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SUPPLEMENT TO

Economic Indicators

*Prepared for the Joint Committee on the Economic Report
by the Committee Staff and the
Office of Statistical Standards, Bureau of the Budget*

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JOINT COMMITTEE ON THE ECONOMIC REPORT

(Created pursuant to Sec. 5 (a) of Public Law 304, 79th Cong.)

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[PUBLIC LAW 120—81ST CONGRESS; CHAPTER 237—1ST SESSION]

JOINT RESOLUTION [S. J. Res. 55]

To print the monthly publication entitled "Economic Indicators"

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Joint Committee on the Economic Report be authorized to issue a monthly publication entitled "Economic Indicators," and that a sufficient quantity be printed to furnish one copy to each Member of Congress; the Secretary and the Sergeant at Arms of the Senate; the Clerk, Sergeant at Arms, and Doorkeeper of the House of Representatives; two copies to the libraries of the Senate and House, and the Congressional Library; seven hundred copies to the Joint Committee on the Economic Report; and the required number of copies to the Superintendent of Documents for distribution to depository libraries; and that the Superintendent of Documents be authorized to have copies printed for sale to the public.

Approved June 23, 1949.

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Letters of Transmittal

November 1, 1955.

To Members of the Joint Committee on the Economic Report:

For the information of the members of the Joint Committee on the Economic Report and others interested there is transmitted herewith a revision of the supplement to the committee's monthly publication *Economic Indicators* containing both historical tables of the various indicators now published and a description of the derivation, limitations, and uses of each indicator. These materials were developed by the committee staff and the Office of Statistical Standards, Bureau of the Budget, with the cooperation of the agencies responsible for each series.

As you are undoubtedly aware, there has been widespread interest in having this information readily available. The first issue of the *Historical and Descriptive Supplement to Economic Indicators* has been used not only by Members of Congress and other users of *Economic Indicators* both within the Government and among the nearly 4,500 private subscribers but has become an important teaching aid in college courses in statistics. It is believed that this revision of the original publication will be equally useful.

PAUL H. DOUGLAS,

Chairman, Joint Committee on the Economic Report.

November 1, 1955.

The Honorable PAUL H. DOUGLAS,
Chairman, Joint Committee on the Economic Report,
United States Senate, Washington, D. C.

DEAR SENATOR DOUGLAS: Transmitted herewith is the 1955 supplement to the Committee's monthly publication *Economic Indicators*, containing for each indicator (1) historical data and (2) a description and references to additional technical explanations. This supplement brings up to date both the descriptive materials and the historical tables which were published in the first edition in December 1953. It is intended to answer most of the many requests for general information which cannot be carried each month in the Committee's publication but which is often essential to the interpretation and use of the current materials.

The description shown for each series in *Economic Indicators* attempts in a nontechnical way to explain how the series is derived, what its limitations are, and the uses for which it is appropriate or, in some cases, warning of uses for which it is especially not appropriate. Both the historical data and the descriptions which are included in this supplement are designed for general users of the data rather than for technicians. The Government Printing Office sold nearly 6,000 copies of the 1953 supplement.

It might be helpful to point out for the benefit of persons not familiar with *Economic Indicators* that this is a monthly publication printed by the Congress in accordance with Public Law 120, 81st Congress, chapter 237, 1st session, a copy of which is reproduced on the back of the title page of this supplement. *Economic Indicators* was first published by the Joint Committee on the Economic Report as a committee print in 1948 to provide its members with information on current economic trends and developments in a concise and graphic form. Knowing that other Members of the Congress, businessmen, farm leaders, labor organizations, and representatives of the press also sought such information the Joint Committee at the same time sponsored legislation which later resulted in authorizing publication on a permanent basis. *Economic Indicators* is prepared each month for the Joint Committee on the Economic Report by the Council of Economic Advisers.

An intensive review of *Economic Indicators*, which was undertaken by the Committee staff with the cooperation of the Council of Economic Advisers and the Bureau of the Budget, was completed in July of this year. Users of *Economic Indicators* made a number of suggestions for improvements which were most helpful in this review. The Joint Committee will continue to welcome comments directed toward making *Economic Indicators* a more useful publication. It should be understood, of course, that the materials included must be limited to those series of most general use by Members of Congress, executive Government agencies, and others. The Committee policy has been to carry standard series and relationships without interpretation. Other publications of the Committee and the executive agencies are considered the medium for interpretations of the data.

Economic Indicators currently has a list of nearly 4,500 paid subscribers. It is used widely by schools and libraries as a reference source and has an extensive circulation of foreign subscribers, covering all major nations of the world. The monthly *Indicators* is sold through the Superintendent of Documents, United States Government Printing Office, Washington, D. C., price 20 cents per copy; \$2 per year; \$2.50 foreign.

The development and supervisory work on the first issue of the supplement was done by the Committee staff. Descriptions of the series were written by members of the staff of the Office of Statistical Standards, Bureau of the Budget, and the tables were prepared by Miss Frances James and the agencies compiling the original data. Both text and tables of the 1955 supplement were prepared by the Office of Statistical Standards, with the cooperation of the agencies compiling the data, in response to a request directed to the Bureau of the Budget by the Subcommittee on Economic Statistics.

Respectfully submitted.

GROVER W. ENSLEY, *Staff Director.*

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TOTAL OUTPUT, INCOME, AND SPENDING

THE NATION'S INCOME, EXPENDITURE, AND SAVING

Description of series.—The Nation's income, expenditure, and saving, representing a summary of the Nation's economic accounts, are shown in the accompanying table in terms of total receipts and total expenditures for consumers, business, and government. The accounts shown here represent a statement of the gross national product in terms of receipts and expenditures for these three categories: for every dollar of expenditure there must be a dollar of receipts. Thus the combined receipts (consumer disposable income, gross retained earnings of business, and government receipts) must equal the combined expenditures (consumption expenditures, gross private domestic investment plus net foreign investment, and government expenditures). It follows that for any period in which the receipts for any of the three categories exceed expenditures, the difference will be offset by an excess of expenditures over receipts in another category or categories. The relationship of receipts to expenditures for each of the three categories is shown by quarters for the past several years in the first chart in *Economic Indicators*.

The exact balancing of the combined receipts and expenditures reported for the three categories—consumers, business, government—requires recognition of a statistical discrepancy, since the estimating procedure involves somewhat independent data on each side of the accounts and does not produce the identity which is conceptually present. In the accompanying table, the total of consumer, business, and government receipts plus the statistical discrepancy equals the total of consumer, business, and government expenditures, which equals the gross national product as published.

The consumer account summarizes the more detailed statistics on personal income and consumption shown elsewhere in *Economic Indicators*, particularly in the table on Disposition of Personal Income (see below, p. 11). It should be noted that, although the consumer income account includes the income of unincorporated businesses and farms, the consumer expenditure account includes only expenditures for consumption purposes. Investments of

noncorporate as well as corporate businesses are included in the business expenditure account. The actual or imputed rent of dwellings is included in consumer expenditure; but residential construction, whether for owner occupancy or for rental purposes, is included with business investment.

In the business account, receipts or gross retained earnings include the undistributed profits of corporations after adjustment for inventory valuation, plus the capital consumption allowances of both corporate and noncorporate enterprises and institutions, including residences. The capital consumption or depreciation allowances must be added to receipts since investment is on a gross basis—i. e., before deduction for depreciation. Business investment includes additions to plant and equipment and inventories of both corporate and noncorporate enterprises, as well as residential construction. Because of conceptual difficulties and limitations in the data which prevent differentiating investment items in the present consumer and government accounts, as shown here business investment constitutes the only current savings of the Nation identified in real terms.

The government account shows receipts and expenditures on an income and product account basis, rather than on either a cash or a conventional budget basis, to be consistent with the receipts and expenditures of consumers and business and with the gross national product total. The government receipts include personal, corporate and indirect business taxes, and contributions for social insurance. Although government transfer payments, such as interest charges and social security and veterans' benefits, represent income to the recipients, they are not included in the gross national product, and are therefore subtracted here from both receipts and expenditures.

The government income and product accounts are on a consolidated basis, just as the cash accounts are, but they depart from the latter because of the timing of the items included in each and because of conceptual differences. The income and product accounts of the government are designed to be in accord with the accrual records maintained by pri-

vate business. Thus, business taxes, especially those on corporate profits, are recorded on an accrual rather than a collections basis, and government expenditures for goods are corrected for the lag between deliveries and payments therefor. All capital transactions, such as receipts from the sale of government property and changes in loans and investments of government credit agencies, are excluded from the income and product accounts although such transactions are included in both the cash and conventional budgets.

Uses and limitations.—A set of economic accounts for the Nation reduces the voluminous detail of economic activity to understandable proportions by providing the factual background for seeing in perspective the operations of the major categories of the economy—consumer, business, and government—and the interrelationships or transactions between and among them. A statement of these accounts serves a number of purposes:

(1) In summarizing the pattern of change in the economy over recent periods, the statement indicates what one should look for among the other charts and tables included in *Economic Indicators*.

(2) The accounting methodology needed to prepare this statement helps to assure that the various estimates such as income, expenditures, savings, investment in the other charts and tables are consistent.

(3) It is frequently necessary to project and evaluate the likely economic impact of public and private programs on the economy. These accounts make possible the quantitative expression of the combination of such public and private plans within a framework of the flows of incomes and expenditures of various groups in the economy so as to measure inconsistencies or imbalances between and among them, and inconsistencies between and among the assumptions upon which these plans are based.

Preparation of a Nation's economic budget for a future period, using these accounts, is especially helpful when government programs are of such magnitude and importance that they dominate changes in the economy; in other words, when government spending and tax plans are the main forces making for changes in the economy. At other times, its main benefit is in identifying and measuring inflationary and deflationary programs of government and private economic groups and in pointing out areas in which adjustments are necessary to achieve economic stability and growth.

(4) Another use, related to the preceding, is that of enabling those who must make actual forecasts, such as business firms, private economists and others,

to check their forecasts as to consistency with past patterns of fluctuations in activity in both the economy as a whole and in its various segments, and consistency among the various assumptions as to income, savings, investment, prices, and employment that underlie the forecast.

Certain limitations must be recognized in using these economic accounts. First, needless to say, the statistics do not throw light on all aspects of the economy but only on broad summary categories; thus they must be supplemented by the use of additional economic information, such as that contained in other parts of *Economic Indicators*. Second, since the data are national in coverage, their trends and changes must be carefully interpreted and supplemented by other data for use in the analysis of regional or individual industry problems. Third, they do not, of course, provide the assumptions or the reasons which one should have for explaining or projecting economic changes; they provide only the relevant statistical background for intelligent reasoning and judgment. Finally, it must be recognized that for some of these categories estimates for both receipts and expenditures rest upon data collected for other purposes, or upon crude or indirect estimates in cases where no direct survey is regularly conducted. Thus there will be times when it will be difficult to interpret the meaning of some of the changes in the accounts if statistical discrepancies arising from technical problems in estimating various items are so large that they throw doubt on the importance of movements in the accounts.

References.—The estimates included in the Nation's economic accounts are all taken from the national income and product statistics of the Department of Commerce: see references below, under National Income (p. 7).

See also Technical Notes on the Nation's Economic Budget, Appendix A: Report of the Joint Committee on the Economic Report on the January 1952 Economic Report of the President, Senate Report No. 1295, 82d Congress, 2d session, pages 99-105, and statistical materials prepared by the Council of Economic Advisers for inclusion with the Economic Report of the President.

For annual projections of these accounts, see the March reports of the Joint Committee—for example, Joint Economic Committee Report on the Economic Report of the President, March 14, 1955, Senate Report 60, 84th Congress, 1st session. For longer run projections, see *Potential Economic Growth of the United States During the Next Decade, 1954*, Joint Committee Print, 83d Congress, 2d session.

The Nation's Income, Expenditure, and Saving

(Billions of dollars)

Year	Consumers			Business			Government			Statistical discrepancy ²
	Disposable income	Consumption expenditures	Saving (+) or dissaving (-)	Gross retained earnings	Investment ¹	Excess of earnings (+) or investment (-)	Receipts (less transfers, etc.)	Expenditures for goods and services	Excess of receipts (+) or expenditures (-)	
1929	83.1	79.0	+4.2	11.5	17.0	-5.5	9.5	8.5	+1.0	+0.3
1930	74.4	71.0	+3.4	8.8	11.0	-2.2	8.9	9.2	-0.3	-1.0
1931	63.8	61.3	+2.5	5.2	5.7	-.5	6.4	9.2	-2.8	+0.8
1932	48.7	49.3	-.6	2.7	1.1	+1.6	6.4	8.1	-1.7	+0.8
1933	45.7	40.4	-.6	2.0	1.5	+1.1	6.7	8.0	-1.4	+0.9
1934	52.0	51.9	+0.1	4.9	3.3	+1.0	7.4	9.8	-2.4	+0.7
1935	58.3	50.3	+2.0	6.3	6.2	+0.1	8.0	10.0	-2.0	-0.2
1936	60.2	62.0	+3.0	6.5	8.3	-1.8	8.9	11.8	-3.0	+1.1
1937	71.0	67.3	+3.7	7.8	11.8	-4.0	12.3	11.7	+0.6	-0.2
1938	65.7	64.6	+1.1	7.8	7.8	+0.1	11.2	12.8	-1.6	+0.5
1939	70.4	67.0	+2.9	8.3	10.2	-1.0	11.2	13.3	-2.1	+1.2
1940	70.1	71.0	+4.2	10.4	14.7	-4.3	13.3	14.1	-.7	+0.8
1941	93.0	81.9	+11.1	11.5	19.2	-7.7	21.0	24.8	-3.8	+0.4
1942	117.5	89.7	+27.8	14.1	9.7	+4.5	28.3	59.7	-31.4	-0.8
1943	133.5	100.5	+33.0	16.3	3.4	+12.0	44.4	88.6	-44.2	-1.7
1944	146.8	109.8	+36.9	17.2	5.0	+12.2	44.6	96.5	-51.9	+2.8
1945	150.4	121.7	+28.7	15.6	9.0	+6.0	43.1	82.0	-39.7	+4.5
1946	159.2	140.0	+12.6	14.0	31.7	-17.7	35.1	30.9	+4.2	+0.9
1947	169.0	165.0	+4.0	20.0	38.6	-18.7	41.9	28.6	+13.3	+1.4
1948	187.6	177.6	+10.0	27.4	43.1	-15.7	44.4	36.6	+7.0	-2.1
1949	188.2	180.6	+7.6	28.7	33.1	-4.4	40.4	43.6	-3.2	+0.1
1950	206.1	194.0	+12.1	28.6	49.0	-20.4	50.1	42.0	+8.1	+0.2
1951	220.1	208.3	+17.7	31.0	57.1	-25.2	69.0	62.8	+6.2	+1.3
1952	236.7	218.3	+18.4	33.0	49.4	-15.8	74.1	77.5	-3.3	+0.7
1953	250.4	230.0	+19.8	34.4	49.4	-15.1	78.5	81.5	-6.0	+1.3
1954	254.8	230.5	+18.3	36.8	47.0	-10.2	69.7	77.0	-7.2	-0.8

¹ Gross private domestic investment plus net foreign investment.
² Excess of the value of the estimated gross national product computed by the final products method over its independently estimated value computed by adding necessary conceptual adjustments to the national income. Discrepancy shown may differ from that derived from income and expenditure items shown in this table because of rounding.

Source: Department of Commerce.

GROSS NATIONAL PRODUCT OR EXPENDITURE

Description of series.—Gross National Product (often called GNP) represents the total national output of goods and services at current market prices. It measures this output in terms of the expenditures by which these goods are acquired. These expenditures are the sum of four major items: (1) personal consumption expenditures, (2) gross private domestic investment, (3) net foreign investment, and (4) Government purchases of goods and services. The goods and services included in the GNP are for the most part those actually bought for final use in legal markets. There are a number of exceptions, the most important of which is the rental value of owner-occupied dwellings.

The GNP series measures the product attributable to the factors of production—labor and property—supplied by residents of continental United States. For the most part these factors are located in this country, but the GNP total also includes earnings of American employees of the United States Government stationed abroad, foreign interest and dividends received by Americans, and the profits from foreign branches of American business.

“Personal consumption expenditures” measures the sum of money and imputed expenditures made by consumers (individuals, nonprofit institutions such as hospitals, etc.) for goods and services. This series is described below, in the section on Disposition of Personal Income.

“Gross private domestic investment” consists of new construction, producers’ durable equipment, and changes in business inventories. This component of GNP is described below, in a separate section (p. 16).

“Net foreign investment” measures the net change in the international assets and liabilities of this country (including our gold stocks) arising out of current transactions with foreign countries. It is the sum of (1) domestic output sold abroad minus United States purchases of foreign output, (2) cash gifts and contributions received from abroad minus those sent abroad, and (3) production abroad by United States labor and property minus production in the United States by foreign-owned labor and property.

“Government purchases of goods and services” are those made by Federal, State, and local governments. They include (1) net purchases of new goods (such as school buildings and armaments), (2) payments for services (principally compensation for Government employees), (3) gross investment by Government enterprises, and (4) net Government

purchases from abroad and international contributions. Items which do not represent current productive activity—such as transfer payments (e. g., social security and veterans’ payments), Government interest, subsidies, loans, and other financial transfers—are excluded. The GNP series on Government purchases differs from expenditures shown in the Federal Budget, which include many but not all of these items. Differences may also arise because of variation in the time at which expenditures occur and are recorded.

Statistical procedures.—Hundreds of basic economic series are evaluated, adjusted, and combined, in the process of preparing the GNP estimates. For example, consumer expenditures are estimated for benchmark years primarily from data in the Censuses of Business and Manufactures, reports of the Department of Agriculture, Internal Revenue Service, and Interstate Commerce Commission, with current quarterly estimates carried forward by the extensive sample reports of the Census Bureau’s Monthly Report on Retail Trade, and data from other sources. Construction activity is estimated jointly by the Departments of Commerce and Labor, as described below in the section on New Construction (p. 39). Investment in producers’ durable equipment is estimated for benchmark years from Census of Manufactures and related data, with current quarterly and annual totals estimated from sample surveys of the Department of Commerce and financial reports to other agencies. For details of the methods used, reference should be made to the comprehensive study by the Department of Commerce, the 1954 National Income Supplement to the *Survey of Current Business*.

Relation to other series.—Two other series widely used as indicators of the general level of economic activity are national income and the Federal Reserve index of industrial production. Gross national product and national income are compiled from the same series of accounts, but whereas the former measures the market value of total output, the latter measures only the earnings of labor and property (net of depreciation) which flow from that output. National income is smaller than the gross national product chiefly because the latter includes (1) allowance for depreciation and similar capital consumption, and (2) indirect taxes (such as sales and excise taxes).

The GNP measures total output, whereas the Federal Reserve index of industrial production covers only two sections of the economy—manufactures and mining. The products in the GNP

Gross National Product or Expenditure

(Billions of dollars)

Year	Total gross national product	Personal consumption expenditures	Gross private domestic investment	Net foreign investment	Government purchases of goods and services				
					Total ¹	Federal			State and local
						Total ¹	National security ²	Other	
1929	104.4	79.0	10.2	0.8	8.5	1.3	(3)	(2)	7.2
1930	91.1	71.0	10.3	.7	9.2	1.4	(3)	(2)	7.8
1931	76.3	61.3	5.5	.2	9.2	1.5	(3)	(2)	7.7
1932	58.5	49.3	.9	.2	8.1	1.5	(3)	(2)	6.6
1933	56.0	46.4	1.4	.2	8.0	2.0	(3)	(2)	6.0
1934	65.0	51.9	2.9	.4	9.8	3.0	(3)	(2)	6.8
1935	72.5	56.3	6.3	-.1	10.0	2.9	(3)	(2)	7.1
1936	82.7	62.6	8.4	-.1	11.8	4.8	(3)	(2)	7.0
1937	90.8	67.3	11.7	.1	11.7	4.6	(3)	(2)	7.2
1938	85.2	64.6	6.7	1.1	12.8	5.3	(3)	(2)	7.5
1939	91.1	67.6	9.3	.0	13.3	5.2	1.3	3.0	8.2
1940	100.6	71.9	13.2	1.5	14.1	6.2	2.2	4.0	7.9
1941	125.8	81.9	18.1	1.1	21.8	16.9	13.8	3.2	7.8
1942	159.1	89.7	9.9	-.2	59.7	52.0	49.6	2.7	7.7
1943	192.5	100.5	5.6	-2.2	88.6	81.2	80.4	1.5	7.4
1944	211.4	109.8	7.1	-2.1	96.5	89.0	88.6	1.6	7.5
1945	213.6	121.7	10.4	-1.4	82.9	74.8	75.9	1.0	8.1
1946	209.2	146.6	27.1	4.6	30.9	20.9	21.2	2.5	10.0
1947	232.2	165.0	29.7	8.9	28.6	15.8	13.3	3.8	12.8
1948	257.3	177.6	41.2	2.0	36.6	21.0	16.0	5.6	15.0
1949	257.3	180.6	32.5	.5	43.6	25.4	19.3	6.6	18.2
1950	285.1	194.0	51.2	-2.2	42.0	22.1	18.5	3.9	19.9
1951	328.2	208.3	56.9	.2	62.8	41.0	37.3	4.2	21.8
1952	345.2	218.3	49.6	-.2	77.5	54.3	48.8	5.8	23.2
1953	364.5	230.6	51.4	-2.0	81.5	59.5	51.4	8.5	25.0
1954	360.5	236.5	47.2	-.3	77.0	49.2	43.2	6.3	27.8

¹ Less Government sales.

² Includes expenditures for military services, international security and foreign relations (except foreign loans), development and control of atomic energy, promotion of the merchant marine, promotion of defense production and economic stabilization, and civil defense. For further details, see *Economic Report of the President, January 1955* (p. 137), and *National Income, 1954 Edition* (p. 148). These expenditures are not comparable with the "national security" category in *The Budget of the U. S. Government for the Fiscal Year Ending June 30, 1955*, and shown in *Economic Indicators* under Federal budget receipts and expenditures (see below, p. 67).

³ Not available.

NOTE.— Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

series are final product, whereas the Federal Reserve index includes both final and intermediate product, and thus may show an increase or decrease in activity to be reflected later or not at all in the flow of final output. The GNP series in current prices combines price and volume changes, whereas the Federal Reserve index measures physical volume.

Uses and limitations.—The GNP total is the most inclusive monetary measure of trends in the economy as a whole which is currently estimated. It also has high value as an analytic tool, since the movements of many sectors of the economy, including the sales of many industries and enterprises, are quite closely related to changes in the level of GNP.

Since GNP is measured in current dollars, the effects of changes in both the price level and the

physical volume of output are combined, and movements in the total from quarter to quarter should not be interpreted as necessarily representing changes in the physical quantity of goods and services produced by the economy. On an annual basis, however, GNP estimates corrected for price changes ("deflated GNP") are available which show changes in the total volume of national output. One of the most important characteristics of the GNP is that changes in the total can be analyzed by examination of changes in its components, notably purchases by consumers, the investment of private business, the expenditures of Government, and the movement of foreign trade.

References.—See below, under National Income.

NATIONAL INCOME

Description of series.—National Income is the aggregate of earnings by labor and property from the current production of goods and services by the Nation's economy. It is the sum of five major items: (1) Compensation of employees, (2) proprietors' income, (3) rental income of persons, (4) net interest, and (5) corporate profits.

"Compensation of employees" is the sum of wages, salaries, and certain supplements, such as employer contributions for social insurance.

"Proprietors' income" measures the monetary earnings and income in kind of sole proprietorships (including doctors, lawyers, and other self-employed), partnerships and producers' cooperatives, exclusive of capital gains or losses. The farm proprietors' income shown here is conceptually the same as farm operators' net income including adjustment for inventory change, as shown below in the section on Farm Income. Some variations between the two series result from differences in the timing of revisions. The supplementary income which individuals obtain from renting property does not appear here, but under rental income of persons.

"Rental income of persons" consists of (1) net money income from rental of real property, (2) estimated net rental value to homeowners of their homes, and (3) royalties received from patents, copyrights, and rights to natural resources.

"Net interest" measures both the money interest and the imputed interest accruing to the Nation's residents from private business and from abroad, minus Government interest disbursements to business which appear as part of business incomes. Imputed interest consists of the value of financial services received by persons without explicit payment and property income withheld by life-insurance companies and mutual financial intermediaries on account of persons.

"Corporate profits" are the earnings of corporations organized for profit, measured before Federal and State profit taxes, but without deduction of depletion charges and exclusive of capital gains and losses. (For a more extended discussion, see section on Corporate Profits below, p. 14.)

"Corporate inventory valuation adjustment" measures the excess of the value of change in the volume of corporate inventories (in terms of average prices during the period) over the change in terms of book values. This adjustment is required since, as is customary in business accounting, corporate profits are reported inclusive of inventory profits or loss, whereas only the value of the real change in inven-

ories is counted as current output in the national product.

Statistical procedures.—The methods of estimation employed in the very complex area of national income are described in detail in the 1954 National Income Supplement to the *Survey of Current Business*. The following indicate briefly the types of estimating procedures used:

"Compensation of employees"—reliable data are available each year from the social-security system, with current monthly estimates resting chiefly on employer reports to the Bureau of Labor Statistics on employment and earnings.

"Proprietors' income"—estimated from income-tax returns to the Internal Revenue Service, usually obtained every second year, with current quarterly data derived from analysis of trends in sales and corporate profits in individual industries.

"Rental income of persons"—estimated from a variety of Census Bureau, Internal Revenue Service, Department of Agriculture, and BLS data on rents paid and on the distribution of property ownership and rental income between persons and business.

"Net interest"—estimated from reports to the Internal Revenue Service, Bureau of the Census, Board of Governors of the Federal Reserve System, and other agencies on interest and debt.

Relation to other series.—The relation of national income to gross national product is discussed above (p. 4); and the relation to personal income is defined below (p. 9).

Uses and limitations.—The national income measures earnings from current output and is a useful measure of the rate of flow of such earnings. By definition it excludes income from the revaluation of past output—e. g., capital gains and losses. The movements of this series correspond with movements in production. However, the value of the national income series lies more in the composition than in the total. It may mean little to know that national income (unadjusted for price changes) has gone up; but it may be very important to know the relative contribution of wages and profits to that increase.

The chief cautions for use result partly from the definitions used, and partly from the nature of the basic data. With respect to the first, care must be taken not to interpret movements in the series as measuring something other than they are intended to measure. For example, variations in wages and profits do not necessarily indicate changes in the welfare of workers or in the ability of corporations to provide new capital. For such purposes, these

National Income

(Billions of dollars)

Year	Total national income	Compensation of employees ¹	Proprietors' income		Rental income of persons	Net interest	Corporate profits and inventory valuation adjustment		
			Farm	Business and professional			Total	Profits before taxes	Inventory valuation adjustment
1929	87.8	51.1	0.0	8.8	5.4	6.4	10.1	9.6	0.5
1930	75.7	46.8	4.1	7.4	4.8	6.0	6.6	3.3	3.3
1931	59.7	39.7	3.2	5.6	3.8	5.8	1.6	- .8	2.4
1932	42.5	31.1	1.9	3.4	2.7	5.4	- 2.0	- 3.0	1.0
1933	40.2	29.5	2.4	3.2	2.0	5.0	- 2.0	.2	- 2.1
1934	49.0	34.3	2.4	4.6	1.7	4.9	1.1	1.7	- .6
1935	57.1	37.3	5.0	5.4	1.7	4.8	2.9	3.1	- .2
1936	64.9	42.9	4.0	6.5	1.8	4.7	5.0	5.7	- .7
1937	73.6	47.9	5.6	7.1	2.1	4.7	6.2	6.2	(²)
1938	67.6	45.0	4.3	6.8	2.6	4.6	4.3	3.3	1.0
1939	72.8	48.1	4.3	7.3	2.7	4.6	5.7	6.4	- .7
1940	81.6	52.1	4.6	8.4	2.0	4.5	9.1	9.3	- .2
1941	104.7	64.8	6.5	10.9	3.5	4.5	14.5	17.0	- 2.5
1942	137.7	85.3	10.0	13.9	4.5	4.3	19.7	20.9	- 1.2
1943	170.3	109.6	11.4	16.8	5.1	3.7	23.8	24.6	- .8
1944	182.6	121.3	11.5	18.0	5.4	3.3	23.0	23.3	- .3
1945	181.2	123.2	11.8	19.0	5.6	3.2	18.4	19.0	- .6
1946	179.6	117.7	13.9	21.3	6.2	3.1	17.3	22.6	- 5.3
1947	197.2	128.8	14.5	19.9	6.5	3.8	23.6	29.5	- 5.9
1948	221.6	149.9	16.7	21.6	7.2	4.5	30.6	32.8	- 2.2
1949	216.2	149.9	12.7	21.4	7.9	5.2	28.1	26.2	1.9
1950	240.0	154.3	13.3	22.9	8.5	5.9	35.1	40.0	- 4.9
1951	277.0	180.4	16.0	24.8	9.1	6.8	39.9	41.2	- 1.3
1952	289.5	195.3	14.3	25.7	9.9	7.4	36.9	35.9	1.0
1953	303.6	209.2	12.3	25.9	10.3	8.8	37.2	38.3	- 1.1
1954	299.7	207.9	12.0	25.9	10.5	9.5	33.8	34.0	- .2

¹ Includes employer contributions for social insurance. (See also table on Sources of Personal Income, p. 8.)

² Less than \$50 million.

NOTE.—Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce

variations must be considered in the light of other factors such as the cost of living and the cost of new plant and equipment. With respect to the second—which is particularly applicable to the current data on proprietors' income, rental income of persons, and the corporate inventory valuation adjustment—it should be recognized that many of the available data permit only fair approximations of the phenomena being measured, and therefore too great reliance should not be placed on these statistics as instruments of precise measurement.

References.—The official quarterly estimates for the series included in the national income and product accounts are published by the Office of Business Economics, Department of Commerce, in the *Survey of Current Business*: First quarter in the May issue,

second quarter in August, third quarter in November, and fourth quarter in the following February. Preliminary quarterly estimates by the Council of Economic Advisers appear in *Economic Indicators* in the month following the end of each quarter. Preliminary annual estimates are published by the Office of Business Economics in the February issue of the *Survey*, revised estimates in the July issue. Complete statistics for 1929-53 and a detailed explanation of fundamental concepts and underlying procedures are given in the 1954 National Income Supplement to the *Survey of Current Business*. Data for 1952-54, including revisions for 1952 and 1953, are presented in the July 1955 issue of the *Survey*, with an explanation of the revisions.

Sources of Personal Income

[Billions of dollars]

Year	Total personal income	Labor income (wage and salary disbursements and other labor income) ¹	Proprietors' income		Rental income of persons	Dividends	Personal interest income	Transfer payments	Less: Personal contributions for social insurance	Non-agricultural personal income ²
			Farm	Business and professional						
1929	85.8	51.0	6.0	8.8	5.4	5.8	7.4	1.5	0.1	77.7
1930	76.9	46.7	4.1	7.4	4.8	5.5	6.9	1.5	.1	70.8
1931	65.7	39.6	3.2	5.6	3.8	4.1	6.9	2.7	.2	60.9
1932	50.1	30.9	1.9	3.4	2.7	2.6	6.6	2.2	.2	46.9
1933	47.2	29.4	2.4	3.2	2.0	2.1	6.2	2.1	.2	43.6
1934	53.6	34.1	2.4	4.6	1.7	2.6	6.1	2.2	.2	49.8
1935	60.2	37.2	5.0	5.4	1.7	2.9	5.9	2.4	.2	53.9
1936	68.5	42.5	4.0	6.5	1.8	4.5	5.8	3.5	.2	63.2
1937	73.9	46.7	5.6	7.1	2.1	4.7	5.9	2.4	.6	67.0
1938	68.6	43.6	4.3	6.8	2.6	3.2	5.8	2.8	.6	62.8
1939	72.9	46.6	4.3	7.3	2.7	3.8	5.8	3.0	.6	67.1
1940	78.7	50.5	4.6	8.4	2.9	4.0	5.8	3.1	.7	72.6
1941	96.3	62.8	6.5	10.9	3.5	4.5	5.8	3.1	.8	88.0
1942	123.5	83.0	10.0	13.9	4.5	4.3	5.8	3.1	1.2	111.5
1943	151.4	106.7	11.4	16.8	5.1	4.5	5.8	3.0	1.8	137.6
1944	165.7	118.5	11.5	18.0	5.4	4.7	6.2	3.6	2.2	151.6
1945	171.2	119.4	11.8	19.0	5.6	4.7	6.9	6.2	2.3	156.8
1946	178.0	113.8	13.9	21.3	6.2	5.8	7.6	11.4	2.0	161.1
1947	190.5	125.2	14.5	19.9	6.5	6.5	8.2	11.8	2.1	172.8
1948	208.7	137.9	16.7	21.6	7.2	7.2	9.0	11.3	2.2	188.5
1949	206.8	137.4	12.7	21.4	7.9	7.5	9.8	12.4	2.2	190.8
1950	227.1	150.3	13.3	22.9	8.5	9.2	10.6	³ 15.1	2.9	210.5
1951	255.3	175.6	16.0	24.8	9.1	9.1	11.6	12.6	3.4	235.7
1952	271.1	190.5	14.3	25.7	9.9	9.0	12.3	13.2	3.8	253.1
1953	286.2	204.6	12.3	25.9	10.3	9.3	13.8	14.0	3.9	270.2
1954	287.6	202.8	12.0	25.9	10.5	10.0	14.7	16.2	4.5	271.9

¹ Compensation of employees (see national income table, p. 7) excluding employer contributions for social insurance.

