

Local Area Personal Income and Employment Methodology

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I. INTRODUCTION

This guide presents the conceptual framework, the data sources, and the statistical methods used by the Regional Income Division of the Bureau of Economic Analysis (BEA) to estimate personal income and employment for local areas, that is, for counties, metropolitan statistical areas, BEA economic areas, and other county aggregates.

Personal income is defined as the income received by, or on behalf of, all the residents of an area (nation, state, or county) from all sources. It consists of the income received by persons from participation in production, from government and business in the form of transfers, and from government in the form of interest (which is treated like a transfer receipt).

Persons consists of individuals, nonprofit institutions that primarily serve individuals, private noninsured welfare funds, and private trust funds. The last three categories are referred to as “quasi-individuals.”

Alternatively, personal income can be defined as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors’ income, dividends, interest, and rent, and personal current transfer receipts, less contributions for government social insurance.

Because the personal income of an area represents the income that is received by, or on behalf of, all the persons who live in that area, and because the estimates of the earnings component of personal income is made on a place-of-work basis, state and county personal income includes an adjustment for residence. The residence adjustment represents the net flow of compensation (less contributions for government social insurance) of intercounty commuters.

Personal income does not include realized or unrealized capital gains (or losses). This is because personal income was designed primarily as a measure of income arising from current production. It therefore excludes income that arises from price changes of existing assets (i.e. capital gains or losses). In addition, personal income was designed to analyze long-term macroeconomic trends and business cycles. Capital gains are exceedingly erratic and can overwhelm those trends and cycles.

The county estimates of personal income are designed to be conceptually and statistically consistent with the national estimates of personal income in the National Income and Product Accounts (NIPA). County estimates sum to state totals which, in turn, together with the District of Columbia, sum to a national total which is very similar to the NIPA estimate except for some minor differences in the treatment of U.S. residents working abroad and the income of foreign residents working in the U.S. and the use of more current source data.

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 published annual state estimates of “income payments to individuals” in the April 1940 issue of the *Survey of Current Business* (survey). 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, 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. Estimates of state personal income were first published in the September 1955 *Survey*.

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

- State personal income consists of six major components (supplements to wages and salaries and personal current transfer receipts replaced other labor income and relief, and the component, contributions for government 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 primarily serve individuals, private noninsured welfare funds, and private trust funds (collectively called quasi-individuals);
- Personal income includes employer (both private and government) contributions to pension funds—as part of supplements to wages and salaries—instead of the benefits paid by the funds; and
- Personal income includes personal current transfer receipts from 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* in the 1960's and 1970's and has been published 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 time 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 1929-1962.

In the early 1970's, BEA developed 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 domestic product (GDP) by state and industry.¹ 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, employment, and GDP. It also prepares annual estimates of personal income and employment for all metropolitan areas and counties and GDP for metropolitan areas.

¹ These estimates were originally called gross state product.

Uses of the Local Area Estimates

The local area estimates of personal income and its components, per capita personal income, and employment are widely used by both the public and the private sectors to track economic well-being over time and make comparisons across counties, metropolitan areas, and BEA economic areas in the level and composition of economic activity. These estimates provide a framework for the analysis of local area economies, 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. In addition, as part of its program for small area income and poverty estimation (SAIPE), the Census Bureau uses the estimates of county per capita personal income as a predictor variable in the preparation of its county estimates of median household income. The SAIPE program provides updated estimates of income and poverty statistics for the administration of federal programs and the allocation of federal funds to local jurisdictions.

State governments use the estimates to measure the economic base of state planning areas. They also use the estimates for planning, projecting tax revenue, determining the need for public utilities, and in econometric models and economic development analyses.

University schools of business and departments of 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.

Place of Residence and Place of Work

Personal income, by definition, is a measure of the income received by persons, and the estimates of state and county personal income should reflect the residence of the income recipients. However, some of the data that are used to estimate some components of personal income are reported by the recipient's place of work rather than by his place of residence. Therefore, these components are estimated on a place-of-work basis, the amounts aggregated, and the aggregate (called the income subject to adjustment) adjusted to a place-of-residence basis. Thus the combination of the components of personal income plus the residence adjustment yields personal income on a place-of-residence basis.

The estimates of wages and salaries, supplements to wages and salaries, and contributions for government social insurance (by employers and employees) are mainly derived from data that are reported 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 contributions for government 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 reported by place of residence.

The estimates of farm proprietors' income are derived from data that are reported 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, personal current transfer receipts, and contributions for supplementary medical insurance and for veterans' life insurance are derived from data that are reported by the place of residence of the income recipient.

Relation of Personal Income in the NIPA and County Personal Income

The level of U.S. personal income in the national income and product accounts (NIPAs) differs from the national total in the county personal income statistics because of differences in coverage and timing of the availability of source data (table A).

The differences in coverage stem from different concepts of residence. For county personal income, residents include all persons who reside in a county, regardless of the duration of residence, except for foreign nationals employed by their home governments in the United States. For NIPA personal income, a U.S. resident has a center of economic interest in the United States and resides, or expects to reside, in the United States for a year or more. In addition, U.S. residents include all U.S. citizens who reside outside the United States for less than 1 year and U.S. citizens residing abroad for 1 year or more who meet one of the following criteria: Owners or employees of U.S. business enterprises who reside abroad to further the enterprises' business and who intend to return within a reasonable period; U.S. Government civilian and military employees and members of their immediate families; and students who attend foreign educational institutions. Foreign residents are those persons residing and pursuing economic interests outside the United States and foreign nationals employed by their home governments in the United States.

In general, the NIPA measure of personal income is broader than county personal income.

- NIPA personal income includes the earnings of federal civilian and military personnel stationed abroad and the property income received by the federal retirement plans of these workers. The regional measure of personal income does not include this income.
 - NIPA personal income includes all income earned by U.S. citizens living abroad for less than a year. County personal income excludes the portion earned while an individual lives abroad.
 - NIPA personal income includes the income of foreign nationals only if they live and work in the United States for a year or more. County personal income includes the income of resident foreign nationals working in the United States—including migrant workers—regardless of length of residency.
- Both NIPA and county personal income:
- Include the wages and salaries of U.S. citizens employed by international organizations and foreign embassies and consulates located within the geographic borders of the United States.

- Include the wages and salaries of foreign nationals residing in the United States for a year or more and working at international organizations located in the United States.
- Exclude the income of foreign nationals employed by their home governments in the United States.
- Exclude the income of private U.S. citizens living outside the country for a year or more.

The annual estimates of personal income in the NIPAs also diverge from the national totals of county personal income because of differences in the timing of the availability of source data. Some data that were not available when the NIPA estimates were prepared may become available afterwards when county personal income is estimated.

Industrial Classification

Up through 2000, the Standard Industrial Classification (SIC) was used (with some slight modifications) for the industrial classification of private sector wage and salary disbursements, compensation, earnings, and employment. The *Standard Industrial Classification Manual, 1967* was used for the years 1969-1974, the *1972 Manual* was used for the years 1975-1987, and the *1987 Manual* was used for 1988-2001 for states and 1988-2000 for counties.²

Since 2001, the North American Industry Classification System (NAICS), with some slight modifications, has been used for the private sector.³ The 2002 edition of NAICS was used for the years 2001-2006, the 2007 edition was used for years 2007-2010, and the 2012 edition is used for subsequent years.⁴ In addition, BEA converted state earnings and employment estimates that were originally compiled on an SIC basis to a NAICS basis for 1990-2000 to provide users with a longer time series on the current industrial classification system.

For the public sector, the income and employment are classified by level of government—federal, state, and local. The estimates for the federal government are sub classified into civilian and military.

The different treatment of the private and public sectors means that BEA's state and local government industry includes public education, public hospitals, and other types of government services while BEA reports only private schools in its educational

² 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).

³ Office of Management and Budget: *North American Industry Classification System, United States, 2002* (Lanham, MD: Bernan Press, 2002) and Office of Management and Budget: *North American Industry Classification System, United States, 2007* (Lanham, MD: Bernan Press, 2007) and Office of Management and Budget: *North American Industry Classification System, United States, 2012* (Lanham, MD: Bernan Press, 2012).

⁴ None of the industries BEA publishes at a quarterly frequency are affected by the switch from the 2007 to the 2012 NAICS, but four 3-digit industries that BEA publishes at an annual frequency are potentially affected: 321 (wood product manufacturing), 337 (furniture and related product manufacturing), 443 (electronics and appliance stores), and 451 (sporting goods, hobby, book and music stores).

services industry corresponding to NAICS code 61 and only private hospitals in its hospitals industry corresponding to NAICS code 622.

Concordances between the line codes and industry names used by BEA and those in the NAICS and SIC manuals are presented in an appendix.

Geographic Detail

BEA publishes local area personal income and employment for counties, micropolitan statistical areas, metropolitan statistical areas (MSAs), metropolitan divisions (parts of MSAs), combined statistical areas, BEA economic areas, states, and the metropolitan and nonmetropolitan portions of states. Counties consist of counties and county equivalents, such as the parishes of Louisiana, the boroughs and Census areas of Alaska, the District of Columbia, and the independent cities of Maryland, Missouri, Nevada, and Virginia. The estimates for Kalawao County, Hawaii and the small independent cities of Virginia—generally those with fewer than 100,000 residents—are combined with estimates for adjacent counties.

Statistical areas (micropolitan, metropolitan, and combined) and metropolitan divisions are defined (geographically delineated) by the Office of Management and Budget and the definitions are updated as new information warrants.⁵ The local area personal income and employment estimates for these areas are based on the definitions in the Office of Management and Budget Bulletin No. 10-02 issued December 1, 2009.⁶ When OMB adds a new statistical area, BEA creates a time series for it starting in 1969 even though it may not have had any urban area at the time. Similarly, when OMB changes the definition of a statistical area, BEA recreates the time series for that area, using the same definition (the new one) for every year in the time series. For example when OMB first defined the Gainesville, FL MSA it consisted of the single county of Alachua. The current definition of the Gainesville, FL MSA consists of Alachua and Gilchrist counties. BEA's estimates of personal income and employment for the Gainesville, FL MSA also consist of the same two counties every year from 1969 to the present.

A micropolitan statistical area is an area consisting of a core county or counties in which lies an urban area having a population of 10,000 to 50,000, plus adjacent counties having a high degree of social and economic integration with the core counties as measured through commuting ties.⁷

A metropolitan statistical area is an area consisting of a core county or counties in which lies an urban area having a population of at least 50,000, plus adjacent counties having a high degree of social and economic integration with the core counties as measured through commuting ties.

A metropolitan division is a county or group of counties within a metropolitan statistical area that contains an urban area with a population of at least 2.5 million. A

⁵ See the standards for defining metropolitan and micropolitan statistical areas published in the *Federal Register*, Vol. 65, No. 249, December 27, 2000, pp.82228-82238.

⁶ <http://www.whitehouse.gov/sites/default/files/omb/assets/bulletins/b10-02.pdf>

⁷ Micropolitan statistical areas, metropolitan statistical areas, metropolitan divisions, and combined statistical areas are defined by the Office of Management and Budget. See the *Federal Register*, Vol. 65, No. 249, December 27, 2000 pp.82228-82238 and Office of Management and Budget *Bulletin* No. 10-02 (December 1, 2009).

metropolitan division consists of one or more main and secondary counties that represent an employment center or centers, plus adjacent counties associated with the main county or counties through commuting ties.

A combined statistical area consists of two or more adjacent metropolitan or micropolitan statistical areas with a sufficiently large employment interchange. Areas with less but still significant employment interchange may be combined if local opinion in both areas favors combination.

BEA economic areas are defined such that every county in the nation is assigned to and only one economic area. Each of the BEA economic areas consists of one or more economic nodes—metropolitan or micropolitan statistical areas that serve as regional centers of economic activity—and the surrounding counties that are economically related to the node.⁸

The metropolitan portion of a state consists of all counties that are parts of metropolitan statistical areas.

The nonmetropolitan portion of a state consists of all counties that are outside of metropolitan statistical areas.

FIPS Codes

BEA uses Federal Information Processing Standards (FIPS) codes to uniquely identify states, MSAs, and counties with the following modifications (see the Appendix for further details):

- Kalawao County, Hawaii is combined with Maui County and the combined area is designated 901. (Kalawao does not have its own local government; it is administered by the State of Hawaii.)
- The independent cities of Virginia with populations of less than 100,000 have been combined with an adjacent county and given codes starting at 901. In the name of the combined area, the county name appears first and is followed by the city name(s).
- The metropolitan portion of each state is designated 998 and the nonmetropolitan portion is designated 999.

