STATE PERSONAL INCOME 1929–97

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Introduction

This publication presents the State estimates of personal income that were prepared by the Regional Economic Measurement Division of the Bureau of Economic Analysis (BEA). It presents, in the statistical section that follows this text, the following estimates for each State, for the eight BEA regions, and for the United States:

- Annual estimates of personal income and per capita personal income for 1929–97 (pages 6–16);
- Annual estimates of disposable personal income and per capita disposable personal income for 1948–97 (pages 17–25);
- Annual estimates of personal income by major component and of labor and proprietors' earnings by State of work and by industry, together with the derivation of personal income by place of residence for 1929–97 (pages 36–394); and
- Quarterly estimates of total personal income for 1969–97 (pages 26–34).

These estimates are supplemented by maps and charts. The maps show the State distributions of per capita personal income in 1929 and in 1997. The charts show the following: Per capita personal income for the regions as a percent of the same measure for the United States for 1929–97; per capita personal income for the United States, for each region, and for each State for selected years in 1929–97; and the composition of total personal income for the United States, for each region, and for each State for selected years in 1977–97.

The estimates of personal income and of per capita personal income reflect the revised national estimates of personal income that resulted from the 1996 comprehensive revision of the national income and product accounts (NIPA's) and from the annual NIPA revisions that were released in 1996, 1997, and 1998. The 1996 comprehensive and annual revisions of the NIPA's were incorporated into the State estimates of personal income as part of a comprehensive revision of the State estimates in October 1996. The 1997 and 1998 annual NIPA revisions were incorporated into the State estimates as part of annual revisions to the State estimates that were released in 1997 and 1998, respectively.

The estimates are first prepared for the Nation and then for the States. The estimates for the regions are aggregations of the State estimates.

This introduction presents a brief history of the development of the estimates of personal income. It describes the uses of the State estimates and the schedule for preparing and revising the estimates, and it presents information about the availability of the estimates and about the BEA User Group.

A brief history

In the mid–1930's, BEA began work on the estimation of regional income as part of the effort to explain the processes and structure of the Nation's economy. As a result, it produced annual State estimates of total "income payments to individuals." These income payments were calculated as the sum of (1) wages and salaries, (2) other labor income and relief, (3) entrepreneurial withdrawals, and (4) dividends, interest, and net rents and royalties.

During the 1940's and early 1950's, BEA developed an integrated set of national economic accounts, sought additional source data, and improved the methods used to prepare the estimates. One result of this work was the development of State personal income—a measure that is more comprehensive than State income payments.

State personal income differs significantly from State income payments in five ways:

- State personal income consists of six major components (other labor income and transfer payments replaced other labor income and relief, and the component personal contributions for social insurance was added as an explicit deduction);
- Personal income includes more component detail and a broader range of income-in-kind and imputed income items than State income payments;
- Personal income includes the income of nonprofit institutions that serve individuals and of private noninsured welfare funds and private trust funds;
- Personal income includes employer contributions to private pension funds—as part of other labor income—instead of the benefits paid by the funds; and

- Personal income includes transfer payments by business.

In addition, in the mid–1950's, BEA began work on preparing estimates for local areas. It prepared estimates for a few counties in the States in the Mideast and Plains regions.

In the late 1950's, BEA developed estimates of State disposable personal income. This series was published occasionally in the SURVEY OF CURRENT BUSINESS in the 1960's and 1970's and has been presented annually beginning with 1982.

During the 1960's, BEA developed quarterly estimates of State personal income. The first set of these estimates as a continuous series was published in the December 1966 issue of the SURVEY. In addition, BEA prepared a personal income series for metropolitan areas and for nonmetropolitan counties for selected years in 1929–62.

In the early 1970's, BEA developed the estimates of personal income for counties in metropolitan areas. These estimates were published for the first time in the April 1975 SURVEY. Later in the 1970's, it developed estimates of employment for States, counties, and metropolitan areas.

In the 1980's, BEA developed estimates of gross State product by industry. These estimates, as an established series, were first presented in the May 1988 SURVEY.

Now, BEA prepares annual and quarterly estimates of State personal income and annual estimates of State disposable personal income and employment and of gross state product. It also prepares annual estimates of personal income and employment for all metropolitan areas and all the counties and county equivalents for which reliable source data are available.

Uses of the State estimates

The State estimates of personal income and its components, of per capita personal income, of disposable personal income, and of gross state product are widely used by both the public and the private sectors to measure and to track the levels and the types of incomes that are received by the people who live or work in a State and the value-added that a State's industries produce. These estimates provide a framework for the analysis of each State's economy, and they serve as a basis for decision making.

Federal agencies use these estimates in econometric models, such as those used to project energy and water use; they also use the estimates as a basis for allocating funds and for determining matching grants. For example, in fiscal year 1996, the distribution of $122 billion in Federal funds was affected by the estimates of State per capita personal income. The estimates of gross state product are also used in the funds allocation formula for one program.

In addition, the Census Bureau uses the estimates of State per capita personal income as the key predictor variable in the preparation of State estimates of the mean annual income for four-person families.

State governments use the estimates of personal income and gross state product to measure the economic base of State planning areas. They also use the estimates in econometric models that are developed for various planning purposes and to project tax revenues and the need for public utilities and for services. Currently, 17 States have set constitutional or statutory limits on State government revenues and spending that are tied to State personal income or to one of its components. These States account for almost one-half of the population of the United States. A majority of the States use the quarterly estimates of State personal income to project tax collections.

University schools of business and economics use the estimates for theoretical and applied economic research. Some of these schools distribute the estimates in abstracts or similar reports to various State and local government agencies, regional councils of governments, private research groups, businesses, and libraries.

Businesses use the estimates for planning activities, such as evaluating markets for new or established products and determining areas for the location, expansion, and contraction of their activities.

Release and publication schedules

The quarterly and annual estimates of State personal income and the annual estimates of local area personal income are first released on BEA's Web site at <www.bea.doc.gov> and in news releases; the release dates are announced in advance and are listed on the Web site and in the SURVEY OF CURRENT BUSINESS.

The quarterly State estimates of total and nonfarm personal income are subsequently published in the February, May, August, and November issues of the SURVEY.

The preliminary annual State estimates of total and per capita personal income and of total and per capita disposable personal income are published in the May SURVEY. The revised annual estimates of State personal income by major type and of earnings by industry are published in the September or October SURVEY.

The local area estimates of total and per capita personal income are published in the May SURVEY.

Preparation and revision schedules

The quarterly estimates of State personal income are prepared about 4 months after the end of the quarter. The preliminary annual State estimates are prepared about 4 months after the end of the year, and the revised State estimates are prepared about 8 months after the end of the year. The annual estimates of local area personal income are prepared about 16 months after the end of the year.

In January, the estimates of State personal income for the third quarter of the previous year are prepared, and the estimates of the first and second quarters are revised.

In April, the annual and quarterly State estimates for the 3 years before the previous year are revised in order to incorporate the newly available data for wages and salaries that are used to prepare the county estimates for those years and to reflect the county-level estimation of the adjustment for residence. In addition, the State estimates for the fourth quarter of the previous year are prepared, and the estimates for the first three quarters are revised; the preliminary annual State estimates for the previous year are prepared by averaging these quarterly estimates.

In May, the estimates of local area personal income for the year before the previous year are prepared, and the estimates for the 2 years before that are revised.

In July, the State estimates for the first quarter of the current year are prepared, and the estimates for the four quarters of the previous year are revised.

In August or September, the annual State estimates for the previous year are revised using the annual, rather than the quarterly, methodology, and the annual estimates for the 2 years before that are revised.

In October, the State estimates for the second quarter of the current year are prepared, and the estimates for the first quarter are revised. Further, the estimates for the quarters of the previous 3 years are revised for consistency with the revised annual estimates that were released in August or September.

The State and local area estimates are normally revised again only after a comprehensive, or benchmark, revision of the national income and product accounts (NIPA's). Comprehensive revisions of the NIPA's are made approximately every 5 years.[1]

In a comprehensive NIPA revision, the national estimates of personal income are affected by the statistical changes that result from the introduction of new source data and the use of improved estimating methods. The national estimates may also be affected by the definitional and classificational changes that are made so that the NIPA's will reflect the evolving economy of the United States. For example, as part of the 1985 comprehensive revision, the payments to vendors of medical services under the medicaid program were reclassified from government purchases to transfer payments; as a result, these payments are now classified as part of personal income for all the years that the program has existed.

Availability of the State and local area estimates

Before the State and local area estimates are published in the SURVEY, they are available in printed and electronic news releases.[2] More detailed estimates than the estimates published in the SURVEY are available on the CD–ROM *State Personal Income, 1929–97* and, for the local area estimates, on the CD–ROM *Regional Economic Information System, 1969–97*.[3]

In addition, the State and local area estimates of personal income and of employment are available from the BEA User Group. The members of this group include State agencies, universities, and Census Bureau Primary State Data Centers.[4] The members have agreed to provide the estimates that they receive from BEA to other users in their State; they can provide the estimates for their State and sometimes for other States.

1. For the results of the latest comprehensive revision of the NIPA's, see Bureau of Economic Analysis, U.S. Department of Commerce, *National Income and Product Accounts of the United States, 1929–94: Volume 1* and *Volume 2* (Washington, DC: U.S. Government Printing Office, April 1998).

2. BEA's major national, regional, international, and industry estimates, recent issues of the SURVEY, and BEA news releases are available on BEA's Web site: Go to <www.bea.doc.gov>.

In addition, STAT-USA maintains an electronic bulletin board (EBB) and a Web site, which contain BEA estimates, BEA news releases, and the SURVEY. To subscribe to STAT-USA's World Wide Web system, go to <www.stat-usa.gov> or call (202) 482–1986.

3. See the ads at the end of the publication. See "Appendix A: Availability of the Data and Sample Tables from the Regional Economic Information System."

4. See "Appendix B: Members of the BEA User Group."

The Sources and Methods for the Annual Estimates of State Personal Income and Disposable Personal Income, 1991–97

This text describes the sources of the data and the methods that were used to prepare the annual estimates of the components of personal income and disposable personal income for States for 1991–97.[1]

The introduction describes the relationship between the national estimates of personal income and the State estimates, it defines the essential terms used, and it explains the major differences between the definitions and classifications used in the national estimates and those used in the State estimates. This introduction also includes general information about the sources of the data that are used to prepare the estimates and the place of measurement of the source data. Additionally, it includes information about the procedure used to integrate the national and the State estimates—the allocation procedure—and a brief description of the procedures used to prepare estimates for which direct source data for some years are not available—the interpolation and extrapolation procedures.

After the introduction, the text provides specific information about the sources and methods used to prepare the estimates of each component of personal income, of the residence adjustment, and of personal tax and nontax payments.

Introduction

The State estimates of personal income and disposable personal income are designed to be conceptually and statistically consistent with the national estimates of personal income and disposable personal income; as part of the preparation of the State estimates, the national estimates are disaggregated to States.[2] As a result, the definitions that are used for the components of personal income and disposable personal income for the State estimates are essentially the same as those used for the national estimates.[3]

State personal income is defined as the income received by, or on behalf of, all the residents of the State. It consists of the income received by persons from participation in production, from both government and business transfer payments, and from government interest (which is treated like a transfer payment). Personal income is the sum of wage and salary disbursements, other labor income, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and transfer payments to persons, less personal contributions for social insurance.

Persons consists of individuals, nonprofit institutions that serve individuals, private noninsured welfare funds, and private trust funds. In this text, the last three are referred to as "quasi-individuals." The State-level source data used to prepare the estimates of some components of personal income received by individuals are not the most appropriate source data for estimating the income received by quasi-individuals.

State per capita personal income is calculated as the personal income of the residents of the State divided by the population of the State as of July 1.

Disposable personal income is the income that is available to persons for spending and saving. It is calculated as personal income less the sum of personal tax payments and personal nontax payments to Federal, State, and local governments.

1. For information about the methodology used to prepare the estimates for earlier years, call (202) 606–9241, or E-mail reis.remd@bea.doc.gov.

2. At the national level, personal income and disposable personal income are parts of the personal income and outlay account, which is one of five accounts that compose the national income and product accounts.

Of the aggregations in the personal income and outlay account, only personal income, disposable personal income, and personal tax and nontax payments are estimated for States. In addition, BEA prepares estimates of gross state product (GSP), which correspond to gross domestic product (GDP); GSP and State personal income share the following elements of personal income: Wage and salary disbursements, other labor income, proprietors' income, and rental income of persons.

For information about the relationships among GDP, GSP, and State personal income, see Howard L. Freidenberg and Richard M. Beemiller, "Comprehensive Revision of Gross State Product by Industry, 1977–94," Survey of Current Business 77 (June 1997): 15–41.

3. The national estimates may temporarily differ from the State estimates because of different estimating schedules. The State estimates of wages and salaries and farm proprietors' income incorporate source data that are not available when the national estimates are prepared; these data are later incorporated into the national estimates when they are revised.

State per capita disposable personal income is calculated as the disposable personal income of the residents of the State divided by the population of the State as of July 1.

Differences in definitions and classifications between the national and the State estimates

The definitions that are used in the State estimates for two components of personal income differ significantly from the definitions that are used in the national estimates. In addition, the classifications that are used for one component in the State estimates differ significantly from those used in the national estimates.

The State estimates of wage and salary disbursements and of other labor income consist mainly of the labor earnings of persons who reside and who work in the United States. However, the national estimates of these components also include the earnings of U.S. residents—including military personnel—who are temporarily working abroad for the U.S. Government or for U.S. firms.

The adjustments to the estimates of the wages and salaries disbursed by domestic industries to include the wages and salaries of U.S. residents who work in other countries and to exclude the wages and salaries of foreign residents who work in the United States are classified in the residence adjustments in the State estimates.[4] In the national estimates, these adjustments are classified in the rest-of-the-world sector, which is not recognized in the State estimates.

In addition, in the State estimates, the wages and salaries of U.S. residents who are employed by international organizations and by foreign embassies and consulates in the United States are classified in an "industry" called "other." In the national estimates, the wages of these residents are classified in the rest-of-the-world sector.

Sources of the data

The State estimates of personal income are primarily based on administrative-records data and on data from censuses or from similar surveys.

The data from administrative records may originate either from the recipients of the income or from the source of the income. These data are a byproduct of the administration of various Federal and State government programs. The most important sources of these data are as follows: The State unemployment insurance programs of the Employment and Training Administration, U.S. Department of Labor; the social insurance programs of the Health Care Financing Administration, U.S. Department of Health and Human Services, and the Social Security Administration; the Federal income tax program of the Internal Revenue Service, U.S. Department of the Treasury; the veterans benefit programs of the U.S. Department of Veterans Affairs; and the military payroll systems of the U.S. Department of Defense.[5]

The data from censuses are mainly collected from the recipient of the income. The most important sources of census data for the State estimates are the census of agriculture, which is now conducted by the U.S. Department of Agriculture (USDA), and the census of population and housing, which is conducted by the Bureau of the Census, U.S. Department of Commerce.

Some of the estimates are based on data from other sources. For example, the USDA's national and State estimates of the income of all farms constitute the principal basis for BEA's national and State estimates of farm proprietors' income. The USDA uses sample surveys, along with census data and administrative-records data, to derive its estimates.

Using administrative records data and Census data to measure income as defined in the national income and product accounts has both advantages and disadvantages. By using these data, BEA can prepare detailed annual estimates of personal income for the Nation and for States at a relatively low cost and without increasing the reporting burden on businesses and households. However, because the source data often do not precisely "match" the series that is being estimated, they must be adjusted to compensate for differences in definitions, in coverage, and in geographic detail.

Geographic characteristics of the source data

Personal income, by definition, is a measure of the income received by persons, and the estimates of State personal income should reflect the State of the residence of the income recipients. However, most of the source data that are used to prepare the estimates of some of the components of personal income are reported and recorded by the recipient's place of work rather than by the recipient's place of residence. As a result, the estimates of the components that are derived from the place-of-work data are adjusted to a place-of-residence basis, and the estimates of these components are presented both by place of work and by place of residence.

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4. The residence adjustments are mainly estimates of the net inflows of the labor earnings of interstate commuters.

The State estimates of wages by place of work, like the national estimates of wages for domestic industries, exclude the wages of the U.S.-resident border workers and include the wages of the foreign-resident border workers.

5. The data from the State unemployment insurance programs are collected by the various State employment security agencies and are assembled and supplied by the U.S. Bureau of Labor Statistics.

The estimates of the components of personal income can be grouped according to the geographic characteristics of the source data.

The estimates of wages and salaries, other labor income, and personal contributions for social insurance by employees are mainly derived from source data that are reported and recorded by place of work. These data are reported by industry in the State and county in which the employing establishment is located.

The estimates of nonfarm proprietors' income and of personal contributions for social insurance by the self-employed are derived from source data that are reported by the tax-filing address of the recipient. This address is usually that of the proprietor's residence; therefore, these data are assumed to be recorded by place of residence. Nevertheless, the estimates of these components—as part of the estimates of earnings—are presented both by place of residence and by place of work. Assuming that nonfarm proprietors who commute to work between States usually file their tax returns from their residence, the estimates of earnings by place of work are more likely to be misstated than the estimates of earnings by place of residence.

The estimates of farm proprietors' income are derived from source data that are reported and recorded by the principal place of production, which is usually the county in which the farm has most of its land and in which most of the work is performed. Because most farm proprietors live on, or near, their land, the place of residence is assumed to be the same as the place of work.

The estimates of rental income of persons, personal dividend income, personal interest income, transfer payments, and personal contributions for supplementary medical insurance and for veterans life insurance are derived from source data that are reported and recorded by the place of residence of the income recipient.

Allocation procedures

Using allocation procedures imparts to the State estimates the characteristics of the national estimates that are not reflected in the available State-level source data; for most components of personal income, the State source data are less comprehensive and less reliable than the data that are available for the national estimates.[6] In addition, using these procedures allows the use of State data that are available in source data that are related to, but that do not precisely match, the component being estimated.

Before using allocation procedures, the national estimates of some components of personal income are adjusted for the differences in definitions and classifications between the national estimates and the State estimates. The adjusted national estimates of these components and the national estimates of the other components are used as the "control totals" for the State estimates.

In the allocation procedures, the national control total for each component is allocated to the States in proportion to each State's share of a related series of source data. In many cases the source data are modified or augmented before the allocation by preliminary estimation—for example, by the summation of several items (for example, wages, tips, and pay-in-kind), by the multiplication of two items (for example, average wages times the number of employees), or by interpolation or extrapolation.

Because the allocation procedures use the national control totals for the State estimates, their use yields an additive system in which the State estimates sum to the national estimate.

The allocation procedure used to estimate a component of State personal income is

$$Y_s = Y_n\left(\frac{X_s}{X_n}\right),$$

where Y_s is the estimator (that is, the statistical procedure used to derive an estimate) of the component of personal income for State s, where Y_n is the national estimate of the component (which is used as the control total for the State estimates of the component), where X_s is the datum for State s from the series of source data related to the component, and where X_n is the national sum of the State data from the series of source data related to the component ($X_n = \sum X_s$).

In the cases in which the national estimate is calculated as the sum of the State data plus an amount A_n for which State data are unavailable, the allocation procedure may be represented by two equations (which together are mathematically identical to the preceding equation):

$$\begin{aligned} A_s &= A_n\left(\frac{X_s}{X_n}\right), \\ Y_s &= X_s + A_s \end{aligned}$$

where A_s is the State estimator of the portion of Y for which State data are unavailable. In effect, Y_s is the composite estimator consisting of X_s, the best possible direct estimator (100 percent sample) of the portion of Y for which State data are available, plus A_s, the indirect estimator of the portion of Y for which State data are unavailable.

6. However, the national estimates of most components of wages and salaries and transfer payments, which together account for about 75 percent of personal income, are based mainly on the sum of source data that are available by State. Therefore, the use of the allocation procedures to prepare the State estimates of these components results in estimates that do not differ greatly from the source data.

For example, the national estimates of wages and salaries for many industries consist of the sum of State data plus a few small adjustments; these adjustments, taken together, (A_n), are allocated to the States in proportion to the State data. The small allocated amount for each State (A_s) is added to the State datum (X_s) to yield the State estimate (Y_s).

Interpolation and extrapolation procedures

Some of the data that are used to estimate components of State personal income are available or adequate only in certain years, which are called benchmark years. In order to derive the estimates of these components for other years, interpolation and extrapolation procedures are used to extend the distribution of the data for the benchmark year or years.

Interpolation procedures are used in the derivation of the estimates for the years between 2 benchmark years. Extrapolation procedures are used in the derivation of the estimates for the years after the most recent benchmark year.

For the details of these procedures, see the "Technical Notes."

Wage and Salary Disbursements

Wage and salary disbursements consists of the remuneration of employees and includes the compensation of corporate officers, commissions, tips, bonuses, and pay-in-kind.[7]

Wage and salary disbursements is measured before deductions, such as social security contributions and union dues, and it reflects the amount of wages and salaries disbursed, but not necessarily earned, during the period. The national and State estimates for most industries are prepared at the Standard Industrial Classification (SIC) two-digit level.

Wage and salary disbursements accounted for about 57 percent of total personal income at the national level in 1997 (see table A, which also shows the relative importance of the major components of wages and salaries to total personal income).

Both the national and the State estimates of wage and salary disbursements are based primarily on data that originate from the State unemployment insurance (UI) system and from the UI program for Federal civilian employees. These data are assembled by the Bureau of Labor Statistics (BLS) of the Department of Labor (see table B for the relationship between the data published by BLS and the estimate of wage and salary disbursements in the

7. See "Pay-in-kind" in the "Technical Notes."

Table A.—Personal Income and Wage and Salary Disbursements by Component for the United States, 1997

	Millions of dollars	Percent of personal income
Personal income [1]	**6,770,650**	**100.00**
Wage and salary disbursements [2]	**3,886,261**	**57.40**
Farm	14,403	.21
Agricultural services, forestry, fishing, and other [3]	22,883	.34
Mining	29,891	.44
Construction	189,378	2.80
Manufacturing	719,940	10.63
Durable goods	447,267	6.61
Lumber and wood products	21,748	.32
Furniture and fixtures	13,919	.21
Stone, clay, and glass products	19,577	.29
Primary metal industries	29,857	.44
Fabricated metal products	51,793	.76
Industrial machinery and equipment	95,247	1.41
Electronic and other electric equipment	72,391	1.07
Motor vehicles and equipment	48,573	.72
Other transportation equipment	40,571	.60
Instruments and related products	41,741	.62
Miscellaneous manufacturing industries	11,850	.18
Nondurable goods	272,673	4.03
Food and kindred products	52,867	.78
Tobacco products	2,312	.03
Textile mill products	16,191	.24
Apparel and other textile products	16,820	.25
Paper and allied products	28,800	.43
Printing and publishing	55,230	.82
Chemicals and allied products	58,196	.86
Petroleum and coal products	8,151	.12
Rubber and miscellaneous plastics products	31,857	.47
Leather and leather products	2,249	.03
Transportation and public utilities	247,115	3.65
Railroad transportation	11,815	.17
Trucking and warehousing	50,559	.75
Water transportation	6,915	.10
Other transportation [4]	64,507	.95
Communications	68,234	1.01
Electric, gas, and sanitary services	45,085	.67
Wholesale trade	266,340	3.93
Retail trade	366,667	5.42
Finance, insurance, and real estate	326,155	4.82
Services	1,048,726	15.49
Hotels and other lodging places	34,313	.51
Personal services	23,049	.34
Private households	11,731	.17
Business services	223,327	3.30
Auto repair, services, and parking	28,090	.41
Miscellaneous repair services	10,879	.16
Amusement and recreational services	34,628	.51
Motion pictures	17,696	.26
Health services	319,180	4.71
Legal services	54,987	.81
Educational services	49,907	.74
Social services	43,594	.64
Museums, botanical, zoological gardens	1,838	.03
Membership organizations	44,052	.65
Engineering and management services	148,529	2.19
Miscellaneous services	2,926	.04
Government and government enterprises	654,763	9.67
Federal, civilian	120,259	1.78
Military	47,609	.70
State and local	486,895	7.19

1. Includes the adjustment for residence which is the net inflow of the earnings of interarea commuters. For the United States, it consists of adjustments for border workers and for certain temporary and migratory workers: Wage and salary disbursements to U.S. residents commuting or working temporarily outside U.S. borders less wage and salary disbursements to foreign residents commuting or working temporarily inside U.S. borders.
2. Includes wages received by border workers employed in the United States.
3. "Other" consists of the wage and salary disbursements of U.S. residents employed by international organizations and foreign embassies and consulates in the United States.
4. Includes local and interurban passenger transit, transportation by air, pipelines (except natural gas), and transportation services.

