 proportion of the total ( $\mathbf{- 2 . 1}$ times 0.397 ).
[^51]:    13. The estimate of relative cyclical variability is based on regression analysis of utilization rates. A regression of BEA utilization rates on an average of the two production-based rates yields a regression coefficient that is downward biased as an estimate of relative cyelical variability because any uncorrelated irregular movements in the two variables lowers the coefficient. The reverse regression, with an average of the
    two production-based rates as the dependent variable and two production-based rates as the dependent variable and
    the BEA estimates as independent, yields a regression coefficient whose reciprocal is upward biased. The estimate presented in the text is a geometric mean of the two estimates.
[^52]:    14. The estimate of cyclical variablity is described in the preceding footnote.
[^53]:    109. Although changes in illegal alien employment probably change DIFF, DIFF is not an indicator of change in illegal alien employment, because DIFF is affected also by other factors. In an earlier article, I speculated that the failure of DIFF to increase since 1970 casts doubt on "the widespread impression that illegal alien employment has grown rapidly since 1970" ("Coverage Issues Raised by Comparisons Between CPS and Establishment Employment," Proceedings of the Social Statistics Section, 1977, American Statistical Association, p. 67). However, it is quite possible that offsetting factors-such as uncounted emigration, or an overall increase in UI tax evasion, or some unknown factor-have masked growth in illegal alien employment.
[^54]:    NOTE FOR P. S-5
    O Revised back to Jan. 1975 to reflect corrections in reporting errors in the machinery in dustry, and corrections in classifications in the aircraft and machinery industries; revisions prior to Apr. 1976 are available from the Bur. of the Census. Wash., D.C. 20233.

[^55]:    PRevised ${ }_{2}$ See note "q" on p. S-12: revised data for periods prior to May 1977 are not

[^56]:    ${ }^{r}$ Revised. ${ }^{1}$ Crop estimate for the year. ${ }^{2}$ Annual total reflects revisions not distributed to the monthly data. ${ }^{3}$ Average for Jan.-Sept., Nov. and Dec. ${ }^{4}$ Average for Jan.-
    May, and July-Dec. ${ }^{5}$ Because of an overall revision to the export commodity classifica-
    tion system effective Jan. 1, 1978, data may not be strictly comparable with those for earlier
    periods. ${ }^{6}$ Data no longer available. ${ }^{7}$ Average for Jan.-Oct. $\quad$ O Includes data for items not shown separately. $\quad$ Factory and warehouse stocks. $\ddagger$ Monthly revisions back to Jan. 1977 are available.