² Personal income exclusive of net income of unincorporated farm enterprises, farm wages, agricultural net interest, and net dividends paid by agricultural corporations.

³ Includes \$2.7 billion National Service Life Insurance dividend, most of which was paid in the first half of the year.

NOTE.—Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

SOURCES OF PERSONAL INCOME and PER CAPITA DISPOSABLE INCOME

(Because of their close relationship, these two series are discussed together.)

Description of series.—"Personal income" is composed of income received currently by individuals, by unincorporated businesses, and by nonprofit institutions (including pension, trust, and welfare funds). This income is here divided into labor income, proprietors' income, rental income of persons, dividends, personal interest, and transfer payments. Capital gains and losses are excluded. Although most of the income is in monetary form, there are important exceptions—chiefly estimated rental value to owner-occupants of their homes and value of food consumed on farms.

"Labor income" is principally wages and salaries. It excludes employer contributions for social insurance.

"Proprietors' income" and "Rental income of persons" are defined above, in the section on National Income.

"Dividends" are cash dividend disbursements by corporations organized for profit to stockholders who are United States persons.

"Personal interest income" is the "Net interest" component of National Income plus net interest paid by the Government.

"Transfer payments" include payments not resulting from current production, such as social-security benefits, military pensions, corporate gifts to nonprofit institutions, direct relief, and consumer bad debts. They do not include Government interest.

"Disposable personal income" is equal to personal income less taxes on individuals (including income and other taxes not deductible as business expense)

Per Capita Disposable Income

Year	Total disposable personal income (billions of dollars) ¹		Per capita disposable personal income (dollars) ¹		Population (thousands) ²
	Current prices	1954 prices ²	Current prices	1954 prices ²	
1929	83.1	130.1	682	1,067	121,881
1930	74.4	119.6	604	971	123,188
1931	63.8	112.8	514	908	124,149
1932	48.7	95.6	389	764	124,949
1933	45.7	94.9	364	755	125,690
1934	52.0	104.4	411	825	126,485
1935	58.3	114.1	458	896	127,362
1936	66.2	128.1	517	1,000	128,181
1937	71.0	132.7	551	1,030	128,901
1938	65.7	125.1	505	962	129,969
1939	70.4	136.3	538	1,041	131,028
1940	76.1	145.7	576	1,103	132,122
1941	93.0	169.7	697	1,272	133,402
1942	117.5	193.6	871	1,435	134,860
1943	133.5	207.0	977	1,515	136,739
1944	146.8	224.1	1,060	1,618	138,397
1945	150.4	224.4	1,075	1,604	139,928
1946	159.2	219.3	1,126	1,551	141,389
1947	169.0	203.1	1,173	1,410	144,126
1948	187.6	209.6	1,279	1,429	146,031
1949	188.2	212.1	1,261	1,422	149,188
1950	206.1	230.3	1,359	1,518	151,083
1951	226.1	233.8	1,465	1,515	154,360
1952	236.7	239.4	1,508	1,525	157,028
1953	250.4	251.1	1,568	1,573	159,643
1954	254.8	254.8	1,569	1,569	162,409

¹ Income less taxes.

² Dollar estimates in current prices divided by consumer price index on base 1954=100.

* Includes Armed Forces overseas. Annual data as of July 1.

NOTE.—Quarterly data available beginning 1939; annual from 1929.

Source: Department of Commerce.

and other general Government revenues received from individuals as individuals.

“Disposable personal income in 1954 prices” is the preceding series valued in 1954 prices by dividing the series in current dollars by the Consumer Price Index (with 1954=100). As a result, the income difference, for example, between 1939 and 1954 is far less in real terms than is indicated by comparing the current dollar estimates of 70.4 billion and 254.8 billion, respectively. Prices were so much lower in 1939 that the income for that year should almost be doubled for comparison with real income in 1954.

“Per capita disposable personal income” is obtained simply by dividing the disposable personal income series by the total midyear population.

Relation to other series.—Personal income differs from national income by including transfer payments and Government interest and by excluding contributions for social insurance (by employee and employer), the corporate inventory valuation adjust-

ment and corporate profits tax liability and undistributed corporate profits.

Uses and limitations.—The estimates for personal income and its components and for disposable income provide a measurement of trends in spending power of individuals. The inclusion of substantial nonmonetary items—imputed rent, interest, food, fuel—should be noted for some purposes, but the effect of including these items should not be over-emphasized. They tend to make the income estimates generally more stable, but should have little effect on the ability of the estimates to show when a change is occurring and the direction of the shift.

Disposable personal income gives a more direct measure of income available for spending, since it approximates take-home income, than does personal income. For measuring changes, in real terms, in consumers' buying power, the estimates of disposable income in constant prices are to be preferred.

References.—See above under National Income.

DISPOSITION OF PERSONAL INCOME

Description of series.—"Personal income" and "Disposable personal income" are discussed in the preceding section.

"Personal consumption expenditures" is the sum of money and imputed expenditures made by consumers (individuals, nonprofit institutions such as hospitals, etc.) for goods and services. The expenditure total covers total purchase cost to consumers, including general sales taxes. The full cost of automobiles, refrigerators, furniture, and the like is included in the period when sold—quarter or year—regardless of when payments are made or completed. The purchase of homes is not included as an expenditure; instead the estimated rental value to the homeowner is included if he occupies the home.

"Durable goods" are those items which generally last three years or longer in use. "Nondurable goods" are items with a shorter life. "Services" include housing, telephone, electricity, shoe repair, gas and water, and also such items as the expense of handling life insurance, and banking services furnished without payment (such as free checks where a minimum balance is maintained).

"Personal saving" is equal to disposable personal income less personal consumption expenditures. As such, it conceptually includes not merely cash and bank deposits but changes in reserves of life insurance companies, increase in equity of farmers (e. g., land, machinery), homeowners, etc.

Statistical procedures.—Most personal consumption expenditures for goods are estimated for benchmark years from the value of the output of specified items as reported in the census of manufactures, less the portion of this output bought by business and Government or exported. To the consumer portion of manufactured products is added the value of non-manufactured consumer goods (for example, non-processed foods) to derive producers' output for consumers. Successive adjustments are added for transportation, imports and exports, wholesale and retail inventory changes, wholesale and retail markups, and sales taxes. Transportation charges are computed from data on transportation compiled by the Interstate Commerce Commission and other sources. Wholesale and retail markups are derived from census of business and Internal Revenue Service

data. For service items a great variety of sources and procedures are used.

Current estimates of consumption expenditures rest chiefly on the month-to-month trends shown by the Census Bureau's retail sales figures by kind of store, Federal Reserve Board data for department stores, State sales-tax reports, and other source data.

Relation to other series.—Estimates of personal consumption expenditures will show much the same trends from quarter to quarter as the figures for total retail sales. However, personal consumption expenditures also include a wide variety of services and such items as food produced and consumed on farms which are outside of retail trade. Conversely, retail trade includes some commodity items, such as building materials, gasoline and trucks, which are not part of personal consumption expenditures.

The estimate of personal net saving and the net claims estimate of the Securities and Exchange Commission differ in level and trend. The chief reason for the difference is the inclusion in the personal saving series (and not in the net claims estimates) of net purchases of nonfarm residences and net increases in persons' equities in farms and other unincorporated businesses. (For a detailed reconciliation of the two series, see table 6, p. 12, of the July 1955 issue of the *Survey of Current Business*.)

Uses and limitations.—The estimates of personal consumption expenditures represent a generally useful, reliable measure of trends in consumer purchases. They may be used to study trends in the ratio of wages, or more generally of income, to expenditure, and to review the division of the national output between consumer takings, business capital formation, and Government defense or other expenditures.

The estimates of personal saving are among the least satisfactory of the significant series which appear in the national income accounts. They are the residual from two larger estimates. The errors and limitations present in the hundreds of series, developed for other purposes, which must be used at present in estimating the national income do not completely cancel out. To this extent these errors are transmitted into the saving estimate. Quarter-to-quarter changes are, however, subject to revision as better data become available.

References.—See above, under National Income.

Disposition of Personal Income

Year	Personal income	Less:	Equals:	Less: Personal consumption expenditures			Equals:	Saving as percent of disposable income	
		Personal taxes ¹	Disposable personal income	Total	Durable goods	Non-durable goods	Services		Personal saving
Billions of dollars									
1929.....	85.8	2.6	83.1	79.0	9.2	37.7	32.1	4.2	5.0
1930.....	70.9	2.5	74.4	71.0	7.2	34.0	29.8	3.4	4.6
1931.....	65.7	1.9	63.8	61.3	5.5	28.9	26.9	2.5	3.9
1932.....	50.1	1.5	48.7	49.3	3.6	22.8	22.0	-.6	-1.3
1933.....	47.2	1.5	45.7	46.4	3.5	22.3	20.7	-.6	-1.4
1934.....	53.6	1.6	52.0	51.9	4.2	26.7	21.0	.1	.2
1935.....	60.2	1.9	58.3	56.3	5.1	29.3	21.9	2.0	3.5
1936.....	68.5	2.3	66.2	62.6	6.3	32.8	23.5	3.6	5.4
1937.....	73.0	2.9	71.0	67.3	6.9	35.2	25.1	3.7	5.3
1938.....	68.6	2.9	65.7	64.6	5.7	34.0	25.0	1.1	1.6
1939.....	72.9	2.4	70.4	67.6	6.7	35.1	25.8	2.9	4.1
1940.....	78.7	2.6	76.1	71.9	7.8	37.2	26.9	4.2	5.5
1941.....	96.3	3.3	93.0	81.9	9.7	43.2	29.0	11.1	11.9
1942.....	123.5	6.0	117.5	89.7	7.0	51.3	31.5	27.8	23.6
1943.....	151.4	17.8	133.5	100.5	6.6	59.3	34.7	33.0	24.7
1944.....	165.7	18.9	146.8	109.8	6.8	65.4	37.7	36.9	25.2
1945.....	171.2	20.9	150.4	121.7	8.1	73.2	40.4	28.7	19.1
1946.....	178.0	18.8	159.2	146.6	15.9	84.5	46.2	12.6	7.9
1947.....	190.5	21.5	169.0	165.0	20.6	93.1	51.3	4.0	2.4
1948.....	208.7	21.1	187.6	177.6	22.2	98.7	56.7	10.0	5.3
1949.....	206.8	18.7	188.2	180.6	23.6	96.9	60.1	7.6	4.0
1950.....	227.1	20.9	206.1	194.0	28.6	100.4	65.0	12.1	5.9
1951.....	255.3	29.3	226.1	208.3	27.1	111.1	70.1	17.7	7.8
1952.....	271.1	34.4	236.7	218.3	26.6	116.0	75.7	18.4	7.8
1953.....	286.2	35.8	250.4	230.6	29.8	118.9	81.8	19.8	7.9
1954.....	287.6	32.8	254.8	236.5	29.3	120.9	86.4	18.3	7.2

¹ Includes also such items as fines, penalties, and donations.

NOTE.—Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

Sources: Department of Commerce.

FARM INCOME

Description of series.—Farm operators' gross and net farm income and farm production expenses are estimated annually and quarterly by the Agricultural Marketing Service of the Department of Agriculture. "Realized gross farm income" of farm operators is the sum of (1) cash receipts from farm marketings, (2) the value of farm products consumed directly in farm households, (3) gross rental value of farm dwellings, and (4) Government payments to farmers. "Farm production expenses," which now account for nearly two-thirds of gross farm income, are the aggregate of all current farm operating expenses and overhead costs to farm operators. Farm operators' "Net income, excluding adjustment for inventory change" is the remainder of realized gross farm income after farm production expenses

have been deducted; and "Net income, including adjustment for inventory change" takes into account changes in farmers' holdings of animals and crops. The "Net income per farm (including adjustment for inventory change)" is calculated by dividing the U. S. totals by the estimated number of farms.

Statistical procedures.—For the computation of gross farm income, the estimates of cash receipts from marketings are based upon information collected by the Department of Agriculture on the quantity sold and average prices received by farmers for the various farm commodities. The current estimates of crop marketings are based on estimated production, the normal percentage of the crop sold, and the usual seasonal movement to market, supplemented by available current data on market receipts. For most

of the important livestock items, current reports on production or market receipts are available and are used to estimate current livestock marketings. The estimates of cash receipts from marketings are later revised as more complete data on production, crop-year sales and monthly marketings become available. The value of farm products consumed directly in farm households is estimated on the basis of information obtained from farmers on the volume of home consumption, valued at prices received by farmers for the sale of similar products. The gross rental value of farm dwellings is designed to represent the amount which would have to be paid if the dwellings were rented separately from the farm. Government payments to farmers comprise all payments made directly to farmers by the Federal Government in which a sale or title transfer is not involved—at the present time, only conservation, wool and Sugar Act payments. Net Commodity Credit Corporation loans and purchase-agreement deliveries are included in cash receipts from marketings.

The estimates of the farm production expenses of farm operators are based on about 40 separate series. Some of the operating expense series are based on data obtained in the censuses of agriculture, with interpolations for intercensal years; others are based on special surveys and trade information. Depreciation charges on buildings, motor vehicles, and other farm machinery and equipment are estimated annually as the amount which farmers would have had to pay if they had replaced, at prices prevailing during the year, the amount of plant and equipment used up during the year. Estimates are also made for taxes on farm property, interest on outstanding indebtedness, and net property-insurance premiums.

Annual estimates are made of the number of farms, based upon census of agriculture data adjusted for incompleteness. (A postenumeration survey made by the Bureau of the Census following the 1950 Census of Agriculture found that the underenumeration of farms amounted to 5.1 percent, and of cropland in farms to 2 percent.) National estimates for intercensal years are the sum of separate State estimates. They are based on data which vary from State to State.

Relation to other series.—The series on net income of farm proprietors including adjustment for inventory change is conceptually the same as farm proprietors' income in the national income series (see above, p. 6), although some variations exist because of differences in the timing of revisions.

The Department of Agriculture also publishes estimates of "Net income of persons on farms from farming," which include net farm income of farm

operators, adjustment for inventory change, and wages paid to farm workers who live on farms. This series, plus farm wages, interest, and rents paid to persons not living on farms, comprises the estimates of "Net income from agriculture."

Uses and limitations.—The estimates of farm operators' realized gross farm income are for the most part based on a comprehensive body of basic data and are considered to be reasonably accurate. The estimates of farm production expenses, however, are based in part on outdated expenditure patterns and may be subject to a fair-sized margin of error. Any errors in the expense estimates are fully reflected in the estimates of net income of farm operators. A comprehensive survey of farmers' expenditures will be made early in 1956, and the results of this survey will be used to improve present estimates of farm production expenses and hence of farm operators' net income.

Information on total farm income and on net income per farm is useful as a general indicator of the economic well-being of a broad sector of the economy. Its usefulness is limited, however, because of the wide variation in type-of-farming operations and in size of farms: some segments of the farm economy may prosper at the same time that other segments are seriously distressed. In order to supply more detailed data on how the different segments of the farm economy are affected by changing prices of farm products and of farm production items, the Production Economics Research Branch of the Agricultural Research Service has developed data on farm costs and returns for about 20 of the more important type-of-farming areas, and several more are being developed.

References.—The basic release of the farm income data is the *Farm Income Situation*, published bi-monthly by the Agricultural Marketing Service. The annual series are also published, with other principal series relating to agriculture, in the Department of Agriculture's annual *Agricultural Statistics*. The methods used to estimate farm operators' income are described in detail in *Agricultural Estimating and Reporting Services* (Department of Agriculture Miscellaneous Publication No. 703), December 1949. The methods used for the quarterly estimates of farm operators' income in terms of seasonally adjusted annual rates are described in the July 1954 issue of *Agricultural Economic Research*, published by the Agricultural Marketing Service. The individual studies of commercial family-operated farms by type and location are published annually by the Agricultural Research Service in *Farm Costs and Returns*.

Farm Income

Year	Farm operators' income						Number of farms (thousands)
	Realized gross farm income ¹	Farm production expenses	Net income ²		Net income per farm (including adjustment for inventory change)		
			Excluding adjustment for inventory change ³	Including adjustment for inventory change ⁴	Current prices	1954 prices ⁵	
Billions of dollars				Dollars			
1910.....	7.5	3.5	3.9	4.2	649	1,803	6,406
1911.....	7.2	3.6	3.6	3.3	520	1,414	6,425
1912.....	7.7	3.8	3.8	4.4	686	1,854	6,430
1913.....	7.9	4.0	3.9	3.7	572	1,580	6,437
1914.....	7.7	4.0	3.7	4.1	637	1,722	6,447
1915.....	8.1	4.2	3.9	4.2	653	1,674	6,458
1916.....	9.6	4.8	4.8	4.5	691	1,536	6,463
1917.....	13.3	6.1	7.2	8.2	1,266	2,344	6,478
1918.....	16.4	7.5	8.9	8.8	1,354	2,083	6,488
1919.....	17.8	8.3	9.5	9.0	1,381	1,794	6,500
1920.....	15.9	8.8	7.1	7.8	1,190	1,469	6,518
1921.....	10.5	6.6	3.9	3.3	510	864	6,511
1922.....	11.0	6.6	4.4	4.3	661	1,160	6,500
1923.....	12.1	7.0	5.1	5.0	774	1,334	6,492
1924.....	12.7	7.4	5.3	4.8	743	1,281	6,480
1925.....	13.7	7.3	6.3	6.7	1,035	1,751	6,471
1926.....	13.3	7.4	5.9	5.9	914	1,519	6,462
1927.....	13.3	7.4	5.9	5.7	879	1,516	6,458
1928.....	13.6	7.7	5.8	6.0	922	1,590	6,470
1929.....	13.9	7.6	6.3	6.1	943	1,626	6,512
1930.....	11.4	6.9	4.5	4.3	650	1,182	6,546
1931.....	8.4	5.5	2.9	3.3	506	1,076	6,608
1932.....	6.4	4.4	1.9	2.0	305	782	6,687
1933.....	7.1	4.3	2.8	2.6	382	979	6,741
1934.....	8.5	4.7	3.9	2.9	434	964	6,776
1935.....	9.7	5.1	4.6	5.3	778	1,729	6,814
1936.....	10.7	5.6	5.1	4.3	643	1,429	6,739
1937.....	11.3	6.1	5.2	6.0	911	1,938	6,636
1938.....	10.1	5.8	4.3	4.4	675	1,500	6,527
1939.....	10.6	6.2	4.4	4.5	697	1,584	6,441
1940.....	11.0	6.7	4.3	4.6	720	1,636	6,350
1941.....	13.8	7.7	6.2	6.6	1,044	2,175	6,293
1942.....	18.8	9.9	8.8	9.9	1,600	2,857	6,202
1943.....	23.4	11.5	11.9	11.8	1,942	3,132	6,089
1944.....	24.4	12.2	12.2	11.8	1,967	3,026	6,003
1945.....	25.8	12.9	12.9	12.4	2,080	3,059	5,967
1946.....	29.3	14.3	15.0	14.9	2,518	3,403	5,927
1947.....	34.0	16.8	17.2	15.5	2,632	3,060	5,873
1948.....	34.6	18.6	15.9	17.7	3,049	3,314	5,804
1949.....	31.6	17.9	13.7	12.9	2,248	2,526	5,723
1950.....	32.1	19.2	12.9	13.7	2,428	2,698	5,648
1951.....	37.1	22.3	14.8	16.1	2,919	2,978	5,520
1952.....	36.9	22.9	14.1	14.9	2,778	2,800	5,360
1953.....	35.2	21.8	13.4	12.8	2,445	2,470	5,240
1954.....	34.0	22.2	11.8	12.3	2,413	2,413	5,100

¹ Includes cash receipts from farm marketings, value of farm products consumed directly in farm households, gross rental value of farm dwellings, and Government payments to farmers.

² Excludes (a) farm wages paid to workers living on farms and (b) any income to farm people from nonfarm sources. These items in 1934 were as follows: (a) 2.0 billion dollars and (b) 5.7 billion dollars.

³ Realized gross income less farm production expenses.

⁴ Same as farm proprietors' income on pages 7 and 8, except that figures given here include revisions by the Department of Agriculture not yet incorporated into the national income accounts of the Department of Commerce.

⁵ Dollar estimates in current prices divided by index of prices paid by farmers for items used in family living, on base 1964=100.

NOTE.—Annual data available beginning 1910; quarterly from 1923.

Source: Department of Agriculture.

CORPORATE PROFITS

Description of series.—The corporate profits series of the Office of Business Economics, Department of Commerce, contains profits estimates for past years and recent quarters for all United States corporations organized for profit, estimates of the distribution of those profits between dividends and retained earnings, and estimates of corporate tax liability (Federal and State corporate income and excess profits taxes). The national income concept of profits of OBE is used in this series. This concept of profits differs from the conventional accounting concept of profits (which is used in the Internal Revenue Service tabulation of profits and in the financial report series of the Federal Trade Commission and Securities and Exchange Commission) in that dividends received by corporations are deducted from profits (and dividends) to obtain unduplicated totals reflecting income originating in United States corporations; profits are calculated inclusive of depletion, which is not considered an element of capital consumption in the national income and product accounts; capital gains and losses are eliminated from profits because they do not measure gains or losses originating from current production; and adjustments for international flows affecting profits are made. The estimates are based largely on tabulations from income-tax returns and, for the 2 or 3 most recent years covered at any time, from reports to the SEC, FTC, and other regulatory agencies. The corporate profits series as initially published are revised to reflect more comprehensive data when those data become available.

Statistical procedures.—The annual data published in the corporate profits series are, except for the 2 or 3 most recent years, based upon tabulations by the Internal Revenue Service of unaudited corporate-income-tax returns. The data in these tabulations are adjusted in various ways to make them comparable, statistically and conceptually, with other entries in the national income accounts. The important accounting conceptual adjustments are suggested by the statement above of differences between the conventional accounting concept of profits and the national income concept. Another important adjustment of the tabulations is the audit adjustment which makes allowance for additional profits disclosed by auditing of the income-tax returns by Internal Revenue. Mutual insurance companies are not considered part of the corporate universe for national income purposes, and profits of these companies are removed from the tax-return tabulations.

Since the tax-return tabulations are not available

until about 2 years after the close of the year to which they refer, other bases for the estimates for the most recent 2 years and for quarters must be used. These estimates for current periods are made by extrapolating the benchmark estimates, i. e., the latest estimates based upon Internal Revenue tabulations of corporation tax returns. The extrapolators are based upon regular quarterly reports from manufacturing corporations to FTC and SEC and from public utility corporations to Federal regulatory agencies, upon nongovernmental surveys, and upon miscellaneous sources of varying reliability. When the Internal Revenue tabulations of tax returns for a given year become available, the estimates for that year are revised to conform to the Internal Revenue tabulations.

The series on "Corporate tax liability" is derived by procedures generally similar to those described for corporate profits.

Relation to other series.—The corporate profits series is designed primarily to measure the contribution of corporate profits to the national income. It is, therefore, as consistent with the concepts and other series which are a part of the national income accounts as the basic data permit, and can be used in conjunction with the other national income series (e. g., net interest, proprietors' and rental income, compensation of employees, etc.) with confidence of conceptual comparability.

The corporate profits series is, as it must be, based upon reports from companies rather than establishments. This results in some noncomparability with series based upon reports from establishments. Furthermore, surveys based upon the establishment unit of classification are not confined to establishments of corporations but include establishments of other forms of organization as well. The corporate profits series, or any other series based upon company reports, cannot safely be assumed to be directly comparable with these establishment series unless the reports on the different bases have been reconciled. These factors are more important when series for specific industries are being compared, however, than when the broad aggregates published in *Economic Indicators* are compared.

The series on expenditures for new plant and equipment (p. 18) and sales and inventories (p. 44) are also based primarily upon company reports. All three series are produced for recent periods by extrapolating benchmark estimates based upon Internal Revenue Service tabulations of income-tax returns. The plant and equipment expenditures

Corporate Profits

[Billions of dollars]

Year	Corporate profits before taxes	Corporate tax liability	Corporate profits after taxes		
			Total	Dividend payments	Undistributed profits
1929	9.6	1.4	8.3	5.8	2.4
1930	3.3	.8	2.5	5.5	-3.0
1931	- .8	.5	-1.3	4.1	-5.4
1932	-3.0	.4	-3.4	2.6	-6.0
1933	.2	.5	-.4	2.1	-2.4
1934	1.7	.7	1.0	2.6	-1.6
1935	3.1	1.0	2.2	2.9	-.7
1936	5.7	1.4	4.3	4.5	-.2
1937	6.2	1.5	4.7	4.7	(1)
1938	3.3	1.0	2.3	3.2	-.9
1939	6.4	1.4	5.0	3.8	1.2
1940	9.3	2.8	6.5	4.0	2.4
1941	17.0	7.6	9.4	4.5	4.9
1942	20.9	11.4	9.5	4.3	5.2
1943	24.6	14.1	10.5	4.5	6.0
1944	23.3	12.9	10.4	4.7	5.7
1945	19.0	10.7	8.3	4.7	3.6
1946	22.6	9.1	13.4	5.8	7.7
1947	29.5	11.3	18.2	6.5	11.7
1948	32.8	12.5	20.3	7.2	13.0
1949	26.2	10.4	15.8	7.5	8.3
1950	40.0	17.8	22.1	9.2	12.9
1951	41.2	22.5	18.7	9.1	9.6
1952	35.9	19.8	16.1	9.0	7.1
1953	38.3	21.3	17.0	9.3	7.7
1954	34.0	17.1	17.0	10.0	7.0

¹ Less than \$50 million.

NOTE.—No allowance has been made for inventory valuation adjustment. See National Income table (p. 7) for corporate profits and inventory valuation adjustment.

Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

and the sales and inventories series differ from the corporate profits series in that they cover unincorporated as well as incorporated businesses.

Uses and limitations.—The corporate profits series is an important economic indicator, reflecting the state of health of a substantial part of the Nation's business community. Certain limitations of the series require that it be used with caution, however.

(1) As its title indicates, the series measures only the profits of corporations. It does not, therefore, portray fully the profit position of all business.

(2) The total corporate profits series is too general to provide any indication of the profit positions of specific industries. In some situations knowledge of the profits experience of specific industries is vital to correct economic analysis.

(3) The quarterly corporate profits estimates are less reliable than the annual estimates, especially the

annual estimates for periods more than 2 years prior to the current year. There are two principal reasons for this: (a) Quarterly income statements, upon which the quarterly series must be based, are inherently less reliable than annual income statements because they are affected by seasonal influences that are not completely accounted for in company reports; and (b) wide gaps in the financial data available quarterly make the underlying basis of the quarterly estimates weaker than that of the annual estimates, even before the Internal Revenue tabulations become available.

References.—See above, under National Income. A complete statement of the methods and the sources of data used in preparing these estimates is presented in pages 92-97 of the 1954 National Income Supplement to the *Survey of Current Business*.

GROSS PRIVATE DOMESTIC INVESTMENT

Description of series.—Gross Private Domestic Investment is one of the major components of gross national product. The series measures gross fixed investment and net changes in business inventories. Gross fixed investment (or gross fixed capital formation) is defined as all newly produced durable goods (i. e., those with an average life exceeding 1 year) acquired by their ultimate business users. New residential construction purchased by owner-occupants is also included because homeownership is treated as a business in the national accounts. The "Change in business inventories" series measures physical changes in business inventories valued at average prices prevailing during the year.

Separate statistical series are published for "Fixed investment" (which in turn consists of separate series for "New construction" and "Producers' durable equipment") and for "Change in business inventories." The "New construction" series used in computing gross private domestic investment is derived from the private construction component of the new construction series described below (p. 39) by adding oil- and gas-well drilling.

A major revision of the "Producers' durable equipment" series was undertaken in conjunction with the preparation of the 1954 National Income Supplement to the *Survey of Current Business*. The estimates were revised for the entire period since 1929.

The quarterly estimates of producers' durable equipment and changes in business inventories are revised annually to reflect more complete data than were available when the initial estimates were made. The revisions in the "Changes in business inventories" series have sometimes been quite sizable, and have resulted primarily from revisions in the basic book value inventory aggregates.

Statistical procedures.—The principal method of estimation used for the "Producers durable equipment" series has been the commodity-flow technique. In brief, this technique consists of (1) estimating the purchases of durable equipment by business by segregating finished producers' durable goods from total manufacturing output to obtain an estimate of the manufacturers' sales value of those goods, (2) tracing the flow of those goods, (3) measuring their distributive costs and (4) adding the estimate of those distributive costs to manufacturers' sales value to arrive at an estimate of the costs of those goods to their purchasers.

For the years 1929-39 and for 1947, data available from the manufactures and trade censuses made it possible to carry out the commodity-flow technique of estimating purchases of producers' durable equip-

ment in greater detail than was possible in other years. For the years since 1940, except 1947, the paucity of data has prevented the detailed application of the commodity-flow approach, but it has been possible to develop "secondary" benchmark estimates from data arising out of the 1942-46 and 1950-52 production control programs for some industries, and, beginning with 1949, from data collected by the Bureau of the Census in its annual sample surveys of manufactures. Since 1952, estimates of purchases of producers' durable equipment have been made by extrapolating the 1952 secondary benchmarks on the basis of percent change estimates. The extrapolators are developed from the series on new plant and equipment expenditures (see next section) by adjusting that series primarily to exclude expenditures on new plant and include expenditures on new farm equipment, but also to correct for other conceptual differences.

The primary source for estimates of changes in the nonfarm portion of business inventories is reported accounting data on the book value of inventories at the beginning and end of the period for which the estimates are made. Because inventory calculation by individual business firms varies widely in method, numerous adjustments in the reported data are necessary to arrive at an estimate consistent with the basic concept. The principal adjustment is that of removing the price-change element in the reported figures and revaluing inventory change in current dollars.

Relation to other series.—The relationship between the "Producers' durable equipment" series and the "Durable goods" series in Expenditures for New Plant and Equipment, to which it is most closely related, is discussed in the following section.

The "Change in business inventories" series is most closely related to the estimates of "Inventories," discussed in the section on Sales and Inventories (p. 44). A basic difference between these series is that the series on business inventory change, included here, is concerned with changes in inventories over a period of time, whereas the inventories series presented below is concerned with the level of inventories at a given point in time. The series also differ conceptually in their measurement of inventories: the inventories series is based upon data as reported by the reporting companies, whereas for the inventory-change series OBE adjusts the reported data to reflect a uniform method of valuation.

Uses and limitations.—The gross private domestic investment series measure an economic factor of crucial importance in business conditions.