Over time some important changes have occurred:

- Alaska
 - Estimates up to and including 1978 reflect Alaska Census Divisions as defined in the 1970 Decennial Census.
 - Estimates for 1979 forward reflect Alaska Census Areas as defined by the Census Bureau
 - Estimates for 1988 forward separate Aleutian Islands Census Area into Aleutians East Borough and Aleutians West Census Area.

⁸ For a description of the economic areas and the methodology used to define them, see Kenneth P. Johnson and John R. Kort, “2004 Redefinition of the BEA Economic Areas,” *Survey of Current Business* 84 (November 2004): 68-75. This article and a list of the economic areas and their constituent counties and county equivalents are available on BEA’s Web site at www.bea.gov.

- Estimates for 1991 forward separate Denali Borough from Yukon-Koyukuk Census Area and Lake and Peninsula Borough from Dillingham Census Area.
- Estimates from 1993 forward separate Skagway-Yakutat-Angoon Census Area into Skagway-Hoonah-Angoon Census Area and Yakutat Borough.
- Estimates for 2008 forward separate Skagway-Hoonah-Angoon Census Area into Hoonah-Angoon Census Area and Skagway Municipality.
- Estimates for 2009 forward (a) separate Wrangell-Petersburg Census Area into Petersburg Census Area and Wrangell City and Borough, and (b) transfer a part of Prince of Wales-Outer Ketchikan Census Area to Ketchikan Gateway Borough, transfer a part (Meyers Chuck Area) to the new Wrangell City and Borough, and rename the remainder Prince of Wales-Hyder Census Area.
- La Paz County, Arizona was separated from Yuma County on January 1, 1983. The Yuma MSA contains the area that became La Paz County through 1982 and excludes it beginning with 1983.
- Cibola County, New Mexico was separated from Valencia County in June 1981, but data for Valencia includes Cibola through the end of 1981.
- Menominee County, Wisconsin was formed as a new county from Oconto and Shawano counties in 1961. However, since a large part of Menominee is an Indian reservation and there was little economic activity in the county, estimates of Menominee are combined with Shawano County through 1988 and the combined area designated 901. Separate estimates for Menominee and Shawano Counties begin in 1989.
- Broomfield County, Colorado was created from parts of Adams, Boulder, Jefferson, and Weld counties effective November 15, 2001. Estimates for Broomfield County begin with 2002. The Denver-Aurora, CO MSA contains the parts of Boulder and Weld counties that became Broomfield County beginning with 2002. (Since Adams, Jefferson, and Broomfield counties are in the Denver-Aurora, CO MSA, the transfer of parts of Adams and Jefferson to Broomfield had no effect on the MSA estimates.) The estimates for Boulder, CO, MSA include the part of Boulder County that was separated to form Broomfield County through 2001 and the estimates for Greeley, CO MSA include that part of Weld County that was separated to form Broomfield County through 2001.

Per Capita Personal Income

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

Local area per capita personal income estimates should be used with caution for several reasons. In some instances, an unusually high or low per capita personal income is the temporary result of unusual conditions, such as a bumper crop or hurricane. In other instances, the income levels of certain groups atypical of the resident population

may cause a longer term high or low per capita personal income that is not indicative of the economic well-being of the area. For instance, a major construction project—such as a defense facility, power plant, or dam—may substantially raise the per capita personal income of an area for several years because it attracts highly paid workers whose incomes are measured at the construction site.⁹ This high per capita income may not be indicative of the economic well-being of the permanent residents of the area (or, in many cases, of the construction workers themselves, because they frequently send a substantial portion of their wages to their dependents living in other areas).

Conversely, the presence of a large institutional population—such as that of a college or a prison—will tend to keep the per capita personal income of an area at a lower level because the residents of these institutions have little income attributable to them at these institutions. This lower per capita personal income is not indicative of the economic well-being of the other residents of the area (or, in some cases, of the institutional populations, because some of these populations, such as college students, typically receive support from their families living in other areas).

The per capita personal income estimates can also be misleading in areas where population changes rapidly. Population is measured at midyear, whereas income is measured as a flow over the year; therefore, a significant change in the population of an area during the year, particularly if it occurs around midyear, can cause a distortion in the per capita personal income estimates.

In counties where farm income predominates, additional considerations should be taken into account. Farm proprietors' income as measured for personal income reflects returns from current production; it does not measure current cash flows. Sales out of inventories are included in current gross farm income, but they are excluded from net farm income because they represent income from a previous year's production. Additions to inventories are included in net farm income at current market prices; therefore, farmers' attempts to regulate their cash flows by adjusting inventories are not reflected in BEA's farm proprietors' income estimates. However, this regulation of cash flows by farmers extends their earnings cycles, so it helps them to survive losses or lowered income for 2 or 3 years. In addition, the per capita personal income of sparsely populated counties that are dependent on farming will react more sharply to the vagaries of weather, world market demand, and changing government policies related to agriculture than that of counties where the sources of income are more diversified.

Per capita personal income can vary across regions because of differences in regional price levels.¹⁰

Personal Income, Adjusted Gross Income, and Money Income

Personal income as defined by BEA differs substantially from adjusted gross income (AGI), the principal income measure used by the Internal Revenue Service.

⁹ Typically, construction wages and employment are measured at the home office, not the construction site. Exceptions are made for major construction projects.

¹⁰ Regional price parities are available for states and metropolitan areas for 2005 and 2006 in Bettina H. Aten and Roger J. D'Souza, "Regional Price Parities: Comparing Price Level Differences across Geographic Areas," *Survey* 88 (November 2008): 64-74.

Personal income also differs from money income, a concept developed by the Census Bureau.

Personal income consists of the income of individuals, nonprofit institutions serving individuals, private noninsured welfare funds, and private trust funds, whereas AGI consists only of the income of individuals who file individual income tax returns. Personal income also includes several types of imputed incomes, current transfer receipts, all of the interest received by persons, and employer contributions to private health and pension funds and to government employee retirement plans, whereas AGI excludes all employer contributions, imputed incomes, most transfer receipts, and the nontaxable interest received by individuals. Personal income, unlike AGI, excludes personal contributions for social insurance, realized capital gains and losses, and pension and annuity benefits from private and government employee retirement plans.

Personal income differs from money income mainly because money income consists only of the income received by individuals in cash and cash equivalents.¹¹ Personal income, unlike money income, includes imputed income, lump-sum payments not received as part of earnings, certain in-kind personal current transfer receipts—such as Medicaid, Medicare—and employer contributions to private health and pension funds and to government employee retirement plans. Personal income excludes personal contributions for social insurance, pension and annuity benefits from private and government employee retirement plans, and income from interpersonal transfers, such as child support, which money income includes.

Personal income for a given area and year consists of the income received by individuals living in that area during that year. In contrast, money income for a given area and year counts only the income received during the year by individuals living in the area 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 of any area.

Personal income is prepared quarterly for states and annually for counties, whereas money income is prepared in greatest detail annually for the nation on the basis of responses to the Current Population Survey (CPS). State estimates are also prepared from the CPS, but they are typically an average of two or more years.¹²

Employment

BEA gives equal weight to full-time and part time jobs in its estimates of employment. Wage and salary jobs and proprietors' jobs are counted, but unpaid family workers and volunteers are not. Proprietors' employment consists of the number of sole

¹¹ For a very detailed comparison of personal income and money income see John Ruser, Adrienne Pilot, and Charles Nelson, "Alternative Measures of Household Income: BEA Personal Income, CPS Money Income, and Beyond," (December 2004) available on the BEA Web site www.bea.gov.

¹² Money income for states, counties, and cities has been prepared decennially on the basis of data from the "long-form" sample of the Census of Population. It is prepared annually for states and will eventually be prepared annually for counties on the basis of data from the American Community Survey (ACS). The income detail in the Census and in the ACS is much less than in the CPS. The Small Area Income and Poverty Estimates program of the Census Bureau has prepared post-censal estimates of median household income for counties. In addition, the Census Bureau prepares estimates of median household income for states using data from the annual Current Population Survey and the ACS.

proprietorships and the number of general partners. Wage and salary employment is on a place of work basis. Proprietors' employment, however, is more nearly by place of residence because, for nonfarm sole proprietorships, the estimates are based on IRS tax data that reflect the addresses from which the proprietors' individual tax returns are filed, which are usually the proprietors' residences. Nonfarm partnership employment 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. Farm proprietors' employment is a count of operators of non-corporate sole proprietorship and partnership farms estimated from U.S. Department of Agriculture data. The residence and place of work of farm proprietors' employment is assumed to be the same—the county in which most of farmland is located.

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

Sources of the Data

The state and county personal income and employment estimates are based primarily on administrative records data. In addition some survey and census data are used.

The administrative records data are a byproduct of the administration of various federal and state government social insurance programs and tax codes. They may originate either from the recipients of the income or from the payer of the income. Some of the more important of these programs and taxes (and the agencies compiling the data) are:

- State unemployment insurance programs (Bureau of Labor Statistics, U.S. Department of Labor)
- State Medicaid programs and the federal Medicare program (Centers for Medicare and Medicaid Services, U.S. Department of Health and Human Services)
- Social Security (Social Security Administration)
- Federal veterans' programs (U.S. Department of Veterans Affairs)
- State and federal income tax codes (Internal Revenue Service, U.S. Department of the Treasury and Bureau of the Census, U.S. Department of Commerce)

The census data are mainly collected from the recipients of the income. The most important sources of census data for the personal income and employment estimates are the Census of Population and Housing, conducted by the Bureau of the Census every ten years and the Census of Agriculture, conducted by the U.S. Department of Agriculture (USDA) every five years, and the Census of Governments.

The survey data are collected from both the payers and the recipients of the income. The more important survey data used include the annual Survey of State and Local Government Employee Retirement Systems conducted by the Census Bureau and the monthly Current Employment Statistics survey conducted by the Bureau of Labor Statistics.

The estimates of farm proprietors' income rely principally on the USDA's estimates of the income of all farms. The USDA uses sample surveys along with census data and administrative-records data to develop its estimates. The estimates of military compensation and employment rely principally on tabulations of data provided by the U.S. Department of Defense.

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, states, and counties 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 concept being estimated, they must be adjusted to compensate for differences in definitions, coverage, timing, and geographic detail.

Preparation and Revision Schedule

Personal income estimates are first prepared for the nation then for states, and lastly for counties. Estimates for all other local areas—including metropolitan statistical areas, micropolitan statistical areas, combined statistical areas, metropolitan divisions, BEA economic regions, and state metropolitan and nonmetropolitan portions are aggregations of county estimates.

Previously preliminary annual MSA estimates were released on an advance basis eight months after the end of the year and the annual estimates of local area personal income were released 16 months after the end of the year. Starting in November 2012, all local area personal income estimates will be released at one time. This represents a 5 month acceleration of the release of the complete set of local area estimates.

In November, the estimates of local area personal income for the previous year are prepared, and the estimates for the two years before that are revised. The local area personal income estimates are controlled to the annual state personal income estimates released in September each year.

The annual state estimates released in September are based on the annual, rather than the quarterly, methodology and include estimates of transfer receipts by major program, tax payments by level of government, and detailed farm income and expenses.

Aside from this schedule, the local area estimates are normally revised again only after a comprehensive, or benchmark, revision of the NIPA. Comprehensive revisions of the NIPA are made approximately every four or five years.¹³

In a comprehensive NIPA revision, the national estimates of personal income are affected by 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 classificatory changes that are made so that the NIPA will reflect the evolving economy of the United States. For example, as part of the 2009 comprehensive revision, the treatment of disasters (such as hurricanes) was changed to better reflect the distinctions between current transactions, capital transactions, and events that directly affect balance sheets. Under the new treatment, disaster-related damages to fixed assets

¹³ For the results of the latest comprehensive revision of the NIPA, see Robert Kornfeld, "Initial Results of the 2009 Comprehensive Revision of the National Income and Product Accounts," *Survey of Current Business* 89 (August 2009): 6-15.

are recorded as “other changes in the volume of assets,” and disaster-related insurance payouts are recorded as capital transfers. This means that there will no longer be special adjustments to personal income for these damages and insurance payouts.¹⁴

Release and Publication Schedule

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.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 personal income are subsequently published in the January, April, July, and October 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 April *Survey*. The revised annual estimates of state personal income by major type and of earnings by industry are published in the October *Survey*.