NOTE.—Detail may not add to totals because of rounding.

national income and product accounts). These data are tabulated by county and by SIC four-digit industry based on data reported on form ES–202. The ES–202 data are from quarterly State UI contribution reports that are filed by the employers in the industries that are covered by, and subject to, each State's UI laws and by Federal agencies. The ES–202 data underlie the State estimates of about 98 percent of wages and salaries for almost all private industries, for Federal Government civilian employees, and for State and local government employees.

Under most State UI laws, wages and salaries include bonuses, tips, and the cash value of meals and lodging provided by the employer—that is, pay-in-kind.

The estimates of wages and salaries for a few industries are prepared largely or entirely with data other than ES–202. These industries are either not covered by State UI or are only partly covered. For three of these industries—agricultural services, private education, and membership organizations—the estimates are prepared as the sum of (1) an estimate for the fully covered portion of the industry, based on the ES–202 data, and (2) an estimate for the incompletely covered portion of the industry, based largely or entirely on other source data, as discussed in the relevant sections.

Wages and salaries in industries fully covered by the UI programs

The national and State estimates of wages and salaries in industries that are fully covered by State UI programs are based on quarterly ES–202 data for wages and salaries, or payrolls. The national estimates of the wages and salaries of Federal civilian employees are based on data provided by the Office of Personnel Management, but the State estimates are based on the ES–202 data. Because the ES–202 data do not precisely meet BEA's statistical and conceptual requirements, the data must be adjusted to provide complete coverage and the proper industrial and geographic patterns.

Adjustment for congressional staff wages. In the ES–202 data for Federal civilian employees, all the wages and salaries for congressional staff are assigned to Washington, DC. However, some of these wages are earned by congressional staff who work in the State offices of the members of Congress. BEA assumes that 25 percent of the total congressional payrolls are earned by congressional staff in State offices, so this percentage of these payrolls are allocated to States in proportion to their congressional representation.

Adjustment for tax misreporting. An estimate of the wages and salaries that were not reported by employers is added to the ES–202 data for each private industry. Because State-level data are unavailable, the national estimate for each industry is allocated to States in proportion to the ES–202 payroll data for the industry.

The national estimate for each industry is prepared in two parts: One part is prepared for the payrolls that were underreported by employers, and one part is prepared for the payrolls that were not reported, because employers failed to file a report.[8]

In addition, tips are assumed to be understated in the UI contribution reports from the following covered industries: Taxicabs, which is part of local and interurban passenger transit; eating and drinking places; hotels and other lodging places; amusement and recreation services; and personal services. For each of these industries, the national estimate of the unreported tips, which is derived in the preparation of BEA's input-output accounts for benchmark years and interpolated and extrapolated for other years, is allocated to States in proportion to the ES–202 payroll data for the industry.

Adjustments for wages and salaries that are excluded from the ES–202 data. The ES–202 payroll data exclude some of the voluntary employee contributions to certain deferred compensation plans, such as 401(k) plans, in 20 States and the salaries paid to corporate officers in Washington State. In addition, the ES–202 data for specific industries exclude certain, usually small, amounts

Table B.—Relation of Wages and Salaries in the NIPA's to Wages and Salaries as Published by BLS

[Billions of dollars]

	Line	1997
Total wages and salaries, BLS [1]	**1**	**3,669.5**
Plus: Adjustment for misreporting on employment tax returns [2]	2	90.2
Adjustment for thrift savings plans [3]	3	4.8
Adjustment for selected industries [4]	4	114.3
Other [5]	5	11.0
***Equals*: Wage and salary disbursements, NIPA's**	**6**	**3,893.6**

1. Total annual wages of workers covered by State unemployment insurance (UI) laws and by the Unemployment Compensation for Federal Employees program. Data for the most recent year are preliminary.
2. Consists of unreported wages and salaries paid by employers and of unreported tips.
3. Consists of voluntary contributions by employees. Prior to 1985, employers were no required to report these contributions. In 1985, reporting requirements were enacted by over one-half of the States; by 1990, the requirement had been enacted by almost all States.
4. For the following industries, consists of the difference between estimates from more comprehensive source data (excluding the adjustments in lines 2 and 3) and BLS wages and salaries: Agriculture, forestry and fishing;railroad transportation; health services; educational services; social services; membership organizations; private households; and the Federal Government.
5. Consists of the wages and salaries for insurance agents classified as statutory employees, for students and their spouses employed by public colleges or universities, for nonprofit organizations no participating in the UI program (in industries not listed in footnote 4), and of other coverage adjustments.

BLS Bureau of Labor Statistics
NIPA's National income and product accounts

8. Robert P. Parker, "Improved Adjustments for Misreporting of Tax Return Information Used to Estimate the National Income and Product Accounts, 1977," SURVEY 64 (June 1984): 17–25.

of wages and salaries that are not covered by State UI programs.

The voluntary contributions made by employees to *deferred compensation plans* are not fully reported for all States in the ES–202 payroll data, but the extent of the underreporting is declining. An adjustment to include these contributions is made to the wage and salary estimate for each SIC two-digit industry at both the national and State levels. An adjustment for the contributions made by Alaska State government employees in 1996, based on data from the Alaska Department of Labor, is attributed directly to that State.[9] The national adjustments for all other States, which are based on data from the Internal Revenue Service Form 5500 series (Annual Return/Report of Employee Benefit Plan), are attributed to the 19 States that have reported to the Bureau of Labor Statistics that they have not issued explicit reporting requirements for the contributions. The national adjustment for each industry is allocated to those States in proportion to the amount of reported wages and salaries for the industry in those States.

The salaries of *corporate officers in Washington State*, who are exempt by State law from UI coverage, are excluded from the ES–202 payroll data for private industries in Washington. Therefore, the national and State estimates of these salaries for the SIC two-digit industries are derived from estimates of the number of corporate officers at the SIC four-digit level and from estimates of their average salaries at the SIC division ("one-digit") level; these estimates are periodically provided by the Washington State Employment Security Department. The estimates of these salaries are prepared in three steps. First, an estimate of these salaries for each SIC division is calculated as the product of the number of officers and the average salary in the division. Second, a provisional estimate for each SIC two-digit industry is calculated as the product of the number of officers and the average wages of UI-covered workers in the industry. Third, the estimate for each SIC division is allocated to SIC two-digit industries in Washington in proportion to the provisional estimates.

The payrolls of *railroad carrier affiliates* are excluded from the data for transportation services, and the payrolls of *railway labor organizations* are excluded from the data for membership organizations other than religious. These industry segments are covered by the Railroad Unemployment Insurance system rather than by the State UI system. The employers in these segments file reports that include payroll data with the Railroad Retirement Board, which gives these data to BEA. The data for each employer are then added to the ES–202 data for the appropriate industry for the Nation and for each State.

The payrolls of *nonprofit organizations* that have fewer than four employees are excluded from mandatory UI coverage in most States. Estimates of the payrolls of these small organizations in each of the following industries are prepared: Printing and publishing, miscellaneous manufacturing, nondepository credit institutions, real estate, holding and other investment companies, hotels, and membership organizations other than religious. A national estimate of the employment for each industry is derived as the difference between the employment reported for the industry in the Census Bureau's *County Business Patterns* (*CBP*)—which includes the employment of the small organizations—and the employment in the ES–202 reports.[10] The national estimate of the wages and salaries for each industry is derived as the product of the employment estimate and the annual average wages and salaries of the UI-covered employees in the industry. Because of other, small differences between the *CBP* data and the ES–202 data, this derivation cannot be made reliably at the State level. Instead, the national estimate for the organizations in each industry is allocated to States in proportion to the ES–202 payroll data for the industry.

The wages and salaries of *students* and of the spouses of students who are employed by the institutions of higher education in which the students are enrolled are excluded from the ES–202 payroll data for private, State government, and local government educational institutions. However, employment data that include the student employees of private institutions are published annually in *CBP*, and unpublished employment data that include the student employees of government institutions are available from the Census Bureau's Governments Division. Both the national and the State estimates of the wages of these employees of private institutions, of State government institutions, and of local government institutions are derived from the differences between the ES–202 employment data for these institutions and the data that include these employees.

The pay-in-kind of *members of religious orders* who teach at private colleges and universities is excluded from the ES–202 payroll data for private education. The national and the State estimates are based on the number of full-time teachers who are members of religious orders, as reported in the "General Summary" of the *Official Catholic Directory*.[11]

9. Beginning with 1996, employers in Alaska are no longer required to include the employee contributions in the reported wages and salaries.

10. The *CBP* data for small employers are based on data tabulated from the administrative records of the old-age, survivors, and disability insurance program. Coverage of the small nonprofit organizations is more complete under this program than under the State UI program.

11. "General Summary," *Official Catholic Directory* (New York: P.J. Kenedy and Sons). The *Directory* is published annually. The "General Summary" is a

The pay-in-kind of *workers in private hospitals who do not receive cash wages* are excluded from the ES–202 data for private hospitals; these workers are mainly interns, student nurses, and members of religious orders. The national estimates of the wages of interns and student nurses are based on the difference between hospital employment as reported in *CBP* and in the ES–202 reports, and the national estimates of the wages of members of religious orders are based on data from the *Official Catholic Directory*. The national estimate of hospital wages and salaries inclusive of the adjustments is allocated to States in proportion to the ES–202 employment data for private hospitals.

The salaries of certain employees of State and local governments—primarily *elected officials, members of the judiciary, and interns* employed by government-operated hospitals—are excluded from the ES–202 payroll data for State and local government employees. The national and State estimates are based on employment data from the BLS Current Employment Statistics program.

The *commissions* received by certain employees, mainly in the *insurance* and *transportation services* industries, are excluded from the ES–202 data, but data that reflect these employees are available in the *CBP* series. For each industry, the national estimate of the wages is derived from the difference between the *CBP* employment and the ES–202 employment. The national estimate for each industry is allocated to States in proportion to the ES–202 payroll data for the industry.

The allowance for uniforms that is received by Federal civilian employees—primarily *employees of the Postal Service*—is excluded from the ES–202 payroll data for Federal civilian employees. The national estimate of the allowances, which is based on direct data, is allocated to States in proportion to the geographic distribution of the ES–202 employment data for the Postal Service.

Wages and salaries in industries not fully covered by the State UI programs

The estimates of wages and salaries for eight industries are primarily based on data other than ES–202 data. For five industries—farms, farm labor contractors, private households, private elementary and secondary schools, and religious membership organizations—there is full UI coverage in only a few States, and three industries—railroads, military, and "other"—are not covered by State UI programs.[12] Consequently, the wages and salaries of all eight industries are treated as if they were not covered by State UI programs. In addition, because these estimates are primarily based on data that do not include wages paid in kind, an estimate of pay-in-kind is prepared for all these industries except farm labor contractors, railroads, and "other." The national estimate of the pay-in-kind for each industry is identical to the imputed value of the goods and services furnished without charge by the employers to the employees, as estimated for inclusion in personal consumption expenditures.[13]

Farms. The estimates of wages and salaries for farms consist of estimates of the cash wages and pay-in-kind of hired farm labor and the estimates of the salaries received by the owner-operators of farm sole proprietorships, partnerships, and family-held corporations.[14] The national and State estimates of the cash wages and pay-in-kind are based on the estimates of farm labor expenses that are prepared by the U.S. Department of Agriculture (USDA) as part of its estimates of farm income.[15] The national and State estimates of the salaries are based on unpublished data from the USDA.

Farm labor contractors. This industry is classified in agricultural services. Farm labor contractors and their employees are only partially covered by UI laws in most States. However, in Arizona and California, all of the employees are covered.

The national estimates are based on the data for contract farm labor expenses that are reported in the 1987 and 1992 censuses of agriculture. Beginning with the estimates for 1993, data from USDA surveys on the number of migrant workers are used to prepare an adjustment for illegal migrant workers.

For Arizona and California, the ES–202 reported wages are used as the estimates. The estimates for the other States are based on the data for contract farm labor expenses that are reported in the 1987 and 1992 censuses of agriculture.

Private households. The national estimates of the cash wages paid to the employees of private households are based on data from the Current Population Survey. The

tabulation of the number of members of religious orders who are employed in Catholic institutions in each diocese and in each State. The data are classified by clerical title and by religious assignment. The data for the Archdiocese of Washington, DC, which includes the nearby suburban counties in Maryland, are apportioned between the District of Columbia and Maryland on the basis of the detailed information in the *Directory*.

12. Farms, railroads, and private households are SIC two-digit industries. Farm labor contractors, private elementary and secondary schools, and religious membership organizations are SIC three-digit industries. Military and "other" are BEA, not SIC, classifications.

13. See lines 6 and 7 and 112–115 in table 8.19, "Imputations in the National Income and Product Accounts," SURVEY 78 (August 1998): 115.

14. Family-held corporations are those qualified under the Internal Revenue Code subchapter S.

15. The USDA State estimates of farm labor expenses exclude the salaries received by the owner-operators; these salaries are treated as part of the return to capital.

State estimates of the cash wages are based on a place-of-work wage series that was summed from a special tabulation of journey-to-work (JTW) data from the 1990 Census of Population. The wage series was extrapolated to 1991–96 by the annual change in the population. The extrapolated series for each year was adjusted by allocation to sum to the national estimate of cash wages.

The State estimates of pay-in-kind for 1991–96 are based on a similar extrapolation of 1990 JTW place-of-work data on employment.

Private elementary and secondary schools. This industry is partially covered by State UI programs, but it is treated as if it were not covered, because religiously affiliated schools, which are exempt from State UI coverage, account for most of the wages and salaries for this industry.

The national and State estimates of cash wages are based on annual payroll data reported in *CBP*.[16]

The State estimates of the pay-in-kind for these schools are based on the number of full-time teachers in religious orders.[17]

Religious membership organizations. The national and State estimates of cash wages for religious membership organizations are based on payroll data reported for these organizations in *CBP*.

The estimate of pay-in-kind for religious membership organizations reflects the value of the food, lodging, laundering, and miscellaneous items received by the clergy and members of religious orders who do not work in hospitals or in schools.

Because of the lack of State-level data, the national estimate is allocated to the States after it has been divided into the following three categories: (1) The value of food and laundering, which are assumed to be received primarily by members of Catholic rectories and convents; (2) the value of miscellaneous items and the rental value of Catholic rectories and convents, which are assumed to be received by members who receive no cash wages and by resident pastors; and (3) the rental value of parsonages other than Catholic rectories.

The State estimates are combinations of estimates for the three categories. The allocating series for the first category is computed as the total number of members of religious orders in the dioceses in each State less the number of members who work in hospitals and who teach; the allocating series for the second category is computed as the sum of the number of members who receive no cash wages and the number of resident pastors.[18] The allocating series for the third category is computed as an estimate of the total number of clergy less the number of Catholic clergy; the estimates of the total number of clergy for 1991–96 were extrapolated from the number of clergy reported in the 1990 Census of Population.

Railroads. The national and State estimates of the wages and salaries paid by railroad companies, which are not covered by the State UI system, are based on wage and salary data from the Railroad Retirement Board (RRB). The RRB data that are used for the State estimates represent the wages and salaries subject to the payroll tax that supports the railroad retirement system; these data are tabulated according to the State of residence of the employee. The data are adjusted (1) to reflect the portion of the wages and salaries not subject to the tax and (2) to convert them to a place-of-work basis. The former adjustment is based on the RRB-reported number of the employees living in each State whose wages or salaries exceed the limit for retirement taxation. The latter is based on JTW data for railroad employees from the 1990 census.

Military. The estimates of wages and salaries for the military services consist of the estimates of cash wages (including allowances) of full-time personnel of the armed services (including the Coast Guard), the estimates of cash wages of the members of the Reserves including the National Guard, and the estimates of pay-in-kind received by the full-time and reserve enlisted personnel of the armed services.[19]

The national estimates of the cash wages of the military services are based on data from the budget of the United States.

The State estimates of cash wages of the full-time personnel of the Army, the Navy, the Air Force, and the Marine Corps are prepared in three steps. First, approximations of quarterly cash wages are calculated for subgroups of personnel—for officers and for enlisted personnel in the Navy and Marine Corps and for each pay grade of the Army and the Air Force. The approximations are derived from quarterly averages of monthly data on the number of military personnel at each installation and from national annual data on average pay for each subgroup from the Department of Defense.[20] The quarterly average number of the personnel are summed to obtain the

16. The *CBP* data are tabulated from the administrative records of the old-age, survivors, and disability insurance program. This program exempts nonprofit religious organizations, such as these schools, from coverage, but its provisions for elective coverage have resulted in the participation of most of these schools.

17. *Official Catholic Directory*. See also footnote 11.

18. The State estimates of pay-in-kind for the first two categories are based on data from the *Official Catholic Directory*. See also footnote 11.

19. The estimates of pay-in-kind reflect the value of the food and standard-issue clothing received by enlisted personnel.

20. The Army and the Air Force provide average base pay; the Navy and Marine Corps provide average base pay and allowances.

quarterly average number of personnel for each subgroup in each county, and then—in order to obtain an approximation of the quarterly cash wages for each subgroup in each county—the quarterly average number of personnel in each county is multiplied by the national annual average pay (for example, the number of Navy officers in each county is multiplied by the national average pay of Navy officers).

Second, in order to obtain the State approximations of the quarterly cash wages for each service, the approximations of the quarterly cash wages for each subgroup in each county are summed to obtain county approximations, and the county approximations for each service are summed to obtain the State approximations. Third, the quarterly State approximations for each service are averaged to yield calendar year approximations that are then adjusted by allocation to sum to the national estimates.

The national estimate of cash wages for the full-time personnel of the Coast Guard is allocated to States in proportion to an annual summation of the monthly Coast Guard payroll from the Department of Transportation.

The national estimate of wages for the Reserves for each calendar year is allocated to States in proportion to payroll data for the calendar year from the Washington Headquarters Service of the Department of Defense.

The national estimate of the pay-in-kind of the full-time personnel in the Coast Guard is allocated to the States in proportion to the number of enlisted personnel in the Coast Guard that is reported by the Department of Transportation, and the national estimate for each of the other services is allocated by the number of enlisted personnel in each service that is reported by the Department of Defense. The national estimate for the Reserves is allocated to States in the proportion to the estimates of cash pay.

Other. The estimates of wages and salaries for this category consist of the wages and salaries of U.S. residents who are employed by international organizations and by foreign embassies and consulates in the United States.

The national estimates are prepared by BEA as part of the balance of payments accounts. The national estimates for all years are allocated to States in proportion to estimates of the administrative expenditures of these organizations in 1968.

Other Labor Income

Other labor income consists of the contributions by employers to privately administered pension and welfare funds for their employees, the fees paid to corporate directors, and miscellaneous fees. The payments to private benefit plans accounted for more than 98 percent of other labor income in 1997.[21]

Other labor income accounted for approximately 5.8 percent of personal income at the national level in 1997 (table C).

Contributions to private pension and welfare funds

Contributions by employers to privately administered benefit funds consist of their payments to pension and profit-sharing plans, premiums for private group health and life insurance plans, payments to supplemental unemployment benefit plans, and payments to privately administered workers' compensation plans. For private pension plans, other components of personal income include their investment income except capital gains (net of losses). However, benefits paid by these plans are not counted as part of personal income.

Pension and profit-sharing plans, group health and life insurance, and supplemental unemployment insurance. The national estimates of the employer payments to private pension and profit-sharing plans are based mainly on data tabulated from Internal Revenue Service form 5500 (Annual Return/Report of Pension Plans) and are prepared by Standard Industrial Classification (SIC) two-digit industry.[22]

The national all-industry estimates of the payments for group health insurance for years after 1991 are based mainly on extrapolations of the 1991 estimates by the relative change in data on employers' health insurance costs from the Employer Costs of Employee Compensation (ECEC) report of the Bureau of Labor Statistics (BLS);

21. Other labor income excludes employer contributions paid to social insurance, or government-administered, funds. However, the benefits paid from social insurance funds are counted as part of the transfer payments component of personal income.

22. See the section "Changes in Methodology" in "Improved Estimates of the National Income and Product Accounts for 1959–95: Results of the Comprehensive Revision," SURVEY 76 (January/February 1996): 22–27.

Table C.—Personal Income and Other Labor Income by Component for the United States, 1997

	Millions of dollars	Percent of personal income
Personal income	**6,770,650**	**100.00**
Other labor income	**392,712**	**5.80**
Employer contributions to private pension funds and private welfare funds	386,969	5.72
Private pension funds,group health insurance, group life insurance,and supplemental unemployment insurance	348,712	5.15
Privately administered workers' compensation	38,257	.57
All other [1]	5,743	.08

1. Consists of directors' fees, compensation to prisoners, and judicial fees.
NOTE.—Detail may not add to totals because of rounding.

the estimates are disaggregated to the SIC two-digit level, based on data from the ECEC and on the distribution of wage and salary accruals. The estimates for 1991 are based mainly on the total private expenditures on health insurance (including the cost of self-administered plans) from the 1993 National Health Account of the Health Care Financing Administration. Premiums paid by employees are subtracted using consumer expenditures for health insurance (excluding medicare premiums) from the BLS Consumer Expenditure Survey.

The national estimates of premiums paid by employers for group life insurance are based mainly on data provided by the American Council on Life Insurance (ACLI), and the national estimates of payments for supplemental unemployment benefits are based mainly on data from labor union and industry sources and from BLS. The estimates by SIC division are also based on the ACLI, BLS, and union and industry sources. These estimates are allocated to the SIC two-digit industries based on the distribution of wage and salary accruals.

The State estimates of the payments to these private benefit plans are prepared for each private industry at the SIC two-digit level of industrial detail. Because State data are not available from the sources used to prepare the national estimates, the payments amount for each industry is allocated to the States in proportion to the State estimates of wages and salary disbursements for the industry.[23]

The Federal Government contributes to the Thrift Savings Plan on behalf of its civilian employees (mainly those who participate in the Federal Employees Retirement System).[24] The national estimate of these payments is allocated to States in proportion to the estimates of wages and salaries for all Federal civilian employees.[25]

The State government contributions to private pension plans consist only of contributions to annuity plans made by State governments on behalf of selected groups of employees—primarily teachers. The State estimates are based on data from the Teachers Insurance and Annuity Association/College Retirement Equities Fund.

The national estimates of Federal, State, and local government payments to employee group health and life insurance plans are allocated to States in proportion to ES–202 employment data for each level of government.

Workers' compensation plans. The contributions by employers to privately administered workers' compensation plans consist of net premiums paid by employers to private insurance companies for workers' compensation insurance, benefit payments by self-insured employers, and court-awarded payments by the railroad industry and the water transportation industry for work-related injuries.[26]

The national estimate for the employers' premium payments to private insurance companies is based on data compiled annually by A.M. Best Company, Inc., and the estimate of employers' costs for self-insurance is based on State-level data compiled by the Social Security Administration.[27] The allocation of the national estimates to the SIC two-digit industries is based on BEA estimates of employment by industry and on BLS data on occupational injury incidence rates.

The national estimates of the payments made under court awards are based on data provided by the Federal Railroad Administration and the Maritime Administration of the Department of Transportation.

The State estimates are prepared in three parts: For railroad transportation, for water transportation, and for all other industries.

State data for the court-awarded payments by railroads are unavailable; the national estimate of these payments is allocated to States in proportion to the number of workers killed or injured in railroad accidents. The number is reported in the *Annual Accident/Incident Bulletin* by the Federal Railroad Administration.