Gross Private Domestic Investment

[Billions of dollars]

Year	Total gross private domestic investment	Fixed investment						Change in business inventories	
		Total	New construction			Producers' durable equipment	Total	Non-farm	
			Total	Residential nonfarm	Commercial and industrial ¹				All other ²
1929	16.2	14.6	8.7	3.6	3.7	1.4	5.8	+1.7	+1.8
1930	10.3	10.6	6.2	2.1	3.0	1.2	4.5	-.4	-.1
1931	5.5	6.8	4.0	1.6	1.6	.8	2.8	-1.3	-1.6
1932	.9	3.5	1.9	.6	.8	.5	1.6	-2.6	-2.6
1933	1.4	3.0	1.4	.5	.6	.4	1.6	-1.6	-1.4
1934	2.9	4.0	1.7	.6	.7	.4	2.3	-1.1	+.2
1935	6.3	5.4	2.3	1.0	.7	.6	3.1	+.9	+.4
1936	8.4	7.4	3.3	1.6	1.1	.6	4.2	+1.0	+2.1
1937	11.7	9.5	4.4	1.9	1.6	.9	5.1	+2.2	+1.7
1938	6.7	7.6	4.0	2.0	1.1	.8	3.6	-.9	-1.0
1939	9.3	8.9	4.8	2.7	1.2	.8	4.2	+.4	+.3
1940	13.2	11.0	5.5	3.0	1.6	.9	5.5	+2.2	+1.9
1941	18.1	13.6	6.6	3.5	2.1	1.0	6.9	+4.5	+4.0
1942	9.9	8.1	3.7	1.7	1.3	.7	4.3	+1.8	+.7
1943	5.6	6.4	2.3	.9	.8	.7	4.0	-.8	-.6
1944	7.1	8.2	2.7	.8	1.0	.9	5.4	-1.0	-.6
1945	10.4	11.5	3.8	1.1	1.7	1.1	7.7	-1.1	-.6
1946	27.1	21.0	10.3	4.0	4.2	2.1	10.7	+6.1	+6.4
1947	29.7	30.7	14.0	6.3	4.9	2.8	16.7	-1.0	+1.3
1948	41.2	37.0	17.9	8.6	5.7	3.6	19.1	+4.2	+3.0
1949	32.5	35.3	17.5	8.3	5.3	3.9	17.8	-2.7	-1.9
1950	51.2	43.9	22.7	12.6	5.7	4.5	21.1	+7.4	+6.4
1951	56.9	46.5	23.3	11.0	7.2	5.1	23.2	+10.4	+9.0
1952	49.6	46.8	23.7	11.1	7.5	5.2	23.1	+2.8	+2.1
1953	51.4	50.2	25.8	11.9	8.4	5.4	24.4	+1.2	+1.9
1954	47.2	50.1	27.8	13.5	8.6	5.7	22.3	-2.9	-3.2

¹ Includes public utility.

² Includes petroleum and natural gas well drilling.

NOTE.—Quarterly data available beginning 1939; annual from 1929. Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

Limitations in the "Fixed investment" series can be traced to limitations in the data on which they are based, especially in the data available for current quarters. The absence of reliable current data on government purchases of producers' durable equipment constitutes a special problem when the commodity-flow method of estimation is used; and the limitations of data on manufacturers' commodity sales and on new plant and equipment expenditures for use in estimating fixed investment carry forward to some extent in the current estimates. Nevertheless, the discrepancies between initial quarterly estimates and the revised estimates based on more complete data have generally not been great.

The figures on "Change in business inventories," although rough estimates to a considerable degree, are useful indicators of the physical-volume change

in inventories during the period under review. A serious limitation in the series is inherent in the basic method of calculation that must be used. The estimates are calculated as the difference between large and possibly volatile inventory totals at two points in time. Even small errors in the estimates of total inventories can lead to large relative errors in the estimates of inventory change. Because comprehensive accounting data on inventories become available only after a lag of several years, current estimates of inventory change are based upon less satisfactory data than are the estimates for past years.

References.—See above, under National Income. For a full discussion of the concepts and statistical methods, see particularly pages 43-45 and 122-138 in the 1954 National Income Supplement.

EXPENDITURES FOR NEW PLANT AND EQUIPMENT

Description of series.—The series on expenditures for new plant and equipment, published jointly by the Securities and Exchange Commission and the Office of Business Economics, Department of Commerce, measures the expenditures by all private businesses except agriculture, professions, and institutions for plant and types of machinery and equipment for which the reporting companies maintain depreciation accounts. Expenditures charged off as expense during the period in which made are excluded. Estimates are made for both actual plant and equipment expenditures for recent quarters (and calendar years) and anticipated expenditures for the two succeeding quarters (and calendar year). These estimates are based upon information contained in annual reports of all corporations registered with SEC and quarterly reports from a group of registered corporations who make approximately 85 percent of the capital expenditures by registered corporations; and annual and quarterly reports by a group of manufacturing and retail trade companies to OBE and by class I railroads to the Interstate Commerce Commission.

The last major revision in the series was published in two parts, the revision for manufacturing industries in the December 1951 issue of the *Survey of Current Business* and the revision for nonmanufacturing industries in the August 1952 issue. The revision established a benchmark based on gross capital assets as reported to the Internal Revenue Service for the 1948 tax year, and introduced improvements in the estimating procedures being used. For example, information contained in the mandatory annual reports of corporations registered with the SEC was used for the first time and adjustments were made for biases arising out of changes in the business population.

Because of the method of estimating used (the extrapolation of benchmark estimates on the basis of less than complete current data), lesser revisions in the estimates of actual expenditures for plant and equipment for any given quarter or year are made to take into account new data as they become available.

Statistical procedures.—The benchmark for the estimates is the gross capital assets of the full universe of companies as derived from reports to the Internal Revenue Service for the tax year 1948. The estimation of year-to-year and quarter-to-quarter movements in these expenditures are made by extrapolating the benchmark estimates on the basis of the annual and quarterly reports received by SEC, OBE, and

ICC. The group of reporting companies account for about three-fifths of aggregate investment in plant and equipment, although the sample is not randomly selected. Coverage is quite small in a few areas, such as nonrail transportation and mining, and quite high in railroads, public utilities, and some manufacturing industries.

The seasonal factors used for adjusting the actual expenditures data for changes due to seasonal fluctuations are based on the "ratio to moving average" technique. Adjustments are also made where necessary in the estimates of plant and equipment expenditures to correct for biases due to changes in the business population which are not reflected in the data reported by the relatively constant sample of companies used.

Relation to other series.—The SEC-OBE series on actual plant and equipment expenditures by manufacturers utilizes the same definitions of investment as those of the 1947 Census of Manufactures and the later annual surveys of manufactures of the Census Bureau. There is a substantial difference between the Census Bureau data on expenditures for plant and equipment and the SEC-OBE manufacturing series, however, in that the SEC-OBE series obtains reports on companywide outlays whereas the Census Bureau obtains reports on outlays of establishments. Thus, the Census Bureau's annual series covers only *establishments* whose primary activity is manufacturing, whereas the SEC-OBE quarterly and annual series cover all activities, manufacturing as well as nonmanufacturing, of *companies* whose primary activity is manufacturing and excludes manufacturing activities of companies whose primary activity is nonmanufacturing.

The SEC-OBE series covering all industries differs somewhat in concept from the "Producers' durable equipment" and "New construction" components of gross private domestic investment (see p. 16). The SEC-OBE series is confined to nonagricultural industries, and excludes expenditures of institutions and professional persons and outlays on plant and equipment charged off as expenses during the period of the expenditure; it is based on a survey requesting information on expenditures for capital goods for which depreciation accounts are maintained. The current estimates of investment in producers' durable equipment are for the most part derived indirectly by extrapolating benchmarks on the basis of percentage change estimates developed from the equipment-expenditures portion of the SEC-OBE series; and

Expenditures for New Plant and Equipment

[Billions of dollars]

Year	Total ¹	Manufacturing			Mining	Transportation		Public utilities	Commercial and other ²
		Total	Durable goods	Nondurable goods		Railroads	Other		
1939	5.51	1.94	0.76	1.19	0.33	0.28	0.36	0.52	2.08
1940	8.69	3.98	1.59	2.39	.38	.55	.57	.50	2.70
1945	14.85	6.79	3.11	3.68	.43	.58	.92	.79	5.33
1946	20.61	8.70	3.41	5.30	.69	.89	1.30	1.54	7.49
1947	22.06	9.13	3.48	5.65	.88	1.32	1.28	2.54	6.90
1948	19.28	7.15	2.59	4.56	.79	1.35	.89	3.12	5.98
1949	20.60	7.49	3.14	4.36	.71	1.11	1.21	3.31	6.78
1950	25.64	10.85	5.17	5.68	.93	1.47	1.49	3.66	7.24
1951	26.49	11.63	5.61	6.02	.98	1.40	1.50	3.89	7.09
1952	28.32	11.91	5.65	6.26	.99	1.31	1.56	4.55	8.00
1953	26.83	11.04	5.09	5.95	.98	.85	1.51	4.22	8.23

¹ Excludes agriculture.

² Includes trade, service, finance, communications, and construction.

Note.—These figures do not agree with the totals included in the gross national product estimates of the Department of Commerce, principally because the latter cover agricultural investment and also certain equipment and construction outlays charged to current expense.

Detail will not necessarily add to totals because of rounding.

Data on Expenditures for New Plant and Equipment are not available for the years prior to 1939 and for the years 1940-41.

Sources: Securities and Exchange Commission and Department of Commerce.

the estimates of new private construction are developed from both direct and indirect sources.

The SEC-OBE series on manufacturers' expenditures for new plant and equipment is directly comparable in classification and scope with the OBE series on manufacturers' sales, new orders, and inventories (see p. 44). It has a different scope from the Federal Trade Commission-Securities and Exchange Commission financial reports series in manufacturing, mainly in that the FTC-SEC estimates of balance-sheet and income-statement items cover only *corporations* and a different degree of consolidation is involved.

Uses and limitations.—This series is one of the very few economic series in which estimates of anticipated events as well as historical events are made. The series measures economic phenomena of great importance in the analysis of business conditions. The predictive reliability of estimates of anticipations is difficult to ascertain. An estimate of anticipated expenditures for a period can be different from actual expenditures for the same period either because the estimating procedures and statistical techniques employed are faulty or because the anticipated expenditures were—for any number of reasons—not made in fact. Except in a few periods in the past when marked differences between esti-

mates of anticipated expenditures and actual expenditures for the same period have occurred as a result of unanticipated developments, such as the outbreak of Korean hostilities, the anticipatory survey has generally proved a reliable indicator of the overall trend of capital expenditures. The survey has generally reflected the cyclical turning points in the postwar period, although its predictive reliability has yet to be tested during a major cycle.

There are two principal deficiencies in the statistical procedures employed in making the estimates of expenditures for new plant and equipment. One of these, mentioned above, is the inadequacy of the sample coverage for some industries. Efforts are being made, to the extent that available resources permit, to strengthen the sample coverage in these industries. The second deficiency is that for many of the industries the benchmark data for several areas are of limited reliability.

References.—These estimates are published quarterly in Department of Commerce and Securities and Exchange Commission press releases and in the *Survey of Current Business*. For a fuller description of the methods employed in making the estimates and of the latest revisions in the series, see the December 1951 and August 1952 issues of the *Survey of Current Business*.

EMPLOYMENT, UNEMPLOYMENT, AND WAGES

STATUS OF THE LABOR FORCE

Labor Force

Description of series.—Each month, the Bureau of the Census of the Department of Commerce publishes estimates of the labor force and of total employment and unemployment. In addition to the overall figures, detail is presented on the characteristics of employed and unemployed persons, such as age, sex, color, marital status, and veteran status. Employed persons are further subdivided into those employed in agriculture and in nonagricultural pursuits, by class-of-worker (wage and salary workers, self-employed, etc.), by broad occupation groups, and by hours worked during the survey week and reasons for part-time work. Duration of unemployment is shown for the unemployed.

The estimates are obtained by means of a sample survey of households, representing all persons in the continental United States except those living in institutions (such as prisons or homes for the aged). On the basis of responses to the Census Bureau interviewers, all persons 14 years and over in the sample households are classified as employed, unemployed, or not in the labor force for the calendar week ending nearest the 15th of the month. Prior to July 1955, the reference week was the calendar week containing the 8th of the month; this change was made to improve comparability with other series.

Counted as *employed* are all persons who, during the survey week, were either (a) "At work"—those who did any work for pay or profit, or those who worked without pay for 15 hours or more on a family farm or business; or (b) "With a job but not at work"—those who did not work and were not looking for work but had a job or business from which they were temporarily absent because of vacation, illness, industrial dispute, bad weather, or layoff with definite instructions to return within 30 days of layoff. Also included are persons who had new jobs to which they were scheduled to report within 30 days.

Included as *unemployed* are those persons who did not work at all during the survey week and who were looking for work. Also included as unemployed are persons who would have been looking for work except that (a) they were temporarily ill, (b) they expected to return to a job from which they had been laid off for an indefinite period, or (c) they believed no work was available in their line of work or in the community.

The sum of the employed and the unemployed constitutes the *civilian labor force*. All other civilians 14 years of age and over are classified as "not in the labor force" (housewives, students, retired or disabled persons, those doing less than 15 hours of unpaid family work, and the voluntarily idle).

The sample survey was started in March 1940. Prior to that date there was no direct enumeration of the labor force. The estimates shown for 1939 and earlier years were prepared by the Bureau of Labor Statistics, using information such as the 1930 and 1940 Censuses of Population, and employment trends from BLS and Department of Agriculture series for intervening years. The techniques used in preparing the estimates for the earlier years are described in "Labor Force, Employment, and Unemployment, 1929-39: Estimating Methods," which appeared in the July 1948 issue of the Labor Department's *Monthly Labor Review*.

Since the survey was instituted in 1940, there have been a number of revisions in the series. In November 1943 an improved sample design was introduced and the estimates were revised back to 1940 using the 1940 Census of Population figures as a benchmark for that date. Starting in July 1945, a modified set of questions was used which resulted in a more nearly complete count of employed persons; the estimates were again revised back to 1940 to take account of the improvement in interviewing procedure. In January 1954 the sample was spread from 68 sample areas to 230 sample areas (although retaining the overall size of 25,000 dwelling units and other living quarters), in the interest of improving the reliability of the estimates. The estimates for 1953, which were deficient in certain respects, were revised to achieve greater comparability with those from the new sample. Estimates prior to 1953 are not exactly comparable with those from the expanded sample, although for most major items the series can be regarded as reasonably consistent.

Statistical procedures.—Starting with the expanded sample in 1954, a new method of preparing estimates was introduced. This method involves the preparation of two intermediate estimates for a given item each month: (1) an estimate obtained by applying to the final estimate for the preceding month an estimate of month-to-month change based on those parts of the sample common to the 2 months (roughly 75 percent of the sample units) and (2) an estimate based on the data for the current month only in-

flated to independent estimates of the population by age, sex, and color (previously the sole estimation procedure used). The final estimate is then obtained from a weighted average of the intermediate estimates (1) and (2), achieving a substantial reduction in sampling variability for most items.

Relation to other series.—The Census Bureau's estimates of employment, obtained from a sample of households, differ in a number of respects from estimates of employment prepared from reports of employing establishments and based on payroll records, such as the Bureau of Labor Statistics current nonagricultural employment series and the Department of Agriculture estimates of farm employment. Because of these differences and sampling variability, changes in the various series may not always be consistent. The Census estimates provide information on the work status of the population: persons employed at more than one job, either because they hold more than one job concurrently or because they changed jobs during the survey week, are counted only once by the Census and are classified according to the job at which they work the greatest number of hours during the week. Estimates based on reports from business establishments and farms, on the other hand, count persons who work for more than one establishment as many times as the number of different payrolls on which their names appear. The Census estimates relate to all type of workers, including domestic service workers, unpaid family workers (working 15 hours or more during the week) and self-employed persons, groups which are excluded from employment series based on establishment reports. On the other hand, the Census excludes workers less than 14 years of age whereas the payroll-based series have no age exclusions. An additional difference arises from the fact that persons with a job but not at work are likely to be included with the employed in the Census estimates, whereas only part of this group (those receiving pay while away from work) are included in the BLS estimates.

For a number of reasons, the unemployment estimates of the Bureau of the Census are not directly comparable with statistics derived from unemployment insurance operations. In the first place, some unemployed persons are not eligible for unemployment insurance, particularly young persons looking for their first jobs, domestic servants, most former State and local government workers, agricultural workers, and persons who lost their jobs in firms too small to be covered by the various State unemployment insurance laws. Unemployed persons who have already received all of the benefits to

which they are currently entitled are not included in the unemployment insurance claims figures. Also, the qualifications for drawing unemployment insurance differ from the definition of unemployment used by the Census Bureau. For example, persons with a job but not at work and persons working only a few hours during the week are frequently eligible for unemployment insurance, but are classified by the Census Bureau as employed. Furthermore, some persons may be reported to the Census Bureau as not looking for work even though they may be registered at public employment offices, consider themselves available for jobs and be eligible for unemployment insurance.

Uses and limitations.—One of the chief advantages of the Census labor force, employment and unemployment estimates is that they provide the only comprehensive figures covering the employment status of the whole population. The data are collected monthly and published promptly. The estimates of unemployment, in particular, are used as a current indicator of the general health of the economy.

Another advantage of the household enumeration method of obtaining labor force information is the possibility of relating work status to other personal and family characteristics. Classifications are made not only by broad occupation and industry groups, but also by sex, age, and color, by marital status and number of children. For example, changes in the employment of married women, and of married women with small children, can be studied. By asking supplementary questions from time to time other information concerning the family can be similarly estimated, such as family incomes and the amount of migration during the course of a year. All these analyses throw light on the changing size and composition of the labor force.

It should be noted that in the classification used, anyone who did any work for pay during the survey week (or did 15 or more hours of unpaid work in a family enterprise) is counted as employed. Also counted as employed are those who did not work nor look for work but who had definite jobs waiting for them. (The numbers in these groups are shown separately in Census releases.) Thus the survey indicates roughly the total demand for jobs: the number of persons who have jobs (the employed) and the number seeking jobs (the unemployed). To understand current trends, the summary figures need to be supplemented by the detailed data. The information provided regularly on hours worked shows the number of full-time and part-time employed. Starting in May 1955, information is also

provided monthly on the extent of voluntary and involuntary part-time employment, and the amount of underemployment arising from economic causes; these data were available only quarterly or less frequently prior to that date. Monthly data on changes in the duration of unemployment add meaning to the total count of unemployment.

Since the estimates are prepared from a relatively small sample, the user should not attach significance to very small changes. Estimates of the range of sampling variability in the data are regularly published and more detailed information on this subject is being compiled for the guidance of the users. The relative sampling error for the 230-area sample is estimated at about 0.6 percent for summary estimates of the civilian labor force, total employment, and nonagricultural employment; and roughly 4 percent for agricultural employment and total unemployment.

The user should also keep in mind that the information is collected by personal interview, usually with the housewife. She may not, in some cases, have exact knowledge for all members of the household. For this reason, as well as because of the relatively small size of the sample, only broad occupational and industry groupings of the data are published. Finally, the measurement of unemployment is in some cases difficult, since it depends in part on the attitude of the person interviewed. The classification of a person as unemployed has been made as objective as possible, by using the criterion of "looking for work," but no method has been as yet developed which will insure consistent reporting of activity month after month. Some marginal (usually very small) groups may be reported as unemployed in some circumstances whereas they would be reported as not in the labor force in others. Most of these problems of measurement affect persons whose attachment to the labor force is casual or intermittent, especially married women and youths still in school looking for part-time jobs.

References.—The regular monthly estimates of the civilian labor force are published by the Bureau of the Census in the *Monthly Report on the Labor Force* (Current Population Reports, Series P-57), which includes also descriptions of the data and an indication of the reliability of the estimates. A further description of the new estimating method may be found in the Bureau of the Census Current Population Reports, Series P-23, No. 2, July 30, 1954. Annual summaries and supplementary information on part-time workers, income, migration, etc., are published in special labor-force reports (Current Population Reports, Series P-50).

Insured Unemployment

Description of series.—Weekly data on claims for benefits under employment security programs, obtained by the Bureau of Employment Security, Department of Labor, as a byproduct of operations, represent a measure of unemployment among workers covered by the programs. In addition to the State employment security programs, the volume of insured unemployment for all programs includes "Korea veterans" filing under the Veterans' Readjustment Assistance Act of 1952 (as it did after World War II with respect to veterans eligible for benefits under the Servicemen's Readjustment Act of 1944) and insured unemployment under the program administered by the Railroad Retirement Board. Since January 1955, the program for Federal employees has been included in the "all programs" figure.

Insured unemployment represents the number of covered workers totally or partially unemployed during a given week for which they have filed unemployment insurance claims. Weekly insured unemployment figures are available for each State for the State, Federal employee, and veteran programs, and nationally for the Railroad Retirement Board program. Monthly averages are also provided. In addition, insured unemployment under the State programs is published for the week ending nearest the 15th of each month for 145 major labor market areas.

A series on initial claims—notice of the beginning of a period of unemployment for which benefits may be claimed—is also available on a weekly basis for each State. This series provides a measure of the volume of new unemployment among workers covered by the State, Federal employee, and veteran programs. Data on initial claims are not added to the insured unemployment count, however, since such claims do not certify to completed weeks of unemployment.

Statistical procedures.—The insured unemployment figures are complete counts of completed weeks of unemployment for which benefits are claimed under the various programs. The BES sums the data reported by the State employment security agencies and the Railroad Retirement Board to get national totals weekly. Since the claims figures reported by the States are dated by the weeks in which the claims were filed rather than by the weeks in which the unemployment occurred, BES adjusts both the individual State and the National figures to refer to the actual periods of unemployment. For States paying claims on a calendar-week basis this is done

Status of the Labor Force

Year	Total labor force (including armed forces) ¹	Civilian labor force	Employment ²				Unemployment ⁴		Insured unemployment	
			Total	Agricultural	Nonagricultural	Temporary layoffs ³	Number	Percent of civilian labor force	Thousands of persons (all programs) ⁵	Percent of covered employment (State programs) ⁶
Thousands of persons 14 years of age and over ⁷										
1929	49,440	49,180	47,630	10,450	37,180	(⁸)	1,550	3.2	(⁹)	(⁹)
1930	50,080	49,820	45,480	10,340	35,140	(⁸)	4,340	8.7	(⁹)	(⁹)
1931	50,680	50,420	42,400	10,290	32,110	(⁸)	8,020	15.9	(⁹)	(⁹)
1932	51,250	51,000	38,940	10,170	28,770	(⁸)	12,060	23.6	(⁹)	(⁹)
1933	51,840	51,590	38,760	10,090	28,670	(⁸)	12,830	24.9	(⁹)	(⁹)
1934	52,490	52,230	40,890	9,900	30,990	(⁸)	11,340	21.7	(⁹)	(⁹)
1935	53,140	52,870	42,260	10,110	32,150	(⁸)	10,610	20.1	(⁹)	(⁹)
1936	53,740	53,440	44,410	10,000	34,410	(⁸)	9,030	16.9	(⁹)	(⁹)
1937	54,320	54,000	46,300	9,820	36,480	(⁸)	7,700	14.3	(⁹)	(⁹)
1938	54,950	54,610	44,220	9,690	34,530	(⁸)	10,390	19.0	(⁹)	(⁹)
1939	55,600	55,230	45,750	9,610	36,140	(⁸)	9,480	17.2	(⁹)	(⁹)
1940	56,180	55,640	47,520	9,540	37,980	(⁸)	8,120	14.6	1,330	5.0
1941	57,530	55,910	50,350	9,100	41,250	(⁸)	5,560	9.9	841	3.0
1942	60,380	56,410	53,750	9,250	44,500	(⁸)	2,660	4.7	661	2.2
1943	64,560	55,540	54,470	9,080	45,390	(⁸)	1,070	1.9	140	.5
1944	66,040	54,630	53,960	8,950	45,010	(⁸)	670	1.2	111	.4
1945	65,290	53,860	52,820	8,580	44,240	(⁸)	1,040	1.9	714	2.1
1946	60,970	57,520	55,250	8,320	46,930	97	2,270	3.9	2,803	4.3
1947	61,758	60,168	58,027	8,266	49,761	123	2,142	3.6	1,803	3.1
1948	62,898	61,442	59,378	7,973	51,405	141	2,064	3.4	1,461	3.0
1949	63,721	62,105	58,710	8,026	50,684	185	3,395	5.5	2,470	6.2
1950	64,749	63,099	59,957	7,507	52,450	92	3,142	5.0	1,599	4.6
1951	65,982	62,884	61,005	7,054	53,951	117	1,879	3.0	996	2.8
1952	66,560	62,966	61,293	6,805	54,488	142	1,673	2.7	1,064	2.9
1953	67,362	63,815	62,213	6,562	55,651	167	1,602	2.5	1,058	2.8
1954	67,818	64,468	61,238	6,504	54,734	221	3,230	5.0	2,039	5.2

¹ Data for 1940-52 revised to include about 150,000 members of the armed forces who were outside the continental United States in 1940 and therefore were not enumerated in the 1940 census and were excluded from 1940-52 estimates.

² Includes part-time workers and those with jobs but not at work for such reasons as vacations, illness, bad weather, temporary layoff, and industrial disputes; excludes armed forces.

³ Shown separately to afford a basis for further analysis of employment and unemployment.

⁴ See footnote 3.

⁵ Weekly averages of unemployed workers, covered by unemployment insurance programs, who have completed at least 1 week of unemployment. State, veteran, and railroad retirement programs are included. Servicemen's Readjustment Act benefits (World War II) included, Sept. 1944-August 1951.

⁶ State unemployment insurance programs during the period shown excluded from coverage agricultural workers, Government employees, domestic servants, workers in nonprofit organizations, unpaid family workers, the self-employed, and (in most States) workers in very small firms.

⁷ Labor force data for 1953 revised; 1946-54 data based on 68-area sample; beginning in 1951, based on 230-area sample. Earlier data based on smaller sample are revised (1940-45); labor force data prior to 1940 are based on estimates from other sources rather than direct enumeration.

⁸ Not available.

NOTE.—Monthly labor force data available beginning March 1940, based on the week containing the 6th of the month. Monthly and weekly insured unemployment data available beginning July 1945.

Sources: Department of Commerce (labor force, 1940-54) and Department of Labor (labor force, 1929-39, and insured unemployment).

by dating the claims for the preceding week; for those on a "flexible" week, the figures for the current and preceding weeks are averaged.

Relation to other series.—For a comparison with the Current Population Survey, see above, under Labor Force (p. 21).

Uses and limitations.—The BES series are based on a complete count of claims-taking transactions. Being derived from administrative records, the series have certain unique advantages and certain inherent limitations as economic indicators.

The advantages stem from the fact that the data

are complete counts rapidly available on a weekly basis. Coverage of the Federal and State programs has expanded until currently about 80 percent of all wage and salary workers in nonagricultural industries both public and private, are covered.

The insured unemployment figures serve two purposes as economic indicators. First, since they are available weekly, they provide the most up-to-date information on current trends in unemployment. Second, geographic detail can be provided, for labor market areas as well as for States. In using these figures for such purposes, however, their limitations,

which are based on the fact that the series are byproducts of administrative records, must be kept in mind.

The unemployment insurance programs exclude certain groups of workers—self-employed persons, unpaid family workers, new entrants into the labor market, and persons employed in specific industries. The most important industries excluded are agriculture, domestic service, nonprofit organizations, and most State and local governments. (Prior to 1955, Federal Government workers were also excluded.) In addition, employees of firms below a specified size within the "covered" industries are excluded in many States.

Aside from these broad exclusions, some groups of covered workers who are unemployed may not be eligible for benefits and are therefore not included in the insured unemployment figures. These groups include unemployed workers whose previous jobs were in covered industries but who did not earn sufficient wage credits or were not employed the required length of time; unemployed covered workers who are disqualified for various reasons, such as voluntary quitting without good cause, discharge for misconduct, refusal of suitable work, or temporary illness; persons who are eligible to receive benefits but for one reason or another do not apply; and finally, workers who have exhausted their benefit rights. In a period when unemployment is substantial and of long duration, the volume of exhaustions may have an important bearing on the magnitude of the insured unemployment levels.

These limitations vary over time as well as between States. During the years since 1939, exclu-

sions on account of "size-of-firm" provisions have become less important, and will become still smaller with the extension of coverage in January 1956.

Weekly data are subject to some variation from week to week as holidays call for a rescheduling of the claimant's appearance at the local office. Monthly data are presented as "average weekly volume of insured unemployment" and are not significantly affected by holiday weeks. The monthly data, however, are influenced to some extent by administrative factors. Forty States and the District of Columbia operate on an "individual benefit year" basis. In such States a worker who previously had insufficient wage credits may become eligible for benefits when the earnings of a new quarter become a part of his base period. This administrative factor exerts an upward influence on insured unemployment during the first month of each quarter in most States. Similarly, eight States which operate on a "uniform benefit year" usually show an administrative rise in insured unemployment at the beginning of the new benefit year.

References.—The basic release of the weekly data is the BES *Unemployment Insurance Claims*, which contains initial claims as well as insured unemployment for the State, Federal employee and veteran programs by States, and for the Railroad Retirement Board program nationally. Weekly figures and monthly averages are also reprinted in the BES monthly publication, *The Labor Market and Employment Security*. A technical note, "Source, Nature, and Limitations of Insured Unemployment Statistics," appears in the April 1954 issue of *The Labor Market and Employment Security*.

NONAGRICULTURAL EMPLOYMENT—Selected Industries

Description of series.—Current monthly series on employment in nonagricultural establishments, with related information on hours and earnings (see below), are prepared by the Bureau of Labor Statistics. Employment estimates are published for more than 200 separate industry groups and subgroups as well as 8 major industry divisions (manufacturing, mining, trade, etc.). Estimates of women employed in manufacturing industries are available quarterly.

Employment figures represent the total number of persons employed in nonagricultural establishments in the continental United States during a specified payroll period which (for all industries except Government) is that ending nearest the 15th of the month. Employed persons include all those who worked during or received pay for any part of

the payroll period, including part-time as well as full-time, temporary as well as permanent, employees. Workers on an establishment's payroll who are on paid sick leave, paid holiday or paid vacation, or who work a part of a specified pay period and are unemployed or on strike during the other part are considered employed. Persons on the payroll of more than one establishment during the pay period are counted each time reported. On the other hand, persons are not considered employed who are laid off, on leave without pay, or on strike for the entire pay period. Proprietors, the self-employed and unpaid family workers, and domestic workers in households are not included. Government employment statistics refer to civilian employees only, but include employees of State and local governments as well as Federal.

Nonagricultural Employment
[Thousands of wage and salary workers¹]

Year	Total	Manufacturing			Mining	Contract construction	Wholesale and retail trade	Government (Federal, State, local)	Other
		Total	Durable goods	Non-durable goods					
1919.....	26,829	10,534	(²)	(²)	1,124	1,021	4,664	2,671	6,815
1920.....	27,088	10,534	(²)	(²)	1,230	848	4,623	2,603	7,250
1921.....	24,125	8,132	(²)	(²)	953	1,012	4,754	2,531	6,743
1922.....	25,569	8,080	(²)	(²)	920	1,185	5,084	2,542	6,852
1923.....	28,128	10,155	(²)	(²)	1,203	1,220	5,494	2,811	7,436
1924.....	27,770	9,523	(²)	(²)	1,092	1,321	5,026	2,723	7,485
1925.....	28,505	9,786	(²)	(²)	1,080	1,440	5,810	2,802	7,581
1926.....	29,539	9,997	(²)	(²)	1,176	1,555	6,033	2,848	7,930
1927.....	20,691	9,839	(²)	(²)	1,105	1,608	6,165	2,917	8,057
1928.....	20,710	9,786	(²)	(²)	1,041	1,606	6,137	2,996	8,144
1929.....	31,041	10,534	(²)	(²)	1,078	1,497	6,401	3,066	8,405
1930.....	29,143	9,401	(²)	(²)	1,000	1,372	6,064	3,149	8,157
1931.....	26,383	8,021	(²)	(²)	864	1,214	5,531	3,204	7,489
1932.....	23,377	6,797	(²)	(²)	722	970	4,907	3,225	6,756
1933.....	23,466	7,258	(²)	(²)	735	809	4,990	3,167	6,498
1934.....	25,099	8,346	(²)	(²)	874	862	5,552	3,298	6,767
1935.....	26,792	8,907	(²)	(²)	888	912	5,692	3,477	6,916
1936.....	28,802	9,653	(²)	(²)	937	1,145	6,076	3,662	7,320
1937.....	30,718	10,606	(²)	(²)	1,006	1,112	6,543	3,749	7,702
1938.....	28,902	9,253	(²)	(²)	882	1,055	6,453	3,876	7,383
1939.....	30,311	10,078	4,683	5,394	845	1,150	6,612	3,995	7,632
1940.....	32,058	10,780	5,337	5,443	916	1,294	6,940	4,202	7,926
1941.....	36,220	12,974	6,945	6,028	947	1,790	7,416	4,660	8,433
1942.....	39,779	15,051	8,804	6,247	983	2,170	7,333	5,483	8,759
1943.....	42,106	17,381	11,077	6,304	917	1,567	7,189	6,080	8,073
1944.....	41,534	17,111	10,858	6,253	883	1,094	7,260	6,043	9,141
1945.....	40,037	15,302	9,079	6,222	826	1,132	7,522	5,944	9,311
1946.....	41,287	14,461	7,739	6,722	852	1,661	8,602	5,595	10,116
1947.....	43,462	15,290	8,372	6,918	943	1,982	9,196	5,474	10,577
1948.....	44,448	15,321	8,312	7,010	982	2,169	9,519	5,650	10,807
1949.....	43,315	14,178	7,473	6,705	918	2,165	9,513	5,856	10,686
1950.....	44,738	14,967	8,085	6,882	880	2,333	9,645	6,026	10,878
1951.....	47,347	16,104	9,080	7,024	916	2,603	10,012	6,389	11,322
1952.....	48,303	16,334	9,340	6,994	885	2,634	10,281	6,609	11,563
1953.....	49,681	17,238	10,105	7,133	852	2,622	10,527	6,645	11,797
1954.....	48,285	15,989	9,120	6,870	770	2,527	10,498	6,751	11,751

¹ Includes all full- and part-time wage and salary workers in nonagricultural establishments who worked during or received pay for any part of the pay period ending nearest the 15th of the month. Excludes proprietors, self-employed persons, domestic servants, unpaid family workers, and personnel of the armed forces. Total derived from this table not comparable with estimates of nonagricultural employment of the civilian labor force reported by the Department of Commerce (p. 23) which includes proprietors, self-employed persons, and domestic servants; which count persons as employed when they are not at work because of industrial disputes; and which are based on an enumeration of population, whereas the estimates in this table are based on reports from employing establishments.