The local area estimates of total and per capita personal income have generally been published in the May *Survey*. Advance estimates of metropolitan area personal income have been published in the September *Survey*. Beginning in November 2012, the estimates of personal income for all local areas including counties, metropolitan areas, micropolitan areas, and BEA economic areas will be released 11 months after the end of the year. This represents a five month acceleration of the release of the complete set of local area estimates. These estimates will be published in the December 2012, *Survey*.

Tables

The local area personal income and employment data are organized in a set of online tables called iTables. Annual data are available for counties, metropolitan statistical areas, micropolitan statistical areas, combined statistical areas, metropolitan divisions, BEA economic areas, state metropolitan/nonmetropolitan portions, and for the United States:

- Personal income and population, 1969-2011 (CA1-3);
- Personal income and employment summary, 1969-2011 (CA04);
- Personal income and earnings by industry: North American Industry Classification System (NAICS) three-digit industries are used from 2001-2011 (CA05N) and Standard Industrial Classification (SIC) two-digit industries are used for 1969-2000 (CA05);
- Compensation of employees by place of work by NAICS three-digit industries for 2001-2011 (CA06N) and by SIC two-digit industries for 1998-2000;
- Employment—a count of jobs held by employees, sole proprietors, and general partners—by place of work by NAICS sector for 2001-2011 (CA25N) and by SIC Division (the “one-digit” level of classification) for 1969-2000;

¹⁴ Eugene P. Seskin and Shelly Smith, “Preview of the 2009 Comprehensive Revision of the NIPAs: Changes in Definitions and Presentations,” *Survey* 89 (March 2009):10-27.

- Economic profile tables include a selection of data from several of the other tables such as personal income, population, per capita personal income, total earnings, total employment, and average earnings per job, 1969-2011 (CA30);
- Average wage per job, wage and salary disbursements and employment, 1969-2011 (CA34)
- Personal current transfer receipts by major program, 1969-2011 (CA35);
- Farm income and expenses that include major categories of gross receipts and expenses for all farms and five measures of farm income, 1969-2011 (CA45)¹⁵
- Gross Commuters' Earning Flows for 1990-2011 (CA91).

The estimates of personal income and of per capita personal income incorporate the results of the comprehensive revision to the National Income and Product Accounts released in July 2009, the annual revisions released in July 2010, July 2011, and July 2012.

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.¹⁶ The complete set of personal income and employment estimates for local areas are available interactively on BEA's Web site. Go to www.bea.gov/iTable/index_regional.cfm to access these estimates.

The local area estimates of personal income and of employment are also available through the members of the BEA User Group, which consists of state agencies and universities that help BEA to disseminate the estimates in their states. Go to <http://www.bea.gov/regional/docs/usergrp.cfm> to access a list of the BEA User Group members.

For more information, call the Regional Income Division at 202-606-5360, fax 202-606-5322, or e-mail reis@bea.gov

¹⁵ The measures are realized net [farm] income; total net [farm] income including corporate farms; total net farm proprietors' income; total farm labor and proprietors' income; and total cash receipts and other income (also known as gross farm income).

¹⁶ BEA's national, regional, international, and industry estimates, the *Survey of Current Business*, and BEA news releases are available without charge on BEA's Web site at www.bea.gov. By visiting the site, you can also subscribe to receive free e-mail alerts of BEA releases and announcements.

Table A. Relation of U.S. Personal Income in the NIPA and the Local Area Personal Income Accounts

[Billions of dollars]

	2009	2010	2011
U.S. personal income in the NIPAs...	11,867.0	12,321.9	12,947.3
Plus adjustments for:			
Coverage differences...	-20.0	-21.9	-23.3
Federal workers abroad...	-24.9	-26.8	-28.5
Wage and salary disbursements...	-16.1	-17.0	-17.4
Supplements to wages and salaries /1/...	-9.7	-10.6	-11.3
Dividends, interest, and rent /2/...	-0.7	-0.9	-1.3
Less: Contributions for government social insurance...	-1.6	-1.7	-1.5
Rest-of-the-world difference...	4.9	4.9	5.2
Wages of private foreign nationals in U.S....	5.9	6.0	6.3
Wages of private U.S. residents abroad...	-1.0	-1.1	-1.1
Use of more current source data...	2.8	6.3	23.2
Wage and salary disbursements...	-0.1	-0.1	-0.1
Proprietors' income...	2.9	6.4	23.3
Personal current transfer receipts...	<0.1	<0.1	<0.1
Statistical discrepancy /3/...	2.9	2.2	2.7
Equals: U.S. personal income in the local area personal income accounts /4/...	11,852.7	12,308.5	12,949.9

1. Employer contributions for government social insurance and for employee pension and insurance funds for Federal workers stationed abroad.
2. Investment income received by Federal retirement plans that is attributed to Federal workers stationed abroad.
3. Includes revisions made in the NIPAs that are not yet reflected in local area personal income concerning wages of border workers and foreign nationals working for international organizations.
4. Local area personal income (LAPI) was released November 26, 2012.

II. COMPENSATION

Compensation is the income received by employees as remuneration for their work. Compensation is the sum of wage and salary disbursements and supplements to wages and salaries. Supplements to wages and salaries is the sum of employer contributions for government social insurance and employer contributions for employee pension and insurance funds. Compensation is reported by place of work. For comparison, compensation is 63.9 percent of total personal income at the national level in 2011 (table B).

The sources of data and the methods that are used to prepare the compensation estimates are described in two sections: wages and salary disbursements and supplements to wages and salaries.

Wage and Salary Disbursements

Wages and salaries are broadly defined to include commissions, tips, and bonuses; voluntary employee contributions to deferred compensation plans, such as 401(k) plans; employee gains from exercising stock options; and receipts-in-kind that represent income.

Wage and salary disbursements are measured before deductions, such as social security contributions, union dues, and voluntary employee contributions to defined contribution pension plans and they reflect the amount of wages and salaries disbursed, but not necessarily earned, during the year. The estimates are prepared, with a few exceptions, at the North American Industry Classification System (NAICS) three-digit industry level.

Wage and salary disbursements accounted for almost 51.4 percent of total personal income at the national level in 2010 (table B).

The state and county estimates of wages and salaries are based primarily on data from quarterly unemployment insurance (UI) contribution reports that are filed with state employment security agencies by employers in industries that are covered by, and subject to state UI laws. Under most of these laws, wages and salaries include bonuses, tips, and the cash value of meals and lodging provided by the employer—that is, pay-in-kind.¹ The employment and security agencies summarize the data by county and NAICS six-digit industry on form ES-202. The data from all states are then published as the Quarterly Census of Employment and Wages (QCEW) by the Bureau of Labor Statistics (BLS) of the Department of Labor. The QCEW data account for 93.5 percent of wage and salary disbursements as estimated by BEA (table C).

Three industries—agricultural services, private education, and religious membership organizations—are only partially covered by state UI programs. The estimates of wages and salaries for these industries are calculated as the sum of wages and salaries in the fully covered portion of the industry, which is based on QCEW data,

¹ State UI laws require employers to estimate (if applicable) the cash value of pay-in-kind and to add the estimate to the cash pay in their report of their payrolls. However, because employers are not required to distinguish between the two types of pay in their reports, it is doubtful that many comply with this requirement. Among the covered industries, pay-in-kind is significant only in food services and drinking places, and accommodation.

and wages and salaries in the incompletely covered portion, which is primarily based on other data.

The estimates of wages and salaries for industries that are not covered by UI programs or that are fully covered in only a few states are primarily based on data from a variety of sources as discussed below.

The sources of data and the methods that are used to prepare the estimates of wage and salary disbursements are described in two sections: Wages and salaries that are covered by UI programs and noncovered wages and salaries.

Wages and salaries covered by UI programs

Estimates of wages and salaries covered by state UI programs or by the UI program for federal civilian employees are based on quarterly QCEW wage and salary (or payroll) data. However, these data do not precisely meet BEA's statistical and conceptual requirements; therefore, the data must be adjusted. These adjustments affect both the industrial and the geographic patterns of state and county personal income.

Adjustment for industry non-classification - The industry detail of the QCEW data regularly shows minor amounts of payroll—about 0.2 percent of total payrolls nationally—that have not been assigned to any industry. The industrial classification scheme used by BEA does not permit this not-elsewhere-classified category. Therefore, for each state and county, the amount in this category is distributed among the industries in proportion to the industry-classified QCEW payrolls. Because this adjustment only apportions the amount reported for a county within that county, no error is introduced into the total estimate for the county.

Adjustment for statewide reporting - A state UI contribution report is usually filed for each establishment by industry and by county; however, a report may be filed by an employer for a group of very small establishments by state, not by county. Therefore, county data are unavailable for these establishments.

The state totals of the wages and salaries reported for these statewide units for an industry are allocated to counties in proportion to the distribution of the wages and salaries for the industry that is reported by county. The statewide totals are allocated for each private-sector industry and for five government components—federal civilian, state education, state non-education, local education, and local non-education.

Adjustments for misreported wage and salary data - Approximately 100 billion of the wages and salaries not reported by employers is added to the QCEW (table C). Because state and county data are unavailable, the national estimate for each industry is allocated to states and counties in proportion to the QCEW 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, and one part is prepared for the payrolls that were not reported because employers failed to file a report.²

In addition, tips are assumed to be understated in the UI contribution reports from the following industries: health and personal care stores; general merchandise stores; air transportation; railroad transportation; taxicabs, (a part of transit and ground passenger transportation); scenic and sightseeing transportation; couriers and messengers;

² 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.

administrative and support services; waste management and remediation services; amusement, gambling, and recreation industries; accommodation services; food services and drinking places; personal and laundry services; and religious, grant making, civic, professional and similar organizations. For each of these industries, the national estimate of the unreported tips is allocated to states and counties in proportion to the QCEW payroll data for the industry (or in proportion to Railroad Retirement Board data for the railroad transportation industry).

Further, the wages and salaries that employees contribute to tax-deferred thrift savings plans—such as 401(k) plans—had been omitted from the UI contribution reports of some employers in some states. This form of underreporting ended in 1997 in all states except Alaska. Beginning with 1996, Alaskan employers are no longer required to include employees' voluntary savings contributions with reported wages and salaries. Only the reported wages and salaries of the state government appear to have been affected by this change so far. A state control is allocated to counties in proportion to QCEW payroll data.

Adjustments for federal civilian payrolls. - Large proportions of the QCEW data for the wages and salaries of the civilian employees of some federal government agencies in New York (through 2002) and Wisconsin (through 1998) were reported by state, not by county. Therefore, the county estimates of the wages and salaries of these employees were derived from employment data provided by the Office of Personnel Management (OPM).

Prior to 2002, the state estimates of the wages and salaries of the civilian employees of the Postal Service in New York were allocated to the counties in the state in proportion to the OPM employment data for the agency.

In addition, in the QCEW payroll 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 is allocated to states in proportion to their congressional representation. The state estimates of this adjustment are allocated to counties in proportion to the QCEW payroll data.

Adjustment for a component of state government payrolls - The geographic coding of the QCEW data for the noneducation component of state government payrolls appears to attribute too much of the payrolls to the counties of the state capitals in six states. Therefore, data from the 2000 Census of Population are used in the preparation of the county estimates of the wages and salaries for these employees.

The county estimates of the wages and salaries for the noneducation component, from 1991 onward, for Illinois, Michigan, New Jersey, Rhode Island, Tennessee, and Wisconsin are based on data derived from unpublished tabulations of journey-to-work data from the Census.

Wage and salary estimates for the establishments of American Indian Tribal Councils are included with local governments.

Wages and salaries not covered by UI programs

The estimates of wages and salaries for seven industries are primarily based on data other than QCEW data. The QCEW data are inadequate for five industries—farms, farm labor contractors, private elementary and secondary schools, religious organizations, and private households—because these industries are fully covered by state UI programs in only a few states. The QCEW data are unavailable for two industries—railroads and military—because these industries are not covered by state UI programs.³ Consequently, the wages and salaries of all seven 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 each of these industries except farm labor contractors, and railroads.