The national estimate of the court-awarded payments by the water transportation industry is allocated to States in proportion to the estimates of wages and salaries for this industry, because State data on work-related injuries for this industry are unavailable.

The State estimates of the benefits paid by employers in the other industries are prepared with a dual allocation.[28] In this four-step procedure, first, the national estimate for all industries combined is allocated to States in proportion to the sum of two data series: (1) Earned premiums, from the National Council on Compensation Insurance, and (2) the benefits paid by self-insured employers, from

23. Because wage and salary disbursements by industry are used to allocate the national estimates to States, the State estimates reflect the various mixes of industries among the States and the wide variation in contribution rates relative to wages among industries, but not the variation in contribution rates among States for a given industry.

24. This plan is classified as a private pension plan and included in other labor income because the saving is controlled by the employee rather than by the government.

25. Data on the contributions by State are not available. Employees covered by the plan and eligible for the employer contributions account for more than one-half of total civilian employees.

26. Programs for workers' compensation insurance are authorized by law in all States, and laws in the District of Columbia and in all but six States authorize programs for private workers' compensation insurance. Federal laws authorize the court-awarded payments by the railroad industry and the water transportation industry. Laws in many States authorize self-insurance.

27. The Social Security Administration's series of employer costs for self-insurance was discontinued after 1995; the estimates for later years are based on extrapolations of the 1995 data.

28. See "Dual allocation" in the "Technical Notes."

the Social Security Administration. Second, the national estimate for each industry is allocated to States in proportion to the estimates of wages and salaries for the industry. Third, the State estimates from the first step are allocated to the SIC two-digit industries in proportion to the output of the second step.[29] Finally, the national estimate for each industry is allocated to States in proportion to the output of the third step.

Directors' fees and miscellaneous fees

Directors' fees accounted for about 0.8 percent of other labor income in 1997. The national estimates for the finance, insurance, and real estate industries, which account for about three-fourths of these fees, are based mainly on data from the Federal Reserve Board; the estimates for other industries are based on the total compensation of corporate officers in these industries and on data from corporate reports filed in 1929 and 1932 with the Federal Trade Commission. Because State data are unavailable, the national estimate of these fees for each SIC two-digit industry is allocated to States in proportion to the estimates of wages and salaries.

The miscellaneous fees consist of fees paid to jurors and witnesses, compensation of prisoners, and marriage fees paid to justices of the peace. The national estimates of the judicial fees are based on data from the *Budget of the United States Government* and from the Census Bureau's *State Government Finances*, and the national estimates of the compensation of prisoners is based on data provided by the Department of Justice. In the absence of source data, the marriage fees are arbitrarily assumed to be $10 million. The national estimate of each of these subcomponents is allocated to States in proportion to the civilian population.

Proprietors' Income

Proprietors' income with inventory valuation and capital consumption adjustments is the current-production income of sole proprietorships and partnerships and of tax-exempt cooperatives.[30] Proprietors' income includes the imputed net rental income of owner-occupants of farm dwellings, but it excludes the imputed net rental income of owner-occupied nonfarm housing as well as the dividends and the monetary interest that are received by nonfinancial business and the nonfarm rental income received by persons not primarily engaged in the real estate business.[31]

Proprietors' income accounted for approximately 8 percent of total personal income at the national level in 1997 (table D). The estimates of proprietors' income are generally presented in two parts—nonfarm proprietors' income, which accounted for 94.6 percent of proprietors' income, and farm proprietors' income, which accounted for the remaining 5.4 percent.

Nonfarm Proprietors' Income

Nonfarm proprietors' income consists of the income that is received by nonfarm sole proprietorships and partnerships and the income that is received by tax-exempt cooperatives.

Income of nonfarm sole proprietorships and partnerships

The national estimates of the income of nonfarm sole proprietorships and partnerships are based on tabulations of "net-profit-less-loss" as reported to the Internal Revenue Service (IRS) from Schedule C of form 1040 for sole proprietorships and from form 1065 for partnerships. Because these data do not always reflect the income earned from current production and because they are incomplete, the estimates also include four major adjustments—the inventory valuation adjustment (IVA), the capital consumption adjustment (CCAdj), the "misreporting" adjustment, and the adjustment for the net

Table D.—Personal Income and Proprietors' Income by Component for the United States, 1997

	Millions of dollars	Percent of personal income
Personal income	**6,770,650**	**100.00**
Proprietors' income [1]	**545,082**	**8.05**
Farm	29,321	.43
Nonfarm	515,761	7.62
Agricultural services, forestry, and fishing	6,038	.09
Mining	9,010	.13
Construction	63,146	.93
Manufacturing	36,338	.54
Transportation and public utilities	47,755	.71
Wholesale and retail trade	62,171	.92
Finance, insurance, and real estate	51,707	.76
Services	239,596	3.54
Business services	112,018	1.65
Professional and social services	127,578	1.88

1. Shown with inventory valuation and capital consumption adjustments.
NOTE.—Detail may not add to totals because of rounding.

29. For West Virginia, the State estimate is allocated to industries in proportion to data from the *Annual Report* of the West Virginia Workers' Compensation Fund.

30. A sole proprietorship is an unincorporated business owned by a person. A partnership is an unincorporated business association of two or more partners. A tax-exempt cooperative is a nonprofit business organization that is collectively owned by its customer-members.

31. The dividends are included in personal dividend income, the monetary interest, in personal interest income, and the nonfarm rental income, in rental income of persons.

margins on owner-built housing.[32] The IVA removes the effects of the gains and losses that result from changes in the prices of products withdrawn from inventories. The CCAdj represents the difference between capital consumption allowances—depreciation on the historical-cost basis used in the source data—and the consumption of fixed capital—depreciation valued on a replacement-cost basis and including the effects of the accidental destruction of depreciable plant and equipment.[33] Specific adjustments are made for the accidental destruction caused by major natural disasters.

The "misreporting" adjustment adds an estimate of the net income of sole proprietors and partnerships that is not reported on tax returns. This adjustment accounted for almost half of nonfarm proprietors' income in 1997.[34]

The adjustment for the net margins on owner-built housing is an addition to the estimate for the construction industry. It represents the imputed value of the net income by individuals from the construction or renovation of their own dwellings.

Like the national estimates, the State estimates are based on data tabulated from schedule C of form 1940 and from form 1065. The geographic coding of the data is by tax-filing address. This address is assumed to be the same as the address of the place of residence. For additional information, see the section "Geographic characteristics of the source data" in the introduction to "Sources and Methods."

As previously mentioned, the national estimates reflect decreases in income that result from damage to fixed capital that is caused by natural disasters, such as hurricanes and floods; damage to inventories is also reflected in the adjustments. The national and State adjustments are prepared primarily on the basis of information from the Federal Emergency Management Agency.

The source data necessary to prepare the other adjustments—including the IVA, the CCAdj, and the misreporting adjustment—are available only at the national level. Therefore, the national estimates of nonfarm proprietors' income that include the adjustments are allocated to States in proportion to tax return data that do not reflect the adjustments.[35] The national estimates of the income of nonfarm sole proprietorships and partnerships excluding the misreporting adjustment for 1991–94 for most of the SIC two-digit industries were allocated to States in proportion to the IRS data for net-profit-less-loss for each industry. For coal mining, the national estimate excluding the misreporting adjustment was allocated to States in proportion to the number of schedule C's that were filed plus the number of partners in partnerships other than limited partnerships.[36] For the other industries, the national estimates excluding the misreporting adjustment were allocated to States in proportion to "net gross receipts" (gross receipts less returns and allowances) for each industry.[37]

The national estimates of the misreporting adjustment for 1991–94 for all industries except coal mining were allocated to States in proportion to net gross receipts for each industry . The data for net-profit-less-loss are inappropriate for the allocation of the State estimates of this adjustment because net-profit-less-loss is reduced by the tax misreporting that this adjustment largely reflects. For coal mining, the national estimate of the misreporting adjustment was allocated to States in proportion to the same series that was used to allocate the estimate excluding the misreporting adjustment.

The State estimates for 1995 are based on extrapolations of the 1994 estimates by the relative change in the number of small establishments in each industry from the Census Bureau's annual *County Business Patterns*.

The State estimates for 1996–97 were extrapolated from the 1995 State estimates in three steps. First, the 1995 State estimates were summed to all-industry totals. Second, these totals were extrapolated to 1996–97 by the relative change in the preliminary annual State estimates of nonfarm personal income; the extrapolated estimates for each year were then adjusted by allocation to sum to the national all-industry totals for the year. Third, the 1995 State estimates by industry were used as elements in a dual allocation procedure in which the national estimates by industry for 1996–97 were the primary controls, or column totals, and the all-industry State estimates for 1996–97 were the secondary controls, or row totals.[38]

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32. For other adjustments to the tax data, see NIPA table 8.21, "Relation of Nonfarm Proprietors' Income in the National Income and Product Accounts (NIPA's) to Corresponding Measures as Published by the Internal Revenue Service," SURVEY 78 (August 1998): 116.

33. The capital consumption adjustment also includes the differences between the service lives and the depreciation patterns used for tax accounting and the empirically based depreciation schedules that are used for national economic accounting. See Arnold J. Katz and Shelby W. Herman, "Improved Estimates of Fixed Reproducible Tangible Wealth, 1929–95," SURVEY 77 (May 1997): 69–92.

See also "Capital consumption adjustment" and "Inventory valuation adjustment" in the "Glossary."

34. See footnote 8.

35. For 1995, the estimates also include an adjustment to account for the continuing effects of the sharp reduction in property taxes in Michigan, beginning with 1994.

36. For coal mining, a large proportion of net-profit-less-loss is reported by limited partnerships from States that appear to be neither the States where the mining operations take place nor the States where most of the partners live.

37. The net-profit-less-loss for these industries is not used, because the statistics for these industries are highly volatile, which indicates that they may be unreliable. In addition, these statistics frequently fluctuate into the negative range, so that they are difficult to use in an allocation procedure.

38. See "Dual allocation" in the "Technical Notes."

Income of nonfarm tax-exempt cooperatives

The income of tax-exempt cooperatives consists of the net income, including the IVA and the CCAdj, that is received by agricultural cooperatives, rural electric cooperatives, and rural telephone cooperatives. Agricultural cooperatives are mainly farm-marketing cooperatives and farm-supply cooperatives; they are classified in the SIC in wholesale trade. The national and State estimates of the net income of these cooperatives are based on data provided by the Agricultural Cooperative Service of the Department of Agriculture.

The national and State estimates of the net income of rural electric cooperatives and of rural telephone cooperatives are based on annual data for the net margin, or profit, of these cooperatives that have outstanding loans from the Rural Utilities Service (RUS) (formerly the Rural Electrification Administration) of the Department of Agriculture.[39] For the State estimates, the net margin of each cooperative is allocated to the States in proportion to the distribution of the cooperative's customer-members that is reported by the RUS. The allocated amounts for each type of cooperative are summed to State totals, and these totals are then used to allocate the national estimates to States.

Farm Proprietors' Income

Farm proprietors' income is the income received by the sole proprietorships and the partnerships that operate farms. The national and State estimates of this income are based on the national and State estimates of the net income of all farms prepared by the Economic Research Service (ERS) of the U.S. Department of Agriculture (USDA). The BEA estimates of the income of all farms differ slightly from those used by USDA, and the income received by corporate farms is estimated and subtracted in order to derive the estimates of farm proprietors' income.[40] In this section, the derivation of the USDA estimates of the components of the net income—that is, gross output less production expenses—of all farms is described first. Then, the adjustments made to the USDA estimates in order to obtain farm proprietors' income are described.

The USDA estimates of the net income of all farms are calculated as the estimates of gross output less the estimates of production expenses. For most of the components of gross output and for many of components of production expenses, the estimates are prepared at the State level and summed to yield the national estimates.

USDA estimates of gross output

Gross output consists of the cash receipts from the sales of agricultural products, the cash receipts from other farm-related activities, the Federal Government payments to farm operators, the imputed gross rental value of farm housing, the imputed value of the home consumption of farm products, and the value of the change in farm inventories.

Cash receipts from sales of agricultural products. The cash receipts from sales accounted for almost 89 percent of gross farm output at the national level in 1997. Cash receipts consist of the gross revenue that is received by farmers from the sales of crops, livestock, and livestock products and of the net value of loans that are made by the Commodity Credit Corporation (CCC) and that are secured by crops.[41] The USDA national and State estimates of the cash receipts from the sales of agricultural products are based on data for the quantities of the products sold or produced and on data for the market prices of these products. Estimates are prepared for each type of crop, such as wheat, corn, and tobacco; for each type of livestock, such as cattle, swine, and chickens; and for each type of livestock product, such as milk and eggs. For example, the annual estimates of the cash receipts from the crop sales are calculated as the product of the quantity of each type of crop that is sold and the market price for each type of crop.

The national and State estimates of the net value of CCC loans are based on annual estimates of the net value of the loans for each type of crop. The net value of the loans is the amount of the loans that are made less the amount of the loans that are redeemed in a given year.

Cash receipts from other activities. This is the gross income from farm-related activities other than crop and livestock production, including the use of farms for recreational activities—such as hunting or fishing—the sale of forest products, and custom work performed for other farm operators—such as clearing land and harvesting crops.

Federal Government payments to farm operators. These payments include deficiency payments under price support programs for specific commodities, disaster pay-

39. These data are published by the RUS in its *Annual Statistical Report*.

40. For information about the source data and the methods that are used to derive the USDA estimates, see Economic Research Service, *Major Statistical Series of the U.S. Department of Agriculture, Volume 3: Farm Income* (Washington, DC: National Technical Information Service, November 1988).

41. Intrastate interfarm sales of livestock are not included in the USDA estimates of cash receipts for livestock sales or in the USDA estimates of the expenses of livestock purchases, because source data for these transactions are not available. However, the receipts for these sales offset the expenses for these purchases in the State estimates of farm income.

ments, conservation payments, and payments under the Federal Agricultural Improvement and Reform Act.

Imputed gross rental value of farm housing. This imputation is an estimate of the gross rent that would be received by the owner—usually the farm operator—of farm dwellings occupied by the farm operator and by hired farm workers if the dwellings were rented at market value.[42]

The estimate is calculated as the product of the gross rental value of the farm housing occupied by farm operators and the ratio of the market-sale value of all occupied farm housing to the market-sale value of farm housing occupied by the farm operators.

Imputed value of home consumption. This imputation is an estimate of the market value of the food and the fuel that are produced and consumed on farms. The estimate is based on the quantity and the value at producers' market prices of the food and fuel.

Value of the change in farm inventories. This value is an estimate of the value, at market prices, of the change in the quantity of the inventories of harvested crops or livestock that are owned by farmers.[43]

For crops, for example, the estimate of the value of the change in the inventories of each type of crop is calculated as the difference between the value of the crops that are produced and the value of the crops that are sold or used as feed. This calculation accounts for all the inventories, regardless of the location of their storage, that are owned by farmers. The estimates of the value of the change plus the estimates of cash receipts from the sales of crops during the year yields a measure of the gross output of crops during the year.

USDA estimates of production expenses

The national and State estimates of farm production expenses consist of the estimates for the following expenses: Purchases of feed, livestock and poultry, seed, fertilizer, agricultural chemicals and lime, and petroleum products; labor expenses; machinery rental and custom work; animal health costs; and all other expenses.[44]

The estimates of production expenses for purchased goods except livestock, for labor, for machinery rental and custom work, and for animal health costs are primarily based on data for 10 "production regions" from the Agricultural Resource Management Study.[45] The regional estimates are allocated to States in proportion to data from the 1992 Census of Agriculture or to interpolations between data from the 1987 and 1992 censuses.

BEA adjustments to the USDA State estimates

To derive the national and State estimates of farm proprietors' income, BEA adjusts the USDA estimates of the net income of all farms, mainly because the definitions and classifications used for the estimation of farm income by USDA differ from those used by BEA. First, the USDA estimates are adjusted to conform to BEA definitions and classifications.[46] Second, the BEA estimates of the net income are adjusted to exclude the income of corporate farms. The USDA estimates are adjusted to account for five differences in definitions and classifications and for methodological differences.

Depreciation. Both the USDA and the BEA estimates of depreciation expenses are on a current replacement-cost basis. However, the BEA estimates reflect a geometric depreciation schedule, whereas USDA estimates reflect a declining-balance schedule. The amount of the difference between the BEA and the USDA national estimates of depreciation is allocated to States in proportion to the USDA estimates. These amounts are added to the USDA State estimates of depreciation to yield the BEA estimates.

Patronage dividends. The USDA estimates of the net income of all farms include estimates of the patronage dividends received by farm operators from agricultural cooperatives, which are mainly farm-marketing and farm-supply cooperatives. BEA classifies these cooperatives as nonfarm proprietorships and removes these dividends from the USDA national and State estimates.[47] The national estimate is allocated to States in proportion to unpublished estimates from the ERS; these estimates reflect the State distribution of "income from other farm-related sources" from the censuses of agriculture.

42. The expenses—including interest, taxes, and depreciation—that are associated with the operation of these dwellings are included in farm production expenses. Including both the rental value and the expenses in the farm income accounts adds the net rental value of farm housing to farm income.

43. The USDA's definition of the value of the change excludes the changes in the inventories of crops that are held as collateral for CCC loans and in the inventories of growing crops, seed, fuel, fertilizer, and other raw materials owned by farmers.

44. Labor expenses consist of the payments to farm labor contractors and the cash wages, pay-in-kind, and supplements to the wages of hired labor.

All other expenses consist mainly of the estimates of overhead, such as depreciation, mortgage interest, taxes, and the costs of electricity and telephone service.

45. Each production region consists of States that share similarities in their agriculture.

46. For the differences between the USDA and the BEA estimates of net farm income at the national level, see NIPA table 8.22, "Relation of Net Farm Income in the National Income and Product Accounts (NIPA's) to Net Farm Income as Published by the U.S. Department of Agriculture (USDA)," SURVEY 78 (August 1998): 116.

47. The income of agricultural cooperatives that BEA measures as part of nonfarm proprietors' income is the profits of the cooperatives. The income from the agricultural cooperatives that BEA excludes from the USDA measure of farm income is the patronage dividends that are paid to farm operators out of the current and accumulated profits of the cooperatives.

Wages and salaries. The USDA classifies the wages and salaries received by the owner-operators of sole proprietorship farms, partnership farms, and family-held corporate farms as part of the return to capital and therefore does not deduct these salaries in the derivation of its estimates of the net income of all farms. BEA classifies these salaries as part of wages and salaries; therefore, the national and State estimates of the salaries are subtracted from the USDA estimates. The BEA national and State estimates of these salaries are based on data provided by USDA.

Net CCC loans. The USDA estimates of the cash receipts from crop sales include the net value of CCC loans (loans less redemptions); the loans are treated as crop sales, and any subsequent defaults on the loans do not affect the USDA estimates of the net income of all farms. BEA classifies the CCC loans as financial transactions: Crops held under CCC loan remain in measured farm inventories unless the loan is defaulted. The default of a loan is considered to be a sale of the crops and a reduction in farm inventories. To reflect this difference, BEA adjusts the USDA national and State estimates of the cash receipts from the sale of each type of crop and the value of inventory change for the crop.[48] The national estimates of the adjustments for each crop are allocated to States in proportion to data on net CCC loan activity for the crop from the Farm Service Agency.

Fines. The USDA estimate of the net income of all farms excludes an estimate of the payment of fines by farm operators to the Federal Government. BEA classifies these fines as a production expense and subtracts these fines from the USDA national and State estimate of net income. The national estimate of these fines is allocated to States in proportion to the USDA estimates of cash receipts from the sale of crops and livestock.

Methodological adjustments. The USDA national estimate of the imputed gross rental value of farm housing is statistically adjusted to improve the extrapolation of the data from the censuses of agriculture and the related 1988 Agricultural Economics and Land Ownership Survey that were used by USDA to benchmark the estimate. The adjusted national estimate is allocated to States in proportion to the USDA estimates of the imputed gross rent.

Corporate farm adjustment. This BEA adjustment is made to net farm income because the estimates of the total net income of all farms—reflecting the coverage of the underlying source data—include the income of corporate farms. The adjustment excludes the income of these farms from the national and State estimates of the net income of corporate farms.[49]

The national control totals of the income for 1991–97 were prepared in five steps. First, the proportions of each of four components of gross output and the proportion of total production expenses that were accounted for by corporate farms for 1987 and for 1992 were calculated from data from the censuses of agriculture, and the proportions were interpolated to derive proportions for the intervening years.[50] Second, corporate proportions for the corresponding gross output components and for production expenses were calculated for 1992–96 from data from the Agricultural Resource Management Study. Third, the 1992 census-based proportions were extrapolated to 1997 by the relative change in the corresponding survey-based proportions.

Fourth, the extrapolated proportions for each year were multiplied by the BEA national estimate of each component of the gross output for all farms and by the BEA national estimate of the production expenses for all farms in order to obtain the national estimates of the components and of production expenses for the corporations. Fifth, the estimate of corporate production expenses for the year was subtracted from the sum of the estimates of the components of corporate gross output in order to obtain the national control totals for the income of corporate farms.

The national control totals for the net income of corporate farms for 1991–97 were disaggregated to the State level in three steps. First, the corporate proportions of total cash receipts from the sale of crops and livestock for 1987 and for 1992 for each State were calculated from data from the censuses of agriculture, and the proportions were interpolated to derive proportions for the intervening years. Second, the 1991 proportions were multiplied by the BEA State estimates of the net income of all farms for 1991, and the 1992 proportions were multiplied by the BEA State estimates for each year in 1992–97 in order to obtain State approximations of the net income of corporate farms for 1991–97. Third, the national con-

48. The adjustments to the USDA estimates of the value of inventory change largely offset the adjustments to the estimates of cash receipts. The adjustments also reflect the differences in valuation that result from the differences in the timing of the sales and of the changes in inventories. For more information, see Robert P. Parker, "A Preview of the Comprehensive Revision of the National Income and Product Accounts: Definitional and Classificational Changes," SURVEY 71 (September 1991): 30.

49. The adjustment for the national estimates described here is that used to derive the national control totals for the State estimates. It differs from the corporate adjustment used in the derivation of farm proprietors' income for the national income and product accounts, which is based on data reported by farm corporations on income tax returns.

50. The four components are cash receipts from the sale of agricultural products, cash receipts from other farm-related activities, Federal government payments, and the value of the change in inventories.

trol total for the net income of corporate farms for each year was allocated to States in proportion to the State approximations.

Personal Dividend Income, Personal Interest Income, and Rental Income of Persons

The State estimates of personal dividend income, personal interest income, and rental income of persons are presented together. These three components of personal income accounted for more than 17 percent of total personal income at the national level in 1997 (see table E).

The estimates of these three components consist of the estimates of the income that is received by individuals and the estimates of the income that is received on behalf of individuals by quasi-individuals, which include nonprofit institutions and private trust funds that are administered by fiduciaries.[51]

The national estimates of dividends, interest, and monetary rent are based on data that are not available for States. The State allocations of the national estimates are based mainly on individual income tax data. Some of the data used to prepare the national estimates of the imputed rent of the owner-occupants of nonfarm dwellings are also used to prepare the State estimates.

Personal Dividend Income

Personal dividend income is payments in cash or other assets, excluding the corporations' own stock, that are made by corporations in the United States or abroad to noncorporate stockholders who are U.S. residents

Personal dividend income accounted for almost 4 percent of total personal income at the national level in 1997 (table E).

The State estimates of personal dividend income are prepared in three parts: Dividends that are received by individuals, dividends that are received by nonprofit institutions, and dividends that are received, retained, and reinvested by fiduciaries.

Dividend income received by individuals. The State estimates are based on tabulations by State of the dividends that are reported by individuals on Internal Revenue Service (IRS) form 1040. These data are tabulations of Federal individual income tax data from the Individual Master File (IMF) of the IRS.[52]

Dividend income received by nonprofit institutions. Because State data are unavailable, the national estimate is allocated to the States in proportion to the annual State estimates of the civilian population that are prepared by the Census Bureau.