² Not available.

Note.—Monthly data available beginning January 1939; annual from 1919.

Source: Department of Labor.

Information on employment, hours and earnings is collected each month from a sample of establishments under cooperative arrangements with State agencies (primarily State employment security agencies). The cooperating State agencies mail questionnaires to the reporting establishments and edit them when returned, before passing the information on to the BLS. To eliminate duplicate reporting, the same establishment reports are used for preparing State, area, and national estimates.

Durable goods manufacturing industries include: ordnance and accessories (except Government-operated establishments), lumber and wood products, furniture and fixtures, stone, clay and glass products, primary metal industries, fabricated metal products, machinery, transportation equipment, instruments and miscellaneous manufacturing industries. All other manufacturing industries are included in the nondurable manufacturing estimates.

Statistical procedures.—Current estimates depend

on monthly reports from a sample of employers. The sample of about 155,000 establishments is designed to obtain reports from most if not all the large establishments in each industry but the proportion of total employment covered varies considerably from industry to industry. It is high (68 percent) in manufacturing, for example, and much lower in wholesale and retail trade (19 percent) and service industries.

In order to compute total employment from the sample reports, month-to-month changes in the sample establishments are applied to a total employment figure (benchmark) separately for each industry. The benchmark figures are obtained from sources which, singly or in combination, insure either a complete count of employment for the specified benchmark period, or an estimate of reasonable accuracy. This method takes advantage of benchmark data which are byproducts of other governmental functions.

Since 1939 the basic sources of benchmark information have been periodic tabulations of employment data by industry compiled by State agencies from reports of establishments covered under State unemployment insurance laws. Supplementary tabulations prepared by the United States Bureau of Old-Age and Survivors Insurance are used for small-size establishments exempt from State unemployment insurance laws. For industries not covered by either of the two programs, benchmarks are compiled from other sources: for example, for interstate railroads, from information reported to the Interstate Commerce Commission; for State and local government, from data reported to the Bureau of the Census; for the Federal Government, from data compiled by the Civil Service Commission. Establishments are classified into the same industrial groupings for benchmark purposes as for monthly reporting.

The most recent benchmark adjustment was to data for the first quarter of 1954 (published in May 1955). These revisions were carried back to 1953 where appropriate, and some changes in the government and the finance and service components have been carried back as far as 1939.

The seasonally adjusted estimates of the total number of employees in nonagricultural establishments, as shown in current issues of *Economic Indicators*, were introduced by the BLS in 1954, with seasonally adjusted and nonadjusted indexes of employment. In preparing the seasonally adjusted estimates and indexes, the BLS uses the monthly factors developed by the Federal Reserve Board.

Relation to other series.—For a comparison with the Current Population Survey, see above (p. 21).

In addition to total employment in each industry, BLS also prepares estimates of production-worker employment for mining and manufacturing industries. These estimates are exactly comparable with the average hours and earning series (see below) which are prepared from information reported on the same questionnaires as the employment figures.

In general, BLS employment estimates are comparable with other data collected from establishments, such as employment, production, and similar data obtained by the Census Bureau in the manufacturing censuses and annual surveys. Some differences will be found, however, especially for individual industries, caused chiefly by differences in definitions of the industries covered, the business units considered parts of an establishment, and in the industrial classification of establishments.

More serious differences are found between the BLS establishment-based series and those based on reports from companies, such as financial reports on profits, because the industry totals that result when a single industry classification is assigned to an entire company differ substantially from those in which each establishment of the company has been assigned to the industry of its principal activity. (See *Corporate Profits*, above, p. 14.)

Uses and limitations.—Current employment statistics are widely used as a timely indicator of changes in economic activity in various sectors of the economy. Comparable information for a large number of detailed industries is provided within a few weeks. Furthermore, because of the promptness with which basic information is supplied in considerable industry detail, the BLS employment estimates are frequently incorporated in other Federal statistical series, particularly in making current estimates of production, productivity, and national income.

The publication of comparable State and local area estimates by the cooperating State agencies using the same concepts and methods provides a means whereby business trends can be followed for all States and the District of Columbia and for about 100 of the large metropolitan areas.

The national estimates are not all of uniform quality, however. In general, those for manufacturing industries are most reliable. Since "cutoff" sampling rather than a probability design has been used, it is not possible to calculate the sampling variability of monthly estimates. Experience with the program has shown that the monthly employment data in some industries tend to have an increasing bias for the successive months between two benchmarks. Although this error cannot be adjusted precisely on a current basis, average adjustment is made through

Average Weekly Hours

[Hours per week, for production workers or nonsupervisory employees]

Year	Manufacturing			Building construction	Retail trade ¹
	Total	Durable goods	Nondurable goods		
1914	49.4	(2)	(2)	(2)	(2)
1919	46.3	(2)	(2)	(2)	(2)
1920	47.4	(2)	(2)	(2)	(2)
1921	43.1	(2)	(2)	(2)	(2)
1922	44.2	(2)	(2)	(2)	(2)
1923	45.6	(2)	(2)	(2)	(2)
1924	43.7	(2)	(2)	(2)	(2)
1925	44.5	(2)	(2)	(2)	(2)
1926	45.0	(2)	(2)	(2)	(2)
1927	45.0	(2)	(2)	(2)	(2)
1928	44.4	(2)	(2)	(2)	(2)
1929	44.2	(2)	(2)	(2)	(2)
1930	42.1	(2)	(2)	(2)	(2)
1931	40.5	(2)	(2)	(2)	(2)
1932	38.3	32.6	41.0	(2)	(2)
1933	38.1	34.8	40.0	(2)	(2)
1934	34.6	33.9	35.1	28.9	(2)
1935	36.6	37.3	36.1	30.1	(2)
1936	39.2	41.0	37.7	32.8	(2)
1937	38.6	40.0	37.4	33.4	(2)
1938	35.6	35.0	36.1	32.1	(2)
1939	37.7	38.0	37.4	32.6	42.7
1940	38.1	39.3	37.0	33.1	42.5
1941	40.6	42.1	38.9	34.8	42.1
1942	42.9	45.1	40.3	36.4	41.1
1943	44.9	46.6	42.5	38.4	40.3
1944	45.2	46.6	43.1	39.0	40.4
1945	43.4	44.1	42.3	39.0	40.3
1946	40.4	40.2	40.5	38.1	40.7
1947	40.4	40.6	40.1	37.6	40.3
1948	40.1	40.5	39.6	37.3	40.3
1949	39.2	39.5	38.8	36.7	40.4
1950	40.5	41.2	39.7	36.3	40.5
1951	40.7	41.6	39.5	37.2	40.2
1952	40.7	41.5	39.6	38.1	39.9
1953	40.5	41.3	39.5	37.0	39.2
1954	39.7	40.2	39.0	36.2	39.2

¹ Hours and earnings data exclude eating and drinking places.

² Not available.

³ Data beginning with January 1948 not strictly comparable with those for earlier years.

NOTE.—Monthly data available beginning 1932 for manufacturing industries, 1934 for building construction, and 1939 for retail trade. Annual data for total manufacturing industries available for years 1909 and 1914 and on continuous basis beginning with 1919.

Source: Department of Labor.

the use of bias adjustment factors before publication. Appropriate changes in employment levels are also made, when necessary, at the next revision to new benchmarks. Revisions to 1954 benchmarks showed adjustment of 0.02 of 1 percent for the nonagricultural total; of 0.3 percent for manufacturing; and of 3.1 percent for building construction, where the greatest relative correction was needed.

References.—The basic monthly release for the employment, hours and earnings series is the BLS

Employment and Earnings, which contains national estimates, State and area estimates, and explanatory notes. The national employment, hours and earnings series for 13 months are also reprinted in the *Monthly Labor Review*. More detailed technical notes on "Measurement of Industrial Employment" and "Hours and Earnings in Nonagricultural Establishments" appear in *Techniques of Preparing Major BLS Statistical Series* (BLS Bulletin 1168), December 1954.

AVERAGE WEEKLY HOURS—Selected Industries

(Table on p. 27.)

Description of series.—With the employment figures for the specified payroll period, described in the preceding section, BLS collects from the sample establishments total man-hours of production or nonsupervisory workers actually worked or paid for, including hours paid for holidays, sick leave, and vacations taken.

Statistical procedures.—The average hour figures are obtained by dividing the number of production and related workers (or nonsupervisory workers in industries other than mining and manufacturing) into the total man-hours reported for each industry. The average hours are normally less than scheduled hours because of such factors as absenteeism, labor turnover, part-time work, and stoppages.

Uses and limitations.—Changes in hours worked supplement the information on employment, since frequently hours worked are affected even before employment by changes in economic activity. The hours figures are used in compiling the average earnings figures discussed below. They also serve as a basis for current production estimates for some industries (see description of the index of industrial production, p. 31).

Hours paid for as measured by these series differ from hours worked, and from "plant man-hours," which do not include hours paid for vacation, sick leave, or holidays.

References.—See above, under Nonagricultural Employment (p. 27).

AVERAGE HOURLY EARNINGS—Selected Industries

Description of series.—The payroll figures on which these averages are based are collected by BLS with the employment and hours figures, described above. They are reported before deductions for taxes, social insurance, etc. They include pay for sick leave, holidays, and vacations taken, but exclude retroactive pay and bonuses, unless earned and paid regularly each pay period. Earnings in 1954 prices are the average hourly earnings figures adjusted for changes in purchasing power as determined by the Consumer Price Index, with 1954=100.

Statistical procedures.—Average hourly earnings are derived by dividing total payrolls by total man-hours reported for each industry. Only the sample data are used, since there are no benchmarks available for hours and earnings.

Uses and limitations.—Average hourly earnings figures are widely used in collective bargaining, in "escalating" long-term sales contracts (such as labor costs for equipment which takes a number of months or years to build) and in general economic analysis.

The hourly earnings figures reflect not only changes in basic hourly and incentive wage rates, but also such variable factors as premium pay for overtime

and late-shift work, and changes in output of workers paid on an incentive basis. The changing employment of workers as between relatively high-paid and low-paid work, and relatively high-wage and low-wage industries, also affects the hourly earnings averages.

Hourly earnings refer to the actual return to the worker for a stated period of time, and should not be confused with wage rates, which represent the rates stipulated for a given unit of work or time. Since certain types of payments (see above) as well as payments to workers excluded from the production worker (or nonsupervisory employee) definition are not included, the earnings series should not be taken to represent labor costs to the employer.

The fact that large establishments predominate in the BLS sample may affect somewhat the level of the average earnings figures for some industries, but has no measurable effect on the trends in average hourly earnings.

References.—See above, under Nonagricultural Employment (p. 27). Estimates of hourly earnings excluding overtime are also published in *Employment and Earnings*.

Average Hourly Earnings

[For production workers or nonsupervisory employees]

Year	All manufacturing		Durable goods manufacturing		Nondurable goods manufacturing		Building construction		Retail trade ¹	
	Current prices	1954 prices ²	Current prices	1954 prices ³	Current prices	1954 prices ³	Current prices	1954 prices ³	Current prices	1954 prices ³
1914.....	\$0. 223	\$0. 606	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1919.....	. 477	. 740	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1920.....	. 555	. 743	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1921.....	. 515	. 773	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1922.....	. 487	. 780	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1923.....	. 522	. 822	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1924.....	. 647	. 859	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1925.....	. 547	. 838	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1926.....	. 548	. 832	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1927.....	. 550	. 851	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1928.....	. 562	. 879	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1929.....	. 566	. 886	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1930.....	. 552	. 887	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1931.....	. 515	. 910	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
1932.....	. 446	. 876	\$0. 497	\$0. 976	\$0. 420	\$0. 825	(⁴)	(⁴)	(⁴)	(⁴)
1933.....	. 442	. 917	. 472	. 979	. 427	. 886	(⁴)	(⁴)	(⁴)	(⁴)
1934.....	. 532	1. 068	. 556	1. 116	. 515	1. 034	\$0. 795	\$1. 596	(⁴)	(⁴)
1935.....	. 550	1. 076	. 577	1. 129	. 530	1. 037	. 815	1. 595	(⁴)	(⁴)
1936.....	. 556	1. 075	. 586	1. 133	. 520	1. 023	. 824	1. 594	(⁴)	(⁴)
1937.....	. 624	1. 166	. 674	1. 260	. 577	1. 079	. 903	1. 688	(⁴)	(⁴)
1938.....	. 627	1. 194	. 686	1. 307	. 584	1. 112	. 908	1. 730	(⁴)	(⁴)
1939.....	. 633	1. 224	. 698	1. 350	. 582	1. 126	. 932	1. 803	\$0. 542	\$1. 048
1940.....	. 661	1. 266	. 724	1. 387	. 602	1. 153	. 958	1. 835	. 553	1. 050
1941.....	. 729	1. 330	. 808	1. 474	. 640	1. 168	1. 010	1. 843	. 580	1. 058
1942.....	. 853	1. 405	. 947	1. 560	. 723	1. 191	1. 148	1. 891	. 626	1. 031
1943.....	. 901	1. 490	1. 059	1. 642	. 803	1. 245	1. 252	1. 941	. 670	1. 053
1944.....	1. 019	1. 550	1. 117	1. 705	. 861	1. 315	1. 319	2. 014	. 731	1. 116
1945.....	1. 023	1. 527	1. 111	1. 658	. 904	1. 349	1. 370	2. 058	. 783	1. 169
1946.....	1. 086	1. 406	1. 156	1. 592	1. 015	1. 398	1. 478	2. 036	. 893	1. 230
1947.....	1. 237	1. 487	1. 202	1. 553	1. 171	1. 407	1. 681	2. 020	1. 009	1. 213
1948.....	1. 350	1. 508	1. 410	1. 575	1. 278	1. 428	1. 848	2. 065	1. 088	1. 216
1949.....	1. 401	1. 579	1. 469	1. 656	1. 325	1. 494	1. 935	2. 182	1. 137	1. 282
1950.....	1. 465	1. 637	1. 537	1. 717	1. 378	1. 540	2. 031	2. 269	1. 176	1. 314
1951.....	1. 59	1. 64	1. 67	1. 73	1. 48	1. 53	2. 19	2. 26	1. 26	1. 30
1952.....	1. 67	1. 69	1. 77	1. 79	1. 54	1. 56	2. 31	2. 34	1. 32	1. 33
1953.....	1. 77	1. 78	1. 87	1. 88	1. 61	1. 61	2. 48	2. 49	1. 40	1. 40
1954.....	1. 81	1. 81	1. 92	1. 92	1. 66	1. 66	2. 60	2. 60	1. 45	1. 45

¹ Hours and earnings data exclude eating and drinking places.

² Earnings in current prices divided by consumer price index on base 1954=100.

³ Not available.

⁴ Data beginning with January 1948 not strictly comparable with those for earlier years.

NOTE.—Monthly data available beginning 1932 for manufacturing industries, 1934 for building construction, and 1939 for retail trade. Annual data for total manufacturing industries available for years 1909 and 1914 and on continuous basis beginning with 1919.

Source: Department of Labor.

Average Weekly Earnings

[For production workers or nonsupervisory employees]

Year	All manufacturing		Durable goods manufacturing		Nondurable goods manufacturing		Building construction		Retail trade ¹	
	Current prices	1954 prices ²	Current prices	1954 prices ²	Current prices	1954 prices ²	Current prices	1954 prices ²	Current prices	1954 prices ²
1914.....	\$11.01	\$20.92	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
1919.....	22.08	34.23	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
1920.....	26.30	35.21	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
1921.....	22.18	33.30	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
1922.....	21.51	34.47	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
1923.....	23.82	37.51	\$25.78	\$40.60	\$21.94	\$34.55	(³)	(³)	(³)	(³)
1924.....	23.03	37.57	25.84	40.57	22.07	34.65	(³)	(³)	(³)	(³)
1925.....	24.37	37.32	26.39	40.41	22.44	34.36	(³)	(³)	(³)	(³)
1926.....	24.65	37.41	26.61	40.38	22.75	34.52	(³)	(³)	(³)	(³)
1927.....	24.74	38.30	26.66	41.27	23.01	35.62	(³)	(³)	(³)	(³)
1928.....	24.97	39.08	27.24	42.63	22.88	35.81	(³)	(³)	(³)	(³)
1929.....	25.03	39.17	27.22	42.60	22.93	35.88	(³)	(³)	(³)	(³)
1930.....	23.25	37.38	24.77	39.82	21.84	35.11	(³)	(³)	(³)	(³)
1931.....	20.87	36.87	21.28	37.60	20.50	30.22	(³)	(³)	(³)	(³)
1932.....	17.05	33.50	16.21	31.85	17.57	34.52	(³)	(³)	(³)	(³)
1933.....	16.73	34.71	16.43	34.09	16.89	35.04	(³)	(³)	(³)	(³)
1934.....	18.40	36.95	18.87	37.89	18.05	36.24	\$22.97	\$46.12	(³)	(³)
1935.....	20.13	39.39	21.52	42.11	19.11	37.40	24.51	47.96	(³)	(³)
1936.....	21.78	42.13	24.04	46.50	19.94	38.57	27.01	52.24	(³)	(³)
1937.....	24.05	44.05	26.91	50.30	21.53	40.24	30.14	56.34	(³)	(³)
1938.....	22.30	42.48	24.01	45.73	21.05	40.10	29.19	55.60	(³)	(³)
1939.....	23.86	46.15	26.50	51.26	21.78	42.13	30.39	58.78	\$23.14	\$44.76
1940.....	25.20	48.28	28.44	54.48	22.27	42.66	31.70	60.73	23.50	45.02
1941.....	29.58	53.98	34.04	62.12	24.92	45.47	35.14	64.12	24.42	44.56
1942.....	36.65	60.38	42.73	70.40	29.13	47.99	41.80	68.86	25.73	42.39
1943.....	43.14	66.88	49.30	76.43	34.12	52.90	48.13	74.62	27.36	42.42
1944.....	46.08	70.35	52.07	79.50	37.12	56.07	52.18	79.66	29.53	45.08
1945.....	44.30	66.25	49.05	73.21	38.29	57.15	53.73	80.19	31.55	47.09
1946.....	43.82	60.36	46.49	64.04	41.14	56.67	56.24	77.47	36.35	50.07
1947.....	49.97	60.06	52.46	63.05	46.96	56.44	63.30	70.08	40.06	48.87
1948.....	54.14	60.49	57.11	63.81	50.61	56.55	68.85	76.93	43.85	48.99
1949.....	54.92	61.92	58.03	65.42	51.41	57.96	70.95	79.99	45.93	51.78
1950.....	59.33	66.20	63.32	70.75	54.71	61.13	73.73	82.38	47.63	53.22
1951.....	64.71	66.92	69.47	71.84	58.46	60.46	81.47	84.25	50.65	52.38
1952.....	67.97	68.73	73.46	74.28	60.98	61.66	88.01	88.99	52.67	53.26
1953.....	71.69	71.91	77.23	77.46	63.60	63.60	91.76	92.04	54.88	55.05
1954.....	71.86	71.86	77.18	77.18	64.74	64.74	94.12	94.12	56.84	56.84

¹ Hours and earnings data exclude eating and drinking places.

² Earnings in current prices divided by consumer price index on base 1954=100.

³ Not available.

⁴ Data beginning with January 1948 not strictly comparable with those for earlier years.

NOTE.—Monthly data available beginning June 1914 for all manufacturing industries, 1923 for durable and nondurable goods manufacturing, 1934 for building construction, and 1939 for retail trade. Annual data for all manufacturing industries also available for year 1909.

Source: Department of Labor.

AVERAGE WEEKLY EARNINGS—Selected Industries

Average weekly earnings are obtained by multiplying average weekly hours and average hourly earnings for each industry (see above under Nonagricultural Employment, pp. 24-26). They come closer than the hourly earnings to measuring what the worker has to spend, since they are affected by changes in the length of the workweek. However, they do not represent take-home pay, since no de-

ductions have been made for income and social-security taxes, group insurance, occupational supplies, union dues, or other payroll deductions.

References.—See above, under Nonagricultural Employment (p. 27). Estimates of net spendable weekly earnings in manufacturing and earnings in 1947-49 dollars for selected industries are also published in *Employment and Earnings*.

INDUSTRIAL PRODUCTION

Description of series.—The Index of Industrial Production is computed by the Board of Governors of the Federal Reserve System. It is designed to measure changes in the physical volume or quantity of output of manufactures and minerals. It does not register changes in the value of such production, nor does it include other productive activities often regarded as industrial, i. e., construction and public utilities. The manufacturing and mining industries covered by the index produce about one-third of the value of the total production of goods and services in the United States.

The manufactures and minerals indexes are based on figures compiled by the Bureau of the Census, Bureau of Mines, Department of Agriculture, Tariff Commission, Bureau of Labor Statistics, the Internal Revenue Service, and a few other Government agencies, and by trade associations and trade journals. The component series are carefully chosen to represent the industries, industry groups, and other subdivisions in the index, and where necessary and possible they are adjusted for undercoverage or other deficiencies. For example, shipment series are adjusted for inventory changes, where feasible; value data, for price changes; man-hours, for estimated changes in output per man-hour.

Both annual and monthly data are utilized. Annual data, which are generally more reliable and available in greater detail than the monthly data, are used to compute an annual index and a set of annual group, subgroup, and industry indexes measuring year-to-year output changes. Monthly data are utilized to make monthly indexes comparable to the annual indexes. The use of comprehensive annual indexes to determine levels makes it possible to employ fewer but more selective component series to represent each industry in the monthly indexes.

Manufactures.—The annual index of manufactures includes about 1,370 detailed series, and the monthly index, 164 series. The series selected are classified into the 21 major industry groups for manufacturing of the Standard Industrial Classification. These 21 major industry groups are regrouped to form the subtotals of durable and nondurable manufactured goods. Series on quantities of products manufactured or shipped, or quantities of materials consumed or supplied, account for about three-fourths of the weights assigned in the annual index, and about one-half of the weights in the monthly index. The remaining series in the annual index are mostly

deflated value figures, estimates based on several types of data, or adjusted man-hour data, with the last accounting for 4 percent of the weight. The remaining components in the monthly index consist largely of man-hour data adjusted for estimated changes in output per man-hour to represent output. The use of so large a proportion of man-hour data in the monthly index has been questioned, but it should be remembered that only the current changes for the industries concerned are governed by these man-hour series, with the index levels determined largely by annual data on quantities of products produced or shipped or other types of data.

Minerals.—The annual index of minerals is composed of about 70 separate series, and the monthly index of 11 series, classified into the 5 major industry groups for mining of the Standard Industrial Classification. The annual series on minerals, representing the production of all the important minerals, are in physical volume units, and all but one of the monthly series are also in physical volume units. The exception is the man-hour series used to represent stone and earth minerals, to which less than 10 percent of the weight of the minerals index is assigned, and which, of course, is adjusted to annual physical volume levels.

Revision in 1953.—Since its first publication in 1927 the index has undergone several major revisions. The most recent revision was completed in 1953, and the revised index introduced in December 1953. The principal changes were—

1. Increase in the number of component monthly series from 100 to 175, and many improvements in the series used.
2. Use of component series to represent certain industries formerly represented only indirectly.
3. Use of a comprehensive and detailed annual index, based on about 1,400 series, to check and correct the annual levels of the individual monthly measurements.
4. Use of 1947 value added data for calculating weights, in place of the 1937 value added data previously employed, for the segment of the index from 1947 to date.
5. Change of the comparison base period from 1935-39 to 1947-49.
6. Adoption of the latest Standard Industrial Classification code as the basis for organizing the index and its components.

The new version of the index is confined for the present to the period since January 1947. In revising the index for the earlier period, use will be made largely of the major group components of the benchmark index of manufactures (computed by Federal Reserve and the Census Bureau from data of the 1939 and 1947 Censuses of Manufactures, and published in 1952) to determine the 1939 levels of the comparable indexes relative to 1947. Pending this detailed revision, interim benchmark adjustments have been made to the old indexes for durable and non-durable manufactures—and also for minerals and total industrial production—from January 1939 to December 1946. The old indexes beginning in 1919 have been linked on to the respective revised measures to form a series of continuous indexes from 1919 to the present.

Statistical procedures.—The method used in combining the individual series is the weighted average of relatives. This consists of (1) reducing each series into relatives with the average for the base period, 1947-49, as 100; (2) multiplying each series of relatives by a base-year weight factor; and (3) adding the products (series of relatives multiplied by weights) for any one month to obtain the index number for the month. The weights used are percentage weight factors, that is, percentage of the weight assigned to each series to the total weight assigned to all series in the base period. Since the total of the percentage weight factors is equal to 100, the sum of the products of all series for any one month (all series times their respective weight factors) gives the index of industrial production for that month. The products of the component series and their weights give the number of points contributed to the index by individual series. This method of computation facilitates analysis of the changes in the index. For example, it makes it possible to observe the points contributed by each series or group of series, and therefore to determine what series or group of series are responsible for the month-to-month changes in the total index or in the index for any group or subgroup of industries.

The weights used are based on value added—the difference between the value of products and the cost of materials or supplies consumed—in individual mining and manufacturing industries in 1947. The value-added data for mining are based on estimates prepared by the Bureau of Labor Statistics in connection with its input-output studies. The value-added figures for manufacturing are obtained from the Census of Manufactures for 1947. However, since value-added data are not available for individual products of each industry, such data are in

most cases estimated on the assumption that they are proportional to value of the product.

Since the value-added data used relate to 1947, while the component series are expressed as relatives with the average for the base period 1947-49 as 100, it is necessary to adjust the 1947 value added for each series by the ratio of the level of that series in 1947 to the average level of that series in 1947-49. The value-added data so adjusted, expressed as percentages of the total for all manufacturing and mining, are the weight factors used in combining the individual series into the group and total industrial production indexes.

Components of the index are adjusted for two kinds of short-time recurring fluctuations—differences in the number of working days from month to month and seasonal variations. The first adjustment is accomplished by reducing reported quantity figures to average daily output in the month. For this purpose, only regular weekend closings—where in effect—are treated as nonworking days. No allowance is made for holiday shutdowns, whose effects on production are adjusted by the seasonal variation factors. No working-day adjustment is needed for the man-hour series which are reported in terms of rates.

The adjustment for seasonal fluctuations is made directly for the 21 manufacturing and 5 mineral major industry group indexes, and the adjusted indexes for the larger aggregates—such as durable and nondurable manufactures, manufactures, minerals, and industrial production—are obtained as combinations of these.

Relation to other series.—As an important general economic indicator, the index of industrial production is related in varying degree to other general economic indicators. Among the more important series to which the index is closely related are those on manufacturers' sales. It should be observed, however, that these are value or dollar-volume series, and are therefore influenced by price as well as quantity changes. The industrial production index, on the other hand, being a measurement of physical volume, registers quantity changes only. Differences in movement between the production index for manufacturing and the shipment series for manufacturing are also possible for other reasons: production differs from shipments because of changes in factory inventories; the production index uses the establishment as the unit for industry classification, whereas the shipments series uses the company as the unit; and the production index uses value added as weights for the series, whereas the shipments series implicitly uses value of shipments.

Industrial Production

[1947-49=100]

Year	Total industrial production	Manufactures			Minerals
		Total	Durable	Nondurable	
1919	39	38	38	37	45
1920	41	39	42	36	53
1921	31	30	24	34	42
1922	39	39	37	40	45
1923	47	45	47	44	62
1924	44	43	43	42	57
1925	49	48	49	46	50
1926	51	50	52	48	63
1927	51	50	49	50	64
1928	53	52	53	51	63
1929	59	58	60	56	68
1930	49	48	45	51	59
1931	40	39	31	48	51
1932	31	30	19	42	42
1933	37	36	24	48	48
1934	40	39	30	40	51
1935	47	46	38	55	55
1936	56	55	49	61	63
1937	61	60	55	64	71
1938	48	46	35	57	62
1939	58	57	49	66	68
1940	67	66	63	69	76
1941	87	88	91	84	81
1942	106	110	126	93	84
1943	127	133	162	103	87
1944	125	130	159	99	93
1945	107	110	123	96	92
1946	90	90	86	95	91
1947	100	100	101	99	100
1948	104	103	104	102	106
1949	97	97	95	99	94
1950	112	113	116	111	105
1951	120	121	128	114	115
1952	124	125	136	114	114
1953 ¹	134	136	153	118	116
1954 ¹	125	127	137	116	111

¹ Preliminary estimates.

NOTE.—Monthly and annual data available beginning 1919.

Source: Board of Governors of the Federal Reserve System.

The production index is not comparable in coverage with deflated gross national product: it covers manufacturing and mining only, whereas the gross national product includes all output. In recent years, product originating in manufacturing and mining has accounted for about one-third of gross national product.

Uses and limitations.—The total index of industrial production is probably most widely used as a business barometer. Both in whole and in detail it is used with related data on employment, inventories, trade, prices, and other economic variables, in analyzing short- and long-run developments in the economy.

The component indexes are used to determine the areas in which the occurrence of important changes accounted for the observed changes in the total index. They are also used in analyses relating to individual industries. Many companies, for instance, make continuing studies of their own output and sales figures in relation to the output movements of the industry. They also use the industry and product series in studies of potential markets, and in other types of research. The new index includes many more detailed industry and product series than the old, and this expansion in detail—e. g., for consumer durable items—greatly facilitates analysis

of current developments in markets for different types of industrial materials and finished goods.

Because the coverage of the index is limited to manufacturing and mining, it should not be used as a measure of total production, or even as a measure of total production of goods; the important goods-producing sectors of agriculture, construction, and utilities are not included. It might be noted, however, that changes in the output of manufactures and minerals are especially significant, in part because they account for a large part of variation in the total of all economic activity.

Because it is necessary to use estimated or approxi-

mate data in many cases, some of the components are less reliable than others.

References.—The index of industrial production is published monthly in the *Federal Reserve Bulletin*. Seasonally adjusted indexes are available for all major groups and larger aggregates, and separate component indexes of manufactures, minerals, durable manufactures, nondurable manufactures, individual manufacturing and mineral industries, and individual manufacturing and mineral products are also published monthly in the *Bulletin*, without seasonal adjustment. The method of constructing the index is described in the December 1953 *Bulletin*.

PRODUCTION OF SELECTED MANUFACTURES

The "Durable manufactures" and "Nondurable manufactures" series shown in *Economic Indicators* are selected from the component-group indexes prepared by the Board of Governors of the Federal Reserve System for the index of industrial production, described above. The table on Production of Selected Manufactures presents index figures for nine of the major components of the index of manufactures.