Farms - The estimates of wages and salaries for farms consist of cash wages, including the salaries received by the owner-operators of farm sole proprietorships, partnerships, and family-held corporations, and the pay-in-kind of hired farm labor.

The state estimates of cash wages are based on estimates of hired farm cash wages and operator wages prepared by the Department of Agriculture. Estimates for most states are allocated to counties by the distribution of wages paid to farm employees from the Census of Agriculture. However, farm employees have mandatory UI coverage or almost complete voluntary coverage in Arizona, California, Connecticut, Delaware, Florida, Hawaii, Massachusetts, New Jersey, Rhode Island, and Washington. Therefore, county estimates of cash wages for these states are derived from QCEW data.

State estimates of pay-in-kind are based on estimates prepared by the Department of Agriculture and are allocated to counties in proportion to the number of hired farm workers who worked 150 days or more from the Census of Agriculture.

Farm labor contractors - Farm labor contractors are classified in support activities for agriculture and forestry. Farm labor contractors and their employees are only partially covered by UI laws in most states so most state and county estimates of wages are based on data for contract farm labor expenses from the Census of Agriculture. Since in Arizona and California all employees in this industry are covered, estimates are based on QCEW payroll data.

Railroads - The estimates of the wages and salaries of railroad employees are based mainly on data provided by the Railroad Retirement Board (RRB), which administers the Railroad Unemployment Insurance and Retirement systems. The railroad industry is not covered by state unemployment insurance, and the RRB does not require railroads to submit employment and wage data by establishment. However, the RRB does collect data from each railroad company on its total payroll, and, for each railroad company employee, on the wages and salaries that are subject to the railroad UI and retirement tax. The state and county of residence of each employee can also be identified in the RRB records.⁴

The estimates of railroad wages and salaries by state and county of employee residence are based on the sum of the wages of employees whose wages do not exceed the ceiling for RRB taxation plus estimates of the wages of the employees with wages above the ceiling. To estimate the latter, the national total of the wages of railroad employees receiving below-ceiling wages—summed from the RRB employee data—is

³ Military is a BEA industry classification.

⁴ The data are converted to counties on the basis of 5-digit ZIP codes.

subtracted from the national total of the payrolls of all railroad companies—summed from the RRB company data—to yield the total of the wages of the employees with above-ceiling wages. This total is allocated to states and counties in proportion to the number of employees receiving above-ceiling wages, as determined from the RRB employee data.

To be consistent with the estimates of wages and salaries for other industries, the state and county estimates of railroad wages and salaries are converted to a place-of-work basis. This is accomplished through the use of unpublished journey-to-work (JTW) data for railroad employees from the 2000 Census of Population. From these data, the proportion of the wages of railroad employees who lived in one county but worked in another was calculated. Each of these proportions was multiplied by the corresponding place-of-residence wage estimates to calculate the intercounty flows of wages due to commuting; each of these flows was subtracted from the county of residence and added to the county of work to adjust the place-of-residence wage estimates to a place-of-work basis.

The current year state and county estimates of railroad wages and salaries reflect the geographic distribution of the previous year estimates.

Private elementary and secondary schools - State estimates of cash wages of private school employees are based on data from the Census Bureau's annual *County Business Patterns* (CBP) data, the data with the most uniform national coverage. State estimates of pay-in-kind reflect the number of full-time teachers in religious orders from the *Official Catholic Directory*.⁵

In about half of the states, the county estimates of cash wages and pay-in-kind are derived from the best available series chosen from (1) data on employment in private elementary and secondary schools published by the state departments of education, (2) employment data from the U.S. Department of Education's Survey of private elementary and secondary schools, or (3) relevant wage data from *County Business Patterns*.⁶

In the other states, the UI coverage is complete enough so that the QCEW data can be used as the basis for the county estimates. In these states, the QCEW distribution of wages and salaries is the basis for the estimates of cash pay, and the QCEW distribution of employment is the basis for the estimates of pay-in-kind.

Religious organizations - The state estimates of cash wages and pay-in-kind of religious organizations are based on CBP data. However, the CBP county data are too frequently suppressed to avoid disclosure of information about individual organizations

⁵ See the "General Summary," in the *Official Catholic Directory* (New York: P.J. Kenedy and Sons). The Directory is published annually. The "General Summary" is a 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 number of teachers does not distinguish between those who receive cash wages and those who receive only pay-in-kind, nor does it distinguish between those who teach in elementary and secondary schools and those who teach in colleges and universities.

⁶ 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 many of these schools, from mandatory coverage, but its provisions for elective coverage have resulted in the participation of most of these schools and many of the other religious organizations.

to be useful; therefore the state estimates are allocated to counties in proportion to the distribution of the civilian population.⁷

Private households - The national estimates of cash wages for private household employees are allocated to states in proportion to private household wages based on unpublished Journey to Work (JTW) data from the decennial Census of Population. The JTW data were used as the allocators for 1980, 1990, and 2000 and the intervening years were interpolated. The 2000 JTW data for states and counties were extrapolated to the present by the annual change in the civilian population. National estimates of pay-in-kind for private household employees are allocated to states and counties by BEA estimates of private household wage and salary employment.

Military - Estimates of wages and salaries for the military consist of estimates of cash wages (including allowances) of full-time military personnel and members of the military Reserves, including the National Guard, and of estimates of the pay-in-kind provided to enlisted personnel.⁸

For military bases that extend across county boundaries, source data by county are available only for Forts Benning, Gordon, and Stewart, Georgia; for Wright-Patterson Air Force Base, Ohio; and for Quantico Marine Corps Base, Virginia; the data for each of the other intercounty bases are assigned to the county that contains the base headquarters.

State estimates of cash wages for full-time military personnel, are allocated to counties in proportion to the number of personnel for the Coast Guard from the Department of Homeland Security and to the county personnel estimates prepared by the Department of Defense for each of the other services.⁹

State estimates of cash wages for the Reserves are based on data from the appendix of the *Budget of the United States Government*. Because county payroll data are unavailable, the state estimates are allocated to counties in proportion to the distribution of the civilian population.

The national estimate for the pay-in-kind of the full-time personnel of each service is allocated to states and counties in proportion to the number of enlisted personnel.

Other adjustments - The QCEW payroll data for some industries exclude small portions of wages and salaries either because the employing establishments are not covered by the UI programs or because a portion of the establishments' payrolls is not subject to UI reporting. The following procedure is used to prepare county estimates of these noncovered wages.

National estimates of noncovered wages are prepared and allocated to states on the basis of the best available related economic series. The state estimates of the noncovered wages are added to the QCEW payroll data for the relevant industries. Then, the national estimates of wage and salary disbursements (both covered and noncovered portions) are allocated by industry to states in proportion to the augmented QCEW data.

⁷ County total population is from the Census Bureau. County civilian population is obtained by subtracting BEA's estimate of active duty military employment, adjusted to a place of residence basis, from total population. State civilian population is from the Census Bureau.

⁸ Officers do not receive pay-in-kind. The imputation for clothing is limited to standard issue clothing; it does not include clothing and equipment for special or unusual duties.

⁹ The Coast Guard data are provided to BEA by 5-digit ZIP-code. BEA converts to counties.

The state estimates of wage and salary disbursements (both covered and noncovered portions) are allocated to the counties in proportion to the unaugmented QCEW data. This procedure is used to prepare county estimates of the following items:

- Payrolls of railroad carrier affiliates, which are classified in support activities for transportation, and payrolls of railway labor organizations, classified in religious, grant making, civic, professional, and similar organizations;
- Contributions to cafeteria plans that are excluded from QCEW payroll data for private industries and state and local governments in twenty-eight states;
- Payrolls of nonprofit organizations, in numerous industries, that are exempt from UI coverage because they have fewer than four employees;
- Wages and salaries of students employed by the institutions of higher education in which they are enrolled, which are classified in private education, state government education, and local government education;
- Pay-in-kind of the members of religious orders who teach at private colleges and universities but who do not receive cash wages;
- Pay-in-kind of workers in private hospitals who do not receive cash wages (mainly interns, student nurses, and members of religious orders);
- Salaries of elected officials and members of the judiciary in state and local governments;
- Commissions received by insurance solicitors and real estate agents;
- Transportation subsidies paid to federal civilian employees who use mass transit to commute to and from work and allowances paid to federal civilian employees in selected occupations for uniforms;
- Prisoner compensation, in counties where prisons are located, in federal government;
- Compensation to justices of the peace for marriage fees in local government non-education;
- Compensation to jurors and expert legal witnesses in state government non-education; and
- Prisoner compensation, in counties where prisons are located, in state government non-education.

Alternative measure of county wages

Another measure of county wages by place of work is the payroll data published in the Census Bureau's *County Business Patterns* (CBP). It differs in source data and coverage from BEA's wage and salary disbursements and QCEW wages.¹⁰

The CBP data are derived from Census Bureau business establishment surveys and federal administrative records.

The coverage of the CBP data differs from that of the QCEW data primarily because the CBP data exclude most government employees, while the QCEW data cover civilian government employees.¹¹ CBP data also exclude several private industries

¹⁰ See table C.

¹¹ The CBP data cover only those government employees who work in government hospitals, federally chartered savings institutions and credit unions, retail liquor stores, wholesale liquor establishments and university publishers. QCEW data in most states exclude state and local elected officials, members of the

covered at least in part by the QCEW: crop and animal production; rail transportation; insurance and employee benefit funds; trusts, estates, and agency accounts; and private households. However, the CBP data cover the employees of educational institutions, membership organizations, and small nonprofit organizations in other industries more completely than the QCEW data.¹²

Beginning in 2001, QCEW classifies employees of Indian tribal governments and enterprises in local government. These employees were previously classified in the relevant private industries.¹³ In the CBP data, these employees are still classified in private industries.

Supplements to Wages and Salaries

Supplements to wages and salaries consist of employer contributions for employee pensions and insurance funds (previously called other labor income) and employer contributions for government social insurance. For most components of supplements to wages and salaries, county-level source data are not available and so state estimates are allocated to counties on the basis of wages or employment. See *State Personal Income and Employment Methodology* for a full description of each component of supplements and the data sources and estimation methods used for the state estimates. Supplements amount to 19.6 percent of compensation at the national level in 2011 (table D).

Employer contributions for employee pension and insurance funds

Employer contributions for employee pension and insurance funds amounted to 13.6 percent of compensation at the national level in 2011 (table D). State estimates of employer contributions for the following funds are distributed to counties, by industry, using the allocator noted:

- **Private employee pension and welfare funds**—BEA estimates of wage and salary disbursements for each private 3-digit NAICS industry.¹⁴
- **Privately administered workers' compensation funds**—BEA estimates of wage and salary disbursements.
- **Government employee health and life insurance funds**—BEA estimates of government employment. Employment is used rather than wages because health

judiciary, state national and air national guardsmen, temporary emergency employees, and those in policy and advisory positions.

¹² Some religious elementary and secondary schools are not covered by QCEW because of a 1981 Supreme Court decision stating “schools operated and supported by churches and not separately incorporated [are] held exempt from unemployment compensation taxes.” College students (and their spouses) employed by the school in which they are enrolled and student nurses and interns employed by hospitals as part of their training are also excluded from QCEW. While QCEW coverage varies, half of the states only include nonprofit organizations with four or more employees during twenty weeks in a calendar year.

¹³ For example, employees of casinos owned by tribal councils were included in the North American Industry Classification System subsector “Amusement, Gambling, and Recreation Industries.”

¹⁴ Because wage and salary disbursements by industry are used to allocate the national estimates to states and counties, the state and county estimates reflect the various mixes of industries among the states and counties and the wide variation in contribution rates relative to wages among industries, but not the variation in contribution rates among states and counties for a given industry.

care premiums typically are a fixed amount per employee rather than a percentage of wages.

- **Government employee retirement funds**—There are two types of government employee retirement funds, those administered by governments, and those administered by private carriers. State estimates of employer contributions to government-administered funds are allocated to counties, by level of government, using the corresponding BEA estimate of wage and salary disbursements for that level of government (disbursements excluding pay-in-kind, in the case of military retirement). The funds administered by private carriers consist only of annuity funds for select groups of state and local government employees—primarily teachers. The state estimates of government employer contributions to privately-administered employee retirement funds are allocated to counties, by level of government, in proportion to the corresponding unpublished BEA estimate of wage and salary disbursements for government education.