Dividend income retained by fiduciaries. The available data for these dividends do not reflect the location of the individuals on whose behalf the dividends are received. However, tabulations by State of the entry "income from estates and trusts" in "Schedule E: Supplemental Income" of form 1040 are published annually by the IRS in *Statistics of Income*.[53] Based on the assumption that the geographic distribution of the dividends that are retained by fiduciaries is similar to the distribution of the income that the fiduciaries distribute to individuals, the national estimate is allocated to States in proportion to the income received by individuals from fiduciaries.

Table E.—Personal Income and Personal Dividend Income, Personal Interest Income, and Rental Income of Persons by Component for the United States, 1997

	Millions of dollars	Percent of personal income
Personal income	**6,770,650**	**100.00**
Personal dividend income, personal interest income, and rental income of persons	**1,165,828**	**17.22**
Personal dividend income	260,300	3.84
Personal interest income	747,306	11.04
Monetary	311,790	4.61
Imputed	435,516	6.43
Rental income of persons [1]	158,222	2.34
Monetary	78,056	1.15
Imputed	80,166	1.18

1. Shown with the capital consumption adjustment.
NOTE.—Detail may not add to totals because of rounding.

Personal Interest Income

Personal interest income is the interest income (monetary and imputed) from all sources that is received by individuals, by nonprofit institutions, and by estates and trusts.

Personal interest income accounted for about 11 percent of total personal income at the national level in 1997 (table E). Monetary interest accounted for almost

51. See "Persons" and "Fiduciaries" in the "Glossary."

52. The annual IMF tabulations become available about 18 months after the end of the year; therefore, the State estimates that are based on the IMF data for a year are first derived from the extrapolation of the data for the previous year. The relative change in the State estimates of nonfarm personal income, a broad indicator of economic change, is used for the extrapolation.

53. The data for the most recent year for which data are available are used to prepare the estimates for the subsequent year or years.

5 percent of total personal income, and imputed interest accounted for more than 6 percent.

Monetary interest income

The State estimates of monetary interest income are prepared in the following parts: Interest received by individuals from municipal bonds issued by State and local governments, the net interest accrued on unredeemed series E, EE, H, and HH bonds that are issued by the Federal Government and that are owned by individuals, the other interest received by individuals, the interest received by nonprofit institutions, and the interest retained by fiduciaries.

Interest income received from municipal bonds. Because State data are unavailable, the national estimate of the tax-exempt interest from municipal bonds is allocated to States in proportion to a series derived from the number of high-income households from the 1990 Census of Population. The allocators for the State estimates for 1991–97 were extrapolated from the 1990 data by the relative change in the civilian population.

Net accrued interest income from Federal Government savings bonds. The State estimates of the net accrued interest on unredeemed series E, EE, H, and HH bonds are prepared in two steps.[54] First, the national estimate of the total interest accrued on savings bonds during a year is allocated to the States in proportion to the value of the unredeemed bonds at the end of the year, and the national estimate of the accrued interest realized from bonds redeemed during the year is allocated to the States in proportion to the value of the unredeemed bonds at the end of the preceding year.[55] Second, the State estimate of the realized interest is subtracted from the State estimate of the total accrued interest to yield the State estimate of the net accrued interest.

Other interest income received by individuals. This interest consists largely of interest that is reportable for Federal individual income tax, but it also includes the interest accrued on individual retirement accounts and other tax-deferred savings accounts in the year in which the interest is earned. (The IMF interest data do not include this interest, because it is reported on the tax returns as part of taxable withdrawals, not as interest, in the year in which the funds are withdrawn.)

The State estimates are based on the IMF data for interest that are supplemented by a series prepared from the IMF data for dividends.[56] The supplementation is necessary because the reportable interest that is received by individuals from regulated investment companies, such as money market mutual funds, is reported as dividend income on IRS form 1040.

The State estimates are prepared in four steps. First, the national ratio of the estimate of the reportable interest received by individuals from regulated investment companies to the sum of this interest and the estimate of the dividends received by individuals is calculated.[57] Second, this ratio is multiplied by the IMF dividends for each State to yield a first approximation of the interest from regulated investment companies that is reported as dividends. Third, the first approximations are added to the IMF State tabulations of interest to yield preliminary State estimates of interest. Fourth, the national estimate of the interest is allocated to the States in proportion to the preliminary estimates.

Interest income received by nonprofit institutions. Because State data are unavailable, the national estimate is allocated to the States in proportion to the annual State estimates of the civilian population.

Interest income retained by fiduciaries. The State estimates are based on tabulations of State data from the entry "income from estates and trusts" in "Schedule E: Supplemental Income" of form 1040. These tabulations are published annually in *Statistics of Income*. See "Dividend income retained by fiduciaries" for the explanation for this procedure.

Imputed interest income

Imputed interest received by persons consists of the investment income that is received by life insurance carriers and private noninsured pension plans, which is attributed to persons in the year in which it is earned, and the imputed interest that is received by persons from banks, credit agencies, and regulated investment companies, which represents the value of financial services for which persons are not explicitly charged.[58]

The national estimate of imputed interest from life insurance carriers and from banks, credit agencies, and investment companies are allocated to States in proportion to the State estimates of "other" monetary interest

54. The net accrued interest is the excess of the interest accrued on the bonds during the year over the accrued interest that was realized from the bonds redeemed during the year.

The interest accrued on unredeemed bonds is treated as if it were received by individuals as it accrues because it is available to the individuals.

55. The State data series for the value of the unredeemed bonds are tabulated by the Bond Division of the Department of the Treasury.

56. See footnote 52.

57. The national estimate of the reportable interest that is received by individuals from these companies is prepared as part of the reconciliation of personal income and adjusted gross income. See Thae S. Park, "Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income," SURVEY 78 (November 1998): 13–19.

58. For additional information, see "Imputation" in the "Technical Notes."

received by individuals. The national estimate of imputed interest from private noninsured pension plans is allocated to States in proportion to State-of-residence estimates of employer contributions to these plans.

Rental Income of Persons

The rental income of persons with capital consumption adjustment is the net current-production income of persons from the rental of real property except for the income of persons primarily engaged in the real estate business; the imputed net rental income received by owner-occupants of nonfarm dwellings; and the royalties received by persons from patents, copyrights, and rights to natural resources.[59] The estimates include BEA adjustments for uninsured losses to real estate caused by disasters, such as hurricanes and floods.

The national estimate of the rental income of persons accounted for about 2.3 percent of total personal income in 1997 (table E). Monetary rental income accounted for about 1.2 percent of total personal income, and imputed rental income accounted for about 1.1 percent.

Monetary rental income

The State estimates of net monetary rental income consist of the estimates of the net rents and royalties that are received by individuals, the estimates of the net rents and royalties that are received by nonprofit institutions, and the estimates of the net rents and royalties retained by fiduciaries.

Net rents and royalties received by individuals. Because the available State data are unreliable, the national estimate excluding the disaster adjustments is allocated to States in proportion to the tabulations of data for gross rents and royalties from the IMF.[60] The national disaster adjustments are assigned to States on the basis of data from the Federal Emergency Management Agency.

Net rents and royalties received by nonprofit institutions. Because State data are unavailable, the national estimate is allocated to the States in proportion to the annual State estimates of the civilian population.

Net rents and royalties retained by fiduciaries. The State estimates are based on tabulations by State of data from the entry "income from estates and trusts" in "Schedule E: Supplemental Income" of IRS form 1040. See "Dividend income retained by fiduciaries" for the explanation for this procedure.

Imputed rental income

The State estimates of imputed net rental income are prepared in two parts: Imputed net rent received by the owner-occupants of mobile homes and imputed net rent received by the owner-occupants of all other nonfarm dwellings.[61]

Imputed net rent from mobile homes. The national estimates of imputed net rent from mobile homes for 1991–97 were allocated to States in proportion to the number of mobile homes from the 1990 Census of Housing.

Imputed net rent from all other nonfarm dwellings. The State estimates for 1991–97 are based on the State estimates for 1990. The 1990 State estimates were derived from the allocation of the national estimates using State estimates of the gross rental value of owner-occupied, single-family nonfarm dwellings, which were derived from data from the 1990 Census of Housing.[62]

The State estimates were prepared in two steps. First, preliminary State estimates were extrapolated from the 1990 State estimates by the relative change in the estimates of nonfarm personal income for 1991–97.[63] Second, the national estimates for 1991–97 were allocated to States in proportion to the preliminary estimates.

Transfer Payments

Transfer payments to persons is income payments to persons for which no current services are performed. They are payments by government and business to individuals and nonprofit institutions serving individuals.[64]

Transfer payments accounted for more than 16 percent of total personal income at the national level in 1997 (table F).

59. The net rental income received by persons who are primarily engaged in the real estate business is included in nonfarm proprietors' income. The imputed rental income received by the owner-occupants of farm dwellings is included in farm proprietors' income.

60. The available estimates from the Internal Revenue service for net rents are unreliable as a basis for the estimation of monetary rent because of large sampling errors in the estimates for the less populous States.

61. For additional information, see "Imputation" in the "Technical Notes."

62. The 1990 State estimates of the gross rental value were calculated in three steps. First, the estimate of the market value of the dwellings in each value-size range for a State was calculated as the product of the number of dwellings and the median value of the dwellings in the State. Second, the State estimate of the market value for each range was multiplied by the national mean contract rent for the rented dwellings in that range to yield the estimate of the gross rental value for the range in the State. Third, the estimates for the ranges for the State were summed to yield the State estimate of the gross rental value.

63. The extrapolation also used data for the four census regions from the Census Bureau's American Housing Survey for 1991 and 1993.

64. Transfer payments from the rest of the world are netted against similar payments to the rest of the world, and the net payments, called personal transfer payments to rest of the world (net), are entered in the national income and products accounts as part of personal outlays.

Estimates are prepared for approximately 50 subcomponents of transfer payments.[65] The subcomponents are classified by source—government or business—and may also be classified by recipient—individuals or nonprofit institutions serving individuals. In this discussion, transfer payments are presented in three major groups—government payments to individuals, government payments to nonprofit institutions serving individuals, and business payments to individuals and to nonprofit organizations serving individuals.

At the State level, approximately 90 percent of the estimates of transfer payments are derived from data for the payments. The remaining 10 percent are allocations of the national estimates in proportion either to data that are related to the components or to the most relevant population series.

Most of the State estimates of transfer payments are based on data for a calendar year, but some of the estimates are based on data for fiscal years. When data for fiscal years are used, the data for the 2 fiscal years that overlap the calendar year are averaged with the appropriate weights to yield the data for the calendar year.

This section is organized according to the order of the presentation of the components and subcomponents in table F. Each estimated item is briefly defined, and the preparation of the State estimates is described.

Government Payments to Individuals

Transfer payments by government to individuals accounted for almost 96 percent of total transfer payments at the national level in 1997.

The national estimates of government payments to individuals are generally based on source data on the actual payments to the individual beneficiaries or to the vendors that provide specified goods or services to the beneficiaries. Expenditures for administrative costs are excluded. For Federal programs, the data are typically drawn from the Treasury Department's *Monthly Treasury Statement* or from administrative reports of the Federal agencies that administer the programs. For programs partially funded by the Federal government but administered by State or local governments, the source data are typically drawn from reports by the responsible Federal agencies, based on data reported by the State or local government agencies. For programs operated and funded exclusively by State and local governments, the source data are typically drawn from Census Bureau publications, including *State Government Finances* and

65. The State estimates of transfer payments in subcomponent detail for 1948–97 are available from the Regional Economic Information System. See the "Introduction" and the sample table SA35 in appendix B.

Table F.—Personal Income and Transfer Payments by Component for the United States, 1997

	Millions of dollars	Percent of personal income
Personal income	**6,770,650**	**100.00**
Transfer payments	**1,110,344**	**16.40**
Government payments to individuals	1,063,311	15.70
Retirement and disability insurance benefit payments	530,791	7.84
Old-age, survivors, and disability insurance payments	356,664	5.27
Railroad retirement and disability payments	8,193	.12
Federal civilian employees retirement payments	42,608	.63
Military retirement payments	30,511	.45
State and local government employee retirement payments	78,306	1.16
Workers' compensation benefits	10,932	.16
Other government disability insurance payments [1]	3,577	.05
Medical payments [2]	380,414	5.62
Income maintenance benefit payments	96,748	1.43
Supplemental security income (SSI) payments	29,237	.43
Family assistance [3]	19,687	.29
Food stamps	18,741	.28
Other income maintenance [4]	29,083	.43
Unemployment insurance benefit payments	20,271	.30
State unemployment compensation	19,502	.29
Unemployment compensation of Federal civilian employees	273	0
Unemployment compensation of railroad employees	72	0
Unemployment compensation of veterans	250	0
Other unemployment compensation [5]	174	0
Veterans benefit payments	22,181	.33
Veterans pension and disability benefit payments	18,787	.28
Educational assistance to veterans, dependents, and survivors [6]	1,428	.02
Veterans life insurance benefit payments	1,919	.03
Other assistance to veterans [7]	47	0
Federal education and training assistance payments (other than for veterans) [8]	10,762	.16
Other government payments to individuals [9]	2,144	.03
Government transfers to nonprofits	19,880	.29
Federal Government payments	6,220	.09
State and local government payments [10]	13,660	.20
Business transfers	27,153	.40
Business transfer payments to individuals [11]	18,351	.28
Business transfer payments to nonprofit institutions	7,654	.12

1. Consists largely of temporary disability payments and black lung payments.
2. Consists of medicaid and other medical vendor payments.
3. Consists of aid to families with dependent children and assistance programs operating under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996.
4. Consists largely of general assistance, emergency assistance, foster home care payments, earned income tax credits, and energy assistance.
5. Includes trade readjustment allowance payments.
6. Consists largely of veterans' readjustment benefit payments and educational assistance to spouses and children of disabled or deceased veterans.
7. Consists largely of payments to paraplegics, payments for autos and other conveyances for disabled veterans, veterans' aid, and veterans' bonuses.
8. Consists largely of Federal fellowship payments (National Science Foundation fellowships and traineeships, subsistence payments to State maritime academy cadets, and other Federal fellowships), interest subsidy on higher education loans, basic educational opportunity grants, and Job Corps payments.
9. Consists largely of Bureau of Indian Affairs payments; education exchange payments; Alaska Permanent Fund dividend payments; compensation of survivors of public safety officers; compensation of victims of crime; compensation for Japanese internment; disaster relief payments; other special payments to individuals.
10. Consists of State and local government payments for foster home care to institutions supervised by private agencies, State and local government educational assistance payments to nonprofit institutions, and other State and local government payments to nonprofit institutions.
11. Consists largely of personal injury payments to individuals other than employees and other business transfer payments.

NOTE.—Detail may not add to totals because of rounding.

Finances of Employee-Retirement Systems of State and Local Governments.[66]

Retirement and disability insurance payments

Government payments of retirement and disability insurance benefits to individuals accounted for almost 48 percent of total transfer payments at the national level in 1997.

Old-age, survivors, and disability insurance (OASDI) payments. These benefits, popularly known as social security, consist mainly of monthly payments received by retired and disabled workers, dependents, and survivors and of lump-sum payments received by survivors.

The State estimates of the OASDI benefits consist of the estimates for four categories of these payments. The estimate for each category is based on calendar year tabulations of the payments from the Social Security Administration (SSA).

Railroad retirement and disability payments. These benefits are received by retired and disabled railroad employees and their survivors under the Federal program of retirement insurance for railroad employees who are not covered by OASDI.

The State estimates are based on fiscal year tabulations of the benefits disbursed by the Railroad Retirement Board.

Federal civilian employee retirement and disability payments. These benefits are received by retired Federal Government employees and their survivors, and they include the lump-sum withdrawals of funds contributed by former employees.

The national estimate of these payments is allocated to States in proportion to data for the payments for September of each year from the Office of Personnel Management.

Military retirement payments. These benefits are received by retired military personnel, including Coast Guard personnel, and their survivors.

The combined national estimate for the services is allocated to States in proportion to the payments data for September that are provided each year by the Department of Defense.

State and local government employee retirement payments. These benefits consist of lump-sum payments, withdrawals, and monthly payments that are received by retired State and local government employees and their survivors.

The State estimates of these payments are based on fiscal year data from *Finances of Employee-Retirement Systems of State and Local Governments*, which is published annually by the Census Bureau.

Workers' compensation. These benefits consist of the payments that are received by individuals with employment-related injuries and illnesses and by the survivors of individuals who died from employment-related causes. The payments are from both Federal and State government funds.

The State estimates of the payments received from the Federal fund, which covers only Federal civilian employees, are based on payments data from the Department of Labor.

Compensation payments to both public and private employees from State-administered workers' compensation funds consist of the payments received under exclusively State-administered workers' compensation insurance programs, the payments received under State-administered insurance programs that compete with private insurance programs, and the payments received under the State-administered programs for second-injury funds.

The State estimates of these benefits are derived from fiscal year data for the payments from State workers' compensation funds by the State of work from the Census Bureau's annual *State Government Finances*. These data are adjusted to a place-of-residence basis by BEA.

Other government retirement and disability insurance payments. These benefits consist of the payments of temporary disability benefits, the payments of black lung benefits, and the payments of benefits by the Pension Benefit Guaranty Corporation.

Temporary disability benefits are the benefits received by workers who are unemployed because of nonoccupational illnesses or injuries. These benefits are from State-administered programs, which exist only in California, New Jersey, and Rhode Island.

The estimate for California is based on calendar year data provided by the California Development Department. The estimates for New Jersey and Rhode Island are based on fiscal year payments data from the Census Bureau's annual *State Government Finances*.

Black lung benefits are the benefits received by the coal miners who are totally disabled by black lung disease (pneumoconiosis) and by the eligible survivors of miners whose deaths were caused by the disease. Individuals whose eligibility was established before July 1973 receive their benefits from SSA; those whose eligibility

66. For detailed information on the methodology used to prepare the national estimates, see U.S. Department of Commerce, Bureau of Economic Analysis, Methodology Paper No. 5, *Government Transactions* (Washington, DC: U.S. Government Printing Office, November 1988). This publication is available on BEA's Web site: Go to <www.bea.doc.gov> and select "Methodologies."

was established since June 1973 receive benefits from the Department of Labor.

The State estimates of the payments from SSA are based on summations of data provided by SSA for 1 month of each quarter of the year. The State estimates of the payments from the Department of Labor are based on fiscal year payments data from the Census Bureau's annual *Federal Expenditures by State*.

Pension Benefit Guaranty benefits are paid by the revolving fund of the Pension Benefit Guaranty Corporation (PBGC) to individuals whose PBGC-insured pensions cannot be paid by the private pension plans that are liable for the benefits.

The national estimate is allocated to States in proportion to OASDI payments, which are assumed to reflect the geographic distribution of the retired population.

Medical payments

Medical payments accounted for more than 34 percent of total transfer payments at the national level in 1997.

Medicare payments. These benefits are Federal Government payments made through intermediaries to beneficiaries for the care provided to individuals under the medicare program.

The State estimates of the payments under the medicare provisions for hospital insurance and supplementary medical insurance are based on adjusted fiscal year data for the amounts that are paid as reimbursement for hospital and medical expenses as reported by the Health Care Financing Administration (HCFA).

Medical vendor payments. These medical benefits are received by low-income individuals; the benefits are called vendor payments because they are measured as the payments to the vendors of the medical services. These payments consist mainly of the payments made through intermediaries to the vendors for care provided to individuals under the federally assisted, State-administered medicaid program, but these payments also include payments made under the general assistance medical programs of State and local governments.

The State estimates of the payments made under the medicaid program are based on payments data from HCFA. The State estimates of payments made under the general assistance medical programs are based on payments data that are obtained from the State departments of social services by HCFA.

Military medical insurance payments. These benefits are vendor payments made under the TriCare Management Program, formerly called the Civilian Health and Medical Plan of the Uniformed Services program, for the medical care of dependents of active duty military personnel and of retired military personnel and their dependents at nonmilitary medical facilities.

The State estimates are based on payments data from the Department of Defense.

Income maintenance payments

Income maintenance payments accounted for almost 9 percent of total transfer payments at the national level in 1997.

Supplemental security income payments. These benefits consist of the payments received by low-income persons who are aged, blind, or disabled from both the Federal Government and State governments.

The State estimates consist of the estimates of the Federal Government payments of basic benefits and the estimates of the State government payments of supplemental benefits. Both of these estimates are based on data that are published in SSA's *Social Security Bulletin*.

Family Assistance. These benefits were payments to low-income families under the State-administered Aid to Families with Dependent Children (AFDC) program that received Federal matching funds. In 1997, this program was superseded by the Temporary Assistance to Needy Families program.

The State estimates were based on unpublished quarterly data for these payments from the Administration for Children and Families (ACF) of the Department of Health and Human Services.

Food stamps. These benefits are measured as the value of the food stamps issued to qualifying low-income households in order to supplement their ability to purchase food. Eligibility is determined by the State authorities' interpretation of Federal regulations; the U.S. Department of Agriculture pays the cost of the stamps.

The State estimates are based on tabulations of the value of the distributed stamps from the Department of Agriculture.

Other income maintenance payments. These benefits consist of general assistance payments, emergency assistance payments, foster care payments, earned income tax credits, and energy assistance payments.

General assistance payments are the benefits received from State and local governments by low-income individuals and families who do not qualify for help under federally supported programs.[67]

The State estimates are based on payments data from the various State departments of social services.

67. The Federal Government neither funds nor regulates these programs.

Emergency assistance payments were the benefits received by families who have at least one child and who were not covered by AFDC; like AFDC, this program was superseded by the Temporary Assistance to Needy Families program in 1997. The participation of the States in the federally assisted emergency assistance program was optional; in recent years, about half of the States participated.

The State estimates were based on unpublished data for the payments from ACF.

Foster care payments are received from State and local governments by families caring for foster children under a federally aided program. These payments consist of the payments made under government supervision.[68]

The national estimate is allocated to States in proportion to the civilian population.

Earned income tax credits are Federal income tax refunds to low-income workers, mainly those who have minor children. Eligibility for the tax credits is determined by the size of the adjusted gross income, or the earned income, and by certain household characteristics. The portion of the credit that is counted as a transfer payment is calculated as the excess of the tax credit over the tax liability.

The State estimates are derived from tabulations of the amount of payments disbursed to the residents of each State from the Internal Revenue Service.

Energy assistance payments consist of the cash benefits received by needy households and the vendor payments to suppliers to help defray the cost of home heating, cooling, and weatherization under the federally funded and State-administered energy assistance programs.

The State estimates are based on payments data published by the Office of Energy Assistance of the Department of Health and Human Services.

Unemployment insurance payments

Unemployment insurance payments accounted for about 1.8 percent of transfer payments at the national level in 1997.

State unemployment compensation. These benefits consist mainly of the payments received by individuals under State-administered unemployment insurance (UI) programs, but they include the special benefits authorized by Federal legislation for periods of high unemployment.[69] The provisions that govern the eligibility, the timing, and the amount of the payments vary among the States, but the provisions that govern the coverage and the financing are uniform nationally.

Under the Federal-State UI system, an unemployed individual who lives in one State may be eligible for UI benefits from another State.[70] Therefore, the estimate for each State is calculated as the total payments by a State minus the payments by that State to the residents of other States plus the payments by other States to the residents of that State. The State estimates are based on the data for the payments from the Labor Department's Employment and Training Administration (ETA).

Unemployment compensation of railroad employees. These benefits are received by workers who are unemployed because of sickness or because work is unavailable in the railroad industry and in related industries, such as carrier affiliates. This UI program is administered by the Railroad Retirement Board under a Federal program that is applicable throughout the Nation.

The State estimates are based on adjusted fiscal year data for these payments from the retirement board.

Unemployment compensation of Federal civilian employees. These benefits are received by former Federal employees under a Federal program administered by the State employment security agencies.

The State estimates are based on data for the payments from ETA.

Unemployment compensation of veterans. These benefits are received by unemployed veterans who have recently separated from military service and who are not eligible for military retirement benefits; the compensation is paid under a Federal program that is administered by the State employment security agencies.