The relative importance of each of these nine industry indexes, as well as of the minerals and manufactures indexes, in the overall index of industrial production may be seen in the following tabulation, which shows the percent of the weight of each to the total weight of the index in the base period, 1947-49:

Industrial production.....	100.00
Minerals.....	9.98
Manufactures.....	90.02
<hr/>	
Durable manufactures.....	45.17
Primary metals.....	6.70
Fabricated metal products.....	5.73
Machinery (electrical and non-electrical).....	13.68
Transportation equipment.....	7.54
Lumber and products (except furniture).....	3.00
All other.....	8.43
Nondurable manufactures.....	44.85
Textiles and apparel.....	11.87
Paper and printing.....	8.93
Chemical and petroleum products.....	9.34
Foods, beverages, and tobacco..	11.51
All other.....	3.20

The "Consumer durable goods" index is also compiled by Federal Reserve. It is a revised and expanded version of an earlier index for major durable goods first published by the Board in October 1951. In this index, individual series are combined by means of gross-value weights rather than the value-added weights used in the industrial production index. The index of consumer durable goods is essentially an index of the volume of factory output of finished consumer durable commodities. The index of industrial production, on the other hand, is essentially an index of the volume of factory output by industries which reflects output by stage of manufacture.

Since May 1954, the Federal Reserve has published monthly indexes, with and without seasonal adjustment, covering the period 1947 to date for total consumer durables, for major durables (including autos, household furniture, floor coverings, ranges, refrigeration appliances, laundry appliances, heating apparatus, radio sets, television sets), and for other consumer durables (including auto parts and tires, and miscellaneous home and personal goods). Monthly indexes are also published for groupings of these commodities. Indexes in greater detail are compiled annually. In addition, monthly indexes without seasonal adjustment for individual household durable goods are also compiled and are available on request.

An analysis of the consumer durable goods indexes for the period 1947-53 and a description of the methods used in preparing these indexes are presented in the May 1954 issue of the *Federal Reserve Bulletin*.

Production of Selected Manufactures

[1947-49=100]

Year	Durable manufactures					Nondurable manufactures				Consumer durable goods
	Primary metals	Fabricated metal products	Machinery ¹	Transportation equipment	Lumber and products ²	Textiles and apparel	Paper and printing	Chemical and petroleum products	Foods, beverages, and tobacco	
1930.....	54	52	38	47	80	80	66	49	65	(³)
1947.....	103	103	103	96	101	99	96	97	101	98
1948.....	107	104	104	102	106	103	103	103	100	102
1949.....	90	93	93	102	93	97	101	100	100	101
1950.....	115	115	114	120	113	110	114	118	103	133
1951.....	126	122	130	135	113	106	118	132	105	114
1952.....	116	121	147	154	111	105	118	133	106	105
1953 ⁴	132	136	160	189	118	107	125	142	107	127
1954 ⁴	108	123	142	175	115	100	125	142	106	116

¹ Electrical and nonelectrical.
² Except furniture.
³ Not available.
⁴ Preliminary estimates.

Source: Board of Governors of the Federal Reserve System.

WEEKLY INDICATORS OF PRODUCTION

The following brief descriptions relate to the weekly series presented each month in *Economic Indicators* for a number of selected indicators—steel, electric power, bituminous coal, freight, paperboard, and cars and trucks. The series are useful as current measures, available more promptly than monthly or annual figures. They are subject, however, to erratic movements not shown in comparable series covering longer time periods.

The historical table of annual data presented here is in terms of weekly averages, in order to facilitate comparison of historic levels with the current series in *Economic Indicators*. Weekly averages for years, as shown in this table, are computed by dividing the total annual figures by 52. Weekly averages for months, as shown in current issues of *Economic Indicators*, are computed by assigning individual weeks to the month in which a majority of the days fall.

Steel Produced

The weekly series on steel production is compiled by the American Iron and Steel Institute. It includes steel for ingots and castings produced by open-hearth, Bessemer, and electric-furnace processes, except for the small amount of steel for castings produced in foundries operated by companies which do not produce ingots. The small quantity of crucible steel now produced is included with the production of electric furnaces.

The series is based on current reports received

from more than 90 percent of the industry, giving actual production for the preceding week and advance estimates of production for the coming week. The production for the 10 percent of the industry not reporting weekly is estimated on the basis of the reported previous months' production of the companies included in this group.

The Institute publishes the weekly series each Monday in a mimeographed release, showing production for the preceding week and estimated production for the coming week. It also publishes each month detailed production of steel by types of furnaces, whether ingots or castings, and volume of alloy steel. Monthly production of blast furnaces shows volume of pig iron and ferroalloys produced. Both series are supplemented with statistics showing geographical district in which the steel and iron were produced. Annual statistics in similar detail are presented in the Institute's *Annual Statistical Report*.

With its weekly, monthly and annual figures on production, the Institute publishes a series on "Percent of theoretical capacity" and an "Index of ingot production, 1947-49=100." The figures on percent of capacity are the ratio of the weekly production to average weekly capacity on the first of the year. This series, which measures the operating rate in relation to full capacity, is useful as an indicator of the general economic level but cannot be used for year-to-year comparisons of the volume of steel production. The index, on the other hand, provides

an accurate comparative measure of the volume of steel production from one period to another, regardless of changes in capacity.

The weekly series was initiated in October 1933. Comparable annual data on steel production are available from 1867.

Electric Power Distributed

The weekly series on electric power distributed is compiled by the Edison Electric Institute. It may be defined as the energy sold to ultimate consumers plus line losses and unaccounted-for losses; or as net generation plus net import over international boundaries, less energy used by the producer and the distributor. It includes operations of all private, municipal, cooperative, and governmental enterprises engaged in the production or distribution of electricity for the use of the public; it does not include energy generated by captive plants of industrial establishments.

The weekly figures are collected by the Institute by telegraph from approximately 105 reporting utilities (either companies or groups of interconnected companies) representing about 95 percent of the total energy available for public consumption. The estimated 100 percent production is obtained by applying the ratio of the monthly output of all utilities as collected and presented by the Edison Electric Institute for the previous month.

The weekly series is useful in economic analysis because it is available promptly and is a reliable measure of net energy distribution to the public supply. It is not a sensitive measure of important changes in industrial activity, however, since it includes energy used for nonindustrial purposes, such as air-conditioning loads, requirements of the Atomic Energy Commission, and sales to residential and rural consumers.

The weekly series is issued each Wednesday by the Edison Electric Institute. The Institute also publishes monthly research statistics, including additional data on source and disposal of energy, for which the data on generation are obtained from the Federal Power Commission. The Federal Power Commission issues a monthly bulletin on *Electric Power Statistics*, with monthly and annual data on production, fuel consumption, requirements, and supply.

The weekly series was initiated in 1928. Annual data on the production of electrical energy are available from 1902, but data for 1935 and prior years are not strictly comparable with those beginning in 1936.

Bituminous Coal Mined

The series on production of bituminous coal is compiled weekly by the Bureau of Mines, Department of the Interior. It includes bituminous coal and lignite, and is a very close approximation of total production in the United States.

The figures are estimated on the basis of carloadings and river shipments. The method of estimation consists of raising the rail and river shipment figures by factors to represent the coal that is not transported by rail or river, such as truck shipments, local sales, colliery fuel, and coal produced by small mines for local use. The weekly estimates are adjusted annually by the actual figures on production of coal and lignite collected each year from all producers by the Bureau of Mines. The correction is negligible—within less than one-half of 1 percent. The daily average for the week is obtained by dividing the weekly production by the maximum number of working days (not days actually worked) in that week.

Although bituminous coal is still an important industrial fuel, its importance has decreased in recent years. In 1920 it accounted for 67.8 percent of the total supply of energy from mineral fuels, in 1940 for 47.9 percent, and in 1954 for 27.5 percent. The series on production of bituminous coal and lignite has other weaknesses as an indicator of industrial activity. Coal mines normally operate at a fraction of their capacity—about 3 days a week—and the coal-using industries carry considerable stocks to allow for changes in industrial activity, with resultant changes in coal consumption, without regard to the ups and downs in coal output. The figures on coal production should therefore be analyzed in conjunction with related series, also compiled by the Bureau of Mines, on the consumption of coal by industries and deliveries to retail dealers, and on stocks of coal held by industries and retail dealers.

The weekly estimates of total production and average production per working day and series on consumption and consumers' stocks are published in the Bureau of Mines multilithed *Weekly Coal Report*. A description of the method used in making the estimates and more detailed annual data may be found in the chapter on "Bituminous Coal and Lignite" which appears in each annual issue of the Bureau of Mines *Minerals Yearbook*.

Weekly data on production of bituminous coal and lignite are available from 1917, and annual data from 1807.

Weekly Indicators of Production

[Weekly averages]

Year	Steel produced		Electric power distributed (millions of kilowatt-hours)	Bituminous coal mined (thousands of short tons) ²	Freight loaded (thousands of cars)	Paperboard produced (thousands of tons)	Cars and trucks assembled (thousands) ³		
	Thousands of net tons	Percent of theoretical capacity ¹					Total	Cars	Trucks
1914.....	491	60.0	(⁴)	(⁴)	(⁴)	(⁴)	11.0	10.5	0.5
1915.....	675	79.1	(⁴)	(⁴)	(⁴)	(⁴)	18.7	17.2	1.4
1916.....	895	95.0	(⁴)	(⁴)	(⁴)	(⁴)	31.1	29.3	1.8
1917.....	955	92.3	(⁴)	(⁴)	(⁴)	(⁴)	36.0	33.6	2.5
1918.....	940	85.9	(⁴)	(⁴)	(⁴)	(⁴)	22.5	18.1	4.4
1919.....	731	64.4	(⁴)	1,512	805	(⁴)	36.1	31.8	4.3
1920.....	883	76.7	(⁴)	1,847	868	(⁴)	42.8	36.6	6.2
1921.....	415	34.9	(⁴)	1,356	756	(⁴)	31.1	28.2	2.8
1922.....	747	61.7	(⁴)	1,379	831	(⁴)	48.9	43.7	5.2
1923.....	940	77.3	(⁴)	1,845	958	(⁴)	77.6	69.7	7.9
1924.....	793	64.6	(⁴)	1,573	933	(⁴)	69.3	61.3	8.0
1925.....	953	75.4	(⁴)	1,692	985	60	82.0	71.8	10.2
1926.....	1,015	84.1	(⁴)	1,864	1,021	65	82.7	72.8	9.9
1927.....	945	75.4	(⁴)	1,684	993	67	65.4	56.5	8.9
1928.....	1,083	84.6	1,551	1,631	992	74	83.8	72.6	11.2
1929.....	1,184	88.7	1,733	1,740	1,016	82	103.0	88.2	14.8
1930.....	855	62.8	1,714	1,522	882	76	64.5	53.5	11.0
1931.....	549	38.0	1,646	1,243	714	73	45.9	37.9	8.0
1932.....	289	19.7	1,488	1,007	542	64	26.3	21.8	4.5
1933.....	493	33.5	1,544	1,090	562	76	37.0	30.3	6.7
1934.....	560	37.4	1,655	1,173	593	76	52.9	41.8	11.1
1935.....	732	48.7	1,793	1,217	606	88	75.9	62.5	13.4
1936.....	1,023	68.4	2,037	1,432	694	103	85.7	70.6	15.1
1937.....	1,086	72.5	2,256	1,456	724	107	92.5	75.3	17.2
1938.....	609	39.6	2,148	1,139	586	95	47.9	38.5	9.4
1939.....	1,013	64.5	2,398	1,293	652	114	69.5	55.7	13.8
1940.....	1,281	82.1	2,684	1,503	699	122	86.8	71.7	15.1
1941.....	1,589	97.3	3,142	1,695	814	152	93.4	72.3	21.0
1942.....	1,650	96.8	3,552	1,909	823	138	20.8	4.0	16.9
1943.....	1,704	98.1	4,155	1,907	816	147	14.5	(⁴)	14.5
1944.....	1,715	95.5	4,385	2,009	835	153	15.2	(⁴)	15.2
1945.....	1,529	83.5	4,244	1,891	806	153	15.1	1.6	13.5
1946.....	1,277	72.5	4,235	1,745	795	163	59.6	41.5	18.1
1947.....	1,628	93.0	4,821	2,058	856	180	92.2	68.4	23.8
1948.....	1,695	94.1	5,300	1,948	822	184	101.5	75.2	26.3
1949.....	1,496	81.1	5,500	1,427	691	177	120.4	98.6	21.8
1950.....	1,857	96.9	6,183	1,687	748	214	154.2	128.4	25.9
1951.....	2,018	100.9	6,958	1,772	779	229	129.8	102.7	27.2
1952.....	1,782	85.8	7,451	1,548	730	213	106.8	83.4	23.4
1953.....	2,141	94.9	8,244	1,521	737	241	141.1	118.0	23.2
1954.....	1,694	71.0	8,883	1,304	651	236	125.6	106.0	19.7

¹ Percent of capacity based on weekly net ton capacity.
² Daily average.
³ Production figures for 1929-54; factory sales figures for 1928 and preceding years.
⁴ Comparable figures not available.
⁵ Less than 500.

NOTE.—Detail will not necessarily add to totals because of rounding.

Sources: American Iron and Steel Institute, Edison Electric Institute, Department of the Interior, Association of American Railroads, National Paperboard Association, and Ward's Automotive Reports.

Freight Loaded

The weekly revenue freight loaded series, compiled by the Association of American Railroads, was initiated in 1919 as an operations report for railroad officers. The published data are totals of weekly reports received by the AAR from all class I railroads. Revisions in the data are necessary in only a very few cases, usually only when a preliminary estimate is filed to meet the reporting deadline and then corrected when a final figure is available. The weekly revenue freight loaded report to the AAR contains information on revenue freight and on total loads received from connections, by eight broad commodity groups, by railroad geographical district, and by individual class I railroads. Comparisons are shown for the corresponding weeks of each of the 2 preceding years.

The weekly revenue freight loaded series is widely used by business analysts as one of the indicators of general business activity. It should be remembered, however, that long-term changes in the series are affected by other factors than business activity, such as increased use of competing means of transportation (primarily truck).

The detailed freight loaded data are published by the AAR in its CS-54A report, "Revenue Freight Loaded and Received from Connections." The report is published weekly on the Thursday following the week to which the data relate.

The freight loaded data are available from 1919.

Paperboard Produced

The weekly series on production of paperboard, compiled by the National Paperboard Association, measures the production of container board, bending board, nonbending board, special paperboard stock, cardboard, and other miscellaneous types of paperboard. The data are obtained from weekly reports which the Association collects from member companies, currently accounting for about 87 percent of total production. The estimated 100 percent production is calculated on the basis of the ratio of the annual production of the companies which submit weekly reports to total production for the previous year. The figures on total annual production are a summation of annual data reported to the Association by practically all mills. Because of the extensive use of paperboard in the manufacture of con-

tainers and boxes for packaging and shipping numerous products, the production of paperboard moves closely with general economic activity.

The weekly data are issued by the Association in a one-page release on Wednesday of the week following that to which the figures relate. More detailed statistics are presented in the Association's annual *Paperboard Industry Statistics*. The Association also publishes a series on "percent of activity" based on industry reports of the time in use of the machines on an inch-hour basis (1 inch of machine width operated for 1 hour).

Comprehensive monthly and annual data on pulp, paper, and paperboard are collected by the Bureau of the Census and published in its *Facts for Industry* series. The paperboard component of the Census series is not completely comparable with the Association series, though the differences are not large.

The Association's weekly data on paperboard production was initiated in 1933. Comparable annual data are available from 1925.

Cars and Trucks Assembled

The weekly series on output of cars and trucks is compiled by Ward's Reports, Inc., and is based on information received from each of the individual producers in the United States. It is published each Monday in *Ward's Automotive Reports*, which shows a breakdown of the weekly total by cars and trucks and by makes, and current and cumulative monthly totals, with similar data for Canada. Detailed data are presented in *Ward's Automotive Yearbook*.

Monthly and annual data on factory sales are compiled and published by the Automobile Manufacturers Association. The sales figures differ somewhat from the production figures, principally because they include some units produced in earlier periods and exclude some units produced in the current month.

In the accompanying historical table, data for the years 1929 through 1954 are production figures, as reported in Ward's 1955 Yearbook; data for earlier years are factory sales figures, as reported in the 1954 edition of *Automobile Facts and Figures*, published by the Automobile Manufacturers Association.

The weekly production figures have been published by Ward's since 1925. Annual data on factory sales of cars and trucks are available from 1900.

NEW CONSTRUCTION

Description of series.—The series on new construction activity represent the dollar value of new construction put in place. The Business and Defense Services Administration in the Department of Commerce and the Bureau of Labor Statistics in the Department of Labor are jointly responsible for the series, BDSA having primary responsibility for private nonresidential construction and BLS for private residential and all public construction. Seasonally adjusted monthly data, prepared by these two agencies, are published in current issues of *Economic Indicators*.

Construction covers the erection of fixed structures and utilities. It includes building and nonbuilding structures such as dams, reservoirs, docks, highways, airfields, and utility lines. Installed service facilities which become integral parts of structures are included, but movable equipment and machinery are not included. Drilling of oil, gas, and water wells, digging and shoring of mines, and operations which are an integral part of farming such as plowing, terracing, and digging drainage ditches, are not considered as construction. Major additions and alterations are counted as new construction, but maintenance and repairs are not.

The distinction between private and Federal, State, and local public construction is made here on the basis of ownership, not source of funds. Residential construction includes nonhousekeeping facilities such as hotels and dormitories as well as dwelling units.

The series on construction contracts awarded, compiled by the F. W. Dodge Corporation, covers contract awards in the 37 Eastern States, for private and public ownership, for nonresidential, residential, and public works and utilities construction. It does not have complete coverage of force-account or smaller construction projects, and rural areas are covered less fully than urban. Current issues of *Economic Indicators* also show annual rates of the contract-awards data for recent months, with and without seasonal adjustment. The seasonal adjustment of this series is made by the National Bureau of Economic Research.

Statistical procedures.—Three general methods are used by BDSA and BLS in making the estimates of new construction activity, depending on the availability of sources of data on different types of construction.

The first method—converting data on work started to estimates of work put in place—is used for most types of private and non-Federal public construction. Information in the Dodge reports is adjusted to

allow for projects not included in these reports—chiefly small projects and work done by a firm's own force. Information on starting date and cost is obtained from contractors or owners of the larger projects. Allowance is also made for construction in 11 Western States not covered by Dodge by applying the ratio of valuation of building authorized in these States to the total valuation of permits in the entire country for each of several types of construction. An estimate of the valuation of dwelling units started is obtained by multiplying the number of units reported in the "New nonfarm housing starts" series (p. 40) by valuation figures reported in building permits, the latter having been adjusted on the basis of periodic field surveys to reflect construction costs. These estimates of valuation of work started are then translated into estimates of the value of work put in place by the application of typical progress patterns which have been developed for different types and sizes of projects by surveying actual projects.

The second method—reports of physical progress—provides the basis for estimates of construction activity on most Federal public-construction projects as well as on some State and local jobs receiving Federal aid. Progress reports are supplied by the Federal agencies administering the various programs.

The third method—based on financial reports—is used for estimating most utility construction. The method is to apply a monthly trend pattern to an estimated annual total based on the previous year's level and other information on anticipated activity. The trend data are based on Dodge reports of contract awards and quarterly reports of some types of companies to the Securities and Exchange Commission. These monthly estimates are revised when the financial reports become available after the end of the year. Construction expenditure estimates for telephone and telegraph are based on monthly estimates received from the companies; those for railroads are based on monthly estimates compiled by the Interstate Commerce Commission.

Monthly estimates of farm construction are prepared by projecting annual estimates for the preceding year on the basis of the trend of farm income and applying a seasonal pattern to the annual totals.

The Dodge data on construction contracts awarded in the 37 Eastern States are compiled as a byproduct of the corporation's news reporting service. News reporters interview architects, contractors, owners, real-estate brokers, and others who supply information on construction jobs being planned and the awarding of construction contracts.

Relation to other series.—The new construction activity series is one of the components in the gross national product series (see above, p. 4) and in the gross private domestic investment series (see p.16).

The definition of construction used in the new construction series is more inclusive than that in some of the series pertaining to labor. The non-agricultural employment series contains a component for employment in contract construction only, excluding employment on construction performed by force account. (For a fuller discussion of noncomparability of these data, see the Technical Note in the March 1955 issue of *Construction Review*.) The series on average weekly hours and average hourly and weekly earnings cover contract construction of buildings only.

Uses and limitations.—Although the new construction series indicates the current volume of this segment of economic activity, it does not serve the same purpose as would a series on new work started. The future trend in the series is determined to a considerable extent by past commitments made.

The figures cannot be used as an indicator of the physical volume of construction without extensive adjustments for changes in prices and wage rates, technological changes, and other relevant factors. A series reflecting some of these adjustments, published monthly in *Construction Review*, shows the value of new construction put in place in terms of 1947-49 prices. Also, since the series does not include maintenance and repair, it cannot be related

directly to the total use of construction labor and materials.

Because of the many different sources of data, and the various estimating procedures used, the error in the estimates cannot be statistically measured. Year-to-year trends are probably quite good but caution should be exercised in drawing conclusions from relatively small month-to-month changes.

While extensive adjustments are made for under-coverage of the source data now used, there is no satisfactory factual basis for making these adjustments, and much reliance is placed on judgment and opinion. The construction patterns used in translating work started into work put in place may be obsolete and do not reflect short-run changes due to such factors as weather or the labor and materials supply situation.

References.—Data used in this series are published in more detail by type of construction, ownership, and source of funds in *Construction Review*, a monthly publication of the Departments of Commerce and Labor. Data on contracts awarded are published in more detail by type of construction, geographic location, and ownership in *Dodge Statistical Research Service*, a monthly subscription service of the F. W. Dodge Corporation. More detailed descriptions of the sources of data and the methods of compiling the estimates are contained in *Techniques of Preparing Major BLS Statistical Series* (BLS Bulletin 1168), December 1954, and in the annual construction activity supplement to *Construction Review*.

HOUSING STARTS AND APPLICATIONS FOR FINANCING

Description of series.—The series on the total number of new nonfarm dwelling units on which construction is started in the United States each month, with the breakdown by public and private ownership, is compiled by the Bureau of Labor Statistics, as described below. Independently of that compilation, the Federal Housing Administration and the Veterans Administration provide reports on the number of units involved in their respective programs.

For the purpose of the BLS series the dwelling unit is defined as a dwelling place containing permanent cooking facilities, i. e., accommodations with housekeeping facilities designed for family living. Units such as transient hotels and dormitories which lack housekeeping facilities, and such dwellings as trailers, houseboats, sheds, and shacks, and temporary World War II housing built by the Government are not included. Dwelling units are classified as public or private on the basis of ownership.

Statistical procedures.—Each month BLS mails a questionnaire to some 7,000 local government officials who issue building permits, located in incorporated places or in counties and townships, throughout the country. Information is requested, among other things, on the number of dwelling units for which building permits were issued during the month.

Reports from permit-issuing places are classified by type of place, size, geographic area, and whether inside or outside a metropolitan area. Reports in each class are weighted to account for places not reporting, and added to give the total number of units for which permits were issued. Adjustments are made to allow for difference in time between issuance of permit and start of construction and for permits not used. The result is an estimate of private units started in permit-issuing places.

Information on new housing starts in areas not

New Construction

[Billions of dollars]

Year	Total new construction	Private			Federal, State, and local ¹	Construction contracts awarded in 37 Eastern States
		Total private	Residential (nonfarm)	Other		
1915	3.3	2.5	1.2	1.3	0.7	(?)
1916	3.8	3.1	1.4	1.8	.7	(?)
1917	4.6	3.3	1.2	2.1	1.3	(?)
1918	5.1	2.9	.9	2.0	2.2	(?)
1919	6.3	4.3	1.8	2.5	2.0	(?)
1920	6.7	5.4	2.0	3.4	1.4	(?)
1921	6.0	4.4	2.1	2.3	1.6	(?)
1922	7.6	6.0	3.4	2.6	1.7	(?)
1923	9.3	7.7	4.4	3.3	1.6	(?)
1924	10.4	8.5	5.1	3.4	1.9	(?)
1925	11.4	9.3	5.5	3.8	2.1	6.0
1926	12.1	9.9	5.6	4.3	2.1	6.4
1927	12.0	9.6	5.2	4.5	2.4	6.3
1928	11.6	9.2	4.8	4.4	2.5	6.6
1929	10.8	8.3	3.6	4.7	2.5	5.8
1930	8.7	5.9	2.1	3.8	2.9	4.5
1931	6.4	3.8	1.6	2.2	2.7	3.1
1932	3.5	1.7	.6	1.0	1.9	1.4
1933	2.9	1.2	.5	.8	1.6	1.3
1934	3.7	1.5	.6	.9	2.2	1.5
1935	4.2	2.0	1.0	1.0	2.2	1.8
1936	6.5	3.0	1.6	1.4	3.5	2.7
1937	7.0	3.9	1.9	2.0	3.1	2.9
1938	7.0	3.6	2.0	1.6	3.4	3.2
1939	8.2	4.4	2.7	1.7	3.8	3.6
1940	8.7	5.1	3.0	2.1	3.6	4.0
1941	12.0	6.2	3.5	2.7	5.8	6.0
1942	14.1	3.4	1.7	1.7	10.7	8.3
1943	8.3	2.0	.9	1.1	6.3	3.3
1944	5.3	2.2	.8	1.4	3.1	2.0
1945	5.6	3.2	1.1	2.1	2.4	3.3
1946	12.0	9.6	4.0	5.6	2.4	7.5
1947	16.7	13.3	6.3	6.9	3.4	7.8
1948	21.7	16.9	8.6	8.3	4.8	9.4
1949	22.8	16.4	8.3	8.1	6.4	10.4
1950	28.5	21.5	12.6	8.9	7.0	14.5
1951	31.2	21.8	11.0	10.8	9.4	15.8
1952	33.0	22.1	11.1	11.0	10.9	16.8
1953	35.3	23.9	11.9	11.9	11.4	17.4
1954	37.6	25.8	13.5	12.3	11.8	19.8

¹ Includes public residential construction.

² Not available.

Note.—Monthly data on new construction activity available beginning 1939; annual from 1915. Monthly and annual data on contracts awarded available from 1925. Detail will not necessarily add to totals because of rounding.

Sources: Department of Commerce, Department of Labor, and F. W. Dodge Corporation.

covered by building permits is obtained from field surveys in a sample of 53 areas embracing 131 counties. The national estimate of starts in all non-permit-issuing areas is based on a ratio type of computation which depends on the relationship between the volume of starts in the nonpermit and the permit parts of the sample areas. This estimate is added to that for permit areas to give the total number of private nonfarm units started.

Information on number of public units started is obtained directly from the sponsoring Federal, State, and local agencies. This figure added to the estimate for private units gives the estimate of the total number of nonfarm dwelling units started each month.

The seasonally adjusted annual rate of starts of private units, published in current issues of *Economic Indicators*, is computed each month by dividing the estimate of private starts for that month by the respective seasonal index and multiplying the result by 12.

A preliminary estimate is issued approximately 15 days following the end of the month. The estimating technique for permit places involves the computation for identical places of the percent change from the previous month, using all places which have reported in time. The preliminary estimate of starts in nonpermit places is obtained by projecting the most recent final estimate for such places on the basis of the trend of starts in permit places, with adjustments for seasonal factors affecting the relation between permit and nonpermit places.

The figures for the FHA and VA programs under "New nonfarm housing starts" are based on administrative reports of the number of units on which first compliance inspections have been made by those agencies. The first inspection is usually made after the footings are in—normally only a slight lag from the time construction is considered started in the BLS series. The FHA and VA figures for "Proposed home construction" are also based on administrative reports of the two agencies. The number of units for which FHA has received applications is limited to those for commitments on 1- to 4-family home mortgages, thus making it more nearly comparable with the VA series since the VA program covers only homes to be built for occupancy by veteran owners.

Relation to other series.—Data compiled for the BLS housing starts series are used in the preparation of estimates for the series on new construction, described in the preceding section.

The BLS series on new housing starts has a limited relationship to census of housing figures.

Units started should not be added to census inventory figures without an adjustment to allow time for completion. Also, although new construction usually accounts for the greater part of the difference in inventory reported in successive housing censuses, there are other changes too, such as demolition, disaster losses, additions and losses due to conversions, and changes in classification as farm or nonfarm. The census also includes certain types of places where people live which would not be counted as dwelling units under the definition for the new housing starts series.

The BLS also publishes data on building authorized for all reporting places. These figures differ from the new housing starts series in that they represent totals taken from building permit reports without any adjustment for lag and lapse.

Uses and limitations.—The BLS series on nonfarm housing starts serves as an important guide in the formulation of national housing policy and as an indicator of a substantial part of all building activity and related economic trends. One deficiency, which affects its use as a timely indicator, is the fact that the revised nonfarm starts estimate, made 3½ months after the month affected, may differ fairly substantially from the preliminary estimate. For the 6-year period, 1949-54, these changes averaged 2.8 percent, but ranged from an increase of 12.8 percent in the final estimate over the preliminary to a decrease of 6.1 percent. Increases have been slightly more frequent and larger than decreases.

The revised or final estimates are subject to two kinds of errors. The first, amounting to about 2 percent, is error due to sampling in nonpermit places and lack of complete information reported from permit-issuing places. The amount of the second type of error cannot be measured. It stems from a variety of sources, such as building without permits and short-run changes in the time of starting construction after permits are issued.

The FHA and VA series indicate the importance of these Government programs in the field of new home construction. Certain limitations in these series should be observed, however, particularly in their relation to other data. Although FHA and VA may make inspections during construction and the units may be counted as FHA or VA "starts," the permanent financing after completion may not be underwritten. Also, some applications for FHA commitments or requests for VA appraisals lapse or never result in inspections, even though construction is started. There is some duplication of units in applications for FHA commitments and requests for VA appraisals. In cases where both agencies issue

Housing Starts and Applications for Financing

[Thousands of units]

Year	New nonfarm housing starts						Proposed home construction	
	Total	Publicly financed	Total	Privately financed			Applications for FHA commitments	Requests for VA appraisals
				Government underwritten				
				Total	FHA	VA		
1915	475.0		475.0					
1916	480.0		480.0					
1917	230.0		230.0					
1918	120.0		120.0					
1919	330.0		330.0					
1920	247.0		247.0					
1921	449.0		449.0					
1922	716.0		716.0					
1923	871.0		871.0					
1924	893.0		893.0					
1925	937.0		937.0					
1926	849.0		849.0					
1927	810.0		810.0					
1928	753.0		753.0					
1929	509.0		509.0					
1930	330.0		330.0					
1931	254.0		254.0					
1932	134.0		134.0					
1933	93.0		93.0					
1934	126.0		126.0					
1935	221.0	5.3	215.7	14.0	14.0		20.6	
1936	319.0	14.8	304.2	49.4	49.4		47.8	
1937	336.0	3.6	332.4	60.0	60.0		49.8	
1938	406.0	6.7	399.3	118.7	118.7		125.1	
1939	515.0	56.6	458.4	158.1	158.1		167.8	
1940	602.6	73.0	529.6	180.1	180.1		217.9	
1941	706.1	86.6	619.5	220.4	220.4		277.7	
1942	356.0	54.8	301.2	165.7	165.7		234.8	
1943	191.0	7.3	183.7	146.2	146.2		144.4	
1944	141.8	3.1	138.7	93.3	93.3		62.9	
1945	209.3	1.2	208.1	(2)	41.2	(2)	56.6	(2)
1946	670.5	8.0	662.5	(2)	69.0	(2)	121.7	(2)
1947	849.0	3.4	845.6	(2)	229.0	(2)	286.4	(2)
1948	931.6	18.1	913.5	(2)	204.1	(2)	293.2	(2)
1949	1,025.1	36.3	988.8	(2)	363.8	(2)	327.0	(2)
1950	1,396.0	43.8	1,352.2	686.7	486.7	* 200.0	307.7	(2)
1951	1,091.3	71.2	1,020.1	412.2	263.5	148.6	192.8	164.4
1952	1,127.0	58.5	1,068.5	421.2	279.0	141.3	267.9	226.3
1953	1,103.8	35.5	1,068.3	408.6	252.0	156.6	253.7	251.4
1954	1,220.4	18.7	1,201.7	583.3	276.3	307.0	338.6	535.4

* Units represented by mortgage applications for new home construction.

(2) Not available.

(*) Partly estimated.

NOTE.—Monthly data on new nonfarm housing starts available beginning 1939; annual from 1910. Detail will not necessarily add to totals because of rounding.