Employer contributions for government social insurance

Employers contribute on behalf of their employees to several government social insurance programs. These contributions amounted to 6.0 percent of compensation at the national level in 2011 (table D).

County-level source data are used to prepare estimates of employer contributions for state unemployment insurance (UI) programs. Estimates of **state UI taxes on employers** and **federal unemployment taxes** are based on unpublished employer contributions data by county and industry provided by the Bureau of Labor Statistics of the U.S. Department of Labor.

County-level estimates of employer contributions for all other government social insurance programs are distributions of state-level estimates, by industry, using the allocator noted:

- **Old-Age, Survivors, and Disability Insurance (OASDI) and Hospital Insurance (HI)**.—BEA estimates of private wage and salary disbursements that have been adjusted so that the average wage for each county and industry does not exceed the annual maximum taxable wage. Military wage and salary disbursements are adjusted to exclude pay-in-kind. Most employers contribute to both the OASDI and HI programs on behalf of their employees. However, employees of the rail transportation industry, federal employees in the Civil Service Retirement System, and some state and local government employees covered under their employers' pension programs are covered by the HI program but not by the OASDI program.
- **Railroad retirement and Railroad employees' unemployment insurance**—BEA estimates of wage and salary disbursements for rail transportation.
- **Unemployment Compensation for Federal Employees (UCFE) and Unemployment Compensation for Ex-Service Members (UCX)**—BEA estimates of wage and salary disbursements for civilian federal government and wage and salary disbursements excluding pay in kind for active duty military personnel.
- **Military medical insurance and veterans' life insurance**.—BEA estimates of military wage and salary disbursements excluding pay in kind.

- **Pension benefit guaranty**—BEA estimates of wage and salary disbursements for private industries.
- **Federal workers' compensation**—BEA estimates of wage and salary disbursements for civilian federal government.
- **State-administered workers' compensation**—BEA estimates of wage and salary disbursements
- **State-administered temporary disability insurance**—BEA estimates of wage and salary disbursements. New Jersey is the only state that requires employers to contribute to this program.

Table B.--Compensation of Employees, by Component and by Industry, United States, 2011

	Millions of dollars	Percent of Personal Income
By Component		
Personal Income	12,949,905	100.0
Compensation of employees, received/1/	8,273,601	63.9
Wage and salary disbursements	6,651,787	51.4
Supplements to wages and salaries	1,621,814	12.5
Employer contributions for employee pension and insurance funds	1,127,787	8.7
Employer contributions for government social insurance	494,027	3.8
Average compensation per job (dollars)/2/	60,078	(NA)
By Industry		
Compensation of employees, received/1/	8,273,601	63.9
Farm compensation	24,924	0.2
Nonfarm compensation	8,248,677	63.7
Private compensation	6,585,090	50.9
Forestry, fishing, and related activities	18,656	0.1
Forestry and logging	3,073	<0.1
Fishing, hunting, and trapping	906	<0.1
Agriculture and forestry support activities	14,677	0.1
Mining	80,574	0.6
Oil and gas extraction	30,675	0.2
Mining (except oil and gas)	18,517	0.1
Support activities for mining	31,382	0.2
Utilities	71,330	0.6
Construction	363,481	2.8
Construction of buildings	86,367	0.7
Heavy and civil engineering construction	64,644	0.5
Specialty trade contractors	212,470	1.6
Manufacturing	904,910	7.0
Durable goods manufacturing	589,919	4.6
Wood product manufacturing	16,501	0.1
Nonmetallic mineral product manufacturing	23,379	0.2
Primary metal manufacturing	30,921	0.2
Fabricated metal manufacturing	85,592	0.7
Machinery manufacturing	84,531	0.7
Computer and electronic product manufacturing	130,862	1.0
Electrical equipment and appliance manufacturing	30,801	0.2
Motor vehicles, bodies and trailers, and parts manufacturing	54,941	0.4
Other transportation equipment manufacturing	68,671	0.5
Furniture and related product manufacturing	17,298	0.1
Miscellaneous manufacturing	46,422	0.4
Nondurable goods manufacturing	314,991	2.4
Food Manufacturing	75,651	0.6
Beverage and tobacco product manufacturing	14,766	0.1
Textile mills	5,911	<0.1
Textile product mills	5,394	<0.1
Apparel manufacturing	7,065	0.1
Leather and allied product manufacturing	1,395	<0.1
Paper manufacturing	29,911	0.2
Printing and related support activities	26,441	0.2
Petroleum and coal product manufacturing	20,708	0.2
Chemical manufacturing	89,324	0.7
Plastics and rubber product manufacturing	38,425	0.3
Wholesale trade	437,979	3.4
Retail trade	499,393	3.9
Motor vehicle and parts dealers	87,649	0.7
Furniture and home furnishings stores	16,937	0.1
Electronics and appliance stores	26,247	0.2
Building material and garden supply stores	43,030	0.3
Food and beverage stores	81,268	0.6
Health and personal care stores	42,618	0.3
Gasoline stations	19,546	0.2
Clothing and clothing accessories stores	33,325	0.3
Sporting goods, hobby book and music stores	14,076	0.1
General merchandise stores	84,805	0.7
Miscellaneous store retailers	23,744	0.2
Nonstore retailers	26,148	0.2

Transportation and Warehousing	264,205	2.0
Air transportation	39,168	0.3
Rail transportation	21,243	0.2
Water transportation	6,641	0.1
Truck transportation	75,557	0.6
Transit and ground passenger transportation	16,427	0.1
Pipeline transportation	5,638	<0.1
Scenic and sightseeing transportation	1,039	<0.1
Support activities for transportation	34,378	0.3
Couriers and messengers	30,201	0.2
Warehousing and storage	33,913	0.3
Information	260,696	2.0
Publishing industries, except Internet	77,276	0.6
Motion picture and sound recording industries	28,914	0.2
Broadcasting, except Internet	25,990	0.2
Telecommunications	84,193	0.7
ISPs, search portals, and data processing	25,500	0.2
Other information services	18,823	0.1
Finance and insurance	613,108	4.7
Monetary authorities - central bank	2,029	<0.1
Credit intermediation and related activities	198,265	1.5
Securities, commodity contracts, investments	190,028	1.5
Insurance carriers and related activities	205,337	1.6
Funds, trusts, and other financial vehicles	17,449	0.1
Real estate and rental and leasing	109,698	0.8
Real estate	80,668	0.6
Rental and leasing services	26,626	0.2
Lessors of nonfinancial intangible assets	2,404	<0.1
Professional, scientific and technical services	732,531	5.7
Management of companies and enterprises	238,425	1.8
Administrative and waste management services	324,148	2.5
Administrative and support services	300,549	2.3
Waste management and remediation services	23,599	0.2
Educational services	149,388	1.2
Health care and social assistance	922,756	7.1
Ambulatory health care services	418,570	3.2
Hospitals	316,418	2.4
Nursing and residential care facilities	111,272	0.9
Social assistance	76,496	0.6
Arts, entertainment, and recreation	83,157	0.6
Performing arts and spectator sports	38,062	0.3
Museums, historical sites, zoos, and parks	4,918	<0.1
Amusement, gambling, and recreation	40,177	0.3
Accommodation and food services	265,025	2.0
Accommodation	64,193	0.5
Food services and drinking places	200,832	1.6
Other services, except public administration	245,630	1.9
Repair and maintenance	53,713	0.4
Personal and laundry services	44,671	0.3
Membership associations and organizations	130,737	1.0
Private households	16,509	0.1
Government and government enterprises	1,663,587	12.8
Federal, civilian	326,480	2.5
Military	182,326	1.4
State and local	1,154,781	8.9
State government	319,978	2.5
Local government	834,803	6.4

Footnotes

1. The North American Industry Classification System (NAICS) compensation estimates for 2011 are based on the 2012 NAICS.

2. Total average compensation per job is compensation of employees received divided by total full-time and part-time wage and salary employment.

- All dollar estimates are in current dollars (not adjusted for inflation).

(NA) Data not available for this year.

NOTE.--Detail may not add to totals due to rounding.

Table C.--Relation of BEA Wage and Salary Disbursements to Wages as Published by the Bureau of Labor Statistics, United States, 2011

[Millions of dollars]

	2011
Total wages, BLS	6,217,286
Plus: Adjustments made by BEA:	
For unreported wages and unreported tips on employment tax returns	100,031
For wages and salaries not covered or not fully covered by unemployment insurance:	
Private	205,414
Government	132,475
Other adjustments ¹	-3,419
Equals: Wage and salary disbursements, BEA	6,651,787

1. Consists of adjustments to the wage and salary estimates to remove employees of U.S. companies stationed overseas, and reflect updates to published BLS Quarterly Census of Employment and Wages (QCEW) data.

Table D.--Components of Supplements to Wages and Salaries, United States, 2011

	Millions of dollars	Percent of Compensation
Compensation	8,273,601	100.0
Supplements to wages and salaries	1,621,814	19.6
Employer contributions for employee pension and insurance funds	1,127,787	13.6
Private employee pension and welfare funds	680,593	8.2
Workers' compensation plans	48,769	0.6
Government employee health and life insurance plans	174,532	2.1
Government employee retirement plans	223,893	2.7
Federal civilian	62,940	0.8
Military	71,915	0.9
State and local	89,038	1.1
Employer contributions for government social insurance	494,027	6.0
Old-age, survivors, and disability insurance, and health insurance	412,021	5.0
Unemployment insurance	57,918	0.7
Employer Contributions to Military Employee Programs	4,438	0.1
Other (workers' comp., temporary disability, railroad retirement, pension benefit guaranty)	19,650	0.2

NOTE.--Detail may not add to totals due to rounding.

III. 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. A sole proprietorship is an unincorporated business required to file Schedule C of IRS Form 1040 (*Profit or Loss from Business*) or Schedule F (*Profit or Loss from Farming*). A partnership is an unincorporated business association required to file Form 1065 (*U.S. Return of Partnership Income*). A tax-exempt cooperative is a nonprofit business organization that is collectively owned by its customer-members. Proprietors' income includes corporate directors' fees, but it excludes the imputed net rental income of owner-occupied housing as well as the dividends and the monetary interest that are received by nonfinancial sole proprietorships and partnerships.¹

Proprietors' income accounted for approximately 9.1 percent of total personal income at the national level in 2011 (table E). The estimates of proprietors' income are prepared in two parts—nonfarm proprietors' income and farm proprietors' income. Nonfarm proprietors' income accounted for approximately 93 percent of proprietors' income, and farm proprietors' income, for approximately 7 percent.

Nonfarm proprietors' income

The estimation of nonfarm proprietors' income will be discussed in two parts: (1) the income received by nonfarm sole proprietorships and partnerships, and (2) the income received by tax-exempt cooperatives.

Income of nonfarm sole proprietorships and partnerships

The national estimates of nonfarm proprietors' income are primarily derived from data reported on income tax returns—Schedule C of Form 1040 for sole proprietorships and Form 1065 for partnerships.² Because these data do not always reflect current production and because they are incomplete, four major adjustments are made—an inventory valuation adjustment, a capital consumption adjustment, a misreporting adjustment, and an imputation for the net margins on owner-built housing.³

The inventory valuation adjustment offsets the effects of gains and losses that result from changes in the prices of products withdrawn from inventories.

The capital consumption adjustment changes the value of the consumption, or depreciation, of fixed capital from the historical-cost basis used in the source data to a replacement-cost basis.⁴

¹ The dividends are included in personal dividend income, the monetary interest in personal interest income, and the rental income in rental income of persons. See Chapter V Dividends, Interest, and Rent.

² Corporate directors' fees are reported on Schedule C.

³ For other adjustments to the tax data, see NIPA table 7.14, "Relation of Nonfarm Proprietors' Income in the National Income and Product Accounts (NIPA's) to Corresponding Measures as Published by the Internal Revenue Service (IRS)," *Survey of Current Business* 84 (August 2004): 164.

⁴ The capital consumption adjustment also reflects the differences between the depreciation schedules used for tax accounting and straight-line depreciation based on economic service lives. See also "Capital consumption adjustment" and "Inventory valuation adjustment" in Chapter X Glossary.

The misreporting adjustment is an estimate of the income of sole proprietors and partnerships that is not reported on tax returns. This adjustment accounted for 46 percent of nonfarm proprietors' income in 2011.