The State estimates are based on payments data from ETA.

Trade adjustment allowances. These benefits are received by workers who are unemployed because of the adverse economic effects of international trade arrangements on employment.

The State estimates are based on adjusted fiscal year data for these payments that are tabulated by "petition" (location of plant) from the Department of Labor, which administers the program.

Payments to veterans

Payments to veterans accounted for about 2 percent of total transfer payments at the national level in 1997.

68. The payments made under the supervision of nonprofit institutions are included in government payments to nonprofit institutions.

69. The program for Federal civilian employees and that for veterans are administered by the States, but the benefits are classified in other subcomponents of unemployment insurance payments.

70. The State of the resident handles the claim and then sends it to the State that is responsible for paying the benefits.

Veterans pension and disability payments. These benefits consist mainly of the payments that are received by veterans with service-connected disabilities and by the survivors of military personnel who died of service-connected causes. In addition, these benefits include the payments that are received by war veterans who are 65 years old or older, who have nonservice-connected disabilities, who are permanently and totally disabled, and who meet specified income requirements.

The State estimates are based on the data for these payments from the Department of Veterans Affairs (DVA).

Educational assistance to veterans, dependents, and survivors. These benefits are the payments of the allowances for tuition and other educational costs that are received by veterans and by the spouses and the children of disabled and deceased veterans.

The State estimates are based on data for these payments from the DVA.

Veterans life insurance payments. These benefits consist of the payments received by the beneficiaries of veterans life insurance policies and the dividends received by the policyholders from the five veterans life insurance programs administered by the DVA.

The State estimates are based on data for these benefits from the DVA.

Other payments to veterans. These benefits consist of the Federal Government payments received by paraplegics and by certain other disabled veterans to purchase automobiles and other conveyances, the State and local government payments of assistance to indigent veterans, and the State and local government payments of bonuses to veterans.

The State estimates of the Federal Government payments are based on data for these payments from the DVA. The State estimates of the State and local government payments of assistance and of bonuses are based on adjusted fiscal year data from the Census Bureau's annual *State Government Finances*.

Federal Government education and training payments

Federal Government payments for education and training accounted for about 1.0 percent of total transfer payments at the national level in 1997.[71]

71. The large portion of the payments under most of these programs are made to the school that the recipient attends. The payment is classified as a transfer payment to a nonprofit institution if the school is privately administered and as a government grant-in-aid or as a government purchase of services if the school is publicly administered.

Federal fellowships. These benefits consist of the payments to outstanding science students who receive National Science Foundation (NSF) grants, the subsistence payments to the cadets at the six State maritime academies, and the payments for all other Federal fellowships.

The State estimates of the payments to the recipients of NSF grants are based on annual NSF tabulations of the number of students receiving fellowships at each institution.

The State estimates of the subsistence payments to the cadets are based on payments data from the Maritime Administration of the Department of Transportation. The amount of the payment is assigned to the State in which each academy is located.

The national estimates of the payments to the recipients of all other Federal fellowships are allocated to States in proportion to the civilian population, because of the lack of pertinent data.

Higher education student assistance. These benefits consist of the Federal payments, called Pell Grants, for an undergraduate education for students with low incomes.

The State estimates are based on tabulations of annual data for these payments by the location of the educational institution from the Department of Education.

Job Corps payments. These benefits are primarily the allowances for living expenses received by economically disadvantaged individuals who are between the ages of 16 and 21 and who are enrolled in the designated vocational and educational training programs. These benefits also include the adjustment allowances received by trainees upon the successful completion of their training.

The State estimates for 1991–97 are based on tabulations from ETA of the amount of allowances and allotments disbursed to the enrollees in 1984, the last year for which data are available.

Interest payments on guaranteed student loans. These payments are made by the Department of Education to commercial lending institutions on behalf of the individuals who receive low-interest, deferred-payment loans from these institutions in order to pay the expenses of higher education.

The national estimate is allocated to States in proportion to the number of individuals enrolled in institutions of higher education from the Department of Education.

Other government payments to individuals

Other government transfer payments to individuals accounted for about 0.2 percent of total personal income at the national level in 1997.

Compensation of survivors of public safety officers. These benefits are payments to the survivors of State and local government employees, such as police officers and fire fighters, who were killed in the line of duty; the payments are made under a Federal program. The amount of the payment is $100,000 plus an allowance for the increase in consumer prices since 1988.

The national estimate is allocated to States by the tabulations of the number of claims by State from the Department of Justice.

Compensation of victims of crime. These benefits consist of State and local government payments to crime victims and to vendors on behalf of crime victims. Currently, about three-fourths of the States have the programs for these payments.

The national estimate of total payments is allocated to States in proportion to payments data provided by the Office of Victims of Crime of the Department of Justice.

Alaska Permanent Fund dividend payments. These benefits are the disbursements of investment income to the residents of Alaska from the Alaska Permanent Fund. The fund, which is derived from oil revenues, pays a portion of its net investment income to every resident.

The State estimate is the amount that is paid and that is reported by the Alaska Department of Revenue.

Disaster relief payments. These benefits are the Federal payments to the victims of disasters, such as hurricanes and earthquakes.

The State estimates are based on information from the Federal Emergency Management Agency. The estimates include the payments to the victims of the Hurricanes Andrew and Iniki, for 1992; the floods in the Midwest, for 1993; and the Northridge earthquake and the floods in the South, for 1994.

Japanese interns redress payments. These benefits are the Federal payments to the American citizens of Japanese descent who were interned during World War II. The payments began in 1990.

The State estimates are based on the tabulations of the these payments by ZIP Code area from the Department of Justice. These tabulations are summed to States by BEA.

Federal educational exchange payments. These benefits are payments to students who participate in the Fulbright scholarship program and in other international educational exchange programs.

In the absence of any pertinent data, the national estimates are allocated to States in proportion to the civilian population.

Bureau of Indian Affairs payments. These benefits are the payments to American Indians for educational and social services that are not available to them from State or local agencies.

The State estimates are based on data for these payments from the Bureau of Indian Affairs.

Government Payments to Nonprofit Institutions Serving Individuals

Transfer payments to nonprofit institutions serving individuals by Federal, State, and local governments and by business accounted for about 1.8 percent of total transfer payments income at the national level in 1997.

Federal Government payments

These payments consist mainly of the payments to private nonprofit hospitals for hospital construction and the payments to private educational institutions on behalf of the recipients of Federal fellowships, Pell grants, and other education and training programs.[72]

The national estimate is based on data from the *Monthly Treasury Statement*. Because State-level data are unavailable, the national estimate is allocated to the States in proportion to the civilian population.

State and local government payments

These payments consist of the payments for foster care and for job training by State and local governments and the payments for educational assistance by State governments.

Payments for foster care. These payments are made to the private nonprofit agencies that supervise foster care.

The national estimates are based mainly on unpublished data from the Social Security Administration. The State estimates for 1991–97 were extrapolated from 1969 data for these payments by the annual estimates of AFDC payments. The 1969 data are from the National Center for Social Statistics of the Department of Health and Human Services.

Job Training Partnership Act payments. These payments are made to the private nonprofit institutions that provide job training under a work-study program funded by the Federal Government. The national estimate is based on data from the *Monthly Treasury Statement*. Because State-level data are unavailable, the national esti-

72. These payments exclude the payments to private educational institutions for research and development under Federal contracts, which are treated as government purchases.

mate is allocated to the States in proportion to the civilian population.

Educational assistance. This assistance consists of payments to private nonprofit educational institutions for educational assistance other than under the Job Training Partnership Act. The national and State estimates are based on data for State government expenditures for "other education assistance and subsidies" from the Census Bureau's annual *State Government Finances*.

Business Transfer Payments

Business transfer payments to individuals

Business transfer payments to individuals accounted for about 1.7 percent of total transfer payments at the national level in 1997.

These payments consist primarily of personal-injury liability payments to individuals other than employees.

Because pertinent data are unavailable, the national estimates are allocated to States in proportion to the civilian population.

Business transfer payments to nonprofit organizations serving individuals

Business transfer payments to nonprofit organizations serving individuals accounted for about 0.8 percent of total transfer payments in 1997.

These transfer payments consist mainly of corporate gifts of money, securities, and real property to nonprofit institutions serving individuals.

The national estimate is based on data tabulated from Federal corporate income tax returns by the Internal Revenue Service. Because State-level data are unavailable, the national estimate is allocated to the States in proportion to the estimates of the wage and salary disbursements of membership organizations, many of which are nonprofit institutions that receive transfer payments from businesses.

Personal Contributions for Social Insurance

Personal contributions for social insurance consists of the payments by employees, by the self-employed, and by other individuals who participate in the following programs: Old-age, survivors, and disability insurance (OASDI) (social security); hospital insurance (HI) and supplementary medical insurance (medicare); railroad retirement; government employee retirement; State unemployment insurance; temporary disability insurance; and veterans life insurance.

These contributions accounted for about 4.8 percent of personal income at the national level in 1997 (table G).

Payments of contributions by employees—like their payments of income taxes on wages and salaries—are "withheld" at the source of the disbursement of the wages and salaries. The self-employed, on the other hand, pay their contributions with their quarterly payments of estimated Federal individual income taxes or annually with their Federal income tax returns.

Contributions for OASDI and HI

Contributions for OASDI and HI consist of payments by the employees and of payments by the self-employed.

Contributions by employees. These contributions are made by the employees of private sector employers and by the employees of Federal, State, and local governments who are covered by, and who therefore contribute to, the OASDI and HI programs.

Most of the employees are covered by, and contribute to, both the OASDI and HI programs. Employees of the railroad industry are covered by the HI program but not by the OASDI program, as are the Federal employees who are covered by the Civil Service Retirement System.

The national estimates of the contributions are based on data from the Social Security Administration.

Table G.—Personal Income and Personal Contributions for Social Insurance by Component for the United States, 1997

	Millions of dollars	Percent of personal income
Personal income [1]	**6,770,650**	**100.00**
***Less*: Personal contributions for social insurance**	**325,765**	**4.81**
Contributions to old-age, survivors, disability, and hospital insurance	258,265	3.99
Civilian employee contributions	276,864	4.09
Military personnel contributions	2,470	.04
Self-employed contributions	29,554	.44
Railroad employee retirement contributions	1,289	.02
Federal civilian employee retirement contributions	4,412	.07
State and local government employee retirement contributions	21,618	.32
State unemployment insurance and temporary disability contributions	1,670	.02
Supplementary medical insurance contributions	19,153	.28
Veterans life insurance contributions	759	.01

1. This total is as shown in Tables A and C-F, that is, personal income is shown as the sum of the personal income components in those tables less personal contributions for social insurance.

NOTES.—Personal contributions for social insurance are a deduction to arrive at personal income, and the dollar amount and the percentages in this table are shown as absolute values to give an indication of the size of the personal contributions components being estimated.

Detail may not add to totals because of rounding.

The State estimates are prepared for private sector employees, for Federal civilian employees, for State and local government employees, and for military personnel.

The State estimates of the contributions by private sector employees and by Federal civilian employees are each prepared in proportion to the State estimates of wage and salary disbursements for these employees.[73] The State estimates of the contributions by military personnel are prepared in proportion to the State estimates of military wage and salary disbursements excluding pay-in-kind.

The State estimates of the contributions by State and local government employees for 1991–97 are based on the State estimates for 1987, as reported in the 1987 Census of Government.[74] The 1987 State estimates were extrapolated to 1991–97 by the relative change in the estimates of State and local government wage and salary disbursements.

Contributions by the self-employed. All of the self-employed whose annual self-employment income exceeds $400 are covered by, and contribute to, the OASDI program and the HI program.

The State estimates of these contributions are based on results from a 1-percent sample of these contributions by the self-employed published in the Social Security Administration's *Social Security Bulletin*. Because the State data for a year are not available until 2 years after the end of the year, the estimates for 1995 were extrapolated to 1996–97 by the change in the State estimates of nonfarm proprietors' income.

Contributions by employees for the other programs

Contributions for railroad employee retirement insurance. The national and State estimates of the employee contributions for this federally administered program are based on data from the Railroad Retirement Board (RRB) on the wages and salaries that are subject to the contributions. The data used for the State estimates, which are reported by RRB on a place-of-residence basis, are converted by BEA to a place-of-work basis using journey-to-work data from the 1990 Census of Population.

Contributions for Federal civilian employee retirement. These contributions are the payments that are made by employees who are covered by, and who contribute to, the following retirement plans: The Civil Service Retirement System (which covers most employees hired before 1984); the Basic Benefit Plan of the Federal Employees Retirement System (which covers most employees hired after 1983); and special contributory retirement plans, such as that of the Foreign Service.

The national estimate of these contributions is based mainly on data from the Treasury Department's *Monthly Treasury Statement*. Because State data are unavailable, the national estimate is allocated to States in proportion to the estimates of wages and salaries for Federal civilian employees.

Contributions for State and local government employee retirement. These contributions are the payments that are made by the State and local government employees who are covered by, and who contribute to, the State and local government employee retirement programs that are administered by government agencies.

The national and State estimates of these contributions are based on fiscal year data from the Census Bureau's annual *Finances of Employee-Retirement Systems of State and Local Governments*.

Contributions for State unemployment insurance and for temporary disability insurance. The contributions for State unemployment insurance consist of the payments by employees in Alaska, New Jersey, and Pennsylvania. The national and State estimates of these contributions are based on unpublished data from the States.

The contributions for temporary disability insurance are the payments by the employees who are covered by, and contribute to, the insurance programs in California, New Jersey, New York, and Rhode Island. The national and State estimates of these contributions are based on data from the Census Bureau's annual *State Government Finances* and from the "California Disability Insurance Fund Report."

Contributions for supplementary medical insurance and for veterans life insurance

Contributions for supplementary medical insurance. These contributions are the premiums that are paid by the individuals who are enrolled in the voluntary supplementary medical insurance part of medicare.

The national estimate of these contributions is based on data from the *Monthly Treasury Statement*. The national estimate is allocated to States in proportion to the number of individuals who are enrolled in the program and whose premiums are not paid by State governments. The enrollment data are provided by the Health Care Financing Administration.

73. Before the comprehensive revision of State personal income that was released in 1996, these estimates were based on direct sample data provided by the Social Security Administration (SSA). However, the SSA recently discontinued this series because it had become unreliable.

74. The data reported in the census are employer contributions, which are assumed to be identical to the employee contributions because the contribution rates for these programs are identical for employers and employees.

These data were not collected in the 1992 Census of Governments.

Contributions for veterans life insurance. These contributions are the premiums that are paid by veterans for life insurance under the five life insurance programs administered by the Department of Veterans Affairs (DVA).

The national estimate of these contributions is based on unpublished data provided by DVA. The State estimates are based on summations of the data for the premiums from DVA'S *Government Life Insurance Programs for Veterans and Members of the Services, Annual Report*.

Residence Adjustments

Personal income is a measure of income by place of residence. The place of residence of individuals is the State in which they live. The place of residence of quasi-individuals is defined for the measurement of personal income as the State and county of the residence of the individuals who benefit from the activities of the quasi-individuals or on whose behalf the income is received.

Consequently, the residence of military personnel is the State in which they live while they are on military assignment, not their permanent or legal State of residence. Thus, the income of military personnel on foreign assignment is excluded from the State and local area personal income series, because their residence is outside of the territorial limits of the United States.

The residence of seasonal migrant workers except those working in Alaska and those who are foreign-resident border workers is the State in which they live while they are working, not their usual State of residence. However, the residence of foreign citizens who live in the United States is the country of which they are citizens if they are professional employees with temporary visas or if they work for international organizations, foreign embassies, or consulates in the United States.

These definitions of residence differ from some of those used by the Census Bureau, which provides source data that are used in the preparation of the estimates of the residence adjustment and the estimates of population that are used to calculate per capita personal income; for example, the residence of seasonal migrant workers is frequently reported to the Census Bureau as their usual State of residence rather than the State in which they are living and working on April 1 when the decennial census of population is taken.

The source data for most of the components of personal income are recorded, or treated as if they were recorded, on a place-of-residence basis. These components are transfer payments, personal dividend income, personal interest income, rental income of persons, and proprietors' income.[75]

However, most of the source data for the remaining three components, which compose more than 60 percent of personal income, are recorded by place of work. These components are wage and salary disbursements, other labor income, and personal contributions for social insurance. Therefore, the initial estimates of most of the subcomponents of these three components are on a place-of-work basis. Consequently, these initial place-of-work estimates are adjusted so that they will be on a place-of-residence basis and so that the income of the recipients whose place of residence differs from their place of work will be correctly assigned to their State of residence.

Correctly assigning the place of residence of the recipient of the income is more statistically significant for the State estimates than for the national estimates. For the State estimates, the income of individuals who commute to work between States is especially important for those States with substantial portions of their economies in metropolitan areas that extend across State boundaries—for example, the Washington, DC-MD-VA-WV metropolitan area.

The State estimates of the residence adjustment are prepared for the net labor earnings—or "income subject to adjustment"—of interstate commuters and for the wages and salaries of border workers. Income subject to adjustment is defined as wages and salaries plus other labor income minus the personal contributions for social insurance by employees. Because a single residence adjustment is prepared for each State, estimates of these components by industry by place of residence are not available.[76]

Procedure for the Income of Interstate Commuters

The State estimates of the residence adjustment are based on the county estimates in order to incorporate data for the particular local areas where most of the interstate commuting occurs.

The State estimates of the residence adjustment for the income of interstate commuters for 1991–97 were calculated with interstate adjustment factors that were derived from the county estimates for 1991–96 and from

75. For specific information about the source data for the estimates of the major components, see the section "Geographic characteristics of the source data" in the introduction to "The Sources and Methods for the Annual Estimates."

76. Reliable estimates of the residence adjustment by industry cannot be prepared because some of the source data that are used to infer changes in interarea commuting since the last census of population are not available by industry.

the results of some of the intermediate calculations in the preparation of the county estimates. Each factor gives the proportion of the income subject to adjustment (ISA) that was disbursed in one State and received by the residents of another State.[77]

The State estimates for 1991–97 were calculated in three steps. First, ISA by industry and total ISA were computed for each State from the estimates of the components of labor earnings for the State. Second, the ISA for each State was multiplied by the adjustment factors for the State of work to yield interstate flows that were both the outflows from the State of work and the inflows to each State of residence. Third, the outflows from each State were subtracted from the inflows to the State to yield the residence adjustment estimate for the income of interstate commuters.

Procedure for the income of intercounty commuters, 1990–96

The county estimates for 1990, which are used in the preparation of the estimates for 1991–96, were derived in two steps. First, the provisional estimate for each county was prepared. Second, the provisional estimates for some counties were modified.

The 1990 estimates were then extrapolated to obtain the county estimates for 1991–96. The county estimates for 1991–96 were derived by extrapolation because intercounty commuting data are available only from the decennial censuses of population.

Provisional estimates for 1990. The procedure that is used to prepare the estimates of the county residence adjustment for 1990 is illustrated by the following example of the calculation of the provisional estimates for a two-county area that comprises counties f and g. The example is easily generalized to the calculation of the estimates for more complex areas.

The provisional 1990 estimate of the residence adjustment estimate for county f (RA_f) was calculated as the total 1990 inflows of the income subject to adjustment to county f from county g (IN_f) minus the total 1990 outflows of the income subject to adjustment from county f to county g (OUT_f).

$$RA_f = IN_f - OUT_f.$$

The estimates of IN_f and OUT_f were prepared in industrial detail.[78] The share ($I_{f,k}$) of total wages or of other labor income (OLI) in a particular industry k in county g that were earned by residents of county f was used in the estimation of industry-level inflows to county f. Analogously, the share ($O_{f,k}$) of wages or of OLI in a particular industry k in county f that were earned by residents of county g was used in the estimation of industry-level outflows from county f. Both $I_{f,k}$ and $O_{f,k}$ were calculated from journey-to-work (JTW) data on the number of wage and salary workers (W) and on their average wages (A) by county of work for each county of residence from the 1990 Census of Population.

$$\begin{aligned} I_{f,k} &= \frac{\text{wages earned in } g \text{ by residents of } f}{\text{total wages earned in } g} \\ &= \frac{(W_{(f\to g),k})(A_{(f\to g),k})}{(W_{(f\to g),k})(A_{(f\to g),k})+(W_{(g\to g),k})(A_{(g\to g),k})} \\ O_{f,k} &= \frac{\text{wages earned in } f \text{ by residents of } g}{\text{total wages earned in } f} \\ &= \frac{(W_{(g\to f),k})(A_{(g\to f),k})}{(W_{(g\to f),k})(A_{(g\to f),k})+(W_{(f\to f),k})(A_{(f\to f),k})}. \end{aligned}$$

Where two subscripts are used with an arrow, the first subscript identifies the place of residence, and the second identifies the place of work. For example, $W_{(f\to g),k}$ is the number of workers in industry k who lived in county f but who worked in county g.

The industry-level inflows to county f from county g ($IN_{f,k}$) were calculated as the inflow ratio multiplied by the corresponding component of the income subject to adjustment (ISA) in industry k in county g ($ISA_{g,k}$). The industry-level outflows from county f to county g ($OUT_{f,k}$) were calculated as the outflow ratio multiplied by the ISA in industry k in county f ($ISA_{f,k}$).

$$\begin{aligned} IN_{f,k} &= (I_{f,k})(ISA_{g,k}) \\ OUT_{f,k} &= (O_{f,k})(ISA_{f,k}). \end{aligned}$$

Summing the inflows for all industries yields the total inflows to county f (IN_f), and summing the outflows for all industries yields total outflows from county f (OUT_f).

$$IN_f = \sum_{k=1}^{N} IN_{f,k}$$

77. The proportions for each component of ISA and for total ISA were calculated by summing the county-to-county interstate flows to yield State-to-State flows. Each State-level flow was then each divided by the corresponding ISA (the sum of the county ISA's) for the State of work.

78. The inflows and the outflows of wages and salaries and of other labor income were prepared for the private sector by Standard Industrial Classification divisions and for the public sector by Federal civilian, military, and State and local governments.

The inflows and the outflows of personal contributions were also calculated, but the calculations are at a more aggregated level because the estimates of the contributions by private-sector employees are not made by industry.

$$OUT_f = \sum_{k=1}^{N} OUT_{f,k}.$$

Modifying the provisional 1990 estimates. The provisional 1990 estimates of the residence adjustment for some counties were modified in three cases. In the first case, the estimates for each of the 1,100 counties that are in clusters that have high rates of commuting among their constituent counties (mostly multicounty metropolitan areas) were modified to incorporate the 1989 distribution of wages and salaries from the 1990 census.[79] The estimates for these counties were modified because in numerous cases, the geographic coding by place of work of the JTW data and that of the source data for wages and salaries are inconsistent.[80]

First, the provisional estimate of wages and salaries by place of residence for each county in each cluster was calculated as the estimate of wages and salaries by place of work plus the net residence adjustment for wages and salaries.[81] Second, the provisional place-of-residence estimates of wages for the counties in each cluster were summed to a total estimate for the cluster. Third, the total estimate for each cluster was allocated to the counties of the cluster in proportion to the 1989 wage-and-salary distribution from the 1990 census in order to produce the modified provisional estimates of wages and salaries by county of residence. Fourth, the estimate of the residence adjustment for each county in the cluster was calculated as the modified provisional estimate of place-of-residence wages minus the provisional estimate of place-of-residence wages plus the provisional estimate of the residence adjustment.

The difference between the estimate of the residence adjustment and the provisional estimate of the residence adjustment was expressed as a flow between pairs of counties in the same cluster in order to facilitate the extrapolation of the 1990 residence-adjustment estimates to 1991–96. In the simplest situation—a two-county cluster—the additional flow was assumed to be from the county with the negative difference to the county with the (exactly offsetting) positive difference.