Sources: Department of Labor, Federal Housing Administration (FHA), and Veterans Administration (VA).

valuation commitments, FHA makes the compliance inspection and the unit is reported as an FHA start, even though the mortgage may finally be underwritten by VA or by neither agency. As mentioned above, the FHA series on housing starts includes rental housing, whereas the FHA applications series covers only 1- to 4-family homes.

References.—Data presented in this series are published in somewhat greater detail in *Construction Review*, published monthly by the Departments of Labor and Commerce. A more detailed technical description of the methods used is given in *Techniques of Preparing Major BLS Statistical Series* (BLS Bulletin 1168) December 1954.

SALES AND INVENTORIES

Manufacturing and Trade

Description of series.—Total sales and inventories for manufacturing and trade are estimated monthly by the Office of Business Economics, Department of Commerce, by summing the estimates computed separately for manufacturing, retail trade, and wholesale trade. The sales estimates include all business receipts of the reporting companies or establishments, not just receipts from sale of merchandise. In general, the inventory estimates are based on the values carried on the books of the reporting panels. The current estimates are adjusted for seasonal variation in *Economic Indicators*.

Statistical procedures.—The estimates of manufacturing and wholesale monthly sales and end-of-month inventories and retail end-of-month inventories are made by extrapolating benchmark estimates: the Internal Revenue Service's *Statistics of Income, 1952, Part 2*, for manufacturers' sales and inventories; a modified 1948 Census of Wholesale Trade base for wholesale sales and inventories, and the Census Bureau's 1951 and 1952 Annual Retail Trade Report for retail inventories. As new annual data become available the benchmark estimates are extrapolated to more recent annual estimates which in turn are extrapolated primarily on the basis of monthly data reported to the Census Bureau and OBE. The estimates are revised as more comprehensive data become available. A sample survey recently initiated by the Census Bureau will soon provide direct dollar estimates for merchant wholesalers.

Monthly estimates of retail sales, unadjusted for seasonal variation, are derived directly from a monthly survey, based on a random area sample, conducted by the Census Bureau. The estimates are computed directly from the reported sales of stores in the sample by weighting the reported sales of each member of the sample by a value dependent upon its probability of selection. These estimates are not linked to a benchmark. Adjustments for seasonal variation are made by OBE.

The wholesale trade and retail trade series described above are based upon the establishment unit of classification, whereas the manufacturers' series are based upon the company unit of classification. The Office of Business Economics adjusts the wholesale series to remove the major sources of duplication with manufacturers' sales so that they can be summed to obtain a consistent series for total business sales.

Uses and limitations.—The monthly sales and inventories series are important economic indicators,

reflecting the level of economic activity at the three major stages of the distributive process. The sales series reflect the demand for goods and services at these three stages, and constitute a basic measure of the state of business for the periods covered. The inventories series reflect the difference between output and consumption in the economy. In most past periods of business decline and recovery, the rate of inventory depletion or accumulation has accounted for a large part of the aggregate change in overall economic activity.

The monthly estimates are tested against more comprehensive data when those data become available at some later time. The estimates for such aggregates as total manufacturers' sales and estimates for many industry groups have in the past proved generally accurate, but preliminary estimates, especially for some of the industrial detail published by the Census Bureau and OBE, have occasionally been changed appreciably.

References.—Sales and inventory data for manufacturers, wholesale trade and retail trade are published monthly in the form of press releases and in the *Survey of Current Business*. Retail sales estimates are also published by the Census Bureau in a separate *Monthly Retail Trade Report* and in an *Advance Retail Trade Report* 10 days after the close of the month.

More complete descriptions of the various series have been presented in issues of the *Survey of Current Business*: for Manufacturers, October 1951, October 1952, December 1953, and May 1955; for Wholesale Trade, August 1948, October 1951, October 1952, and December 1953; and for Retail Trade, September and November 1952, and January 1954. The Bureau of the Census has also issued a description of the sample used in the monthly retail trade report.

Department Stores

Description of series.—Monthly indexes of department store daily average sales and end-of-month inventories are prepared as a joint product of the Federal Reserve Board's Division of Research and Statistics and the research departments of the 12 Federal Reserve district banks. The coverage and collection methods and the procedures used in computing these indexes are described in detail in the December 1951 issue of the *Federal Reserve Bulletin*.

Relation to other series.—The index of department store sales is closely related in scope to the Commerce

Sales and Inventories

Year	Manufacturing and trade		Manufacturing			Wholesale		Retail		Department stores		
	Sales ¹	Inventories ²	Sales ¹	Inventories ²	New orders ¹	Sales ¹	Inventories ²	Sales ¹	Inventories ²	Sales ¹	Inventories ²	
	Billions of dollars											Index 1947-49=100
1920	(*)	(*)	5.9	12.8	(*)	(*)	(*)	4.0	(*)	38	48	
1939	10.8	20.1	5.1	11.5	5.4	2.2	3.1	3.5	5.5	35	36	
1940	12.1	22.2	5.9	12.8	6.8	2.4	3.2	3.9	6.1	37	38	
1941	15.8	28.8	8.2	17.0	9.8	3.0	4.0	4.0	7.8	44	46	
1942	18.6	31.1	10.4	19.3	13.3	3.4	3.8	4.8	8.0	50	64	
1943	21.9	31.3	12.8	20.1	12.7	3.8	3.7	5.3	7.6	56	55	
1944	23.8	31.1	13.8	19.5	11.9	4.2	3.9	5.9	7.6	62	58	
1945	23.9	30.9	12.9	18.4	10.5	4.5	4.6	6.5	7.9	70	60	
1946	27.2	42.9	12.6	24.5	13.7	6.0	6.6	8.5	11.9	90	78	
1947	33.2	50.6	15.9	28.9	15.6	7.3	7.6	10.0	14.1	98	94	
1948	36.4	55.6	17.6	31.7	17.4	7.9	8.1	10.9	15.8	104	107	
1949	34.7	52.1	16.4	28.9	15.9	7.4	7.9	10.9	15.3	98	99	
1950	39.9	64.1	19.3	34.3	21.0	8.7	10.5	12.0	19.3	105	109	
1951	44.9	75.2	22.3	42.8	24.5	9.4	11.1	13.2	21.2	109	128	
1952	45.9	76.7	22.8	43.8	23.6	9.4	11.3	13.7	21.6	110	118	
1953	48.4	80.3	24.9	45.9	23.4	9.3	11.7	14.2	22.7	112	126	
1954	46.7	76.9	23.4	43.3	22.4	9.1	11.5	14.2	22.1	111	122	

¹ Monthly average for year.

² Book value, end of year.

³ Average of end-of-month book value.

⁴ Not available.

⁵ Revised series on retail trade beginning 1951; not comparable with previous data. Old series estimates of monthly retail sales for 1951-12.7; and of end-of-year retail inventories for 1950-19.9. See *Survey of Current Business*, September and November 1952, for detail on revision of sales series, and January 1954 for detail on revision of inventories series.

Note.—Monthly data available beginning 1919 for department store indexes and beginning 1939 for all others; comparable quarterly data on manufacturing sales and inventories from 1926 shown in April 1949 issue of *Survey of Current Business* (p. 16). Detail will not necessarily add to totals because of rounding.

Sources: Department of Commerce and Board of Governors of the Federal Reserve System.

(Census Bureau and Office of Business Economics) series on department store sales. The series are not completely comparable. The Commerce series includes sales taxes in the total receipts figure; the Federal Reserve sales index is based upon a receipts figure from which sales taxes are excluded. The Census Bureau's dollar-volume series, which is unadjusted for seasonable variation, measures total sales during a calendar month, whereas the Federal Reserve unadjusted index measures daily average sales on the trading days in the month. All other things being equal, the Census Bureau's estimates will vary with the number of trading days in the month; the department store sales index should not be affected by changes in the number of trading days in the month. OBE adjusts the Census Bureau's series for seasonal variation and for number of trading days in the month. The Commerce adjusted dollar series is, therefore, comparable in this respect with the Federal Reserve adjusted index of department store sales.

Uses and limitations.—*Economic Indicators* publishes the national indexes of department store sales and inventories. Indexes for the 12 Federal Reserve

bank districts and for some cities or areas within those districts, as well as for the Nation, are computed and published by Federal Reserve. Considerable use is made of the indexes at the local level, especially in the department store field.

The department store sales and inventories indexes are useful as indicators of the relative sales and inventories positions of this limited, although important, segment of retail trade. However, one should not attribute to the department store indexes the characteristics of all retail trade. Comparison of month-to-month changes in department store sales with month-to-month changes in total retail sales shows that, while changes in the two series have been almost always in the same direction, the magnitudes of the changes are substantially different for a majority of the months for which data are available.

References.—The indexes of department store sales and inventories are published monthly in the *Federal Reserve Bulletin*. A detailed description of the series appeared in the December 1951 issue of the *Bulletin*, and an explanation of "Adjustment for Seasonal Variation" in the June 1941 issue.

MERCHANDISE EXPORTS AND IMPORTS

Description of series.—This monthly Bureau of the Census series on exports gives the value of merchandise (except in-transit merchandise) shipped from the United States to foreign countries. Exports of Alaska, Hawaii, and Puerto Rico to foreign countries are shown as United States exports. Shipments between the United States and its Territories and possessions are not regarded as exports or imports. Both Government and non-Government exports are included. The former include mutual security program, military and economic aid, and Department of the Army civilian supply shipments, but shipments to United States armed forces and diplomatic missions abroad for their own use are excluded. Also excluded are exports of gold and silver, oil and coal bunkers laden at United States ports on vessels in foreign trade, and a number of items of relatively small importance such as low-valued or noncommercial shipments by mail and gifts valued below \$100.

Except for Department of Defense shipments as explained below, export figures are obtained from the Shippers' Export Declaration which exporters are required to file with the collectors of customs. These shipments are valued at the time and place of export—that is, actual selling price, or cost if not sold, including inland freight, insurance and other charges to the place of export. Transportation and other costs beyond the United States port of exportation are excluded. For exports made by the Department of Defense of grant-aid military equipment and supplies under the mutual security program and for other Department of Defense shipments such as those under the civilian supply program, information is compiled by the Bureau of the Census from the records of the Department of Defense. In most instances, these records show values f. o. b. point of origin. These are adjusted to show value at the United States port of exportation.

The monthly series on imports gives the value of "general imports" into the United States, that is, merchandise released from customs custody immediately upon arrival, plus merchandise entered into customs bonded warehouses on arrival. As in the case of exports, Alaska, Hawaii, and Puerto Rico are included with continental United States, and both Government and non-Government shipments are recorded. Similarly, the exclusions with respect to in-transit shipments, gold and silver, and low-value items apply.

Imports are valued in accordance with the Tariff Act of 1930 which provides that the value of im-

ported merchandise shall be the foreign or export value, whichever is higher. In general, they approximate those f. o. b. the exporting country. Transportation costs and United States customs duties are therefore excluded. The values given in the published statistics are those reported by importers on the Bureau of Customs Import Entry Form.

Relation to other series.—Concurrently with the publication of monthly totals for exports (including reexports) and general imports, the Bureau of the Census also shows exports of domestic merchandise and imports for consumption. The latter includes imports for immediate consumption, plus withdrawals for consumption from customs bonded warehouses. The difference between total merchandise exports and imports should not be confused with the more inclusive gross national product series of net foreign investment, which is a measure of the excess of goods and services transferred to foreigners over those acquired from foreigners (see p. 4).

Uses and limitations.—These overall series provide accurate monthly indicators of the movement of merchandise exports and imports. They do not distinguish between Government and non-Government transactions. Although the exports are divided into "Grant-aid" and "Excluding grant-aid," the latter also includes some Government-sponsored exports, as noted in the table. The import totals include private shipments and those under Government sponsorship, such as purchases of strategic materials and reverse lend-lease. When United States trade statistics are compared with those of other countries, special attention needs to be given to the extent to which the series being compared differ as to valuation and coverage. Changes in exports relative to imports may indicate significant changes in our merchandise trade with other countries, but do not necessarily reflect changes in the balance of payments of the United States, which must take nonmerchandise items into account.

References.—Preliminary totals for exports (including reexports) and general imports are published monthly in the Census Bureau release, FT 900-P, "Preliminary (Estimated) Export and Import Totals." Compiled totals for exports and general imports, exports of domestic merchandise, imports for consumption, and Department of Defense shipments of grant-aid military equipment and supplies are published shortly afterward in the monthly release FT 900, "Total Trade." Cumulative totals are provided in the "Quarterly Summary of Foreign Commerce of the United States," which also contains

Merchandise Exports and Imports
[Monthly average, millions of dollars]

Year	Merchandise exports			Merchandise imports	Excess of exports (+) or imports (-)	
	Total ¹	Grant-aid shipments ²	Excluding grant-aid shipments		Total	Excluding grant-aid shipments
1914	176			149	+27	
1919	660			325	+335	
1924	383			301	+82	
1925	409			352	+57	
1926	401			369	+32	
1927	405			349	+56	
1928	427			341	+86	
1929	437			367	+70	
1930	320			255	+65	
1931	202			174	+28	
1932	134			110	+24	
1933	140			121	+19	
1934	178			138	+40	
1935	190			171	+19	
1936	205			202	+3	
1937	279			257	+22	
1938	258			163	+95	
1939	265			193	+72	
1940	335			219	+116	
1941	429	62	367	279	+150	+88
1942	673	411	262	230	+443	+32
1943	1,080	863	217	282	+798	-65
1944	1,188	942	247	327	+861	-80
1945	817	463	354	347	+470	+7
1946	812	54	757	412	+400	+345
1947	1,278	96	1,182	480	+798	+702
1948	1,054	(³)	(³)	594	+460	(³)
1949	1,004	(³)	(³)	552	+452	(³)
1950	856	24	833	738	+118	+95
1951	1,253	89	1,164	914	+339	+250
1952	1,267	166	1,100	893	+373	+207
1953	1,314	293	1,022	906	+408	+116
1954	1,258	188	1,070	851	+407	+219

¹ Includes shipments under special programs such as those grant-aid programs listed in footnote 2 below as well as other grant-aid programs such as ECA (Marshall Plan); other less important programs such as Surplus Incentive Material, Reorientation and Rehabilitation programs; and programs such as UNRRA, International Refugee Organization, etc., which were grant-aid only in part.

² Except for Army Civilian Supply exports for 1943-46 for which information is not available, the figures shown for 1947 and prior years include exports under the following programs (dates shown are the approximate periods the programs were in operation): Lend-lease (1941-47); Greek-Turkish Aid (1947-52); United States Foreign Relief (1947-48); Interim Aid (1947-48); and Army Civilian Supply (1943-present).

Figures are not shown for the years 1948-49 because separate information on ECA (Marshall Plan) economic aid exports is not available and these shipments represented most of the grant-aid shipments during that period.

Figures for the years 1950-54 include only the Department of Defense shipments of grant-aid military supplies and equipment under the mutual security program—the only important grant-aid program during that period for which separate export information is available. During this period ECA and mutual security program economic aid exports were important, but by 1952 they were much less important than the military grant-aid exports shown. Army Civilian Supply shipments were also relatively unimportant by 1952. More precise information on military and other grant-aid extended to other countries by the United States is provided in the balance of payments statistics.

³ Not available.

NOTE.—Monthly data available beginning 1866; annual from 1700. Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

index numbers for the several export and import series. Detailed commodity by country data are also published by the Census Bureau. A monthly pamphlet, "Foreign Trade Statistics Notes," contains supplementary information on such items as unusual transactions appearing in the statistics, changes in the types of shipments included in the statistics, special problems of valuation, commodity

classification, and the like. A comprehensive discussion of the scope and content of United States foreign trade and shipping statistics is available in *Foreign Commerce and Navigation of the United States*, last published in 1946. A complete list of all Census publications in the field of foreign trade is available in the *Catalog of United States Foreign Trade Statistical Publications*.

PRICES

CONSUMER PRICES

Description of series.—The Consumer Price Index, compiled by the Bureau of Labor Statistics, is a measure of changes in prices of goods and services purchased by families of urban wage earners and salaried clerical workers. The goods and services included in the index are those required to maintain the level of living characteristics of such families in the year ending June 1952. These families represent about 64 percent of all people living in urban places, and about 40 percent of the total United States population.

The index is based upon prices collected on about 300 items in 46 cities. The 300 items were selected by the BLS as representative of the thousands of commodities and services purchased by families of wage earners and salaried clerical workers, as reported in a survey conducted in 91 cities. Detailed specifications are used for the 300 items so that, insofar as possible, prices are obtained for articles of the same quality in successive price periods. Revisions in the individual specifications are made from time to time, as former descriptions become obsolete.

Current prices for the 300 items are collected regularly from a list of stores and service establishments in the 46 cities. This list includes chain stores, independent stores, department stores, specialty stores, and public utilities, and is representative of the types of outlets in which wage-earner and clerical-worker families make their purchases. Prices are also collected on such items as physicians' and dentists' fees, hospital rates, and beauty-parlor services. Sales and excise taxes are included in the retail prices for commodities on which they are imposed. Property taxes are included in the cost of homeownership, and implicitly included in rental costs. The index does not include income taxes or social security taxes.

Prices are collected at intervals ranging from every month to every fourth month. For some goods and services—such as rents, foods and a few other important items—prices are collected monthly in each of the 46 cities. For other goods and services, prices are collected every month in the 5 largest cities and every third or fourth month, depending on the size of the city, in the other 41 cities. Pricing of these goods and services in the 41 cities is on a rotating cycle, so that several cities of each size group are priced each month. Between the periodic pricing periods in a given city, the price change for

unpriced groups of these items is estimated for use in the computation of the monthly national index.

Prices for practically all of the commodities and many of the services are collected by personal interview. Monthly rent information and a few prices (e. g., streetcar and bus fares, public utility rates, fuel prices) are collected by mail.

In addition to the national index, separate indexes are computed for the 20 largest of the 46 cities—monthly for the 5 largest and quarterly for the other 15.

A major revision of this series was introduced with the release of the January 1953 index. The principal changes from the old series were: (1) change in the list of items priced to reflect current purchasing habits; (2) increase in the number of items priced from about 225 to about 300, including for the first time used cars, home purchase and maintenance, and restaurant meals; (3) revision and expansion of the list of cities in which prices are collected, to reflect price changes affecting wage-earner and clerical-worker families in all urban areas; and (4) change of the base period of the index from 1935-39 to 1947-49.

Statistical procedures.—The purpose of the index is to show how much more or less it would cost to purchase the same quantities and qualities of goods and services in one period than in an earlier period. The first step in the index computation is to calculate, for each city, a price relative for each item by comparing the sum of the prices reported for that particular item from the same retail outlets in the current and preceding periods. This relative change for the item is next multiplied by the estimated cost in the preceding period for a fixed quantity of the item. (The fixed quantity, or weight, for each item is determined by the average annual quantities of that item purchased by urban wage-earner and clerical-worker families in the year ending June 1952, plus the purchases of those unpriced commodities it represents in the index.) These calculations are then totaled for all items in a group—all food items, for example, are combined into a total showing the food cost for the fixed quantities in the current period. This total is compared with the food total for the preceding period to give a measure of the average price change for all foods, from which the index number of food for each city is computed. Similar calculations are made for apparel, rent, and all other groups of items priced.

The national index is calculated by combining

Consumer Prices

[1947-49=100]

Year	All items	Food	Housing		Apparel	Transportation	Medical care	Personal care	Reading and recreation	Other goods and services
			Total ¹	Rent						
1914	42.9	40.5	(2)	76.6	36.5	(2)	(2)	(2)	(2)	(2)
1915	43.4	40.0	(2)	77.2	37.3	(2)	(2)	(2)	(2)	(2)
1916	46.6	45.0	(2)	78.1	40.9	(2)	(2)	(2)	(2)	(2)
1917	54.8	57.9	(2)	77.4	49.2	(2)	(2)	(2)	(2)	(2)
1918	64.3	66.5	(2)	78.8	66.6	(2)	(2)	(2)	(2)	(2)
1919	74.0	74.2	(2)	85.3	88.2	(2)	(2)	(2)	(2)	(2)
1920	85.7	83.6	(2)	100.2	105.1	(2)	(2)	(2)	(2)	(2)
1921	76.4	63.5	(2)	115.1	80.9	(2)	(2)	(2)	(2)	(2)
1922	71.6	59.4	(2)	118.5	65.7	(2)	(2)	(2)	(2)	(2)
1923	72.9	61.4	(2)	121.6	65.8	(2)	(2)	(2)	(2)	(2)
1924	73.1	60.8	(2)	125.9	65.3	(2)	(2)	(2)	(2)	(2)
1925	75.0	65.8	(2)	126.4	64.0	(2)	(2)	(2)	(2)	(2)
1926	75.6	68.0	(2)	125.2	63.0	(2)	(2)	(2)	(2)	(2)
1927	74.2	65.5	(2)	123.2	61.8	(2)	(2)	(2)	(2)	(2)
1928	73.3	64.8	(2)	120.3	60.9	(2)	(2)	(2)	(2)	(2)
1929	73.3	65.6	(2)	117.4	60.3	(2)	(2)	(2)	(2)	(2)
1930	71.4	62.4	(2)	114.2	58.9	(2)	(2)	(2)	(2)	(2)
1931	65.0	51.4	(2)	108.2	53.6	(2)	(2)	(2)	(2)	(2)
1932	58.4	42.8	(2)	97.1	47.5	(2)	(2)	(2)	(2)	(2)
1933	55.3	41.6	(2)	83.6	45.9	(2)	(2)	(2)	(2)	(2)
1934	57.2	46.4	(2)	78.4	50.2	(2)	(2)	(2)	(2)	(2)
1935	58.7	49.7	(2)	78.2	50.6	(2)	(2)	(2)	(2)	(2)
1936	59.3	50.1	(2)	80.1	51.0	(2)	(2)	(2)	(2)	(2)
1937	61.4	52.1	(2)	83.8	53.7	(2)	(2)	(2)	(2)	(2)
1938	60.3	48.4	(2)	86.5	53.4	(2)	(2)	(2)	(2)	(2)
1939	59.4	47.1	(2)	86.6	52.5	(2)	(2)	(2)	(2)	(2)
1940	59.9	47.8	(2)	86.9	53.2	(2)	(2)	(2)	(2)	(2)
1941	62.9	52.2	(2)	88.4	55.6	(2)	(2)	(2)	(2)	(2)
1942	69.7	61.3	(2)	90.4	64.9	(2)	(2)	(2)	(2)	(2)
1943	74.0	68.3	(2)	90.3	67.8	(2)	(2)	(2)	(2)	(2)
1944	75.2	67.4	(2)	90.6	72.6	(2)	(2)	(2)	(2)	(2)
1945	76.9	68.9	(2)	90.9	76.3	(2)	(2)	(2)	(2)	(2)
1946	83.4	79.0	(2)	91.4	83.7	(2)	(2)	(2)	(2)	(2)
1947	95.5	95.9	95.0	94.4	97.1	90.6	94.9	97.6	95.5	96.1
1948	102.8	104.1	101.7	100.7	103.5	100.9	100.9	101.3	100.4	100.5
1949	101.8	100.0	103.3	105.0	99.4	108.5	104.1	101.1	104.1	103.4
1950	102.8	101.2	106.1	108.8	98.1	111.3	106.0	101.1	103.4	105.2
1951	111.0	112.6	112.4	113.1	106.9	118.4	111.1	110.5	106.5	109.7
1952	113.5	114.6	114.6	117.9	105.8	126.2	117.2	111.8	107.0	115.4
1953	114.4	112.8	117.7	124.1	104.8	129.7	121.3	112.8	108.0	118.2
1954	114.8	112.6	119.1	128.5	104.3	128.0	125.2	113.4	107.0	120.1

¹ Includes, in addition to rent, homeowner costs, utilities, housefurnishings, etc.
² Not available.

NOTE.—Monthly indexes available from January 1913 for "all items" and "food"; from September 1910 through September 1914 and from January 1947 for "rent"; from September 1940 for "apparel"; and from January 1947 for all others.

Source: Department of Labor.

city totals. Two-fifths of the weight is carried by the 12 largest cities; one-fifth by the 9 cities selected to represent the 42 cities with populations of 240,000 to 1,000,000; one-fifth by the 9 cities selected to represent the 216 cities with populations of 30,500 to 240,000; and one-fifth by the 16 small cities selected to represent the 2,527 towns with populations ranging from 2,500 to 30,500.

Uses and limitations.—The index is designed to

measure only those changes in the spending of urban families which result from changes in prices, not those which result from changes in purchasing habits or standards of living. Also, it measures price changes for only a limited population group: the families of wage earners and salaried clerical workers living in urban areas. Other qualities of commodities and weights would have to be used to measure price changes for other groups, such as

farm families, single workers, retired people, etc. The "fixed market basket" represents the average quantities bought by all wage-earner and clerical-worker families, and is not necessarily representative of the purchases made by any single family.

The city indexes indicate the difference in the rate of price movement in the various cities, but should not be used to compare price levels in one city with those in another. For instance, if the index for city A is 113 and that for city B is 115, it does not necessarily follow that prices are higher in city B than in city A, since the base-period prices may have been higher in city A. These indexes do show that prices have increased more rapidly since the base period in city B than in city A.

WHOLESALE PRICES

Description of series.—The Wholesale Price Index, compiled by the Bureau of Labor Statistics, is a measure of the general rate and direction of the composite of price movements in primary markets, and of the specific rates and directions of price movements for individual commodities and groups of commodities.

The index is based on price quotations for approximately 2,000 commodities selected to represent all commodities sold on primary markets in the United States. All types of commodities, from raw materials to fabricated products, are included in the index. For commodities traded on organized exchanges, such as livestock and grains, the quotations are furnished by the exchanges or Government agencies, or are taken from published sources. For some standardized commodities, such as certain chemicals and specified constructions of cotton gray goods, quotations are taken from authoritative trade papers. For the majority of fabricated products, prices are reported to the Bureau of Labor Statistics by producers. Prices are quoted at the level of the first commercial transaction, and, for each commodity, the reporter is requested to quote the price which he charges to the channel of distribution to which he sells the largest volume of this particular commodity. Consequently, the majority of the quotations in the index are producers' prices, rather than wholesalers' prices. The prices relate to a particular day of the month—usually Tuesday of the week containing the 15th.

Initial contacts with manufacturers to solicit their cooperation in reporting prices on specified commodities are made by personal interview; subsequent price reports are mailed to Washington by the reporting firm. Insofar as possible, identical qualities of

Although efforts are made to minimize the effects of quality changes on the "fixed market basket," it is impossible in any index to measure these effects with complete accuracy.

References.—The basic release of the index is the report entitled "Consumer Price Index," issued by the Bureau of Labor Statistics toward the end of the month following the month to which the figures relate. A detailed description of the procedures, uses and limitations of the index is presented in "The Consumer Price Index—A Layman's Guide" (BLS Bulletin 1140); in *Techniques of Preparing Major BLS Statistical Series* (BLS Bulletin 1168); and in an article in the February 1953 issue of the *Monthly Labor Review*.

the commodities are priced from period to period, so that the index will measure only real price changes, not differences due to changes in qualities or terms of sale.

A major revision of this index was introduced with release of the January 1952 index. The principal changes from the old series were: (1) increase in the number of items priced, from approximately 900 to about 2,000; (2) change in the basis for weights from average sales in 1929-31 to 1947 sales; (3) change of the base period from 1926 to 1947-49; and (4) modification of the classification system. The weighting diagram was again brought up to date with the release of the final index for January 1955, using average sales for 1952-53.

The relative importance of the groups, subgroups, and items in the index at any one period depends on the relation of the value aggregates as of that period. As of December 1954, using the 1952-53 weights, the relative importance of "Farm products" was 10.8, of "Processed foods" 13.7, and of "Other than farm products and foods" (machinery, nonmetallic minerals, fuels, etc.) 75.5.

In addition to the comprehensive index, indexes are released each month for 15 major groups, such as farm products and processed foods; 86 subgroups, such as grains and cotton products; about 250 product classes; and most of the individual series. BLS also publishes monthly 20 special group indexes (e. g., building materials) and 34 economic sector indexes (e. g., crude materials for further processing, components for manufacturing).

Statistical procedures.—Basically, the same statistical method is used in computing the Wholesale Price Index and the Consumer Price Index. The individual price series are combined into the index

Wholesale Prices

[1947-49=100]

Year	All commodities	Farm products	Processed foods	Other than farm products and foods
1914	44.3	39.8	(1)	47.5
1915	45.2	39.9	(1)	48.6
1916	55.6	47.1	(1)	63.1
1917	76.4	72.1	(1)	81.7
1918	85.3	82.7	(1)	89.1
1919	90.1	88.0	(1)	92.1
1920	100.3	84.2	(1)	115.3
1921	63.4	49.4	(1)	75.0
1922	62.8	52.4	(1)	73.2
1923	65.4	55.1	(1)	74.6
1924	63.8	55.9	(1)	71.3
1925	67.3	61.3	(1)	73.4
1926	65.0	55.9	58.2	71.5
1927	62.0	55.5	56.7	67.2
1928	62.9	59.2	59.4	66.4
1929	61.9	58.6	58.5	65.5
1930	56.1	49.3	53.3	60.9
1931	47.4	36.2	44.8	53.6
1932	42.1	26.9	36.5	50.2
1933	42.8	28.7	36.3	50.9
1934	48.7	36.5	42.6	56.0
1935	52.0	44.0	52.1	55.7
1936	52.5	45.2	50.1	56.9
1937	56.1	48.3	52.4	61.0
1938	51.1	38.3	45.6	58.4
1939	50.1	36.5	43.3	58.1
1940	51.1	37.8	43.6	59.4
1941	56.8	46.0	50.5	63.7
1942	64.2	59.2	59.1	68.3
1943	67.0	68.5	61.6	69.3
1944	67.6	68.9	60.4	70.4
1945	68.8	71.6	60.8	71.3
1946	78.7	83.2	77.6	78.3
1947	96.4	100.0	98.2	95.3
1948	104.4	107.3	106.1	103.4
1949	99.2	92.8	95.7	101.3
1950	103.1	97.5	99.8	105.0
1951	114.8	113.4	111.4	115.9
1952	111.6	107.0	108.8	113.2
1953	110.1	97.0	104.6	114.0
1954	110.3	95.6	105.3	114.5

(1) Not available.

Note.—Detail through product classes available from 1947 on the 1947-49=100 base. Monthly indexes available for "all commodities" and major groups from 1890 and for subgroups from 1913 on the 1920=100 base.

Source: Department of Labor.

by multiplying the weight assigned each item by its current price relative, and summing to obtain the current aggregate. The current aggregates are totaled by product classes, subgroups, groups, and all commodities. The current index for each of these is obtained by dividing the current aggregate by the appropriate sales value in the base period.

Each commodity price series in the index, as representative of prices for a group of commodities, is assigned its own direct weight (the value of the

sales of that individual commodity), plus the weight of other commodities it was selected to represent in the index. Weights for commodities not priced for the index are assigned to commodities which are priced on the basis of similarity of price movements if data are available for making such determinations. When data are not available for such determinations, BLS obtains advice from industry and other experts on what commodity or group of commodities which is priced has a price movement most similar to that

of the unpriced commodity, and assignments are made on the basis of these recommendations.

Relation to other series.—The BLS publishes a weekly index of wholesale prices based on that week's prices for a small sample (about 200) of the commodities included in the monthly index and an estimate of prices for all other commodities.

Uses and limitations.—The index is based for the most part on producers' prices; therefore, it should not be used as a measure of price change at the wholesale market level. "Wholesale" as used in the title of this index refers to sales in large lots, not to prices paid or received by wholesalers, jobbers, or distributors.

A comparison of the movement of the subgroup indexes of the Wholesale Price Index and the Consumer Price Index should not be used as a measure of the change in retailers' margins for the specified groups of commodities, mainly because the two

indexes are based on different weighting patterns and the lists of commodities priced are not identical.

The index is designed to measure real price changes; that is, changes which are not occasioned by changes in quality, quantity, terms of sale, etc. It is not designed to measure changes in manufacturers' average realized prices which are affected by product mix and terms of sale as well as by price movements.

References.—The basic release of the index is the report entitled "Wholesale (Primary Market) Price Index," issued by the Bureau of Labor Statistics during the second week of the month following the month to which the figures relate. A detailed description of the index and its uses and limitations is presented in the February 1952 *Monthly Labor Review* (Reprint No. R. 2067) and in *Techniques of Preparing Major BLS Statistical Series* (Bulletin 1168), December 1954.