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

The source data necessary to prepare these adjustments are available only at the national level. Therefore, the national estimates of nonfarm proprietors' income that include the adjustments are allocated to states, and these state estimates are allocated to the counties, in proportion to tax return data that do not reflect the adjustments.

National estimates of nonfarm proprietorship and partnership income, excluding the misreporting adjustment, for 2001-forward by North American Industry Classification System (NAICS) subsectors were allocated to states in proportion to tabulations by industry of the IRS profit and income data or net receipts data. The national estimates of the misreporting adjustment were allocated to states by the "net receipts" ("gross receipts or sales" less "returns and allowances") reported to the IRS, again by three-digit NAICS subsectors.

The IRS county data at NAICS three-digit level could not be used because the data are severely impaired by a large number of suppressions required to prevent the disclosure of confidential information. Further, the proprietorship and partnership income reported to the IRS could not be used, because of the volatility of these data.⁵

Consequently, the county estimates were prepared in two steps. First, the state estimates by 2-digit sector were allocated to counties in proportion to IRS net receipts data.^{6,7} Next the county 2 digit sector data were allocated to 3 digit subsectors on the basis of Census Bureau nonemployer statistics.

Prior to 2001, estimates of the income of nonfarm sole proprietorships and partnerships by industry were prepared using the Standard Industrial Classification (SIC). State division-level estimates were allocated to counties in proportion to net receipts. Three types of allocators were used to apportion county division-level estimates to two-digit industries. Estimates for nonmanufacturing divisions (excluding three industries to be mentioned below) were allocated to two-digit industries using the number of small firms as reported in *County Business Patterns*.⁸ The estimates were tied to a 1981-83 benchmark prepared using unsuppressed county-level data for net receipts and proprietorship and partnership income reported to the IRS. Estimates for the manufacturing division were allocated to two-digit industries by an estimate of wages and salaries in the industries. Estimates for three nonmanufacturing industries—crude

⁵ The volatility is frequently indicated by fluctuations between positive and negative values and often leads to anomalous results when the data are used in an allocation.

⁶ The geographic coding of the data is by the 5-digit ZIP code in the tax-filing address. This address is assumed to be the same as the address of the place of residence. Net receipts data by ZIP code were aggregated to counties using a ZIP code to county correspondence table from the 1990 Census of Population and updated by BEA. Net receipts for ZIP codes that cross county lines were allocated to counties in proportion to their population.

⁷ State-level nonfarm proprietors' income by sector for 2008-09 was distributed to counties in proportion to IRS net receipts data for 2008, the latest year for which IRS data were available.

⁸ The estimates for physicians and dentists were extrapolated by the relative change in the number of nonhospital practitioners as reported in publications of the American Medical Association and the American Dental Association.

petroleum and natural gas extraction, real estate, and holding and other investment offices—were allocated using dividends received by individuals as reported on IRS Form 1040.

Income of nonfarm tax-exempt cooperatives

The income of tax-exempt cooperatives consists of the income that is received by rural electric cooperatives, rural telephone cooperatives, and agricultural cooperatives.

The state estimates of the income of rural electric and telephone cooperatives are allocated to counties in proportion to estimates of proprietorship and partnership income, excluding the misreporting adjustment in broadcasting and telecommunications (for rural telephone cooperatives) and utilities (for rural electric cooperatives).

Agricultural cooperatives are mainly farm marketing cooperatives and farm supply cooperatives; they are classified in wholesale trade. The state estimates of the income of these cooperatives are allocated to counties in proportion to the income of sole proprietorships and partnerships, excluding the misreporting adjustment, in the nondurable wholesale trade industry.

Farm Proprietors' Income

Farm proprietors' income consists of the income that is received by the sole proprietorships and the partnerships that operate farms. It excludes income received by corporate farms.

The national and state estimates of farm proprietors' income are primarily derived from estimates of the income of all farms that are prepared by the U.S. Department of Agriculture (USDA). The concepts that underlie the USDA national and state estimates of farm income are generally the same as those that underlie the BEA estimates of farm proprietors' income. However, the USDA estimates of farm income include the net value of CCC loans, the net rental value of farm housing and the income of corporate farms; exclude sales and purchases of livestock between farms and a measure of the change in farm inventories of materials and supplies; and use a measure of depreciation different from BEA's measure.⁹

BEA's county estimates of farm proprietors' income for 2002-2010 are primarily derived from county data from the 2002 and 2007 Censuses of Agriculture and from select annual county data from the state offices that are affiliated with the National Agricultural Statistics Service (NASS) of the USDA. In addition, data from other sources within the USDA, such as the Farm Service Agency, are used.

⁹ For the differences between the USDA and the BEA estimates of net farm income at the national level, see NIPA table 7.15, "Relation of Net Farm Income in the National Income and Product Accounts to Net Farm Income as Published by the U.S. Department of Agriculture (USDA)," *Survey* 92 (September 2012): 20. For information on the BEA estimates of depreciation, see Barbara M. Fraumeni, "The Measurement of Depreciation in the U.S. National Income and Product Accounts," *Survey* 77 (July 1997): 7-23. Sales and purchases between farms are excluded from the USDA state estimates of cash receipts from marketing livestock and of expenses for livestock purchases because in the aggregated state estimates of farm income the cash receipts from intrastate interfarm sales offset the expenses for intrastate interfarm purchases. Because these transactions may not be intracounty transactions, BEA estimates the transactions for each state and adds the estimate to the USDA state estimates of these cash receipts and expenses.

The process consists of three major steps. First, estimates of the “realized net income” of all farms (corporate and unincorporated) are computed as gross receipts less production expenses. Second, the estimates of realized net income are modified by the inventory change adjustment so that only the income and expenses from current production are measured. This modification yields estimates of the “total net income” of all farms. Third, the income of corporate farms is estimated and subtracted from the estimates of total net income to yield farm proprietors’ income.¹⁰

For 2002 and 2007, the county estimates of 30 components of gross receipts, 13 categories of production expenses, and three categories of the value of the net change in inventories are derived mainly from the Census of Agriculture for those years. For 2003-2006 and for 2008-2011, the county estimates for each state are prepared in the component detail that corresponds to the best annual county data available for the state. The county estimates of each of these components are controlled to BEA’s state estimates.

Farm gross receipts

The estimates of gross receipts of all farms consist primarily of the following items: (1) Cash receipts from farm marketing of crops and livestock, (2) receipts from other farm-related activities, including recreational services, sales of forest products, and custom-feeding services performed by farm operators, (3) payments to farmers under several federal government farm subsidy programs, and (4) the imputed value of home consumption, which is the value of the farm products (food and fuel) produced and consumed on farms.¹¹

The largest component of gross receipts is cash receipts from marketing. The USDA state estimates include cash receipts from the marketing of about 150 crop and livestock commodities, but the county estimates are prepared in much less detail. Annual county estimates of cash receipts—usually for total crops and for total livestock—for 13 states are prepared by NASS-affiliated state offices. BEA uses these estimates to allocate the USDA state estimates to the counties in these states.¹²

For the other states, the USDA state estimates of cash receipts from the marketing of each commodity are summed into the 8 groups of crops and the five groups of livestock for which county data for value of sales are available from the Censuses of agriculture. The state estimates of cash receipts for these groups for 2002 and for 2007 were allocated to counties by the related Census data.

For the counties of some of these states, estimates of cash receipts for select groups of commodities were interpolated between 2002 and 2007 and extrapolated to 2011 by value-weighted estimates of annual crop production and livestock inventories. These estimates were constructed from supplemental NASS data using marketing year average prices for each commodity as the weights. The state estimates for 2003-2006

¹⁰ The derivation of the estimate of farm proprietors’ income for each county is available in table CA45, “Farm Income and Expenses.”

¹¹ Receipts for recreation services are for providing facilities for recreational activities, such as fishing, hunting, and camping.

¹² County estimates of cash receipts are currently available for Alabama, Arizona, California, Hawaii, Illinois, Kentucky, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, and South Carolina.

and for 2008-2011 were allocated to counties in proportion to the interpolated and extrapolated county estimates for those years.

For the remaining commodities and for all commodities in states for which no annual county data are available, the 2002 and 2007 state estimates of cash receipts were allocated to counties in proportion to the corresponding Census data for those years. The 2003-2006 county estimates reflect interpolations between the 2002 and 2007 Census data, and the 2008-2011 estimates reflect the 2007 Census data.

State estimates of the receipts from other farm-related activities for 2002-2011 were similarly allocated to counties in proportion to data for the receipts from these activities from the Censuses or from interpolations between the Censuses.

State estimates of federal government payments to farmers for 2002-2011 were allocated to counties in proportion to annual tabulations of the payments from the Farm Service Agency, USDA.

County source data that reflect the imputed value of home consumption are unavailable. Therefore, the county estimates are based on the distribution of the number of farms reported in the Censuses.

Farm production expenses

State estimates of most farm production expenses for 2002 and 2007 were allocated to counties in proportion to production expense data from the Censuses for those years; the 2003-2006 county estimates are based on interpolations of the data from the Censuses, and the 2008-2011 estimates are based on data from the 2007 Census.¹³

Inventory change adjustment

The adjustment for inventory change is an estimate of the value of the net change during the year in farm inventories of the livestock and crops held for sale and private farm inventories of materials and supplies (i.e., purchased inputs such as feed, seed, fertilizer, and chemicals). This estimate is added to the estimate of realized net income in the second major step in the calculation of farm proprietors' income, so that farm proprietors' income for a year will include only the farm income and production expenses during the year, or from *current* production. The sum of realized net income and the value of the net change in inventories is total net income.

The role of the inventory change adjustment in the derivation of net farm income is illustrated by the following examples. For crops, the value of the net change in inventories is negative when farmers feed more crops to their animals or sell more crops than they produce during the year; the amount held in inventory declines and realized net income overstates the income from current production by the value of the net withdrawals from inventory. For livestock, the value of the net change in inventories is positive when the number of animals that are born or that farmers purchase is greater than the number that they sell during the year; the size of the herds increase and the realized net income understates the income from current production by the value of the net

¹³ Direct allocators for the following expenses are available from the 2002 and 2007 Censuses: Purchases of feed, livestock including poultry, seed, fertilizer and agricultural chemicals including lime, and petroleum products; cash wages, perquisites, and social security taxes; contract labor expenses; machine hire and custom work; electricity; interest; taxes; repair and maintenance; depreciation; and a miscellaneous category that includes animal health costs.

increase in the herds. For materials and supplies, the value of the net change in inventories is positive when farmers purchase more raw materials and supplies than they consume during the year; the amount held in inventory rises and the realized net income overstates the expenses from current production by the value of the net increase in the private inventories of materials and supplies.

Annual county data for the number of cattle, swine, sheep, and chickens on farms are available from the NASS offices of some states. The 2002-2010 state estimates of the value of the net change in livestock inventories on farms for these states were allocated to the counties in these states in proportion to the number of livestock of each type in farm inventories at the end of each year. The county estimates for the other states are based on the county distribution of the number of livestock units in farm inventories reported in the 2002 and 2007 Censuses.

State estimates of the value of the net change in crop inventories were allocated to counties by the annual data for crop production from the NASS state offices. If the NASS data were unavailable, the 2002 and 2007 state estimates were allocated by the data for crop production from the Censuses for those years, the 2003-2006 state estimates were allocated by the interpolations of the data from the Censuses, and the 2008-2010 state estimates were allocated by the data from the 2007 Census.

The 2002 and 2007 state estimates of the value of the net change in materials and supplies inventories are allocated to counties using production expenses from the Censuses for: feed, seeds, commercial fertilizer, agricultural chemicals, and petroleum products. The 2003-2006 state estimates were allocated by the interpolations of the data from the Censuses, and the 2008-2011 state estimates were allocated by the data from the 2007 Census.

Adjustment to exclude the income of corporate farms

An adjustment to exclude the income of corporate farms is made in the third major step in the calculation of farm proprietors' income, because the estimates of total net income of all farms calculated in the second major step include the income of corporate farms.