In the second case, the provisional estimate of the residence adjustment for each county in 136 pairs of adjacent counties that are not in a cluster was modified because the 1990 provisional place-of-residence estimate of wages for one of the counties exceeded the place-of-residence measure of wages from the 1990 census by a substantial amount and because the census measure for the other county exceeded the provisional estimate by a similar substantial amount. In order to facilitate the extrapolation of the 1990 residence-adjustment estimates to 1991–96, these adjacent-county modifications were also expressed as intercounty flows.

In the third case, the provisional 1990 estimates of the residence adjustment for eight county equivalents (boroughs and census areas) in Alaska were modified to account for the large amounts of the ISA received by seasonal workers from out of State. The provisional estimates yielded place-of-residence estimates of wages and salaries that were so much higher than the comparable census data that they could not be an accurate reflection of only the wages of the permanent residents. In order to remove the excess amounts, the JTW-data-based outflows from these county equivalents to selected large counties in Washington, Oregon, and California were judgmentally increased.

Extrapolating the 1990 estimates to 1991–96. The 1990 estimates of inflows by industry ($IN_{f,k}^{1990}$) and the 1990 estimates of outflows by industry ($OUT_{f,k}^{1990}$) were extrapolated to 1991–96.

For each industry, the 1990 inflows to county f from county g were extrapolated to the year t on the basis of the change in $ISA_{g,k}$ for the industry since 1990, and the 1990 outflows from county f to county g were extrapolated to the year t on the basis of the change in $ISA_{f,k}$ for the industry since 1990.[82]

$$\begin{aligned} IN_{f,k}^{t} &= (IN_{f,k}^{1990})\left(\frac{ISA_{g,k}^{t}}{ISA_{g,k}^{1990}}\right) \\ OUT_{f,k}^{t} &= (OUT_{f,k}^{1990})\left(\frac{ISA_{f,k}^{t}}{ISA_{f,k}^{1990}}\right). \end{aligned}$$

The final estimate of the net residence adjustment for the year t for each noncluster county and the provisional estimate of the net residence adjustment for the year t for each cluster county were then calculated. The estimate of the net residence adjustment equals total inflows, summed

79. The 1989 distribution reflects the place of residence of the income recipients on April 1, 1990, not their place of residence when they received the wages and salaries.

80. For example, the source data may attribute too much of the wages of a multiestablishment firm to the county in which a firm's main office is located; the source data for the wages of the personnel on a military base that extends across county boundaries may attribute the wages to one county, but the JTW data may attribute these wages to the other county.

81. The net residence adjustment that is used for this calculation includes only the intercounty flows for wages and salaries.

82. The superscript 1990 is used in the equation in order to distinguish the variables for 1990 from those for 1991–96; the variables for 1991–96 are denoted in the text and in the equation with the superscript t.

The 1990 inflows and outflows that were devised to express the modifications to the 1990 provisional estimates are extrapolated with the ISA for the sum of all the industries.

over all industries, minus total outflows, summed over all industries.

$$RA_f^t = \sum_{k=1}^{N} IN_f^t - \sum_{k=1}^{N} OUT_{f,k}^t.$$

The provisional estimates of the net residence adjustment for the cluster counties for year t are modified in a four-step procedure that is similar to the modification of the 1990 preliminary estimates for the cluster counties. First, the place-of-residence estimate of ISA for each cluster is calculated as the sum of the place-of-work estimates of ISA for all of the counties in the cluster plus the sum of the estimates of the residence adjustment for all of the counties in the cluster. Second, an allocating series for the counties in each cluster is prepared: The 1990 estimate of the place-of-residence ISA for each county is extrapolated to the year t by a wage series that is derived from tabulations of wages and salaries by place of residence from the Internal Revenue Service.[83] Third, the place-of-residence estimate of ISA for a cluster is allocated to the counties of the cluster in proportion to the allocating series to yield the final estimate of the place-of-residence ISA. Fourth, the final estimate of the net residence adjustment for each cluster county for the year t is calculated as the final estimate of the place-of-residence ISA minus the estimate of the place-of-work ISA.

Procedure for the Income of Border Workers

The residence adjustment for the income earned by border workers accounts for the inflows of the wages and salaries earned by U.S. residents who commute to work in Canada or who work in the United Kingdom, the outflows of the wages and salaries earned by Canadian and Mexican residents who commute to work in the United States, and the outflows of the wages and salaries earned by (1) seasonal farm workers from the Caribbean area, (2) farm workers from Mexico who do not have valid immigration documentation, and (3) foreign citizens in professional occupations with temporary visas. The adjustment does not account for the inflows of the wages of U.S. residents who work in countries other than Canada and the United Kingdom because these workers are not numerous enough for their income to be included in the national “rest-of-the-world” account.

The national estimates of inflows and outflows of the wages and salaries of the border workers are prepared in the context of the balance of payments accounts. The portion of the wages received by the U.S. resident border workers that is estimated to be spent in the nations where they work is classified as part of imports. The portion of the wages received by the foreign-resident border workers that is estimated to be spent in the United States is classified as part of exports.

The State estimates of the inflows and the outflows of the wages and salaries of border workers are allocations of the national control totals that are drawn from the rest-of-the-world account. The allocated inflows are added to, and the allocated outflows are subtracted from, the estimates of the net residence adjustment for the income of interstate commuters to obtain the final residence-adjustment estimates.

The national estimate of the inflows of the wages and salaries earned by U.S. residents who commute to work in Canada are assigned to Michigan, New York and the New England region on the basis of fragmentary information from the Immigration and Naturalization Service of the Department of Justice. The New England portion is allocated to Maine, New Hampshire, and Vermont in proportion to data for employment in the forest product industries in those States’ border counties.

The small national estimate of the inflows of the wages and salaries earned by U.S. residents who work in the United Kingdom is evenly divided between New York and California.

The national estimates of the outflows of the wages and salaries earned by Mexican residents and by Canadian residents who commute to work in the United States are allocated to States in proportion to the data from the Immigration and Naturalization Service.

The national estimate of the outflows of the wages earned by Caribbean farm workers in the United States is allocated to States in proportion to data on the number of authorized seasonal workers by State from the Department of Labor.

The national estimate of the outflows of the wages of the undocumented farm workers is allocated to States in proportion to a weighted sum of the wages of farm workers; extra weight is given to the wages of the employees of farm labor contractors and to the wages of the employees of farms in States with farm economies that specialize in the production of the crops—such as fruits, vegetables, and tobacco—that require large inputs of labor.

83. The county tabulations of the wages that are reported by individuals to the IRS and that are recorded by tax-filing address are available to BEA with a 1- or 2-year lag. These tabulations are used to prepare a series of wages and salaries that is used in the extrapolation of the 1990 estimates of inflows and of outflows.

The tabulations through 1995 were available for the preparation of the 1996 estimates.

This series was extrapolated to 1996 by a set of equations that relates the change in the IRS county tabulations to the change in the county civilian population.

The national estimates of the outflows of the wages and salaries of the foreign professionals is allocated to States in proportion to the sum of the wage and salary disbursements of the industries—such as the motion picture, educational services, and high-tech manufacturing industries—that are most likely to employ foreign professionals.

Personal Tax and Nontax Payments

Personal tax and nontax payments is tax payments (net of refunds) that are made by persons and that are not chargeable to business expense and certain other payments by persons to government agencies (except government enterprises) that are treated like taxes.

Personal taxes includes taxes on income, including realized net capital gains; on transfers of gifts and estates; and on personal property.[84] Nontaxes includes donations and fees, fines, and forfeitures. Personal contributions for social insurance are not included.

In this chapter, the State estimates of personal tax and nontax payments are described in four sections: (1) personal tax and nontax payments to the Federal Government, (2) personal tax payments except personal property taxes and nontax payments to State governments, (3) personal tax payments except personal property taxes and nontax payments to local governments, and (4) personal property tax payments to State and local governments.

Payments to the Federal Government

The payments by individuals to the Federal Government consist of individual income tax payments, of tax payments on income retained by fiduciaries on behalf of individuals, of estate and gift tax payments, and of nontax payments.

These payments accounted for about 78 percent of total personal tax and nontax payments at the national level in 1997 (table H).

The national estimates of the personal tax payments and refunds are based mainly on data from the Treasury Department's *Monthly Treasury Statement*, supplemented by data on withheld social security taxes from the Social Security Administration. The national estimates of the nontax payments are based mainly on data from the *Budget of the United States*.[85]

Individual income tax payments. These payments are income tax payments, net of refunds, made by individuals. The gross payments measure represents the sum of the income taxes that are withheld, usually by employers, from wages and salaries, the quarterly payments of estimated taxes on income that is usually not subject to withholding, and final settlements, which is additional tax payments that are made when the tax returns for a year are filed or as a result of audits.

The 1991–96 State estimates of the tax payments and refunds were prepared in three steps. First, estimates of the net income tax payments were prepared using tabulations of data reported on individual income tax returns and published in the Spring editions of IRS's quarterly *Statistics of Income Bulletin.*

84. Personal tax payments excludes payments of taxes on real property and payments of sales taxes. Taxes on real property paid by persons except those in the real estate business are excluded because they are considered business expenses that are deducted from both gross monetary rental income and gross imputed rental income in the derivation of net rental income. Sales taxes are excluded because they are included in personal consumption expenditures.

85. For detailed information on the methodology used to prepare the national estimates, see U.S. Department of Commerce, Bureau of Economic Analysis, Methodology Paper No. 5, *Government Transactions* (Washington, DC: U.S. Government Printing Office, November 1988). This publication is available on BEA's Web site: Go to <www.bea.doc.gov> and select "Methodologies."

Table H.—Personal Income, Disposable Personal Income, and Personal Tax and Nontax Payments by Component for the United States, 1997

	Millions of dollars	Percent of personal tax and nontax payments
Personal income	**6,770,650**	
Less: Personal tax and nontax payments	987,938	
***Equals*: Disposable personal income**	**5,782,712**	
Personal tax and nontax payments	**987,938**	**100.00**
Personal tax and nontax payments to the Federal Government	768,048	77.74
Individual income taxes (net of refunds)	733,481	74.24
Individual income taxes (gross)	829,087	83.92
Less: Refunds	95,606	9.68
Fiduciary income tax	11,312	1.15
Estate and gift taxes	20,564	2.08
Nontaxes	2,691	.27
Personal tax and nontax payments to State governments	185,309	18.76
Individual income taxes	151,881	15.37
Estate and gift taxes	6,035	.61
Motor vehicle taxes	10,176	1.03
Other taxes [1]	1,546	.16
Nontaxes	15,671	1.59
Personal tax and nontax payments to local governments	30,437	3.08
Individual income taxes	12,467	1.26
Motor vehicle licenses	428	.04
Other taxes [2]	1,244	.13
Nontaxes	16,298	1.65
State and local personal property taxes	4,144	.42

1. Consists largely of hunting and fishing taxes and other license taxes.
2. Consists largely of local death and gift taxes and other local taxes.

NOTE.—Detail may not add to totals because of rounding.

For each State, the first approximation of net tax payments, NTP^n, for year n was calculated as

$$NTP^n = TTL^n - EITC^n - SSSE^n - (OPT^{n-1} - XEITC^{n-1}),$$

where n = Year
TTL = Total tax liability
EITC = Earned income tax credits
SSSE = Social Security and medicare tax payments by the self-employed
OPT = Overpayments of taxes
XEITC = Excess, or refundable, portion of EITC[86]

The national control total for net tax payments was then allocated to States in proportion to the first approximations.

Second, the estimates of the refunds of income tax payments were prepared. These estimates represent the sum of the refunds of excess taxes that are paid by individuals and the refunds of excess social security and medicare contributions that were withheld from the wages and salaries of individuals who had more than one job. For each State, the first approximation of tax refunds, REF^n, for year n was calculated as

$$REF^n = OPT^{n-1} - XEITC^{n-1}.$$

The national estimate was then allocated to States in proportion to the first approximations.

Third, the estimates of the gross income tax payments were calculated as the sums of the estimates of net income tax payments and the estimates of the refunds.

The 1997 State estimates of all three measures are based on extrapolations of the 1996 estimates by the relative changes in the estimates of wage and salary disbursements.

Tax payments on income retained by fiduciaries. These payments consist of the taxes that are paid on the income that is received by a fiduciary on behalf of an individual and that is retained by the fiduciary rather than distributed to the individual.

Because State-level data for these payments are unavailable, the national estimates are allocated to States in proportion to the IRS data on the income that was distributed to individuals by the fiduciaries of estates and trusts. These data, which are reported on Schedule E of form 1040, are published annually by the IRS in *Statistics of Income*.

86. XEITC is the total of the amounts by which the EITC exceeds the tax liability on the returns claiming EITC.

Estate and gift tax payments. The national estimate of these payments is allocated to States in proportion to IRS State data for these payments, which are published in the annual *Internal Revenue Service Data Book* through 1994 and on the IRS Web site for later years.[87]

Nontax payments. These payments consist of the estimates of a variety of payments—such as passport and immigration fees, civil and criminal fines, and migratory-bird-hunting stamps—by individuals to the Federal Government. Because State-level data are unavailable, the national estimate is allocated to States in proportion to the civilian population.

Payments to State Governments

Payments—other than personal property taxes—by individuals to State governments consist of individual income tax payments, of estate and gift tax payments, of payments for motor vehicle and operator's licenses and for other licenses, and of nontax payments.

These payments accounted for about 19 percent of total personal tax and nontax payments at the national level in 1997 (table H).

The national estimates are based mainly on data from the Census Bureau's annual publication *Government Finances* for income taxes and from its *Quarterly Summary* of State and local government finance data for other taxes and for nontax payments.

Individual income tax payments. These payments are income tax payments by individuals that exclude refunds. The State estimates are based mainly on quarterly data for the net individual income tax collections of each State government. These data are published on the Census Bureau's Web site.[88] They are supplemented by fiscal year data from the Census Bureau's *State Government Tax Collections* (*SGTC*). Data received directly from the finance agencies of the Maryland and Wisconsin State governments were used instead of the Census Bureau data for those States.

Estate and gift tax payments. The State estimates of these payments are based on quarterly State data from the Census Bureau's Web site.

Payments for motor vehicle and operator's licenses and for other licenses. Payments for motor vehicle and operators' licenses are distributed by State based mainly on pertinent annual State data from *SGTC*. (Data from the Federal Highway Administration for special business

87. The IRS's Web site is at <www.irs.treas.gov>.
88. The Census Bureau's Web site is at <www.census.gov>.

taxes are subtracted from the Census Bureau data in the preparation of the estimates of the vehicle registration fees.)

Payments for other licenses consist of the estimates of the fees that are paid to State government agencies for hunting and fishing licenses for personal, rather than commercial, use and the estimates of the fees for other noncommercial licenses, such as those for the registration of pleasure boats and aircraft.

The State estimates of these license fees are based on data for both the noncommercial and the commercial fees from *SGTC*.[89]

Nontax payments. Other nontax payments consists of the payments of fines and forfeitures, donations, and the payments of various fees. The State estimates of each of these types of payments are based on annual data from the Census Bureau's *State Government Finances*.

Payments to Local Governments

Payments—other than personal property taxes—by persons to local governments consist of the estimates of individual income tax payments, of payments for motor vehicle registration licenses, of payments of miscellaneous fees and estate and gift tax payments, and of other nontax payments.

These payments accounted for about 3.1 percent of total personal tax and nontax payments at the national level in 1997 (table H).

The national estimates are based mainly on data from the Census Bureau's annual publication *Government Finances* for income taxes and from its *Quarterly Summary* of State and local government finance data for other taxes and for nontax payments.

Individual income tax payments. The 1987 and 1992 estimates of these payments are based on data from the 1987 and 1992 censuses of governments; the 1987 estimates were published in the *Compendium of Government Finances*, and the 1992 estimates, on the Census Bureau's Web site.[90] The State estimates of these payments for 1991 are based on interpolations of the estimates for 1987 and for 1992. The estimates for 1993–95 were extrapolated from the 1992 estimates based mainly on data from the 1992–95 issues of *Government Finances*. Because of a lag in the availability of these data, the estimates for 1996–97 for the States were extrapolated from the 1995 estimates by the change in the estimates of State government income tax payments.

Motor vehicle fees. The State estimates of fees levied by local governments on owners or operators of motor vehicles—including for the registration and inspection of the vehicles but excluding personal property taxes—are based on State data for the fees from *Government Finances*.[91]

Miscellaneous fees and estate and gift taxes. The miscellaneous fees consist largely of the estimates of the payments of the fees for marriage licenses, the fees for the registration of pleasure boats, and the fees for licenses for pets. The State estimates of these fees and taxes are prepared together with the estimates of estate and gift taxes and are based mainly on data for local government "Other taxes" from *Government Finances*.

Other nontax payments. "Other" nontax payments consist of the payments of fines and forfeitures and of donations. The State estimates for these payments are based mainly on the data for "Current charges" and "Miscellaneous general revenues" from *Government Finances*; these data reflect commercial as well as noncommercial charges.[92]

Personal Property Tax Payments to State and Local Governments

These payments consist of the payments of taxes on the tangible and intangible personal property of individuals.

These payments accounted for about 0.4 percent of total personal tax and nontax payments at the national level in 1997 (table H).

The national estimates of these payments are based mainly on data from the Census Bureau's annual *Government Finances*.

The State estimates of the payments to State and local governments are combined because the data to allocate these payments to each level of government are not available. The State estimates are based on unpublished IRS data for these payments by individuals who itemize their deductions on their Federal individual income tax returns.

89. These data consist of the payments by both individuals and businesses, and the payments by individuals cannot be distinguished from those by businesses. Thus, the State estimates reflect the assumption that the geographic distribution of the payments by businesses and by individuals is the same.

90. See footnote 88.

91. See footnote 89.

92. See footnote 89.

The Sources and Methods for the Quarterly Estimates of State Personal Income

The quarterly estimates of State personal income provide series for the analysis and tracking of recent economic developments in the 50 States and the District of Columbia. The series begins with the first quarter of 1969.

The source data and methodologies used for quarterly personal income and its components differs from that used for the annual series. In the preparation of the quarterly estimates, fewer than 50 subcomponents are estimated separately; in the preparation of the annual estimates, approximately 500 subcomponents are estimated.

The quarterly estimates are presented seasonally adjusted at annual rates.[1] After seasonal adjustment, cyclical and other short-term changes in the States' economies stand out more clearly. The quarterly estimates are presented at annual rates so that the quarterly and the annual estimates may easily be compared. For some components, the quarterly source data used to prepare the estimates are seasonally adjusted at the detailed series level when statistically significant seasonal patterns are present in the data. For other components, typically those that are insensitive to short-term changes in State-level economic conditions, the seasonally adjusted State estimates are derived from the seasonally adjusted national estimates and from the trend in the annual State estimates.[2]

State-level source data and methods

Quarterly source data for many components of State personal income are either unavailable or are less reliable or comprehensive than the annual data.

The estimates for the quarters of years for which annual estimates have been prepared are interpolated from the annual estimates; the estimates for the quarters of the year or years for which annual estimates have not yet been prepared—the "preliminary" and "second quarterly" estimates—are extrapolated from the most recent annual estimates.[3]

The quarterly estimates and the annual estimates are revised on a regular schedule to incorporate source data that are more complete, more detailed, or otherwise more appropriate than the data that were available when the estimates were initially prepared.[4]

The "preliminary" quarterly estimates for a quarter are prepared 4 months after the end of the quarter. The "second" estimates for the quarter are prepared 3 months later. The second estimates for the quarters of a year, along with the "revised" quarterly estimates for the preceding 2 years, are revised in October of the following year and in the following April, so that they will be consistent with the revised annual estimates. (See table I and also "Preparation and revision schedules" in the "Introduction.") In

1. See "Seasonal adjustment" and "Annual rates" in the "Glossary."

2. For personal interest income, for example, the quarterly fluctuations mainly result from changes in interest rates, which do not vary greatly among the States.

3. Two interpolation techniques are used: One uses seasonally adjusted monthly or quarterly source data as the indicator series, and the other uses an indicator series generated from the time trend in annual estimates. For the latter technique, the indicators are derived from a regression analysis that relates the annual estimates for the State to the corresponding national estimates and to time for a 7-year period. For the latest 3 years, regression analysis for the latest 7-year period is used; for each of the earlier years, regression analysis for the 7-year period centered on that year is used. The regression equation is

$$Y_S^t = a + bY_N^t + cT + dT^2$$

where Y_S^t and Y_N^t are the State and the national estimates for each year t, T is the ordinal for the years 1 through 7, and a, b, c, and d are the constant and the coefficients derived from the regression analysis. The State indicators for each quarter are generated by solving the regression equation with the quarterly national control and the corresponding time period, which is represented by a fractional division of the annual ordinal series.

Two extrapolation techniques are used: One uses the seasonally adjusted monthly or quarterly source data as the indicator series, and the other uses the past trends in the annual series by solving the regression equation calculated for the last 7 years of the annual series with the quarterly national control total and the corresponding time period, which is represented by a fractional extension of the annual ordinal series.

4. See "Availability of the State and local area estimates" in the "Introduction."

Table I.—Preparation and Revision Schedule for Quarterly State Personal Income

	Estimates prepared in year n+1		
	Preliminary	Second	Revised
January	Third quarter Year n	Second quarter Year n	
April	Fourth quarter Year n	Third quarter Year n	All quarters Years n-3 through n-1
July	First quarter Year n+1	Fourth quarter Year n	
October	Second quarter Year n+1	First quarter Year n+1	All quarters Years n-2 through n

addition, the second estimates for some quarters may be revised one or more times before the detailed annual estimates are available. However, the quarterly estimates for a year are not classified as "revised" until they have been adjusted for consistency with annual estimates for that year.[5]

The preliminary, second, and revised quarterly estimates are prepared in three steps. First, quarterly indicator series are prepared for the components for which State-level quarterly or monthly source data are available. Second, initial approximations of the quarterly estimates are prepared by interpolating and extrapolating the annual estimates with the indicator series or according to the trend in the annual estimates (see footnote 2). Third, the initial approximations are used to allocate the national control totals to States.

Preliminary and second quarterly estimates. The preliminary and second State quarterly estimates are prepared with the indicator series shown in table J. Little direct source data are available for the preliminary State quarterly estimates. However, the estimates of most of the components of wages and salaries, other labor income, and personal contributions for social insurance are derived from monthly survey data that are related to the components. More pertinent data, from administrative records, are used for the second quarterly estimates of these components. Most of the survey data are seasonally adjusted by the source agency, the Bureau of Labor Statistics. The administrative records data used to prepare the estimates of these components are seasonally adjusted by BEA.

The second State quarterly estimates of components that account for about 56 percent of personal income are based on quarterly administrative-record data for income payments, and the second estimates of components that account for about 7 percent of personal income are derived from monthly or quarterly data that are related to the payments.

Both the preliminary and the second quarterly estimates of components that account for about 37 percent of personal income are derived from the trends in the annual State estimates, because monthly or quarterly source data are unavailable.

Revised quarterly estimates. After the second quarterly estimates are prepared, little new State-level quarterly source data become available. Therefore, the initial approximations of the revised quarterly estimates incorporate quarterly source data that are generally the same as the data used for the second quarterly estimates. The revised estimates differ from the second estimates mainly in their adjustment for consistency with revised national quarterly estimates and State annual estimates.

The revised quarterly estimates are prepared with the dual allocation procedure.[6] First, the State annual estimates for the component are allocated to quarters in proportion to the initial approximations, and second, the quarterly national control totals are allocated to States in proportion the output of the first step.

Control totals for the quarterly estimates

The quarterly national control totals are mainly derived from the estimates of personal income in the national income and product accounts (NIPA's). The control totals for most components of State personal income are consistent with the NIPA estimates of these components.[7]

The national control totals for the years for which detailed annual State estimates have been prepared are derived from the interpolation of the national control totals of the revised annual State estimates; the quarterly NIPA estimates are used as the indicator series for the interpolation. For most components of personal income, the control totals for the fourth quarter of the last year in the revised annual series are then extrapolated to the subsequent quarter or quarters in proportion to the quarterly NIPA estimates.