PRICES RECEIVED AND PAID BY FARMERS

Parity Index

Description of series.—The "Index of Prices Paid by Farmers for Commodities and Services, including Interest, Taxes, and Wage Rates" (commonly called the Parity Index) is computed by the Agricultural Marketing Service (AMS) of the Department of Agriculture. It is composed of five major groups: prices paid for items used in family living, accounting for 44.0 percent of the total weight for the period since March 1935; prices paid for items used in farm production, 41.2 percent; interest on indebtedness secured by farm mortgages, 3.0 percent; taxes on farm real estate, 3.8 percent; and rates of wages paid hired farm labor, 8.0 percent.

The index is a measure of the changes in prices paid by farm families for a list of commodities and services used in family living and farm production. As of July 1955, the index of prices paid for items used in family living included price series for 191 commodities and services, and that for items used in farm production included 201, with 40 of the series being used in both indexes. Until March 1953 the index was based on prices collected from independent stores only, but since that date it has been based on prices collected monthly from chain stores and quarterly from independent stores. Changes in the index in the inter-quarterly months are estimated largely from changes in chain-store prices. Changes in average costs of electricity and telephone services are based upon an annual survey of 20,000 farmers. The base period is 1910-14 as set by law.

The most recent revision of the index was introduced with the release of the January 1950 series. The principal changes in the revised series were: (1) addition to the index of cash wage rates paid to hired farm labor; (2) adoption of a weighting pattern since March 1935 based on farmers' purchasing habits during the period 1937-41, in place of 1924-29 as used prior to March 1935; and (3) increase in the number of items included in the current index from about 175 to more than 300.

Statistical procedures.—Price reports from independent dealers are mailed to the AMS State offices, where average prices for the State are calculated for each item. Chain-store prices are reported directly to the Washington office of AMS, where they are combined with the appropriate State averages of independent-store prices. Final estimates by States and commodities are then combined into national averages for each item by weighting each State price estimate by an estimate of the amount of that commodity purchased by farmers in the designated State. These estimates of purchases are based upon the distribution of farm population, farm income, and other available information.

Subgroup indexes are computed for 15 types of expenditures. Six of these subgroup indexes (food and tobacco, clothing, autos and auto supplies, household operations, household furnishings, and building materials for house) are combined into the index of prices paid by farmers for items used in family living; and 9 of the subgroup indexes (feed,

Prices Received and Paid by Farmers

Year	Prices paid by farmers for items used in		Parity index (prices paid, interest, taxes, and wage rates)	Prices received by farmers	Parity ratio ¹
	Family living	Production			
Index, 1910-14=100					
1910.....	99	97	97	104	107
1911.....	99	98	98	94	96
1912.....	100	102	101	99	98
1913.....	100	101	101	102	101
1914.....	102	102	103	101	98
1915.....	104	104	105	99	94
1916.....	115	115	116	119	103
1917.....	143	156	148	178	120
1918.....	170	180	173	206	119
1919.....	202	195	197	217	110
1920.....	228	195	214	211	99
1921.....	164	128	155	124	80
1922.....	153	127	151	131	87
1923.....	156	138	159	142	89
1924.....	156	140	160	143	89
1925.....	161	145	164	156	95
1926.....	158	141	160	145	91
1927.....	155	141	159	140	88
1928.....	156	148	162	148	91
1929.....	154	146	160	148	92
1930.....	144	135	151	125	83
1931.....	124	113	130	87	67
1932.....	106	99	112	65	58
1933.....	108	99	109	70	64
1934.....	122	114	120	90	75
1935.....	124	122	124	109	88
1936.....	124	122	124	114	92
1937.....	128	132	131	122	93
1938.....	122	122	124	97	78
1939.....	120	121	123	95	77
1940.....	121	123	124	100	81
1941.....	130	130	133	124	93
1942.....	149	148	152	159	105
1943.....	166	164	171	² 193	113
1944.....	175	173	182	² 197	108
1945.....	182	176	190	² 207	109
1946.....	202	191	208	² 236	113
1947.....	237	224	240	276	115
1948.....	251	250	260	287	110
1949.....	243	238	251	250	100
1950.....	246	246	256	258	101
1951.....	268	273	282	302	107
1952.....	271	274	287	288	100
1953.....	270	253	279	258	92
1954.....	274	252	281	249	89

¹ Percentage ratio of Index of Prices Received by Farmers to Parity Index.
² Includes wartime subsidies paid on beef cattle, sheep, lambs, milk, and butterfat between October 1943 and June 1946.

NOTE.—For the Index of Prices Received by Farmers, monthly and annual data available from January 1910; for the Indexes of Prices Paid and the Parity Index, annual data available from 1910, quarterly from 1923, and monthly from January 1937.

Source: Department of Agriculture.

livestock, motor supplies, motor vehicles, farm machinery, building and fencing materials, fertilizer and lime, equipment and supplies, and seed) are combined into the index of prices paid for items used in farm production.

These two group indexes of prices paid for items used in family living and farm production are combined with the indexes for interest, taxes, and wage rates to form the Parity Index. The series on interest charges is developed annually on the basis of data obtained from lending agencies and special surveys. The tax series is developed annually from data obtained from special surveys. The wage-rate series is based on information collected in a quarterly mail survey of farmers.

Relation to other series.—The index of prices paid by farmers for items used in family living is frequently compared with the Consumer Price Index (CPI) to compare the movement of retail prices as they affect farmers and urban workers, respectively. Even though in some periods the movements of the two indexes have been quite similar, there are important differences between the two indexes which on occasion give rise to differences in movements. Some of the principal differences are:

1. The lists of commodities included in the two indexes are not identical, and different weights are used for individual commodities, since the CPI is based on the purchasing habits of urban families and the farm family-living index on those of farm families.

2. All expenditures for commodities and services purchased by urban families are represented in the weights for the CPI, whereas certain types of expenditures are not included in the weights for the index of farm family-living expenses. For example, since few farmers rent homes other than those that are rented with the farm, the farm family-living index does not include residential rents. The CPI weights include all costs of homeownership—purchase, repairs and maintenance, and insurance; whereas only the costs of building materials for houses are represented in the farm family-living index. Services (medical care, utilities, public transportation, personal care, etc.) carry a relatively heavy weight in the CPI; but only telephone and electricity costs are represented in the farm family-living index.

3. Although both the CPI and the farm family-living index are composed of a fixed list of items for any two successive dates, the CPI is designed to measure price changes in successive periods for specified qualities of the items, while the Index of Prices Paid by Farmers is designed to measure average prices for those qualities of each item which

are currently purchased in greatest volume by farmers. These qualities may change in response to changing levels of farm income or to changes in qualities commonly stocked by merchants.

Uses and limitations.—The Parity Index is used to compute parity prices by relating it to prices received by farmers for specific commodities in the base period. Agricultural support programs are in many cases based on these parity prices.

The indexes of prices paid by farmers for items used in family living and in farm production may be affected somewhat by changes in qualities purchased, and therefore do not necessarily measure changes in prices of particular grades of commodities.

Prices Received by Farmers

Description of series.—The Index of Prices Received by Farmers is computed by the Agricultural Marketing Service (AMS) of the Department of Agriculture, as a measure of the change from month to month in average prices of farm products. It is based on average prices received for all grades and qualities of the important agricultural commodities at the point of first sale—generally the local market—about the middle of the month.

The index is based on prices for 52 commodities which account for about 92 percent of the total cash receipts from marketings of all farm commodities for which data are available. The price data are obtained chiefly by mail on a voluntary basis from buyers of farm products (e. g., country mills and elevators, creameries and milk plants, cooperative marketing organizations, and local dealers) and other persons with a knowledge of farm product prices (for example, local bankers and well informed farmers).

In addition to the overall index for “all farm products,” indexes are prepared for “all crops,” for “livestock and livestock products” and for 13 subgroups. Five of these subgroup indexes (fruit; commercial vegetables; potatoes, sweet potatoes, and dry edible beans; dairy products; and poultry and eggs) are published also on a seasonally adjusted basis.

Statistical procedures.—Weights based on average quantities sold during 1937–41 have been used since January 1935 to combine the United States average prices for individual commodities into subgroup indexes. In combining the subgroup indexes into group and all-commodity indexes, the index numbers are weighted by the percentage ratio of cash receipts from marketings for the particular commodity subgroups to the total for the same period—1937–41. The subgroup and group indexes are then converted

from the 1937-41 to a 1910-14=100 base for publication purposes, as required by law.

Revisions have been made in the index series from time to time, mainly involving revisions in basic price series or changes in weights. A major revision in January 1950 put the index on a basis more consistent with that of the Parity Index, improved the weighting structure, and made minor changes in commodity coverage. The index was also revised in January 1954 to incorporate revisions in the component price series and to reflect some revisions in the 1937-41 weight data.

Relation to other series.—The index described here should not be confused with the farm-product component of the Wholesale Price Index. There are significant differences. The Index of Prices Received by Farmers measures changes in prices at the point of first sale, and is based on average prices for all grades of a given commodity. The Wholesale Price Index, on the other hand, measures prices in selected central markets, and is based on average prices of specific grades or qualities. Furthermore, commodities traded among farmers never enter into wholesale trade. Finally, there are differences in the weights and base periods used in the two indexes.

Uses and limitations.—The index is widely used as a measure of changes in average prices received by farmers for commodities sold in local markets. It is used in the computation of adjusted base-period prices, which are needed in calculating parity prices under the formula prescribed by the Agricultural Adjustment Act of 1938, as amended.

The Index of Prices Received by Farmers is designed to measure the change in average prices for

all grades and qualities of the products sold by farmers. Therefore the price changes it shows are not necessarily a measure of price changes for specific grades, as they may also reflect changes in the grades or qualities sold.

As noted above, the index is based on commodities which account for about 92 percent of the total value of all commodities farmers have to sell. Adequate marketing and price data are not available for the other 8 percent (timber and other forest products, greenhouse products, and a number of miscellaneous and minor commodities), but these omissions are not significant with respect to the index as a whole.

References.—The Parity Index and the Index of Prices Received by Farmers are published monthly by AMS in *Agricultural Prices*. Historical data appear in the Department of Agriculture's annual publications, *Agricultural Statistics and Crops and Markets*. A detailed description of the price series is presented in *The Agricultural Estimating and Reporting Services of the United States Department of Agriculture* (Miscellaneous Publication No. 703 of the Department of Agriculture).

Parity Ratio

The Parity Ratio is computed by dividing the Index of Prices Received by Farmers by the Parity Index (Index of Prices Paid, Including Interest, Taxes, and Wage Rates). It measures whether the prices farmers receive for farm products are on the average higher or lower in relation to the prices they pay for goods and services than they were in the base period, 1910-14.

CURRENCY, CREDIT, AND SECURITY MARKETS

CURRENCY AND DEPOSITS

Description of series.—These series measure the supply of several types of assets of the highest liquidity, which have in varying degrees attributes associated with "money." The table covers "privately held" deposits and currency (including the holdings of States and political subdivisions but excluding those of banks) and deposits to the credit of the Federal Government. Further details as to precise coverage are given in the footnotes. The table is derived from a more inclusive Federal Reserve tabulation of "Deposits and currency," which covers in addition cash held by the Treasury and net deposits due to foreign banks.

Monthly estimates are for the final Wednesday of the month, except that the June and December estimates are later replaced by reported figures as of the last day of the month.

Statistical procedures.—The aggregate of deposits and currency consists primarily of deposits, both demand and time, in commercial banks. Monthly estimates of these commercial bank deposits are prepared in approximately the same manner as the estimates of loans and investments for "all commercial banks," as explained below in the following section on Bank Loans, Investments, and Reserves. Data for the "weekly reporting member banks" are combined with monthly reports from other commercial member banks, and an estimate is made for nonmember banks on the basis of the reports from the "country" (generally smaller) member banks. Semiannual "all bank" figures later replace the Wednesday figures for June and December. The monthly estimate for deposits in mutual savings banks, which are largely outside the Federal Reserve System, is based on monthly statistics of the National Association of Mutual Savings Banks covering the bulk of mutual savings banks deposits. Postal Savings figures are obtained monthly from the Post Office Department. Preliminary figures for Government bank deposits are estimates based on the Treasury *Daily Statement*, subject to later correction on the basis of bank records. Currency outside banks is based on the Treasury figures for currency held outside the Treasury and the Federal Reserve System, from which are deducted monthly estimates of cash held by the commercial and savings banks.

Relation to other series.—As noted above, the scope of this presentation of "Currency and deposits" is somewhat narrower than that of the Federal Reserve tabulation of "Deposits and currency." The latter

presents the data in somewhat more detail, and includes in addition seasonally adjusted series for recent months for "Demand deposits adjusted" and "Currency outside banks."

The concept of "money supply" reflected here is quite different from that measured by the well-known "Money in Circulation" figure published monthly by the Treasury. The latter covers only coins and paper money, and consists of the total outside the Treasury and the Federal Reserve banks, less an estimate of the amount of coin held abroad. The "money supply" data differ in that they include deposits, although they exclude the relatively small amount of cash held by the banks.

This table, and the more detailed Federal Reserve deposits and currency table, are derived from data in general available in other banking or Treasury statistics. Because of adjustments and special groupings of items, however, the component series of these two tables cannot necessarily be identified precisely with series found elsewhere.

Uses and limitations.—The data on deposits and currency permit an adequate measurement of the level and general trend of the supply of these types of highly liquid assets. Changes in the supply of these assets are important factors affecting the functioning of the economic system.

There is no one accepted definition of "money." The Federal Reserve presentation of deposits and currency avoids the term "money" but makes it possible for the user to adapt the data to his particular use by excluding one or more component series. Thus the *Economic Indicators* category of "privately held money supply" excludes deposits of foreign banks and Treasury cash holdings. A more restrictive definition of money supply excludes time deposits. On the other hand, a broader definition might include savings and loan shares or Government savings bonds, for which data are available elsewhere.

References.—The currency and deposits data are adapted from the monthly Federal Reserve table entitled "Consolidated Condition Statement for Banks and the Monetary System," which appears first in the release G.7 (c), approximately 5 weeks after the end of the month, showing changes from the previous month and a year ago. The table is presented in more detail in the *Federal Reserve Bulletin*, and its basis is discussed in the *Bulletin* for January 1948. Historical data to 1892 are available in *Banking and Monetary Statistics*.

Currency and Deposits

[Billions of dollars]

End of period	Total deposits and currency	U. S. Government deposits ¹	'Total excluding U. S. Government deposits (privately held money supply) ²			
			Total	Currency outside banks	Demand deposits adjusted ³	Time deposits ⁴
1914—June	20.0	0.1	20.0	1.5	10.1	8.4
1915—June	20.7	(⁵)	20.6	1.6	9.8	9.2
1916—June	24.3	.1	24.2	1.9	12.0	10.3
1917—June	28.4	1.1	27.3	2.3	13.5	11.5
1918—June	31.5	1.6	29.9	3.3	14.8	11.7
1919—June	35.7	1.0	34.6	3.6	17.6	13.4
1920—June	39.9	.3	39.6	4.1	19.6	15.8
1921—June	37.8	.5	37.4	3.7	17.1	16.0
1922—June	39.0	.2	38.8	3.3	18.0	17.4
1923—December	43.5	.3	43.2	3.7	19.1	20.4
1924—December	47.1	.3	46.8	3.7	20.9	22.2
1925—December	50.3	.3	50.0	3.8	22.3	23.9
1926—December	51.1	.3	50.9	3.8	21.7	25.3
1927—December	54.1	.3	53.8	3.7	22.7	27.4
1928—December	55.7	.3	55.4	3.6	23.1	28.7
1929—December	54.7	.2	54.6	3.6	22.8	28.2
1930—December	53.6	.3	53.2	3.6	21.0	28.7
1931—December	48.4	.5	47.9	4.5	17.4	26.0
1932—December	45.4	.5	44.9	4.7	15.7	24.5
1933—December	42.6	1.0	41.5	4.8	15.0	21.7
1934—December	48.1	1.8	46.3	4.7	18.5	23.2
1935—December	52.7	1.5	51.3	4.9	22.1	24.2
1936—December	57.6	1.2	56.4	5.5	25.5	25.4
1937—December	56.8	1.0	55.8	5.6	24.0	26.2
1938—December	59.9	1.8	58.1	5.8	26.0	26.3
1939—December	64.7	1.5	63.3	6.4	29.8	27.1
1940—December	71.1	1.1	70.0	7.3	34.9	27.7
1941—December	79.1	2.8	76.3	9.6	39.0	27.7
1942—December	100.5	9.2	91.3	13.9	48.9	28.4
1943—December	123.4	11.0	112.4	18.8	60.8	32.7
1944—December	151.4	21.2	130.2	23.5	66.9	39.8
1945—December	176.4	25.6	150.8	26.5	75.9	48.5
1946—December	167.5	3.5	164.0	26.7	83.3	54.0
1947—December	172.3	2.3	170.0	26.5	87.1	56.4
1948—December	172.7	3.6	169.1	26.1	85.5	57.5
1949—December	173.9	4.1	169.8	25.4	85.8	58.6
1950—December	180.6	3.7	176.9	25.4	92.3	59.2
1951—December	189.9	3.9	186.0	26.3	98.2	61.4
1952—December	200.4	5.6	194.8	27.5	101.5	65.8
1953—December	205.7	4.8	200.9	28.1	102.5	70.4
1954—December	214.8	5.1	209.7	27.9	106.6	75.3

¹ Includes U. S. Government deposits at commercial and savings banks and (beginning 1916) at Federal Reserve banks; beginning with 1938, includes United States Treasurer's time deposits open account.
² Includes deposits and currency held by State and local governments.
³ Demand deposits other than interbank and U. S. Government, less cash items in process of collection.
⁴ Includes deposits in commercial banks, mutual savings banks, and Postal Savings System, but excludes interbank deposits, United States Treasurer's time deposits open account, and postal savings redeposited in banks.
⁵ Less than \$50 million.

NOTE.—Monthly data available beginning 1943; annual from 1892. Detail will not necessarily add to totals because of rounding.
 Source: Board of Governors of the Federal Reserve System.

BANK LOANS, INVESTMENTS, AND RESERVES

Description of series.—"Commercial banks" are in general distinguished from other lending institutions by the fact that they accept deposits subject to check or withdrawal on demand. They number approximately 13,800. Mutual savings banks are not included, nor are savings and loan associations or, in general, any other "banking" institutions which do not receive demand deposits.

"Member banks" of the Federal Reserve System are with few exceptions commercial banks. They comprise approximately 4,800 nationally chartered banks ("national banks") plus about 1,900 State-chartered banks, which are members of the Federal Reserve System. Member banks account currently for about 85 percent of the total loans and investments of commercial banks.

The "Weekly reporting member banks" comprise some 400 selected member commercial banks in (or with head offices in) approximately 100 cities, accounting currently for over half of the total commercial banking loans and investments. The cities are the more important banking centers within each Federal Reserve district; and within each city the banks constitute a voluntary sample, usually accounting for over 90 percent of member bank resources. The coverage of the weekly series was last substantially revised in 1947 and carried back 1 year, with an increase of about 15 percent in loans and investments of reporting banks. More recent minor revisions affect the data from March 1952.

The category of "Loans" reported for all commercial banks covers all loans and discounts including open market paper. The "Business loan" category for the weekly reporting banks is a major component of total loans. Although it includes commercial, industrial, and agricultural loans, it does not cover loans to business or agricultural enterprises if secured by real estate or for the purpose of purchasing or carrying securities. Monthly estimates for business loans of all commercial banks are not available, but the weekly reporting banks currently account for about 70 percent of all such loans.

Monthly figures shown for commercial banks and weekly reporting member banks are as of the last Wednesday of the month except that final June and December figures for "All commercial banks" are as of the last day of the month.

"Required reserve balances" for member banks are the minimum amount of deposits required to be maintained by member banks at their respective Federal Reserve banks pursuant to Federal Reserve regulations, measured as a percent of deposit liability

and varying with the type of deposit and the classification of the bank. "Excess" reserves are member bank deposits maintained at the Reserve bank in excess of the required minimum.

Statistical procedures.—The "All commercial banks" and "Weekly reporting member banks" series are closely related. The weekly series is based on weekly reports filed with Federal Reserve banks and compiled cooperatively by these banks and the Board of Governors. Published figures are simple aggregates for the reporting banks. The monthly estimates for all commercial banks are prepared, also by the Federal Reserve System, on the basis of the weekly reports, monthly reports from all other member banks, and other information. Estimates are made for nonmember banks, accounting currently for about 16 percent of commercial-bank credit, on the basis of the relationship between the movement of "country" member banks (those outside the major cities) and that of the nonmember banks, as determined semiannually when complete reports for the banking system are available. The June and December estimates are later replaced by "benchmark" figures for all commercial banks. These benchmarks are compiled by the Federal Deposit Insurance Corporation on the basis of compulsory "call reports" filed by all banks subject to Federal supervision (national banks, State member banks, and nonmember insured banks) with one or another of the Federal bank supervisory agencies, and of information obtained from State banking authorities and other sources for the relatively few uninsured banks. These final June and December figures, being normally for a day other than Wednesday, replace the earlier estimates. Interim monthly estimates are revised only when some substantial error of estimate is suggested by the benchmarks.

Prior to 1947 each of the Federal supervisory agencies prepared separately a series of semiannual "all-bank" statistics. Since 1947 a single series has by agreement been prepared by the FDIC. The Federal Reserve monthly estimates for all commercial banks have been published only since 1948.

The series on required and excess reserves and member-bank borrowing are based on reports of deposits, reserves, and borrowing from all member banks, filed semimonthly or more frequently, depending on the class of bank.

Relation to other series.—The Federal Government publishes a variety of statistical series covering all or part of the banking system. For purposes of general analysis, these will not necessarily lead to significantly

Bank Loans, Investments, and Reserves

[Billions of dollars]

End of period ¹	All commercial banks					Weekly reporting member banks	All member banks ²		
	Total loans and investments	Loans	Investments				Reserve balances		Borrowings at Federal Reserve Banks
			Total	U. S. Government securities	Other securities	Business loans ²	Required	Excess	
1914—June	16.9	13.2	3.7	0.8	2.9	(³)	(³)	(³)	(³)
1919—June	31.8	22.4	9.4	5.1	4.3	(³)	(³)	(³)	1.9
1924—June	38.1	27.6	10.5	4.4	6.1	(³)	(³)	(³)	.4
1929—June	49.4	35.7	13.7	4.9	8.7	(³)	2.3	(³)	.9
1930—June	48.9	34.5	14.4	5.0	9.4	(³)	2.3	0.1	.3
1931—June	44.9	29.2	15.7	6.0	9.7	(³)	2.2	.1	.3
1932—June	36.1	21.8	14.3	6.2	8.1	(³)	1.9	.3	.5
1933—June	30.4	16.3	14.0	7.5	6.5	(³)	⁴ 1.8	⁴ .5	.2
1934—June	32.7	15.7	17.0	10.3	6.7	(³)	⁴ 2.1	⁴ 1.6	(³)
1935—June	34.6	14.9	19.7	12.7	7.0	(³)	2.5	2.5	(³)
1936—December	39.5	16.4	23.1	15.3	7.8	(³)	3.5	2.5	(³)
1937—December	38.3	17.1	21.2	14.2	7.1	5.1	5.6	1.2	(³)
1938—December	38.7	16.4	22.3	15.1	7.2	4.2	5.4	2.5	(³)
1939—December	40.7	17.2	23.4	16.3	7.1	4.7	6.0	4.4	(³)
1940—December	43.9	18.8	25.1	17.8	7.4	5.3	6.9	6.3	(³)
1941—December	50.7	21.7	29.0	21.8	7.2	7.1	8.1	5.3	(³)
1942—December	67.4	19.2	48.2	41.4	6.8	6.1	10.0	2.7	(³)
1943—December	85.1	19.1	66.0	59.8	6.1	6.4	11.1	1.5	(³)
1944—December	105.5	21.6	83.9	77.6	6.3	6.5	12.2	1.0	.1
1945—December	124.0	26.1	97.9	90.6	7.3	7.3	13.9	1.1	.4
1946—December	114.0	31.1	82.9	74.8	8.1	⁵ 11.3	15.0	1.0	.2
1947—December	116.3	38.1	78.2	69.2	9.0	14.7	15.6	.9	.2
1948—December	114.3	42.5	71.8	62.6	9.2	15.6	17.2	.8	.1
1949—December	120.2	43.0	77.2	67.0	10.2	13.9	17.0	.8	.1
1950—December	126.7	52.2	74.4	62.0	12.4	17.8	15.6	.8	.1
1951—December	132.6	57.7	74.9	61.5	13.3	21.6	18.5	.8	.3
1952—December	141.6	64.2	77.5	63.3	14.1	⁶ 23.4	19.6	.7	.8
1953—December	145.7	67.6	78.1	63.4	14.7	23.4	19.3	.7	.8
1954—December	155.9	70.6	85.3	69.0	16.3	22.4	18.5	.8	.1

¹ June dates prior to 1936 because end-of-year data not available for U. S. Government obligations; December dates thereafter. For "Weekly reporting member banks," Wednesday date nearest end of year.

² Includes commercial, industrial, and agricultural loans.
³ Figures for balances and borrowings are averages of daily figures for the calendar year period. Figures for required and excess reserves prior to 1929 available only for call report dates. Figures for borrowings for 1914-28 consist principally of rediscounts for and advances to member banks, but at times include small amounts of loans on gold, and advances to nonmember banks, Federal intermediate credit banks, and individuals, partnerships, and corporations; for 1929 to date they represent only rediscounts and advances to member banks.

⁴ Not available.

⁵ Less than \$50 million.

⁶ Data from March 1933 through April 1934 for licensed banks only.

⁷ Series revised to extend coverage; previous figures not entirely comparable.

NOTE.—Monthly data available beginning October 1947; annual from 1914, except as noted.

Source: Board of Governors of the Federal Reserve System.

different conclusions, but the differences should be kept in mind. Thus, the all-commercial bank series should be distinguished from the somewhat larger "all-bank" series which includes some 500 mutual savings banks; and from various smaller aggregates such as those for national banks and insured commercial banks. The all-commercial bank aggregates here are for continental United States, and may differ slightly from totals which include banks in the possessions, published by the Comptroller of the Currency and the FDIC.

The weekly series includes most of the larger banks in larger cities and covers a substantial segment of total commercial bank resources. Although the series is not identical in coverage with any published call report aggregate, it is similar in coverage to the aggregate for all member banks other than "country" banks. A more recently developed Federal Reserve series showing changes in commercial and industrial loans by type of business of borrower, weekly from 1951, is based on a subsample of the weekly reporting banks and ties in with the business-loan figure.

The series on reserve and member-bank borrowings, being averages of daily figures, are not directly comparable with week-end or month-end member-bank or Reserve-bank statistics.

Uses and limitations.—The all-commercial-bank figures are useful indicators of business activity and trends in bank credit use. Data for the weekly reporting member banks are more frequent and more prompt than those for all commercial banks and provide the more detailed category of "business loans." The weekly series also is a more sensitive indicator of developments in the short-term money market, because it covers the larger banks in the more important centers.

The series on reserves and borrowing are a partial reflection of the credit potential of the banking system. Excess reserves are available to the banks holding them for further credit expansion. Member-bank borrowing from the Reserve banks reflects the extent to which some banks (not holding excess reserves) have borrowed temporarily to meet minimum reserve requirements. A measure known as "free reserves" may be computed by subtracting borrowings from excess reserves. The series on required and excess reserves form an integral part of the significant weekly and monthly Federal Reserve tabulation entitled "Member Bank Reserves, Reserve Bank Credit and Related Items," which shows interrelationships among various sources and uses of reserve funds.

CONSUMER CREDIT

Description of series.—These series are estimates of short- and intermediate-term consumer credit, in total and by major types. Federal Reserve publishes additional detail by type of credit and by type of financial institution or retail outlet to which the debt is owed.

"Consumer credit" is defined as "all credit used to finance the purchase of commodities and services for personal consumption or to refinance debts originally incurred for such purposes." Credit covers both loans and sales involving deferred payment. Personal consumption is defined so as to exclude consumption not only by businesses but by nonprofit organizations. The estimates exclude home-mortgage credit, traditionally considered separately.

"Installment credit," accounting for the bulk of consumer credit, is that scheduled to be repaid in two or more payments. Installment credit classified as "Automobile paper" and "Other consumer goods paper" includes credit for the purchase of, and

References.—The monthly estimates for all commercial banks appear initially about a month after the date of the report in a set of Federal Reserve releases—G.7, G.7 (a), G.7 (b)—showing the major balance-sheet items and changes during the past month and year for all banks, all commercial banks, and member banks. The *Federal Reserve Bulletin* also carries the estimates for recent months, with call report data for selected years back to 1939.

The Wednesday data for the weekly reporting member banks appear initially on the following Wednesday in a Federal Reserve release (H.4.2), showing also changes in assets and liabilities over the last week and year. The *Federal Reserve Bulletin* carries the weekly data and monthly averages for the last 3 months. Recent revisions are explained in the *Bulletin* for June 1947 and April 1953.

Figures for member-bank borrowings and preliminary estimates of excess and required reserves appear first in the weekly release H.4.1, showing weekly averages of daily figures, available the day following the end of the week. The semimonthly release J.1 gives similar data for a half-month period, available with a lag of about 20 days. Weekly and monthly data appear in the *Bulletin*.

Banking and Monetary Statistics, published by Federal Reserve in 1943, includes discussions and historical tables dealing with all-bank data, the weekly reporting member-bank series, and member-bank reserves and borrowings.

secured by, such goods regardless of whether originating as loans or as credit sales, and regardless of whether the paper is held by a merchant or a financial institution. "Repair and modernization loans" includes such loans held by financial institutions but not by merchants. "Personal installment loans" covers loans by financial institutions for all other consumer purposes, such as to consolidate debts, to pay medical expenses, or for education. Consumers' "noninstallment credit" is classified by Federal Reserve into three types: charge accounts; single-payment loans; and service credit (consumer debts to a variety of creditors, including hospitals, doctors, utilities, and service establishments).

The definition of consumer credit cited above is followed in general but not rigidly in the construction of the series. In the absence of sufficiently refined data, certain arbitrary decisions must be made. For example, all bank credit to farmers is excluded even though an undetermined part is for consump-

Consumer Credit
[Millions of dollars]

End of year	Total consumer credit outstanding	Installment credit outstanding					Noninstallment credit outstanding		Installment credit extended ³	Installment credit repaid ³
		Total	Auto-mobile paper ¹	Other consumer goods paper ¹	Repair and modernization loans ²	Personal loans	Total	Charge accounts		
1929.....	6,444	3,151	(⁴)	(⁴)	(⁴)	(⁴)	3,293	1,602	5,799	5,350
1930.....	5,767	2,687	(⁴)	(⁴)	(⁴)	(⁴)	3,080	1,476	4,814	5,278
1931.....	4,760	2,207	(⁴)	(⁴)	(⁴)	(⁴)	2,553	1,265	3,866	4,346
1932.....	3,567	1,521	(⁴)	(⁴)	(⁴)	(⁴)	2,046	1,020	2,435	3,121
1933.....	3,482	1,588	(⁴)	(⁴)	(⁴)	(⁴)	1,894	990	2,480	2,413
1934.....	3,904	1,871	(⁴)	(⁴)	(⁴)	(⁴)	2,033	1,102	3,125	2,842
1935.....	4,911	2,694	(⁴)	(⁴)	(⁴)	(⁴)	2,217	1,183	4,189	3,366
1936.....	6,135	3,623	(⁴)	(⁴)	(⁴)	(⁴)	2,512	1,300	5,617	4,688
1937.....	6,689	4,015	(⁴)	(⁴)	(⁴)	(⁴)	2,674	1,336	6,308	5,916
1938.....	6,338	3,691	(⁴)	(⁴)	(⁴)	(⁴)	2,647	1,362	5,406	5,730
1939.....	7,222	4,503	1,497	1,620	298	1,088	2,719	1,414	6,872	6,060
1940.....	8,338	5,514	2,071	1,827	371	1,245	2,824	1,471	8,219	7,208
1941.....	9,172	6,085	2,458	1,929	376	1,322	3,087	1,645	9,425	8,854
1942.....	5,983	3,166	742	1,195	255	974	2,817	1,444	5,239	8,158
1943.....	4,901	2,136	355	819	130	832	2,765	1,440	4,587	5,617
1944.....	5,111	2,176	397	791	119	869	2,935	1,517	4,894	4,854
1945.....	5,665	2,462	455	816	182	1,009	3,203	1,612	5,379	5,098
1946.....	8,384	4,172	981	1,290	405	1,496	4,212	2,076	8,495	6,785
1947.....	11,570	6,695	1,924	2,143	718	1,910	4,875	2,353	12,713	10,190
1948.....	14,411	8,968	3,054	2,842	843	2,229	5,443	2,713	15,540	13,267
1949.....	17,104	11,516	4,699	3,486	887	2,444	5,588	2,680	18,002	15,454
1950.....	20,813	14,490	6,342	4,337	1,006	2,805	6,323	3,006	21,256	18,282
1951.....	21,468	14,837	6,242	4,270	1,090	3,235	6,631	3,096	22,791	22,444
1952.....	25,827	18,684	8,099	5,328	1,406	3,851	7,143	3,342	28,397	24,550
1953.....	29,537	22,187	10,341	5,831	1,649	4,366	7,350	3,411	30,321	26,818
1954.....	30,125	22,467	10,396	5,668	1,616	4,787	7,658	3,518	29,304	29,024

¹ Includes all consumer credit extended for the purchase of the specified consumer goods, and secured by the item purchased.
² Includes only such loans held by financial institutions; those held by retail outlets are included in "other consumer goods paper."
³ Credit extended or repaid during the year.
⁴ Not available.