The adjustment is calculated in four steps. First the ratio of total crop and livestock sales of corporate farms to the total crop and livestock sales of all farms is computed for each county using unpublished tabulations from the 2002 and 2007 Censuses. The ratio is interpolated between the Censuses and the 2007 ratio is used for the 2008-2011. Second, the adjustment ratio is multiplied by the county estimate of the total net income of all farms in order to derive the initial estimate of corporate farm income for each county. Third, the state estimates of corporate farm income are allocated to counties in proportion to the initial county estimates. Fourth, the allocated county estimates of the income of corporate farms for each county are subtracted from the estimates of the income of all farms to obtain estimates of farm proprietors' income.

Table E.--Proprietors' Income, by Industry, United States, 2011

	Millions of dollars	Percent of personal income
Personal income	12,949,905	100.0
Proprietors' Income/1/	1,180,598	9.1
Farm	77,836	0.6
Forestry, fishing, and related activities	10,200	0.1
Mining	34,410	0.3
Utilities	7,412	0.1
Construction	134,787	1.0
Manufacturing	38,846	0.3
Wholesale and retail trade	115,067	0.9
Transportation and warehousing	50,196	0.4
Information	47,767	0.4
Finance and insurance	97,094	0.7
Real estate and rental and leasing	57,388	0.4
Professional, scientific and technical services	196,909	1.5
Management of companies and enterprises	-5,193	<0.0
Administrative and waste management services	47,235	0.4
Educational services	6,653	0.1
Health care and social assistance	121,129	0.9
Arts, entertainment, and recreation	21,138	0.2
Accommodation and food services	21,651	0.2
Other services except public administration	100,073	0.8

Footnotes

1. Shown with inventory valuation and capital consumption adjustments.

NOTE.--Detail may not add to totals due to rounding.

IV. DIVIDENDS, INTEREST, AND RENT

Personal dividend income, personal interest income, and rental income of persons with capital consumption adjustment are sometimes referred to as “property income.” These components accounted for 16.2 percent of personal income at the national level in 2011 (table F).

Personal Dividend Income

Personal dividend income includes the dividends received by individuals, by employee retirement plans, and by quasi-individuals—nonprofit institutions and fiduciaries. This income is the cash and other assets, excluding the corporation’s own stock, that persons who are U.S. residents receive from U.S. and foreign corporations. Personal dividend income accounted for 5.2 percent of personal income at the national level in 2011 (table F).

Dividends received by individuals and quasi-individuals

State estimates of the dividends received by individuals and dividends received by quasi-individuals are allocated to counties using county tabulations of dividends reported on individual income tax return Form 1040 from the Individual Master File (IMF) of the Internal Revenue Service (IRS).¹

Dividend income received by employee retirement plans

The dividend income received by employee retirement plans comprises the dividends received by private noninsured pension funds, by the federal civilian employees’ Thrift Savings Plan (TSP), and by state and local government employee retirement plans.² For each of these plans, a portion of the dividends is assumed received on behalf of current employees, and a portion on behalf of retired persons and their survivors.³

For the dividends received by private noninsured pension funds, the state estimates of the currently employed portion are allocated to counties using the existing county estimates extrapolated by place-of-residence private wage and salary estimates. The state estimates of the retired portion are allocated to counties using the existing county estimates extrapolated by Old-age, survivors and disability (OASDI or social security) insurance benefits.⁴

For the dividends received by the Thrift Savings Plan, the state estimates of the currently employed portion are allocated to counties using residence-adjusted county estimates of federal civilian wages and salaries; the state estimates of the retired portion,

¹ The IMF data become available about 18 months after the end of the reference year. Until they become available, the county allocators for the previous year are used.

² The dividends received by fully insured pension funds are counted under the imputed interest received from life insurance carriers.

³ For private pension plans, the division of dividends into currently-employed and retired portions is based largely on participation rates in the social security retirement system. The division corresponds roughly to the relative numbers of the participants—those making contributions and those receiving benefits.

⁴ See Chapter V Personal Current Transfer Receipts.

are allocated using existing county estimates extrapolated by federal retirement & disability payments data from the Consolidated Federal Funds Report.

For the dividends received by the state and local government employee retirement plans, the state estimates of the currently employed portion are allocated to counties using residence-adjusted county estimates of state and local government wages and salaries; the state estimates of the retired portion are allocated to counties using existing county estimates extrapolated by place-of-residence state and local wages and salaries.

Personal Interest Income

Personal interest income is the interest income (monetary and imputed) from all sources that is received by individuals, employee retirement plans, and quasi-individuals. Personal interest income accounted for 7.8 percent of total personal income at the national level in 2011 (table F); monetary interest accounted for 4.3 percent and imputed interest for about 3.5 percent.

Monetary interest received by individuals and quasi-individuals

The monetary interest received by individuals and quasi-individuals consists largely of interest that is reportable for federal individual income tax purposes—including the nontaxable interest from municipal bonds.⁵ It also includes the accrued interest income from federal government savings bonds, Individual Retirement Arrangements (IRAs), and other tax-deferred savings accounts in the year in which the interest is earned. (The IMF interest data do not include interest on tax-deferred savings accounts because it is reported on tax returns as part of taxable withdrawals, not as interest, in the year in which the funds are withdrawn.)

The state estimates of the monetary interest received by individuals and by quasi-individuals are allocated to counties in proportion to IMF data for taxable interest reported on Form 1040 supplemented by a series prepared from the IMF dividends data. 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 Form 1040.

The county 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 (excluding such interest) received by individuals is calculated. Second, this ratio is multiplied by the IMF dividends for each county to yield an estimate of the interest received from regulated investment companies that is reported as dividends. Third, this estimate of interest is added to the IMF county tabulations of interest to yield preliminary county estimates of interest. Fourth, the state control totals of the interest received by individuals and by quasi-individuals are allocated to counties in proportion to the preliminary estimates.

⁵ Although interest from municipal bonds is nontaxable it must still be reported on form 1040.

Monetary interest received by employee retirement plans

Monetary interest received by employee retirement plans comprises the interest received by private noninsured pension funds, federal civilian employee retirement plans (including the Thrift Savings Plan), the military retirement plan, and state and local government employee retirement plans.

For the military plan, a portion of the interest is assumed to be received on behalf of those currently serving, and a portion on behalf of retired persons and their survivors.⁶ The state estimates of the currently employed portion are allocated to counties using residence-adjusted estimates of the pay of active-duty military personnel. The retired portion is allocated to counties using existing county estimates extrapolated by federal military retirement and disability payments data from the Census Bureau's *Consolidated Federal Funds Report*.

The state estimates of interest received by the federal civilian plans are allocated to counties in the same manner described above for the dividends received by the Thrift Savings Plan. The state estimates of the interest received by private noninsured pension funds and by state and local government employee retirement plans are allocated to counties in the same manner described above for the dividends they receive.

Imputed interest income

Imputed interest income consists of (a) the value of depositor services furnished without payment by financial intermediaries except life insurance carriers, (b) premium supplements for property and casualty insurance, and (c) the interest received from life insurance carriers.⁷

The imputed value of depositor services is an estimate of the value of services such as checking and record keeping that financial intermediaries (banks, credit agencies, and regulated investment companies) provide to persons without an explicit charge.

Premium supplements for property and casualty insurance is the property income that property and casualty insurance carriers earn on reserves held to pay claims. This income is deemed to be paid out to policyholders and then paid back as premium supplements even though in actuality the insurance companies retain the property income.

The imputed interest received from life insurance carriers consists of the property income life insurance carriers earn on life insurance and annuity reserves. This income is deemed to be paid out to policyholders and then paid back as premium supplements even though in actuality the insurance companies retain the property income.

State estimates of aggregate imputed interest are allocated to counties allocated to counties in proportion to IMF data for taxable interest reported on Form 1040 supplemented by a series prepared from the IMF dividends data. 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 Form 1040.

⁶ The division of the interest of the military retirement plan into current and retired portions is based on data from the *Valuation of the Military Retirement System*.

⁷ See "Imputation" in Chapter IX Technical Notes.

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 of owner-occupants of housing; and the royalties received by persons from patents, copyrights, and rights to natural resources.⁸ The rental income of private noninsured pension funds is imputed to persons and counted as part of rental income of persons with capital consumption adjustment. The national estimate of the rental income of persons accounted for 3.2 percent of total personal income in 2011 (table F). Monetary rental income accounted for 1.0 percent of total personal income, and imputed rental income accounted for about 2.2 percent in 2011.

Monetary rental income

County estimates of monetary rental income are prepared in two parts: The net rents and royalties received by individuals and quasi-individuals and the net rents and royalties received by private noninsured pension funds.

Net rents and royalties received by individuals and quasi-individuals - Because the available state and county data are unreliable, the national estimate of net rent and royalties received by individuals, (excluding net rents to farm operators), is allocated to states—and the state estimates, to counties—in proportion to the tabulations of IMF data for gross rents and royalties reported on Schedule E of Form 1040.⁹ The national estimate of net monetary rents received by farm landlords is allocated to the states—and the state estimates to counties—in proportion to the market value of land and buildings from the Census of Agriculture. Data between Census years are interpolated and data from the 2007 Census are used for subsequent years.

The state estimates of the royalties received by individuals are allocated to counties in proportion to the sum of the estimates for monetary interest to individuals and monetary interest for quasi individuals.

The state estimates of the rents and royalties received by nonprofit organizations and fiduciaries are allocated to counties using IMF data for gross rents and royalties reported on Schedule E of Form 1040.

Net rents and royalties received by private noninsured pension funds - A portion of the rents and royalties received by private noninsured pension funds is assumed to be received on behalf of current employees, and a portion on behalf of retired persons and their survivors. The portions are estimated in the manner described above for dividends received by retirement plans. The state estimates of the currently employed portion are allocated to counties using existing county estimates extrapolated by residence-adjusted estimates of private wage and salary estimates. The state estimates of

⁸ The net rental income received by persons who are primarily engaged in the real estate business is included in nonfarm proprietors' income.

⁹ The Internal Revenue Service formerly provided BEA with unpublished estimates of net rents for states based on the Statistics of Income (SOI) sample from the IMF. When the sample size was reduced, it became unreliable for the estimation of monetary rent because of large sampling errors in the estimates for the less populous states.

the retired portion are allocated using existing county estimates extrapolated by OASDI insurance benefits.

Imputed rental income

Imputed rent is an imputation for the net rental income of owner-occupied housing. It is based on the assumption that 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.¹⁰ The state and county 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 dwellings.

Imputed net rent from mobile homes - The national estimate of imputed net rent from mobile homes for 2000 was allocated to states and counties in proportion to the number of mobile homes from the 2000 Census of Housing. These data were supplemented in more recent years (at the state level) by data from the American Community Survey. The county estimates for years after 2000 are based on the year 2000 benchmark data.

Imputed net rent from all other dwellings - National estimates of imputed net rent from all other dwellings were allocated to states and counties using estimates of the rental value of owner-occupied dwellings. For Census years, estimates of the gross rental value of owner-occupied single-family dwellings were derived from Census of Housing data. Intercensal estimates of gross rental values are straight-line interpolations of the Census benchmarks. The state estimates for years after 2000 were based on an extrapolation of the benchmark data by similar data from the American Community Survey. The county estimates are based on the year 2000 benchmark data with an adjustment to account for the 'Road Home'

¹⁰ See "Imputation" in Chapter IX Technical Notes.

Table F.--Components of Property Income, United States, 2011

	Millions of dollars	Percent of personal income
Personal income	12,949,905	100.0
Dividends, interest, and rent	2,093,469	16.2
Personal dividend income	676,305	5.2
Personal interest income	1,007,479	7.8
Monetary interest	550,467	4.3
Imputed interest	457,012	3.5
Rental income of persons/1/	409,685	3.2
Monetary rent	125,824	1.0
Imputed rent	283,861	2.2

Footnotes

1. Shown with the capital consumption adjustment.

NOTE.--Detail may not add to totals due to rounding.

V. PERSONAL CURRENT TRANSFER RECEIPTS

In personal income, transfer receipts are benefits received by persons for which no current services are performed. They are payments by government and business to individuals and nonprofit institutions.¹ Transfer receipts accounted for 17.9 percent of total personal income at the national level in 2011 (table G).

Estimates are prepared for approximately 50 subcomponents of transfer receipts.² For organizational convenience, the subcomponents are classified by source—government or business—and by recipient—individuals or nonprofit institutions. In this discussion, transfer receipts consists of three major components—receipts of individuals from governments, receipts of nonprofit institutions, and receipts of individuals from businesses.