In April, however, source data for wages and salaries and farm proprietors' income that were not available when the NIPA estimates were prepared are sometimes used in the preparation of the control totals for the State estimates of wages and salaries and farm proprietors' income.[8]

Control totals for the quarterly estimates of wages and salaries. Each April, the following BEA estimates of wage and salary disbursements for the most recent year are compared: The annual NIPA estimates, which are based primarily on monthly national data from the current employment statistics (CES) survey conducted by the Bureau of Labor Statistics (BLS), and an alternative annual estimate that is based primarily on BLS tabulations of wages and salaries of employees covered by unemploy-

5. For additional information, see Robert L. Brown and James P. Stehle, "Evaluation of the State Personal Income Estimates," Survey of Current Business 70 (December 1990): 20–29.

6. See "Dual allocation" in the "Technical Notes."

7. The estimates of personal income in the NIPA's differ from the national totals of State personal income because of differences in coverage, in the methodologies used to produce the estimates, and in the timing of the availability of the source data. See "Differences in definitions and classifications" in the introduction to "The Sources and Methods for the Annual Estimates."

8. The difference in the availability of the data for the estimates of wages and salaries is especially important because the revision to the national control totals of wages and salaries that are used in the preparation of the State estimates of wages and salaries in April sometimes foreshadows the direction and size of the revision to the NIPA estimates in July.

Table J.—Sources and Methods for the Quarterly and Annual Estimates of State Personal Income

Components of personal income	Extrapolators for preliminary quarterly estimates	Extrapolators for second quarterly estimates and interpolators for revised quarterly estimates [1]	Latest annual estimates
Wage and salary disbursements by industry: [2]			
Farms	Trend extrapolation [3]	Trend extrapolation [3]	U.S. Department of Agriculture (USDA) estimates of farm labor expenses
Agricultural services, forestry, fishing, and other.	Trend extrapolation	Quarterly ES-202 wages and salaries [4]	Annual ES-202 wages and salaries and USDA estimates of farm labor expenses
Mining	Monthly employment from the Current Employment Statistics (CES) survey [5].	Quarterly ES-202	Annual ES-202 wages and salaries
Construction	CES monthly employment	Quarterly ES-202	Annual ES-202 wages and salaries
Manufacturing:			
Nondurable goods	CES monthly data for employment and for average weekly hours and average hourly earnings for production and nonsupervisory workers.	Quarterly ES-202	Annual ES-202 wages and salaries
Durable goods	CES monthly data for employment and for average weekly hours and average hourly earnings for production workers.	Quarterly ES-202	Annual ES-202 wages and salaries
Transportation and public utilities:			
Excluding railroads	CES monthly employment	Quarterly ES-202	Annual ES-202 wages and salaries
Railroads	Quarterly national payrolls from the Department of Transportation and annual State employment from the Railroad Retirement Board (RRB).	Department of Transportation and RRB data.	Annual State payrolls from the RRB
Wholesale trade	CES monthly employment	Quarterly ES-202	Annual ES-202 wages and salaries
Retail trade	CES monthly employment	Quarterly ES-202	Annual ES-202 wages and salaries
Finance, insurance, and real estate	CES monthly employment	Quarterly ES-202	Annual ES-202 wages and salaries
Services	CES monthly employment	Quarterly ES-202	Annual ES-202 wages and salaries, data from County Business Patterns (CBP), and Census Bureau population data [6]
Federal civilian	CES monthly employment	CES monthly employment data	Annual ES-202 wages and salaries
Federal military:			
Active duty	Number of personnel and average pay by service from the Department of Defense (DOD) and payroll data from the Coast Guard.	DOD number of personnel and average pay and Coast Guard payroll data.	DOD and Coast Guard data
Reserves	Trend extrapolation	Trend extrapolation	DOD payroll outlay data
State and local government	CES monthly employment	Quarterly ES-202	Annual ES-202 wages and salaries
Other labor income [2]	Estimates of wages and salaries by industry [7].	Estimates of wages and salaries by industry [7].	Estimates of wages and salaries by industry; supplemented by data from A.M. Best Company, the Social Security Administration, and other agencies [7]
Proprietors' income: [2]			
Farm proprietors' income	USDA estimates of farm cash receipts and trend extrapolation.	USDA estimates of farm cash receipts and trend extrapolation.	USDA annual estimates of farm gross income and expenses
Nonfarm proprietors' income:			
Construction	Estimates of construction wages and salaries [8].	Estimates of construction wages and salaries [8].	IRS gross receipts and net profits of proprietorships and partnerships and CBP number of small establishments
All other industries	Trend extrapolation	Trend extrapolation	IRS and CBP data
Personal dividend income	Trend extrapolation	Trend extrapolation	IRS data
Personal interest income	Trend extrapolation	Trend extrapolation	IRS data
Rental income of persons	Trend extrapolation	Trend extrapolation	IRS and Census Bureau data
Transfer payments:			
UI benefits	UI benefits from the Employment and Training Administration (ETA).	ETA UI benefits	ETA UI benefits
All other	Trend extrapolation	Trend extrapolation	Data from SSA, Health Care Financing Administration (HCFA), Census Bureau, Department of Veterans Affairs (DVA), and other agencies
Personal contributions for social insurance.	Sum of the estimates of wages and salaries for all industries [7].	Sum of the estimates of wages and salaries for all industries [7].	Estimates of wages and salaries for the contributions by most employees; SSA, HCFA, Census Bureau, and DVA data for contributions by others
Addendum:			
Residence adjustment [9]	Estimates of wages and salaries by industry.	Estimates of wages and salaries by industry.	Estimates of wages and salaries by industry and Census Bureau and IRS data

1. The data used for the extrapolation of the second quarterly estimates are also used to interpolate the revised annual estimates to quarters in the preparation of the revised quarterly estimates.
2. The quarterly estimates of wages and salaries, other labor income, and proprietors' income are prepared at the SIC division level, and the annual estimates are prepared at the SIC two-digit level.
3. The trend extrapolation is based on the relationship between the annual State estimates and the annual national estimates.
4. Tabulations of wages and salaries from the Bureau of Labor Statistics (BLS); the wages are reported on employers' unemployment insurance contributions reports to the State employment security agencies, which report the data, classified by county and by industry, to BLS on form ES-202.
5. The Current Employment Statistics (CES) survey is conducted monthly by the State employment security agencies using form BLS 790; the CES program is coordinated by the Bureau of Labor Statistics, which publishes the data in Employment and Earnings.
6. County Business Patterns is published annually by the Census Bureau.
7. The use of the estimates of wages and salaries in the estimation of quarterly and annual other labor income and personal contributions for social insurance incorporates the State relative changes and distributions of the source data used for wages and salaries into the estimates for the other components, for which more direct source data are unavailable.
8. For the quarterly estimates of proprietors' income in the construction industry, the quarterly relative changes in the estimates of wages and salaries are used instead of the annual trends in proprietors' income because the annual trend does not capture well the rapid and irregular fluctuations in the activity of this industry.
9. The residence adjustment is not a component of personal income.

ment insurance for the first three quarters and on a BEA estimate for the fourth quarter.[9] If the two series for the sum of all industries do not differ significantly, the NIPA estimates of wage and salary disbursements are used to prepare the control totals for the State estimates. If the two series do differ significantly, the national control totals are derived for each industry using the alternative annual estimates.

Control totals for the quarterly estimates of farm proprietors' income. Each April, the annual national total for farm proprietors' income for the previous year incorporates newly available annual State data from the U.S. Department of Agriculture (USDA). The NIPA estimates are used as the indicator series in the derivation of the quarterly control totals.

Sources and methods for three components and for the residence adjustment

The specific methods used to prepare the quarterly State estimates of three components of personal income—wage and salary disbursements, farm proprietors' income, and transfer payments—and for the estimates of the residence adjustment are described in this section.

Wage and salary disbursements. The preliminary quarterly State estimates of wages and salaries for most industries at the Standard Industrial Classification division level are extrapolated from the estimates for the previous quarter by State data for employment from the CES. The preliminary estimates for durable goods manufacturing and for nondurable goods manufacturing are extrapolated from the estimates for the previous quarter by the product of the CES State data for total employment and production workers' hours and earnings.

The second quarterly estimates for these industries incorporate the State payroll data (known as ES–202 data) that are compiled in the administration of the State unemployment insurance system. These data are a substantially better source for the State estimates than the CES data, so the incorporation of these data accounts for the most important differences between the preliminary estimates and the second estimates of quarterly State personal income.

For the wage and salary disbursements of farms and the military reserves, both the preliminary and the second quarterly estimates are based on trend extrapolation from the annual estimates.

For the wage and salary disbursements of railroads and of the Federal government, both the preliminary and the second quarterly estimates are extrapolated from the previous quarter by employment data. For railroads and for most of the active duty military services, average wage data are also used (see table J).

Farm proprietors' income. The quarterly State estimates of farm proprietors' income are prepared in three parts: Farm subsidies; special adjustments for unusual occurrences, such as natural disasters; and farm proprietors' income excluding the subsidies and the adjustments.

The estimates of the subsidies are based on trend interpolation and extrapolation of the annual estimates. The estimates of the adjustments are based on State-level information from the USDA. The estimates of farm proprietors' income excluding the subsidies and the adjustments are interpolated and extrapolated from the annual estimates by USDA data on cash receipts from the sale of farm products. For the revised State quarterly estimates prepared in October, revised USDA cash receipts data replace the quarterly data that were used to prepare the preliminary and second quarterly estimates.

Transfer payments. The quarterly estimates of transfer payments are prepared as the sum of the State unemployment insurance (UI) benefits and of all other transfer payments. The quarterly estimates of State UI benefits are interpolated and extrapolated from the annual estimates by State-level data for the benefits from the Employment and Training Administration of the Department of Labor. The quarterly estimates for all other transfer payments are based on trend interpolation and extrapolation of the annual estimates.

Residence adjustment. The quarterly State estimates of the residence adjustment are calculated by summing estimates of the interstate gross flows: The outflows from each State are subtracted from the inflows to the State.[10] The quarterly State estimates of the interstate gross flows are derived from the gross flows of interstate commuters' wages and salaries, other labor income, and personal contributions for social insurance that were calculated in the derivation of the annual State estimates. Each annual gross flow is interpolated and extrapolated to quarters by the quarterly estimates of the corresponding income component for the State of work.

9. The CES survey collects data for the total number of jobs and for the average weekly hours and average hourly earnings of production and nonsupervisory workers. This survey of nearly 400,000 nonagricultural establishments is conducted by the State employment security agencies and coordinated by BLS.

The data are collected on form BLS 790 for the pay period that includes the 12th day of the month; the data are released 1 week after the end of the month and are reconciled annually with the ES–202 data. The data for average hourly earnings exclude bonus payments and several other forms of wages and salaries.

10. Each gross flow is an inflow to the State of the residence and an outflow from the State of work.

For the methodology for the annual estimates, see the section "Residence Adjustments."

Technical Notes

Disclosure-avoidance procedures

Like other statistical agencies, the Bureau of Economic Analysis (BEA) is legally required to safeguard the confidentiality of the information that it receives. In addition, like other agencies, it must balance its responsibility to avoid disclosing confidential information with its responsibility to release and to publish as much information as possible. It balances these responsibilities by presenting the estimates for regions, States, and local areas only at the Standard Industrial Classification (SIC) two-digit level, even though it receives source data at the SIC three- and four-digit levels.

Most of the data series that BEA receives from other agencies are not confidential. The agencies summarize these data to aggregate totals by program and by State or county, so that each record, or data cell, contains data for enough individuals or establishments to preclude the identification of the data for a specific individual or establishment and, therefore, to preclude the disclosure of confidential information.[1]

However, the ES–202 tabulations that BEA receives from the Bureau of Labor Statistics (BLS) include records that would disclose confidential information. The confidential information on wages and salaries for some business firms is identifiable from the State and county estimates of wages and salaries at the SIC two-digit level that are derived from the ES–202 data.[2]

To prevent either the direct or the indirect disclosure of the confidential information, BEA uses the following procedures.

Initially, two types of direct, or primary, disclosures of wages and salaries—number-of-firms disclosures and dominant-firms disclosures—are identified.[3] Both types of primary disclosures are identified based on information at the SIC two-digit level provided by BLS, which identifies each State and county cell containing a dominant-firm disclosure and reports the number of firms for each cell.[4] All of the number-of-firms disclosures and the dominant-establishment disclosures are identified in the primary-wage-disclosure file.

After the primary disclosures of wages and salaries in the State or county estimates have been identified, the estimates of wages and salaries, other labor income, and proprietors' income for each SIC two-digit industry are systematically "rolled up," or summed, to produce a file of the estimates of the total earnings by industry. Then the total earnings file and the primary-wage-disclosure file are analyzed in a dominant-cell suppression test in order to identify which estimates of earnings should be suppressed because the estimate of total earnings does not conceal a primary wage disclosure. In this test, if a wage and salary disclosure exists for an industry in a State or county and if the wages and salaries account for more than a specified percentage of the total earnings, then a primary earnings disclosure exists. All of the primary earnings disclosures are identified in the primary-earnings-disclosure file. All of these disclosures are suppressed in the State and county estimates of total earnings that are released.

The primary-earnings-disclosure file is also used to identify "secondary" and "complementary" disclosures that are possible because BEA releases summations of the earnings estimates by industry and area; these summations include the estimates of earnings for regions and States at the SIC two-digit and industry-division levels and the estimates for counties at the SIC industry-division level.[5] In order to determine which estimates

1. For a list of some of the agencies that provide data to BEA, see "Sources of the data" in the introduction to "The Sources and Methods for the Annual Estimates."

2. For specific information, see "Wage and Salary Disbursements."

3. A number-of-firms disclosure results when the data for a firm are identifiable because these data are in a cell that contains data for fewer than three firms.

A dominant-establishment disclosure results when the data for a firm are identifiable because these data account for 80 percent or more of the total data in the cell.

4. Quarterly employment and wage data for each covered establishment and firm that are reported to, and assembled by, the State employment security agencies are used by BLS to derive the disclosure information. BLS determines the disclosures for the State-level data and for the county-level data but not for the State and county data set as a whole. If a disclosure exists for a cell for any quarter of a given year, BEA treats the wage estimate for the cell for that year as a disclosure.

5. A secondary disclosure results from the derivation of the primary disclosure of the county estimate of earnings for an SIC two-digit industry from the estimate of earnings for the SIC industry division and from the estimates for the other two-digit industries in the division. In order to prevent the secondary disclosure, the State or county estimate of earnings for another SIC two-digit industry is suppressed.

A complementary disclosure results from the derivation of the primary disclosure of the county estimate of earnings for an SIC two-digit industry from should be suppressed, the total earnings file and the primary-earnings-disclosure file are used to prepare a multidimensional matrix. This matrix is tested, and the estimates that should be suppressed are selected.[6]

The priority of the selection is to maximize the information that is released at the national and regional level. For example, the estimates for the States in a region rather than the estimate for the region will be suppressed, and the estimates for the counties in a State rather than the State estimate will be suppressed. Further, the estimate for an industry at the SIC two-digit level rather than the estimate for the industry at the SIC industry-division level will be suppressed.

Dual allocation

The dual allocation procedure is used to allocate a data series by State and by industry simultaneously to a set of national control totals for the industries and to a set of all-industry control totals for the States. It is also used in the estimation of quarterly state personal income to allocate a quarterly data series by State simultaneously to national control totals by quarter and to State annual control totals.

In a dual allocation, the two sets of control totals are placed in a matrix, with the national control totals as the column totals and the State control totals as the row totals. The allocating series is placed in the same matrix to serve as the set of elements. These elements are adjusted alternately by allocation to sum first to the column totals and then to the row totals; the procedure is completed by an allocation of the column totals.

Employment

The BEA employment series for States and local areas comprises estimates of the number of jobs—full-time jobs and part-time jobs—by place of work. Full-time and part-time jobs are counted at equal weight. Both employment for wages and salaries and proprietors' employment are included, but the employment of unpaid family workers and volunteers is not included. Proprietors' employment consists of the number of sole proprietorships and the number of partners in partnerships. The description "by place of work" applies to the wage and salary portion of the series and, with relatively little error, to the entire series. The proprietors' employment portion of the series, however, is more nearly by place of residence because, for nonfarm sole proprietorships, the estimates are based on Internal Revenue Service tax data that reflect the address from which the proprietor's individual tax return is filed, which is usually the proprietor's residence. The nonfarm partnership portion of the proprietors' employment series reflects the tax-filing address of the partnership, which may be either the residence of one of the partners or the business address of the partnership.

The employment estimates are designed to be consistent with the estimates of wage and salary disbursements and proprietors' income that are part of the personal income series. The employment estimates are based on the same sets of source data as the corresponding earnings estimates and are prepared with parallel methodologies. Two forms of proprietors' income—the income of limited partnerships and the income of tax-exempt cooperatives—have no corresponding employment estimates.

Imputation

Imputations are added to personal income and to other measures in the national income and product accounts (NIPA's) so that a comprehensive account of total production and its distribution can be presented. The imputed transactions included in the NIPA's are a limited set of exceptions to the principle that the NIPA's reflect market transactions in goods and services. In order to keep the NIPA measures invariant to how certain activities are carried out, imputations are made to place a market value on certain transactions that do not occur or that are not observable in the market economy. In addition, some market transactions are reconstructed to provide a representation of the activity that is more appropriate for the NIPA's. Both a measure of the production and the incomes associated with that production are imputed. The imputations described here are those that affect personal income.[7]

Specifically, six imputations are included in the estimates of personal income: Imputed pay-in-kind, employer-paid health and life insurance premiums, the net rental value of owner-occupied farm and nonfarm housing and the value of food and fuel produced and consumed on farms, the net rental value of owner-occupied nonfarm housing, the net margins on owner-built housing, and the imputed interest paid by financial intermediaries. These imputations accounted for about 8 percent of personal income at the national level in 1997.

Imputed pay-in-kind is added to the estimates of wages and salaries so that all the earnings of employees who

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the State estimate of earnings for the industry and from the estimates for the other counties in the State. In order to prevent the complementary disclosure, the county estimate of earnings for the industry in another county is suppressed.

In addition, the State estimates at the SIC two-digit level and the county estimates at the SIC industry-division level are checked for these disclosures.

6. In this test, computer programs impose a set of rules and priorities on this matrix so that the estimates that should be suppressed are selected until indirect disclosure is impossible.

7. See table 8.19, "Imputations in the National Income and Product Accounts," SURVEY 77 (August 1997): 145.

receive part of their wages in pay-in-kind will be included in personal income. This imputation is an estimate of the value of the food, lodging, clothing, and other goods and services that are received by employees from their employers as full payment or as partial payment for their services. For additional information, see "Pay-in-kind."

The net rental value of owner-occupied farm housing and the value of food and fuel produced and consumed on farms are included in farm proprietors' income so that that measure reflects the income from all of the production of noncorporate farms.

The net rental value of owner-occupied farm and nonfarm housing is included in farm proprietors' income (farm housing) and in the rental income of persons (nonfarm housing). The imputation assumes that the owner-occupants are in the rental business and that they are renting the houses in which they live to themselves: As tenants, they pay rent to the landlords (that is, to themselves); as landlords, they collect rent from their tenants (that is, from themselves), they incur expenses, and they may have a profit or a loss from the rental business.

The net margins on owner-built housing is included in proprietors' income, classified in the construction industry. It is the imputed net income of individuals from the management of the construction or renovation of their own dwellings and is included in the measure of the output of structures.

The imputed interest income paid by financial intermediaries, which is included in personal interest income, is received by persons from depository institutions, that is, from commercial banks, mutual savings banks, savings and loan associations, credit unions, and regulated investment companies. It is an estimate of the value of the services (such as checking and record keeping) that these institutions provide to persons without an explicit charge.

Another portion of personal interest income is classified as imputed interest. This is an estimate of the investment income that is earned on the financial reserves of life insurance carriers and of private noninsured pension plans. This investment income is attributed to the policyholders or the pension beneficiaries in order to include it in personal saving, not in business saving, and it is attributed when the income is earned rather than when it is distributed. In 1997, this imputation of investment income accounted for about 3.6 percent of personal income at the national level.

Industry classification

For the private sector, the Standard Industrial Classification (SIC) provided by the Office of Management and Budget is used for the classification of the estimates of wage and salary disbursements, other labor income, and proprietors' income by establishment industry. The *Standard Industrial Classification Manual, 1967* is used for the classification of the estimates for 1969–74, and the 1972 *Manual* is used for the classification of the estimates for 1975–87. The 1987 *Manual* is used for the classification of the estimates for 1988–96.[8]

For the public sector, the estimates of wages and salaries and other labor income are classified by level of government—Federal, State, and local—not according to the SIC. The estimates for the Federal Government are subclassified into civilian and military.

Interpolation and extrapolation

Interpolation and extrapolation are used to prepare the first approximations of the State estimates of some of the components of personal income for the years in which direct source data are unavailable. Both procedures use the data for these components for benchmark years—the years for which the best data are available—and both frequently use other data that are related to the benchmark-year data for the components.

Interpolation is used to derive the first approximation of the estimates for years that are between benchmark years. For example, if data for wages and salaries for an industry were available only from the decennial censuses of population but employment data were available annually from another source, the first approximations of wages and salaries for 1981–89 are interpolated from the State data for wages and salaries 1980 and for 1990, the 2 census benchmark years, and from the data for employment for 1980–90.

Extrapolation is used to derive the first approximations for the years that are beyond the most recent benchmark year. For example, the first approximations of wages for 1991–97 might be extrapolated from the census benchmark data for 1990 and from the employment data for 1990–97. The estimates based on extrapolation are usually superseded by revised estimates when benchmark data become available for a more current year. For the preceding example, the estimates for 1991–97 (and the estimates prepared subsequently for 1998–99) would be superseded by estimates based on interpolation when census benchmark data became available for 2000.

Both interpolation and extrapolation are illustrated in the following examples. In the first two examples, interpolation is used to derive the first approximations of wages and salaries for an industry in States A, B, and

8. Executive Office of the President, Office of Management and Budget, Statistical Policy Division, *Standard Industrial Classification Manual, 1967* (Washington, DC: U.S. Government Printing Office (GPO), 1967); *Manual, 1972* (GPO, 1972); *Manual, 1987* (GPO, 1987).

C for the years 2 and 3 that are between the benchmark years 1 and 4. In the third example, extrapolation is used to derive the approximations for year 5.

In the first example, “straight-line interpolation” is used to derive the first approximations for years 2 and 3 from the State data for the benchmark years 1 and 4.[9] The first approximations for year 2 equals the amount for year 1 plus one-third of the increase from year 1 to year 4; the preliminary estimate for year 3 equals the amount for year 1 plus two-thirds of the increase.

Wages and salaries in thousands of dollars

	Year 1 (benchmark)	Year 2 (interpolation)	Year 3 (interpolation)	Year 4 (benchmark)
State A ..	28	34	40	46
State B ..	34	43	53	62
State C ..	74	81	87	94

In the second example, interpolation with a related series of data, the indicator series, is used to derive the first approximations for years 2 and 3 from the benchmark data for years 1 and 4 and from the indicator series for all 4 years. The data for wages and salaries are the benchmark data, the employment data are the indicator series, and the average wages (computed as wages and salaries divided by employment) are the interpolation ratios.[10] This method of interpolation is illustrated in three steps.

First, the average wages of the employees in an industry for years 1 and 4 are calculated from data for wages and salaries and data for employment for those years. The wages for each year are divided by the number of employees for the year to yield the average wages of the employees.

Employment and average wages

	Year 1		Year 4	
	Employment	Average wages in dollars	Employment	Average wages in dollars
State A ..	4	7,000	4	11,500
State B ..	6	5,667	10	6,200
State C ..	11	6,727	10	9,400

Second, straight-line interpolation is used to derive the average wages for years 2 and 3 from the average wages for years 1 and 4.

Average wages in dollars

	Year 1 (benchmark)	Year 2 (interpolation)	Year 3 (interpolation)	Year 4 (benchmark)
State A ..	7,000	8,500	10,000	11,500
State B ..	5,667	5,845	6,022	6,200
State C ..	6,727	7,618	8,509	9,400

Third, the interpolated average wages for each year are multiplied by the employment data for each year to yield the first approximations.