NOTE.—Revised series; see *Federal Reserve Bulletin*, April 1953, January 1954, June 1955. Monthly and annual data available beginning 1929, except as noted.
Source: Board of Governors of the Federal Reserve System.

tion. On the other hand, all credit for the purchase of automobiles by individuals is included even though an undetermined part of the use is for business purposes.

The table deals primarily with consumer credit outstanding, but two series are included on installment credit extended and installment credit repaid, respectively. These series, first issued by Federal Reserve in 1954, report the flows of new credit through new loans or installment contracts and of repayments, which explain changes in the level of credit outstanding.

Statistical procedures.—The "Consumer credit outstanding" series are aggregates of separate estimates of the consumer credit held by a number of different types of creditors—financial institutions, retail and service establishments, and others. The procedures are complex, and vary for the different groups.

In general, estimates for retail trade are based on the 1948 Census of Business, which provides information on credit held by the various retail lines. These figures have been adjusted to exclude estimated amounts of nonconsumer credit. Monthly figures are then arrived at by estimating, on the basis of sample monthly data, what change has taken place since the benchmark data. For the more important credit-granting lines, monthly data on credit receivables are collected from a sample of the firms. For other lines, monthly receivables are estimated by means of a formula based on sales during the previous few months. Annual sample data on receivables, collected from many lines, provide a basis for correcting the monthly estimates.

For most types of financial institution, benchmark data are provided by the 1950 registration of installment credit grantors under Regulation W and by

annual or more frequent statistics with complete coverage. Monthly data on receivables are available from reporting samples of various types of lenders.

Service credit is in general based on less substantial data. The methods vary among the different types. Although virtually complete monthly data are received for telephone bills, the largest category (medical debt) is based on an annual sample survey of consumers, and is "moved" by statistics of industrial illness.

The estimates of installment credit extended and repaid are derived with the aid of currently reported data from the reporting samples of lending and installment-selling groups covering either collections or credit extended.

Uses and limitations.—The widespread interest in consumer credit is due in part to its importance as a source of consumer purchasing power, and especially its significance in the market for consumer goods frequently bought on the installment plan. In part it is due to the fact that consumer credit reflects one aspect of the financial position of consumers. Consumer credit is also an important element in the demand for funds in the financial community.

In the face of problems of adapting available data to the precise definition of consumer credit outlined

above, Federal Reserve points out that the estimate of total short- and intermediate-term consumer credit probably understates somewhat the true total. Problems of definition and estimation are discussed fully in the descriptive material on the series, cited below.

References.—The data appear originally in a monthly release entitled "Consumer Credit (Short and Intermediate Term)," which shows credit by type, with selected change figures. Installment credit is further classified by holder. The credit extended and repaid series are shown both with and without seasonal adjustments. Tables in the *Federal Reserve Bulletin* give annual data to 1939 or 1940, and more detailed cross-classification by type and holder. The April 1953 issue of the *Federal Reserve Bulletin* explains a recent major revision and gives monthly data back to 1939 (and in less detail to 1929). The January 1954 *Bulletin* explains the series on credit extended and repaid and gives monthly data back to 1940. A subsequent article in the June 1955 *Bulletin* gives monthly estimates of credit extended and repaid back to 1929, and describes the methods used in preparing the estimates. A supplementary technical discussion of estimating methods is available in pamphlet form from Federal Reserve.

BOND YIELDS AND INTEREST RATES

3-Month Treasury Bills

Treasury bills are issued weekly. An average discount rate is computed for each weekly issuance, on the basis of the varying rates at which portions of the issue are awarded, in order, to the highest bidders. The monthly series presented in *Economic Indicators* is a simple average of the average rates for the 4 or 5 issues during the month.

The series is useful as a measure of a short-term rate on relatively riskless borrowing. Issuance rates are similar to but not typically identical with market rates on outstanding issues of comparable maturity.

The monthly averages are first issued in an advance Federal Reserve release, G. 13, and are published in the *Federal Reserve Bulletin*. Rates for individual issues appear in the *Treasury Bulletin*. Textual discussion appears in *Banking and Monetary Statistics*, with data on the yields of 3- to 6-month Treasury notes and certificates for 1920-33.

Taxable Bonds

Fully taxable long-term bonds were first issued in 1941, and the average of fully taxable long-term bonds began in October 1941. Until April 1953 there was a single series, with some variation in definition, representing all such long-term Treasury bond yields. In April 1953, as a result of the announcement of the new 25- to 30-year 3½'s, the existing series was designated "Bonds due or callable from 12 to 20 years," while a new series (initially only the 3½'s) was designated "Bonds due or callable at 20 years and after." Separating the new 3½-percent issue from the bonds in the existing average prevented the much longer-term 3½'s from distorting the average.

Beginning with June 1955 the average designated "Due or callable from 12 to 20 years" was revised by the Treasury to "Due or callable from 10 to 20 years" in order to allow the series to continue beyond December 1955, when the longest bond in the

Bond Yields and Interest Rates

[Percent per annum]

Year	U. S. Government security yields		High-grade municipal bonds (Standard & Poor's)	Corporate bonds (Moody's)		Prime commercial paper, 4-6 months
	3-month Treasury bills ¹	Taxable bonds ²		Aaa	Baa	
1914			4.12			5.47
1915			4.16			4.01
1916			3.94			3.84
1917			4.20			5.07
1918			4.50			6.02
1919			4.46	5.49	7.25	5.37
1920			4.98	6.12	8.20	7.50
1921			5.09	5.97	8.35	6.62
1922			4.23	5.10	7.08	4.52
1923			4.25	5.12	7.24	5.07
1924			4.20	5.00	6.83	3.98
1925			4.09	4.88	6.27	4.02
1926			4.08	4.73	5.87	4.34
1927			3.98	4.57	5.48	4.11
1928			4.05	4.55	5.48	4.85
1929			4.27	4.73	5.90	5.85
1930			4.07	4.55	5.90	3.59
1931	1.402		4.01	4.58	7.62	2.64
1932	.879		4.65	5.01	9.30	2.73
1933	.515		4.71	4.49	7.76	1.73
1934	.256		4.03	4.00	6.32	1.02
1935	.137		3.40	3.60	5.75	.75
1936	.143		3.07	3.24	4.77	.75
1937	.447		3.10	3.26	5.03	.94
1938	.053		2.91	3.19	5.80	.81
1939	.023		2.76	3.01	4.96	.59
1940	.014		2.50	2.84	4.75	.56
1941	.103		2.10	2.77	4.33	.53
1942	.326	2.46	2.36	2.83	4.28	.66
1943	.373	2.47	2.06	2.73	3.91	.69
1944	.375	2.48	1.86	2.72	3.61	.73
1945	.375	2.37	1.67	2.62	3.29	.75
1946	.375	2.19	1.64	2.53	3.05	.81
1947	.594	2.25	2.01	2.61	3.24	1.03
1948	1.040	2.44	2.40	2.82	3.47	1.44
1949	1.102	2.31	2.21	2.66	3.42	1.49
1950	1.218	2.32	1.98	2.62	3.24	1.45
1951	1.552	2.57	2.00	2.86	3.41	2.16
1952	1.766	³ 2.68	2.19	2.96	3.52	2.33
1953	1.931	⁴ 2.92	⁵ 3.16	2.72	3.20	2.52
1954	.953	2.52	2.71	2.37	2.90	1.58

¹ Rate on new issues within period.

² Bonds in this classification were first issued in March 1941.

³ Beginning April 1952, 2½-percent bonds first callable after 12 years; prior to April 1952, bonds due or callable after 15 years.

⁴ Bonds due or callable from 10 to 20 years.

⁵ Bonds due or callable at 20 years and after.

NOTE.—Monthly data available beginning 1931 (scattered issues beginning December 1929) for 3-month Treasury bills; 1941 for taxable bonds; 1900 for high-grade municipal bonds (Standard & Poor's); 1929 for corporate Aaa and Baa bonds (Moody's); and 1890 for prime commercial paper, 4-6 months.

Sources: Board of Governors of the Federal Reserve System, Department of the Treasury, Standard & Poor's Corporation, Moody's Investors Service.

average (the 2½'s of December 1967-72) would have dropped below 12 years to first call date. For consistency, the new 10- to 20-year average was computed back to April 1953, although changes from the old average never exceeded 0.02 percent on a monthly basis.

The series designated "Due or callable at 20 years and after" now includes the 3's of 1995 issued in February 1955, as well as the 3½'s of 1978-83.

Both series are based on daily closing-bid quotations in the over-the-counter market as reported to the Federal Reserve Bank of New York by leading

dealers in New York City. Each is an unweighted average of the individual yields. The table shows averages of daily figures.

These series reflect the particular and changing distribution of maturities of the bonds included, and the meaning of the yield will vary with the passage of time and as new bonds are added or old ones removed.

The series are published monthly in the *Treasury Bulletin* and the *Federal Reserve Bulletin*, and in an advance release (G.13—*Open Market Money Rates*) by Federal Reserve. They are discussed in the *Treasury Bulletin* of March 1944 and in footnotes to the current tables.

High-Grade Municipal Bonds

This series, compiled by Standard & Poor's Corporation, is an arithmetic average of the yield to maturity of 15 high-grade domestic municipal bonds. The issues are selected on the basis of quality, trading activity, and geographic representation. The yields are based on Wednesday's closing prices, and the monthly figures are averages of the 4 or 5 weekly figures for the month. Prior to 1929 the monthly figures were based on an average of the high and low prices for the month. The series is available back to 1929 on a weekly basis and to 1900 on a monthly basis.

The series is published weekly in Standard & Poor's *Outlook* and *Bond Outlook*. Monthly and annual average figures back to 1900 and a description of the series and list of the issues used appears in the 1955 edition of Standard & Poor's *Security Price Index Record*.

Corporate Aaa and Baa Bonds

These series measure the currently prevailing maturity yields on long-term corporate bonds of the highest quality and of "lower medium grade," as reflected in the yields of selected bonds rated Aaa and Baa by Moody's Investors Service. The series shown here are 2 of a group of similar series computed by Moody's, covering bonds classified by 4 rating groups (Aaa, Aa, A, Baa) and by 3 industrial groups. The formula for these series was established in 1928 to include for each rating 10 industrial, 10 railroad, and 10 public utility bonds. Since 1935, however, there have not been 10 suitable bonds for each classification. The Aaa series currently includes 5 industrials, 6 railroads, and 10 public utilities; and the Baa 9 industrials, 10 railroads, and 10 public utilities.

The series were calculated on a monthly basis from 1919 through 1931; and have been calculated

daily beginning in 1932. Weekly and monthly figures are averages of daily figures; annual figures are averages of 12 monthly figures.

The daily yield for each selected bond is computed on the basis of closing price, as reported in dealers' quotations. For each of the rating classifications the 10 (or fewer) individual yields for each industrial group are averaged, without weighting; and the corporate index is computed as the unweighted average of the 3 industrial-group averages.

Issues included in each average are selected to represent typical long-term bonds in each rating group. Occasional substitutions in the bond list have been made when ratings have been changed, when a bond has been called or sells too high above its call price, or because of approaching maturity. Suitable adjustments (usually small), which are gradually amortized, are introduced to prevent such substitutions from impairing the comparability of the series.

These series are useful general indicators of the level and movement of average yields of selected bonds of the respective grades with sufficiently long maturities and other features to afford adequate measures of long-term interest rates. They are not a measure of average yields of all Aaa or all Baa bonds available to the investor.

The daily corporate bond yield averages are published weekly in *Moody's Bond Survey*, which includes from time to time the list of bonds. Historical monthly data and annual averages for these two series are available back to 1919, and are published in *Moody's Industrial Manual*.

Prime Commercial Paper

This series measures the prevailing rate on prime 4 to 6 months' commercial paper. The prevailing daily selling quotation is determined by the Federal Reserve Bank of New York on the basis of continuing contacts with New York City dealers handling the bulk of the volume of commercial paper of the inventory type, and less frequent reports from dealers outside New York. Monthly and weekly figures are averages of daily prevailing rates.

The series is useful as a measure of the cost of open-market short-term credit available to large business borrowers of the highest credit standing. It is published in the *Federal Reserve Bulletin* and in the advance Federal Reserve monthly release, G. 13. Annual and monthly data are available back to 1890, and back figures with some textual discussion may be found in *Banking and Monetary Statistics*, published by Federal Reserve in 1943.

Stock Prices

[Weekly average; 1939=100]

Year	Composite index ¹	Manufacturing			Transportation	Utilities	Trade, finance, and service	Mining
		Total	Durable goods	Nondurable goods				
1939	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1940	94.2	93.4	92.5	94.2	99.2	99.9	90.4	75.6
1941	85.7	84.8	81.6	88.0	96.5	89.1	82.0	71.1
1942	74.9	75.5	73.7	77.2	90.8	69.8	71.3	59.7
1943	99.2	99.1	94.7	103.5	125.1	90.5	101.0	83.5
1944	108.1	106.9	104.7	109.2	140.8	99.0	117.3	93.3
1945	131.2	129.0	129.0	129.2	190.0	112.9	149.3	114.3
1946	149.4	146.6	138.6	154.5	202.4	121.0	204.3	125.5
1947	130.9	132.4	119.9	144.6	149.1	105.5	162.8	117.2
1948	132.7	136.8	124.3	148.6	158.1	99.3	156.9	133.0
1949	127.7	132.1	116.0	147.2	136.0	98.1	160.7	129.4
1950	154.1	165.7	150.2	180.2	160.0	108.9	183.8	143.5
1951	184.9	206.8	178.5	233.1	199.0	112.6	207.9	204.9
1952	195.0	220.2	188.8	249.3	220.6	117.9	206.0	275.7
1953	193.3	220.1	192.6	245.2	218.7	121.5	207.1	240.5
1954	229.8	271.3	245.2	295.2	232.6	135.8	235.6	267.0

¹ Includes 265 common stocks; 98 for durable goods manufacturing, 72 for nondurable goods manufacturing, 21 for transportation, 29 for utilities, 31 for trade, finance, and service, and 14 for mining. Indexes are for weekly closing prices.

NOTE.—Monthly and weekly data available beginning with 1939.

Source: Securities and Exchange Commission.

STOCK PRICES

Description of series.—These indexes measure average price movement of 265 of the more active common stocks listed on the New York Stock Exchange. The stocks, classified in *Economic Indicators* only by broad categories, are also classified in the basic releases under 29 selected industry groups. These groups and the individual stocks in them were selected on the basis of common-stock trading activity on the Exchange in 1949. The selected groups correspond in general to classifications in the Standard Industrial Classification. The stocks thus selected from a total of approximately 1,000 listed common stocks accounted for about 70 percent of the value of common-stock trading activity on the New York Stock Exchange in 1949.

The prices reflected in the indexes are for the last sales of the respective stocks during the week as reported in the financial press.

Statistical procedures.—The index for each of the 29 industry groups measures the total current market value of the included issues (i. e., number of shares outstanding times price) as a percentage of their total market value in 1939 (computed as an average of 52 weekly figures). Each industry is weighted in the larger aggregates according to the value of the selected issues, and not necessarily according to the value of all listed issues in the industry.

When the number of outstanding shares of an

issue is changed an adjustment of the index is made only if such change involves a change in the invested capital. The base value of the issue is then revised in the ratio of the new to the old capitalization so that the index will reflect only price movement.

Uses and limitations.—This is a moderately sensitive weekly index presented in terms of categories roughly comparable with the Standard Industrial Classification—a feature which facilitates use in conjunction with other series so presented.

The indexes will not necessarily reflect weekly price movements of stocks not listed on the New York Stock Exchange, of the less active stocks so listed, or of those from industries excluded from the sample because of low volume of trading activity. This selectivity of industries should be borne in mind when using the indexes for the broader industrial categories presented in *Economic Indicators*.

References.—The SEC data are first published in a release issued each Monday entitled "SEC Indexes of Weekly Closing Prices of Common Stocks on the New York Stock Exchange," showing data for the 2 previous weeks, with percent change. The monthly SEC *Statistical Bulletin* shows price and change data for the 4 or 5 latest weeks. Data back to 1939 are available on request. A release entitled "Computation of SEC Index," which includes a list of the selected stocks, may be obtained from SEC.

FEDERAL FINANCE

BUDGET RECEIPTS AND EXPENDITURES

Description of series.—Budget receipts represent the income of the Federal Government and are derived mostly from various kinds of taxes, but also include fees, fines, proceeds from the sale of property, and other miscellaneous items. Budget expenditures represent payments for Government programs, including capital outlays, purchases of goods and services, transfer payments, grants to States, and certain payments to Federal trust funds. Budget expenditures are payable out of budget receipts or out of borrowing. Transactions of trust funds are excluded from budget receipts and expenditures.

“Net budget receipts” include all money paid into the Treasury to the credit of the general fund and of special funds. They do not include money obtained from borrowing; nor do they include receipts of revolving and management funds, since these funds are reported on a net basis in the expenditure figures. Amounts refunded by the Government (principally for the overpayment of taxes arising from the withholding system) and amounts collected from various employment taxes which are transferred to the appropriate trust fund are deducted in arriving at net budget receipts.

“Net budget expenditures” cover the general fund and the special funds (generally on a gross basis) and revolving and management funds (on a net basis). Revolving and management funds comprise both intragovernmental funds and public enterprise funds. In the accompanying table collections received by these funds are deducted from the total of payments made, and the resulting figure is included as the expenditure; where the collections are larger than the payments from such funds, the net amount included in the expenditures is a negative item. Starting with the 1955 Budget Document, the summary budget tables report the expenditures of the public enterprise funds on a gross basis to arrive at “total budget expenditures.” Applicable receipts of the public enterprise funds are then deducted from the total to arrive at “net budget expenditures.” Net budget expenditures do not include retirement of Government debt, nor do they include investments of Government enterprises in United States securities.

“Major national security” is a special classification of budget expenditures which is currently used in the Budget Document. It comprises: (1) Department of Defense, military functions; (2) the military

portion of the mutual security program; (3) development and control of atomic energy; and (4) stockpiling of strategic and critical materials.

“Budget surplus or deficit” represents the difference between the net budget receipts and net budget expenditures.

“Public debt” consists of the outstanding gross borrowings of the United States Treasury and the guaranteed obligations of other Government agencies not held by the Treasury. The budget surplus or deficit is not the only factor which causes a change in the public debt, although generally it is the major influencing factor. The other factors operating to increase or reduce the debt are: (1) changes in Government cash balances; (2) the result of trust fund transactions; (3) the use of Government corporation borrowing directly from the public as a means of financing the corporation’s budget expenditures (or the utilization of their net receipts to repay such borrowing); and (4) changes in the amount of checks outstanding and other items in the process of clearing through the accounts.

Statistical procedures.—Budget receipts and expenditures are published each month by the Treasury Department in the *Monthly Statement of Receipts and Expenditures of the United States Government*. Under a new reporting procedure instituted in February 1954, budget receipts are on a collections basis, and budget expenditures are reported on the basis of checks issued and cash payments made by Government disbursing officers. The public debt is compiled daily from records of the United States Treasury and is published in the *Daily Statement of the United States Treasury* (with details at the end of each month) as well as in the *Monthly Statement*.

When an expenditure is made in the form of a debt issuance instead of a check (for example, armed-forces leave bonds issued in 1947) or an increase in the public debt (such as the semiannual increase in the redemption value of savings bonds), the debt increase is included in budget expenditures. On the other hand, amounts invested by the Government in its revolving and management funds, and the collection of dividends and repayments of amounts invested in such funds, are excluded from both budget receipts and expenditures.

Relation to other series.—Several other statistical series are derived in large part from data on budget receipts and expenditures. For example, the series on Federal cash receipts from and payments to the

[Billions of dollars]

Fiscal year	Net budget receipts	Net budget expenditures		Budget surplus (+) or deficit (-)	Public debt (end of period) ²
		Total	Major national security ¹		
1929.....	3.9	3.1	0.7	+0.7	16.9
1930.....	4.1	3.3	.7	+.7	16.2
1931.....	3.1	3.6	.7	-.5	16.8
1932.....	1.9	4.7	.7	-2.7	19.5
1933.....	2.0	4.6	.6	-2.6	22.5
1934.....	3.1	6.7	.5	-3.6	27.7
1935.....	3.7	6.5	.7	-2.8	32.8
1936.....	4.1	8.5	.9	-4.4	38.5
1937.....	5.0	7.8	.9	-2.8	41.1
1938.....	5.6	6.8	1.0	-1.2	42.0
1939.....	5.0	8.9	1.1	-3.9	45.9
1940.....	5.1	9.1	1.5	-3.9	48.5
1941.....	7.1	13.3	6.7	-6.2	55.3
1942.....	12.6	34.0	23.9	-21.5	77.0
1943.....	22.0	79.4	63.2	-57.4	140.8
1944.....	43.6	95.1	76.8	-51.4	202.6
1945.....	44.5	98.4	81.3	-53.9	259.1
1946.....	39.8	60.4	43.2	-20.7	269.9
1947.....	39.8	39.0	14.4	+.8	258.4
1948.....	41.5	33.1	11.8	+8.4	252.4
1949.....	37.7	39.5	12.9	-1.8	252.8
1950.....	36.5	39.6	13.0	-3.1	257.4
1951.....	47.6	44.1	22.3	+3.5	255.3
1952.....	61.4	65.4	43.8	-4.0	259.2
1953.....	64.8	74.3	50.3	-9.4	266.1
1954.....	64.7	67.8	46.5	-3.1	271.3
1955 ³	60.3	64.5	40.4	-4.2	274.4

¹ Based on a current classification which covers expenditures for the military functions of the Department of Defense (including the Coast Guard from 1941 to 1946), the military portion of the mutual security program, development and control of atomic energy, and stockpiling of strategic and critical materials. Several activities closely related to national security are excluded; as a result, figures for war years probably understate war expenditures significantly.

² Includes guaranteed securities, except those held by the Treasury. Part of the public debt is not subject to the statutory debt limitation.

³ Preliminary.

NOTE.—Detail will not necessarily add to totals because of rounding.

Sources: Bureau of the Budget and Treasury Department.

public (see following section) is calculated by starting with the data on budget receipts and expenditures, adding trust fund transactions, and then making certain adjustments to arrive at the cash flow of funds between the public and the Federal Government as a whole.

Budget receipts and expenditures are also used in obtaining the data for the Federal Government sector included in the Department of Commerce income and product series (see pp. 4 and 6). Since budgetary figures are reported on a checks-issued and collections-received basis, they are adjusted to the accrual accounting basis used in the income and product accounts; for example, corporation profits taxes are adjusted to show tax liabilities instead of tax collections. The budget expenditure data also must be analyzed and adjusted by the

Department of Commerce to obtain separately the expenditures for goods and services, transfer payments, and other outlays.

Uses and limitations.—Data on budget receipts and expenditures are useful in several significant respects. First, they reflect the financial transactions of all Government-owned funds and therefore serve as an important indicator of executive and legislative budget policy. Second, the relationship between the receipts and expenditure figures serves as the major determinant of increases or decreases in the public debt. Third, this series is prepared in detail based on the Government's financial accounts and forms the basis for various other series on Federal financial transactions which are important for economic analysis.

For purposes of appraising the effect of Federal

financial transactions on the economy, however, this series has important limitations. For example, business activity may be influenced by Government financial operations long before such operations are reflected in the figures on budget expenditures or receipts; some of the economic impact is reflected at the stage when contracts for goods and services are let, i. e., when obligations are incurred, or when tax liabilities are changed by a new tax measure. Moreover, Federal guaranties and insurance of private loans have an impact on economic activity although they have a relatively minor effect on budget receipts or expenditures. In addition, the operations of the trust funds and Government-sponsored enterprises play an important role in the economy which is not reflected in the budget figures.

References.—The basic release of the budget receipts and expenditures data is the *Monthly Statement of Receipts and Expenditures of the United States Government* issued by the Treasury Department. A description of the basis for this statement was published in the April 1954 issue of the *Treasury Bulletin*, page A-2. Annual data are available in the *Budgets of the United States Government*, issued by the Bureau of the Budget, and are also reported in the *Combined Statement of Receipts, Expenditures, and Balances of the United States Government*, issued by the Treasury Department. Data beginning with 1789 are published in the *Annual Reports of the Secretary of the Treasury and in Historical Statistics of the United States, 1789-1945*, Series P 89-108.

CASH RECEIPTS FROM AND PAYMENTS TO THE PUBLIC

Description of series.—This series presents information on the flow of money between the public and the Federal Government as a whole, representing, in effect, a consolidated cash statement of Federal transactions with the public other than borrowing operations. The public is defined to include individuals, banks, other private corporations and associations, unincorporated businesses, the Federal Reserve System, the Postal Savings System, State and local governments, foreign governments, and international organizations.

Federal cash receipts from and payments to the public include the transactions of trust and deposit funds as well as the Federal funds included in budget receipts and expenditures. They also include transactions of the Treasurer of the United States as agent for certain Government-sponsored enterprises which are not considered a part of the Government in the conventional budget data—mainly the Federal Deposit Insurance Corporation, Federal land banks, Federal home loan banks, and banks for cooperatives. Major intragovernmental and noncash transactions are excluded in the consolidation of Federal financial transactions.

The excess of Federal cash receipts or payments is sometimes referred to as the cash surplus or deficit.

Statistical procedures.—This series is based on data published in the *Daily Statement of the United States Treasury* and the *Monthly Statement of Receipts and Expenditures of the United States Government*.

To derive the figures on Federal cash receipts and payments to the public, several adjustments are made to budget receipts and expenditures. The following items are added: (1) transactions of trust

and deposit funds; (2) net expenditures or receipts of Government-sponsored enterprises as reflected in their transactions through the Treasurer of the United States; and (3) changes in the clearing accounts of the United States Treasurer to adjust for outstanding checks and other items. The following items are eliminated: (1) intragovernmental transactions, such as interest paid on securities held by trust funds (which is both a budget expenditure and a trust receipt); (2) noncash expenditures in the form of debt issuances or other increases in the public debt which represent obligations of the Government to make cash payments in the future—eliminated in the year of the debt increase but added to expenditures in subsequent years as actual cash payments are made (for example, the semiannual increase in the redemption value of savings bonds, which is a part of budget expenditures, is deducted, while interest actually paid to the public on savings bonds redeemed during the year is added); and (3) receipts of the Government from exercise of the monetary authority (currently consisting mostly of seigniorage on silver).

Conceptual and statistical revisions of this series were made in 1947. A few changes have been made since then to reflect similar changes in the concept of budget receipts and expenditures, such as the change in reporting of refunds of receipts. Data beginning with fiscal year 1953 and calendar year 1954 are on the new reporting basis (see p. 66) instituted in February 1954.

Relation to other series.—This series is similar to the series on Treasury cash deposits and withdrawals published in the *Daily Statement of the United States*

Cash Receipts From and Payments To the Public

Year	Federal cash receipts from the public	Federal cash payments to the public	Excess of receipts (+) or payments (-)
Billions of dollars			
Fiscal years:			
1929.....	3.8	2.9	+0.9
1930.....	4.0	3.1	+.9
1931.....	3.2	4.1	-1.0
1932.....	2.0	4.8	-2.7
1933.....	2.1	4.7	-2.6
1934.....	3.1	6.5	-3.3
1935.....	3.8	6.3	-2.4
1936.....	4.2	7.6	-3.5
1937.....	5.6	8.4	-2.8
1938.....	7.0	7.2	-.1
1939.....	6.6	9.4	-2.9
1940.....	6.9	9.6	-2.7
1941.....	9.2	14.0	-4.8
1942.....	15.1	34.5	-19.4
1943.....	25.1	78.9	-53.8
1944.....	47.8	94.0	-46.1
1945.....	50.2	95.2	-45.0
1946.....	43.5	61.7	-18.2
1947.....	43.5	36.9	+6.6
1948.....	45.4	36.5	+8.9
1949.....	41.6	40.6	+1.0
1950.....	40.9	43.2	-2.2
1951.....	53.4	45.8	+7.6
1952.....	68.0	68.0	+.1
1953.....	71.5	76.8	-5.3
1954.....	71.6	71.9	-.2
1955 ¹	67.8	70.8	-3.0
Millions of dollars			
Calendar years:			
1943 ²	37,863	88,987	-51,124
1944.....	48,131	94,810	-46,679
1945.....	49,423	86,142	-36,719
1946.....	41,441	41,399	+42
1947.....	44,282	38,616	+5,666
1948.....	44,922	36,897	+8,027
1949.....	41,346	42,642	-1,295
1950.....	42,410	41,969	+450
1951.....	59,278	58,034	+1,244
1952.....	71,339	72,980	-1,641
1953.....	70,041	76,194	-6,153
1954 ¹	68,562	69,622	-1,060

¹ Preliminary.

² First calendar year for which data are available.

Note.—Detail will not necessarily add to totals because of rounding.

Sources: Bureau of the Budget and Treasury Department.

Treasury, and monthly in the *Treasury Bulletin*. The following are the differences between the two: (1) receipts from the exercise of the monetary authority are included in Treasury cash deposits but are excluded from this series since they do not represent cash received from the public; and (2) the Treasury series records only transactions which affect the cash balances of the United States Treasurer, resulting in a difference in coverage, since this series includes cash transactions with the public from accounts of Government agencies with commercial banks as well as from the Treasurer's accounts.

Uses and limitations.—For purposes of economic analysis, the series on receipts from and payments to the public is a more complete measure of the impact of Federal financial transactions on the economy than the series on budget receipts and expenditures. However, it should be recognized that not only cash flows, but also many other Federal financial activities have important economic effects. For example, the rapid expansion in new appropriations immediately after the attack on Korea stimulated a rise in business activity long before the authorized funds were paid to the public. Likewise, the enactment of a tax measure may affect business activity long before the cash flows involved take place between the Federal Government and the public. Federal guaranties and insurance of private loans also influence the economy even though they normally have little or no impact on Federal receipts from and payments to the public. Certain other

Government contractual arrangements, such as the program for lease-purchase of Government buildings, have economic effects which cannot be measured by the payments made in any one period.

References.—Current quarterly data on Federal cash receipts from and payments to the public are prepared for *Economic Indicators*. Annual data by fiscal years back to 1929 are published in the *Statistical Abstract*. Starting with the 1944 Budget, each year the *Budget of the United States Government* has also presented data for the most recent fiscal year and estimates for the current and following fiscal years. The data have also been included in the annual *Midyear Review of the Budget*, prepared by the Bureau of the Budget each summer or fall. The related series on Treasury cash deposits and withdrawals is published in the *Daily Statement of the United States Treasury*, and monthly in the *Treasury Bulletin*.

The adjustments made in the figures for budget receipts and expenditures to arrive at Federal cash receipts from and payments to the public are listed in detail in a release of the Bureau of the Budget entitled "Federal Government Receipts From and Payments to the Public, Supporting Tables." This release is issued in conjunction with the annual publication of the *Budget of the United States Government* and the *Midyear Review*. A summary reconciliation of the differences between this series and the Treasury cash deposits and withdrawals series was published in the *Budget of the United States Government, for the Fiscal Year Ending June 30, 1956*, on page 1132.

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