Employment and wage approximations

	Year 2		Year 3	
	Employment	Wages in thousands of dollars	Employment	Wages in thousands of dollars
State A ..	5	43	4	40
State B ..	7	41	9	54
State C ..	10	76	9	77

In the third example, extrapolation with an indicator series is used to derive the first approximations of wages for year 5 from the average wages for year 4—used here as the extrapolation ratios—and employment data for year 5.[11] The average wages are multiplied by the employment data to yield the first approximations of wages for year 5.

9. Straight-line interpolation assumes that the magnitude of the annual change is the same in each year in the interpolated time series, subject to modification by the adjustment to the national control totals. Straight-line interpolation is used as the default option, when no annual source data related to the income series are available.

10. Using an indicator series for interpolation between 2 benchmark years assumes that any change in the relationship between the data for the income component for the benchmark years and the data from the indicator series for the benchmark years occurs uniformly over time. This relationship is embodied in the interpolation ratios, which in this example are the average wages.

For this procedure, straight-line interpolation of the benchmark-year interpolation ratios is used to calculate the ratios for the intervening years. A benchmark-year interpolation ratio is the ratio of the datum for an income component for the benchmark year to the datum for the same year from the annual indicator series. The interpolation ratios for the intervening years are multiplied by the data for those years from the indicator series to yield the interpolated series for those years.

11. Using an indicator series for extrapolation assumes that the relationship between the data for the income component for the latest benchmark year and the data from the indicator series for that year remains unchanged in the subsequent years.

First approximations of wages for year 5

	Year 4	Year 5	
	Average wages in dollars	Employment	Wages in thousands of dollars
State A	11,500	5	58
State B	6,200	12	74
State C	9,400	9	85

After interpolation or extrapolation is used to calculate the first approximations of a component of State personal income, the approximations are adjusted by allocation to sum to the national estimate of the component.

Per capita personal income

This measure of income is calculated as the personal income of the residents of a given area divided by the resident population of the area. In computing per capita personal income for States and counties, BEA uses the Census Bureau's annual midyear population estimates. Except for the college student and other seasonal populations, which are measured on April 1, the population for all years is estimated on July 1.

Personal income, adjusted gross income, and money income

The measure of personal income that is prepared by BEA differs substantially from adjusted gross income (AGI), which is the principal measure of the income of individuals that is tabulated by the Internal Revenue Service. Personal income also differs from money income, which is prepared by the Census Bureau.

Personal income consists of the income of nonprofit institutions serving individuals, private noninsured welfare funds, and private trust funds as well as of individuals, whereas AGI consists only of the income of individuals who file individual income tax returns. Personal income also includes employer contributions to private health and pension funds, several types of imputed incomes, transfer payments, and all of the interest received by individuals, whereas AGI excludes all employer contributions, imputed incomes, most transfer payments, and the nontaxable interest received by individuals. Personal income, unlike AGI, excludes personal contributions for social insurance, realized capital gains and losses, and private pensions and annuities.[12]

Personal income differs from money income mainly because money income consists only of the income that is received by individuals in cash and its equivalents. Personal income, unlike money income, includes imputed income, lump-sum payments not received as part of earnings, certain in-kind transfer payments—such as medicaid, medicare, and food stamps—and employer contributions to private health and pension funds. Personal income, unlike money income, excludes personal contributions for social insurance, income from private pensions and annuities, and income from interpersonal transfers, such as child support.

The State personal income measure for a year includes the income received by individuals living in the State during the year. The State money income measure for a year consists of the income received during the year by the individuals living in the State on April 1 of the following year, regardless of where they were living when they received the income. The income received by individuals who died or moved abroad before April 1 of the following year is not included in the money income measure of any State.

Personal income for States is prepared quarterly, and personal income for counties is prepared annually, whereas money income for States, counties, and cities is prepared decennially from the data from the "long-form" sample conducted as part of the census of population.[13]

12. For more information, see Thae S. Park, "Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income: New Estimates for 1995 and Revised Estimates for 1947–94," SURVEY 78 (November 1998): 13–19.

13. The most recent estimates of money income for States and counties—those for 1989—were prepared from data from the 1990 Census of Population. In addition, the Census Bureau has prepared estimates of median household income for States and counties for 1993.

For the Nation and for the four census regions, the Census Bureau also prepares annual estimates of money income from the data from the current population survey.

Glossary

Allocation procedures. The allocation procedures are used in the derivation of the estimates of State and county personal income, because the data that are available for many of the components of personal income at the State and county levels may not be as comprehensive or as reliable as the data that are available at the national level. The national estimate of a component is allocated to the States in proportion to the States' shares of an economic, or allocating, series that is a measure of the component or that is related to the component that is being allocated; the State estimates are then allocated to counties. For example, the national estimate of personal dividend income is allocated to the States—and the State estimates are allocated to counties—in proportion to the series for dividends reported by individuals on their Federal income tax returns.

For additional information, see "Allocation procedures" in the introduction to "The Sources and Methods for the Annual Estimates."

Annual rates. The quarterly estimates of State personal income are presented at annual rates, which show the value that would be registered if the seasonally adjusted rate of activity measured for a quarter were maintained for a full year. Annual rates are used so that periods of different lengths—for example, quarters and years—may be easily compared. See also **Seasonal adjustment.**

BEA economic areas. A set of geographic areas, defined in terms of counties, that exhaust the area of the Nation.

See also **Geographic areas.**

Capital consumption adjustment (CCAdj). The CCAdj is the difference between private consumption of fixed capital (CFC) and private capital consumption allowances. Private CFC is a charge for the using up of private fixed capital. It is based on studies of prices of used equipment and structures in resale markets.[1] Private capital consumption allowances consists of tax-return-based depreciation charges for corporations and nonfarm proprietorships and of historical-cost depreciation, calculated by BEA, for farm proprietorships, rental income of persons, and nonprofit institutions.

In personal income, CFC is used to measure the estimates of proprietors' income—both farm and nonfarm—and of rental income of persons.

Corporate business. See **Sectors and legal form of organization.**

County. Counties consist of the counties and county equivalents, such as the parishes of Louisiana and the boroughs and census areas of Alaska.

See also **Geographic areas.**

Disclosure-avoidance procedures. See "Disclosure-avoidance procedures" in the "Technical Notes."

Disposable personal income. Disposable personal income is personal income less personal tax and nontax payments. It is personal income that is available for spending and saving.

See also **Personal income** and **Personal tax and nontax payments.**

Dual allocation. See "Dual allocation" in the "Technical Notes."

Earnings. This aggregate is the sum of three components of personal income—wage and salary disbursements, other labor income, and proprietors' income. BEA presents earnings because it can be used in the analyses of regional economies as a proxy for the income that is generated from participation in current production.

"Net earnings" is also presented: This measure is calculated as earnings less personal contributions for social insurance. Net earnings is used in the presentation of State and local area personal income as the sum of net earnings, transfer payments, and personal dividend income, personal interest income, and rental income of persons.

See also **Net labor earnings.**

Employment. The BEA employment series for States and local areas comprises estimates of the number of jobs, full-time plus part time, by place of work. Full-time and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included, but

1. For further information, see Arnold J. Katz and Shelby W. Herman, "Improved Estimates of Fixed Reproducible Tangible Wealth," SURVEY OF CURRENT BUSINESS 77 (May 1997): 69–92; and Barbara M. Fraumeni, "The Measurement of Depreciation in the U.S. National Income and Product Accounts," SURVEY 77 (July 1997): 7–23.

unpaid family workers and volunteers are not included. See "Employment" in the "Technical Notes."

ES–202. The source data series from the administration of the State unemployment insurance system originating from employers' quarterly contributions reports filed with the State employment security agencies. The data, which are provided to BEA by the Bureau of Labor Statistics, include quarterly number of establishments and wage and salary disbursements and monthly employment by county and industry.

See the section "Wage and Salary Disbursements."

Extrapolation. See "Interpolation and extrapolation" in the "Technical Notes."

Fiduciary. Fiduciaries are individuals or legal entities that serve as administrators or trustees of private trust funds (including estates) and are classified as persons in the NIPA's. A fiduciary is required to report the income that the private trust fund receives on behalf of the beneficiaries of the estate or trust on Internal Revenue Service form 1041. Data from form 1041 are used in the preparation of the State estimates of personal dividend income and personal interest income.

Geographic areas. The estimates of personal income are prepared for the following geographic areas: Counties and county equivalents, metropolitan areas, BEA economic areas, States, and regions. County equivalents consist of the District of Columbia, the boroughs and census areas of Alaska, the parishes of Louisiana, and the independent cities of Maryland, Missouri, Nevada, and Virginia. The following areas are combined with those for adjacent counties: Kalawao County, Hawaii; the Montana portion of Yellowstone National Park; and the small independent cities of Virginia, generally those with fewer than 100,000 residents.

The metropolitan areas are aggregations of the counties. The metropolitan area definitions are those issued for Federal statistical purposes by the Office of Management and Budget.[2] Metropolitan areas consist of metropolitan statistical areas, consolidated metropolitan statistical areas, primary metropolitan statistical areas, and New England county metropolitan areas.

Each of the BEA economic areas consists of one or more economic nodes—usually metropolitan areas—and the surrounding counties that are economically related to the node.[3] These economic areas encompass all counties and county equivalents in the Nation.

Estimates are prepared for all States and for the District of Columbia. In addition, the State estimates are aggregated to prepare the estimates for the following eight regions: Far West, Great Lakes, Mideast, New England, Plains, Rocky Mountain, Southeast, and Southwest. The regional classifications, which were developed in the mid–1950's, are based on the homogeneity of the States in terms of economic characteristics, such as the industrial composition of the labor force, and in terms of demographic, social, and cultural characteristics.[4]

In addition, estimates can be prepared for any area that can be defined either in terms of counties and county equivalents or in terms of States.

Government enterprise. See **Sectors and legal form of organization.**

Income subject to adjustment. See **Net labor earnings**.

Imputation. The imputations place a market value on certain transactions that do not occur in the market economy or that are not observable in its records. They are included in personal income and in other NIPA aggregates in most cases to keep the NIPA aggregates invariant to how certain activities are carried out.

See "Imputation" in the "Technical Notes."

Interpolation. See "Interpolation and extrapolation" in the "Technical Notes."

Inventory valuation adjustment (IVA). This adjustment is made in the estimation of nonfarm proprietors' income to reflect the difference between the cost of inventory withdrawals as valued in the source data used to determine profits and the cost of withdrawals valued at replacement cost. It is needed because inventories as reported in the source data are often charged to cost of sales (that is, withdrawn) at their acquisition (historical) cost rather than at their replacement cost (the concept underlying the NIPA's). As prices change, companies that value inventory withdrawals at acquisition cost may realize profits or losses. Inventory profits, a capital-gains-like element in profits, result from an increase in inventory prices, and inventory losses, a capital-loss-like element in profits, result from a decrease in inventory prices. Inventory profits or losses equal the IVA with the sign

2. For the New England region, OMB's preferred definitions of the metropolitan areas are in terms of cities and towns, but the available data for cities and towns are not sufficient to prepare estimates of personal income.

The list of the metropolitan areas and their constituent counties and county equivalents is available on BEA's Web site at <www.bea.doc.gov> and from the National Technical Information Service (703–487–4650, accession no. PB98–146160).

3. For a description of the economic areas and the methodology used to define them, see Kenneth P. Johnson, "Redefinition of the BEA Economic Areas," Survey 75 (February 1995): 75–81. This article and a list of the economic areas are available on BEA's Web site.

4. For a brief description of the regional classification of States used by BEA, see U.S. Department of Commerce, Bureau of the Census, *Geographic Areas Reference Manual* (Washington, DC: U.S. Government Printing Office, November 1994): 6–18—6–19.

reversed. No adjustment is needed to farm proprietors's income because inventories reported in the source data are measured on a current-market basis that approximates current-replacement cost.

Net labor earnings. This aggregate is the sum of wage and salary disbursements and other labor income less personal contributions for social insurance by employees. This measure and a slightly modified version—termed "income subject to adjustment"—are used in the residence adjustment procedure for both the annual and the quarterly estimates of State personal income and for the annual county estimates.

See also **Earnings.**

Local areas. Local areas consist of metropolitan areas, of BEA economic areas, and of counties and county equivalents.

See also **Geographic areas.**

Metropolitan areas. Metropolitan areas are defined for Federal statistical purposes by the Office of Management and Budget. Generally, they are defined in terms of counties.

See also **Geographic areas.**

Other labor income. This component of personal income consists of employer payments to private pension and profit-sharing plans, private group health and life insurance plans, privately administered workers' compensation plans, and supplemental unemployment benefit plans; of corporate directors' fees; and of several other minor categories, including judicial fees to jurors and witnesses, compensation of prison inmates, and marriage fees to justices of the peace.

Other private business. See **Sectors and legal form of organization.**

Partnership. A partnership is an unincorporated business association of two or more partners.

See also **Sectors and legal form of organization.**

Pay-in-kind. Pay-in-kind is an imputed component of wage and salary disbursements. The estimates of pay-in-kind reflect the value of the food, lodging, clothing, and miscellaneous goods and services that are received by employees from their employers as full payment or as partial payment for services performed.

See also "Imputation" in the "Technical Notes."

Per capita personal income. This measure of income is calculated as the total personal income of the residents of an area divided by the population of the area. See also "Per capita personal income" in the "Technical Notes."

Per capita personal income is often used as an indicator of the character of consumer markets and of the economic well-being of the residents of an area.

Personal contributions for social insurance. These contributions, which are subtracted in the calculation of personal income, consist of the contributions, or payments, by employees, by the self-employed, and by other individuals who participate in the following government programs: Old-age, survivors, and disability insurance (social security); hospital insurance; supplementary medical insurance; unemployment insurance; government employee retirement; railroad retirement; veterans life insurance; and temporary disability insurance.

These contributions are excluded from personal income by definition, but the components of personal income upon which these contributions are based—mainly wage and salary disbursements and proprietors' income—are presented gross of these contributions.

See also **Earnings, Net labor earnings,** and **Personal income.**

Personal dividend income. This component of personal income is the dividend income of persons. It consists of the payments in cash or other assets, excluding the corporation's own stock, made by corporations located in the United States or abroad to persons who are U.S. residents. It excludes that portion of dividends paid by regulated investment companies (mutual funds) related to capital gains distributions.

In this publication, the State estimates of personal dividend income are combined with the estimates of personal interest income and the estimates of rental income of persons. However, the State estimates of each of these components are available on a CD–ROM.

Personal income. Personal income is the income that is received by persons from participation in production, from both government and business transfer payments, and from government interest (which is treated like a transfer payment). It is calculated as the sum of wage and salary disbursements, other labor income, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and transfer payments to persons, less personal contributions for social insurance.

The personal income of an area is the income that is received by, or on behalf of, all the individuals who live in the area; therefore, the estimates of personal income are presented by the place of residence of the income recipients.

See also **Earnings**; **Net labor earnings**; **Other labor income**; **Personal contributions for social insurance**; **Personal dividend income**; **Personal interest income**; **Persons**; **Proprietors' income**; **Rental income of persons**; **Residence adjustment**; **Residence, place of**; **Transfer payments**; and **Wage and salary disbursements**.

Personal interest income. This component of personal income is the interest income (monetary and imputed) of persons from all sources.

In the tables in this publication, the State estimates of personal interest income are combined with the estimates of personal dividend income and the estimates of rental income of persons. However, the State estimates of each of these components are available on a CD–ROM.

Personal tax and nontax payments. Personal tax and nontax payments is tax payments (net of refunds) by persons that are not chargeable to business expense and certain other payments that are made by persons to government agencies (except government enterprises) that are treated like taxes. Personal taxes includes taxes on income, including realized net capital gains, on transfers of estates and gifts, and on personal property.[5] Nontaxes includes donations and fees, fines, and forfeitures. Personal contributions for social insurance is not included.

Personal tax and nontax payments is used in the derivation of disposable personal income, which is calculated as personal income less personal tax and nontax payments.

Persons. Persons consists of individuals and quasi-individuals that serve individuals or that act on behalf of individuals. Quasi-individuals consists of nonprofit institutions that primarily serve individuals, private noninsured welfare funds, and private trust funds.

Proprietors' income with inventory valuation and capital consumption adjustments. This component of personal income is the current-production income (including income in kind) of sole proprietorships and partnerships and of tax-exempt cooperatives. The imputed net rental income of owner-occupants of farm dwellings is included; the imputed net rental income of owner-occupants of nonfarm dwellings is included in rental income of persons. Proprietors' income excludes dividends and monetary interest received by nonfinancial business and rental incomes received by persons not primarily engaged in the real estate business; these incomes are included in dividends, net interest, and rental income of persons, respectively.

See also **Capital consumption adjustment** and **Inventory valuation adjustment.**

Quasi-individuals. See **Persons.**

Region. See **Geographic areas.**

Rental income of persons with capital consumption adjustment. This component of personal income is the net income of persons from the rental of real property except for the income of persons primarily engaged in the real estate business; the imputed net rental income of the owner-occupants of nonfarm dwellings, and the royalties received by persons from patents, copyrights, and rights to natural resources. The imputed net rental income of owner-occupied farm dwellings is included in farm proprietors' income because much of the expenses of operating the housing cannot be distinguished from the production expenses of farming operations.

See also **Capital consumption adjustment** and **Proprietors' income.**

In the tables in this publication, the estimates of the rental income of persons are combined with the estimates of personal dividend income and of personal interest income. However, the State estimates of each of these components are available on a CD–ROM.

Residence adjustment. The residence adjustment is the net inflow of the net labor earnings of interarea commuters.

The State and county estimates of personal income are presented by the State and county of residence of the income recipients. However, the source data for most of the components of wage and salary disbursements, other labor income, and personal contributions for social insurance by employees are on a place-of-work basis.[6] Consequently, a residence adjustment is made to convert the estimates based on these source data to a place-of-residence basis.[7]

See **Net labor earnings.** See also the section "Residence Adjustments" in the "The Sources and Methods for the Annual Estimates."

Residence, place of. The place of residence of individuals is the State and county in which they live. The residence of military personnel is the State and county in which

5. Personal tax payments excludes payments of both real estate taxes and sales taxes. Real estate taxes are excluded because, in the calculation of the imputed rental income of owner-occupied housing, they are considered business expenses. Sales taxes are included in the selling price of the commodity and are treated as being paid by the seller.

6. See "Geographic characteristics of the source data" in the introduction to "The Sources and Methods for the Annual Estimates."

7. In this publication, each of the components of net labor earnings—wage and salary disbursements, other labor income, and personal contributions for social insurance—is presented by place of work. The residence adjustment is an estimate for net labor earnings, and that statistic is presented by place of residence.

they live while they are on military assignment, not their permanent or legal State and county of residence, and the residence of seasonal migrant workers except those working in Alaska is the State and county in which they live while they are working, not their usual State and county of residence.

These definitions of residence are not fully consistent with the population statistics prepared by the Census Bureau; for example, on their census forms, some seasonal migrant workers report their usual State and county of residence rather than the State and county in which they are living and working when the decennial census of population is taken. The Census Bureau's annual estimates of population by State and county, which are used by BEA to calculate per capita personal income, reflect this reporting anomaly.

See also **Personal income**, **Persons**, and **Residence adjustment**.

Seasonal adjustment. The quarterly estimates of State personal income are adjusted, where appropriate, to remove from the time series of the source data the average effect of variations that normally occur at about the same time and in about the same magnitude each year—for example, weather and holidays. After seasonal adjustment, cyclical and other short-term changes in the economy stand out more clearly. For the income components for which no State-level quarterly source data are available, the quarterly series are estimated from the trend in the annual State estimates, and the resulting estimates are on a seasonally adjusted basis.

See also **Annual rates.**

Sectors and legal form of organization. In the national income and product accounts (NIPA's), gross domestic product and other major aggregates are presented in terms of three economic sectors: Business, households and institutions, and general government.

Businesses are classified into five categories, generally according to legal form of organization: Corporations, sole proprietorships, partnerships, "other" private business, and government enterprises.

Corporate business consists of entities required to file Federal corporate tax returns (Internal Revenue Service (IRS) form 1120 series) and the following entities: Mutual financial institutions and cooperatives subject to Federal income tax, private noninsured pension funds, nonprofit organizations that primarily serve businesses, Federal Reserve banks, and federally sponsored credit agencies.

Sole proprietorships are all entities that are required to file IRS Schedule C (Profit or Loss from Business) or Schedule F (Farm Income and Expenses).[8]

Partnerships are all entities required to file Federal partnership income tax returns IRS Form 1065 (U.S. Partnership Return of Income).

Other private business consists of all entities that are required to report rental and royalty income in IRS Schedule E (Supplemental Income and Loss), tax-exempt cooperatives, owner-occupants of nonfarm housing, and the services of buildings and equipment owned and used by nonprofit institutions that primarily serve individuals.[9]

Government enterprises are government agencies that cover a substantial portion of their operating costs by selling goods and services to the public and that maintain separate accounts.[10]

Sole proprietorship. A sole proprietorship is an unincorporated business owned by a person.

See also **Sectors and legal form of organization** and **Proprietors' income.**

Standard Industrial Classification (SIC). The SIC is an establishment-industry classification system that is prepared by the Office of Management and Budget for use by all Federal statistical agencies.[11] The SIC is used in the presentation of the State and local area estimates of earnings by industry. It is used by BEA for the estimates for the private sector only, although it is designed to cover both public and private economic activities.

In the SIC, establishments are classified by the primary activity in which they are engaged, and each establishment is assigned an industry code.[12]

State. See **Geographic areas**.

Tax-exempt cooperative. A tax-exempt cooperative is a nonprofit business organization that is collectively owned by its members. Although tax-exempt cooperatives are

8. Sole proprietorships also include similar entities that are operated by individuals who do not meet the reporting requirements.

The operation of owner-occupied farm housing is reflected in the sole proprietorship category.

9. Other private business also includes entities with rental and royalty income whose owners who do not meet the reporting requirements.

10. For further information, see U.S. Department of Commerce, Bureau of Economic Analysis, Methodology Paper No. 5, *Government Transactions* (Washington, DC: U.S. Government Printing Office, November 1988). This publication is available on BEA's Web site: Go to <www.bea.doc.gov> and select "Methodologies."

11. See Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1987* (Washington, DC: U.S. Government Printing Office, 1987). The *Manual* is available on the Web site of the Occupational Safety and Health Administration: Go to <www.osha.gov/oshstats/sicser.html>.

12. Establishments are defined in the SIC as economic units, generally at one location, where business is conducted or where services or industrial operations are performed.

incorporated, in the NIPA's, these institutions are classified in the other private business sector, and their income is classified as part of proprietors' income.

See also **Sectors and legal form of organization.**

Transfer payments. This component of personal income is payments to persons for which no current services are performed. It consists of payments to individuals and to nonprofit institutions by Federal, State, and local governments and by businesses.

Government transfer payments to individuals includes retirement and disability insurance benefits, medical payments (mainly medicare and medicaid), income maintenance benefits, unemployment insurance benefits, veterans benefits, and Federal grants and loans to students. Government transfer payments to nonprofit institutions includes State government payments to institutions that administer foster care programs; it excludes payments by the Federal Government for work under research and development contracts. Business transfer payments to persons consists primarily of liability payments for personal injury and of corporate gifts to nonprofit institutions.

Wage and salary disbursements. This component of personal income consists of the monetary remuneration of employees, including the compensation of corporate officers; commissions, tips, and bonuses; and receipts in kind, or pay-in-kind, such as the meals furnished to the employees of restaurants.[13] It reflects the amount of wages and salaries disbursed, but not necessarily earned, during the year.

This component is measured before deductions, such as social security contributions and union dues.

See also **Earnings**, **Net labor earnings**, **Pay-in-kind**, and **Other labor income**.

13. Voluntary employee contributions to certain deferred compensation plans, such as 401(k) plans, are not deducted. (Employer contributions to deferred compensation plans are included in other labor income.)