At the county level, approximately 75 percent of the estimates of transfer receipts are derived from direct measures of the receipts; for some programs, data may be drawn from Census Bureau publications, including the *Consolidated Federal Funds Report* (CFFR), *Federal Assistance Award Data System* (FAADS), *State Government Finances*, and *State and Local Government Finances*.³ The remaining 25 percent are allocations of state estimates in proportion either to data that are related to the components or to population.

This chapter is organized according to the order of the presentation of the subcomponents in table G. Each subcomponent is briefly defined and the preparation of the county estimates is described.

Current Transfer Receipts of Individuals from Governments

Retirement and disability insurance benefits

Social Security benefits - These benefits, consist mainly of monthly benefits received by retired and disabled workers, dependents, and survivors and lump-sum benefits received by survivors. The state estimates are based on annual tabulations of payments from the Social Security Administration (SSA). The county estimates are based on SSA tabulations of the amount of monthly benefits paid to those in current-payment status on December 31 by county of residence of the beneficiaries.

Railroad retirement and disability benefits - 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 Social Security. The state estimates are based on payments data from the Census Bureau's annual CFFR.

¹ Transfer receipts from the rest of the world are netted against similar payments to the rest of the world, and the net payments, called "personal current transfer payments to the rest of the world (net)," are recorded in the national income and products accounts as part of personal outlays.

² The estimates of transfer receipts in subcomponent detail for 1969- 2009 for states, counties, and metropolitan areas are available in table CA35.

³ The data in CFFR are for the federal fiscal year ending on September 30. Generally these data are converted to calendar years by adding $\frac{3}{4}$ of the amount for one fiscal year to $\frac{1}{4}$ of the amount for the subsequent year. The fiscal year data for the most recent year is treated as if it were calendar year data.

The county estimates are based on payments data from the Census Bureau's quarterly FAADS.

Workers' compensation - This compensation is received by individuals with employment-related injuries and illnesses from publicly administered workers' compensation insurance from both the federal and state governments.

The state estimates of the compensation received under the federal program, which covers only federal civilian employees, are based on fiscal year data from the Census Bureau's annual CFFR. In the absence of data for counties, the state estimates are allocated to counties in proportion to estimates of federal civilian wage and salary disbursements, which are adjusted to a place-of-residence basis.

State-administered workers' compensation funds consist of exclusively state-administered workers' compensation insurance programs, state-administered insurance programs that compete with private insurance programs, and state programs for second-injury funds.⁴ State estimates of benefits paid by state of work are derived from the Census Bureau's annual *State Government Finances*. These data are adjusted to a place-of-residence basis by BEA. In the absence of payments data for counties, the state estimates are allocated to counties by the sum of the estimates of wages and salaries for private employees and state and local government employees, which are adjusted to a place-of-residence basis.

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

Temporary disability benefits are received by workers who are unemployed because of non-occupational illnesses or injuries. These benefits are from state-administered programs only in California, New Jersey, New York, and Rhode Island. The state estimates are allocated to counties in proportion to civilian population.⁵

Black lung benefits are received by 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 the Social Security Administration (SSA); those whose eligibility was established since June 1973 receive benefits from the Department of Labor (DOL). County estimates of the benefits received from each agency are based on data from the CFFR.

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 funds that are liable for the benefits. The national estimates are allocated to states based on payments data from PBGC. The state estimates are allocated to counties in proportion to Social Security benefits, which are assumed to reflect the geographic distribution of the retired population.

⁴ Second-injury funds underwrite the risk of a subsequent work-related injury to an already disabled worker. Therefore, the liability of the employer of a disabled worker is limited to the liability for the impairment resulting from the injury sustained during the present employment. The difference between the compensation for the full impairment and the employer's liability is paid out of the second-injury fund.

⁵ State and county total population and state civilian population are from the Census Bureau. County civilian population is obtained by subtracting BEA's estimate of active duty military employment, adjusted to a place of residence basis, from total population.

Medical benefits

Medicare benefits - These benefits are federal government payments made directly or through intermediaries to vendors for the care provided to individuals under the Medicare program. The state estimates of the benefits received under the Medicare provisions for Hospital Insurance and Supplementary Medical Insurance are based on estimates of payments by state of residence as reported by the Centers for Medicare and Medicaid Services (CMS). The state estimates are allocated to counties by the dollar amounts that are paid as reimbursement for hospital and medical expenses, classified geographically according to the residence of the beneficiaries. These data are drawn from the Adjusted Average Per Capita Cost master file from CMS. Because these data are no longer being compiled, the county estimates for 1996-2008 are extrapolated from the estimates for 1995 by the change in Medicare enrollment (as of July of each year) from CMS. Estimates beginning with 2006 also include Medicare Prescription Drug Plan (Part D). The national control for Part D was allocated to states and counties by the counts from CMS of the number of enrollees in Part D.

Medicaid - These medical benefits are received by low-income individuals. The benefits consist mainly of the payments made directly or through intermediaries to vendors for care provided to individuals under the federally assisted, state-administered Medicaid program and the Title XIX Medicaid expansion portion of the Children's Health Insurance Program (CHIP).⁶

The state estimates are based on payments data from CMS. For about two-thirds of the states, the county estimates of payments made under both Medicaid are based on Medicaid payments data from the state departments of social services. See table H for a list of these states and for the most current year for which the payments data are available for each state. For a year or years for which the data are not available, the available data are interpolated or the most recent year is used to prepare the county estimates. For the states for which payments data are not available by county, the state estimates of all benefits received are allocated to counties in proportion to BEA's estimates of family assistance. The county estimates of Title XIX CHIP benefits are based on enrollment data from the various state departments of social services. For counties in states that do not provide these data, the state estimates are allocated in proportion to the estimate of children age 0-17 in poverty from the Census Bureau's *Small Area Income and Poverty Estimates*.

Other medical care benefits - These benefits are received by low-income individuals. The benefits consist mainly of the payments made directly or through intermediaries to vendors for care provided to individuals under the Title XXI of the federally assisted, state-administered Children's Health Insurance Program (CHIP), and under the general assistance medical programs of state and local governments. The state estimates of the payments made under the CHIP are based on data from CMS. The state estimates of payments made under the general assistance medical programs are based on data that are obtained from state departments of social services by CMS. The county estimates of Title XXI CHIP benefits are based on enrollment data from the various state departments of social services. For counties in states that do not provide these data, the state estimates are allocated in proportion to the estimate of children age 0-17 in poverty

⁶ On the treatment of Medicaid as a personal current transfer receipt see the *Survey of Current Business*, October 1985, pp.22-23 (Vol.65, No.10).

from the Census Bureau's Small Area Income and Poverty Estimates. The state estimates of payments made under the general assistance medical programs are allocated to counties in proportion to Medicaid benefits.

Military medical insurance benefits.—These benefits are vendor payments made under the TRICARE Management Program, formerly called the Civilian Health and Medical Plan of the Uniformed Services, 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. County data for these payments are unavailable. The state estimates are allocated to counties by military retirement payments data for September that are provided each year by the Department of Defense.

Income maintenance benefits

Supplemental Security Income (SSI) benefits - These benefits are received by the aged, the blind, and the disabled from both the federal and state governments. The state estimates are based on Social Security Administration (SSA) tabulations of annual disbursements for two categories of SSI benefits: Basic federal payments and supplemental state payments. The county estimates of the combined categories are based on payments data from the SSA.

Family assistance - Formerly, this assistance was provided through the federally-aided, state-administered Aid to Families with Dependent Children (AFDC) and emergency assistance programs. In 1997 they were phased out and replaced by the Temporary Assistance to Needy Families (TANF) program. The state estimates are based on fiscal year direct data from the web site of the Administration for Children and Families (ACF) of the Department of Health and Human Services. The county estimates are based on payments data from the various state departments of social services.

Supplemental Nutritional Assistance Program (SNAP) - These benefits (formerly called food stamps) are issued to qualifying low-income individuals in order to supplement their ability to purchase food. Eligibility is determined by each state's interpretation of federal regulations; the U.S. Department of Agriculture (USDA) pays the cost of the benefits. The state estimates are based on tabulations of the value of the distributed benefits from the Department of Agriculture. The county estimates are based on payments data from the various state departments of social services.

Other income maintenance benefits - These benefits consist of general assistance benefits, foster care and adoption assistance, earned income tax credits, energy assistance, and the value of vouchers issued under the Special Supplemental Nutrition for Women, Infants and Children (WIC) program.

General assistance benefits - 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 and disaster assistance received from the federal-state Other Needs Assistance program.⁷ The state estimates are based on payments data from the Census Bureau's annual *State and Local Government Finances* except for the disaster assistance portion which is based on direct data for each state and disaster from the Federal Emergency Management Agency (FEMA). The non-disaster portion of county estimates is based on payments data from the various state departments of social services.

⁷ The Federal Government neither funds nor regulates these programs.

For counties in states where relevant payments data are not available, the state estimates are allocated in proportion to the estimate of people in poverty from the Census Bureau's *Small Area Income and Poverty Estimates*. The disaster portion of county estimates is based on data related to the specific disaster in related components when available or on the civilian population of counties listed by FEMA as eligible for individual assistance for each disaster.

Foster care and adoption assistance - is received from state governments by families and institutions that care for foster children and by families that adopt children. The assistance is provided by state programs, some of which are federally aided. The state estimates are based on federal grants data from the Administration for Children and Families adjusted to reflect the fund matching percentage that is required of each state. The state estimates were allocated to counties in proportion to the civilian population.

Earned Income Tax Credits (EITC) - are federal income tax credits to low-income workers, mainly those with minor children. Eligibility for the tax credits is determined by the size of adjusted gross income, or earned income, and by certain household characteristics. Only a portion of this federal income tax credit is counted as a transfer receipt; this portion is the excess of the tax credit over the tax liability. The state estimates are based on data from the Internal Revenue Service's Historical Table 2 published in the *SOI Bulletin*. State estimates are allocated to counties based on the tabulations of these payments by ZIP code from the Internal Revenue Service. The IRS tabulations were converted to counties by BEA.⁸

Child Tax Credits - are federal income tax credits to people who have minor children. The portion of the credit that is counted as a transfer receipt is calculated as the excess of the tax credit over the tax liability. The state estimates are based on data from the Internal Revenue Service's Historical Table 2 published in the *SOI Bulletin*. In the absence of payments data for counties, the state estimates are allocated to counties in proportion to earned income tax credits.

Economic Stimulus Act of 2008 rebates.—The Economic Stimulus Act of 2008 provided for income tax rebates to certain taxpayers and other individuals. The rebates for individuals with tax liabilities that exceed the rebate amount are treated as offsets to personal current taxes. Otherwise, the excess of the rebates over the tax liability is treated as a personal current transfer receipt. Because the eligibility criterion for nontax payers receiving these rebates was similar to that for Earned Income Tax Credit recipients, the distribution of the national estimate to states and counties is based on BEA estimates of the Earned Income Tax Credits.

American Recovery and Reinvestment Act of 2009 (ARRA) American Opportunity tax credit - This tax credit is a temporary modification of the Hope Credit for tax years 2009 and 2010. One modification was to make a portion of the credit be refundable. The portion of the credit that is counted as a transfer receipt is calculated as the excess of the tax credit over the tax liability. Because the eligibility criterion for nontax payers receiving this credit is similar to that for Earned Income Tax Credit recipients, the

⁸ Tax credits for a ZIP code were assigned to counties using a ZIP code to county correspondence table from the 1990 Census of Population and updated by BEA with the Delivery Statistics File from the United States Postal Service. Tax credits for ZIP codes that cross county lines were allocated to counties in proportion to their residential delivery units.

distribution of the national estimate to states and counties is based on BEA estimates of Earned Income Tax Credits.

ARRA Making Work Pay tax credit - This is a federal income tax credit of up to \$400 for working individuals and \$800 for married taxpayers filing joint returns. The portion of the credit that is counted as a transfer receipt is calculated as the excess of the tax credit over the tax liability. Because the eligibility criterion for nontax payers receiving this credit is similar to that for Earned Income Tax Credit recipients, the distribution of the national estimate to states and counties is based on BEA estimates of Earned Income Tax Credits.

ARRA Government Retiree tax credit - This is a one-time federal income tax credit of \$250 available in 2009 for certain government retirees who receive a pension from work and are not covered by Social Security. This one-time credit is taken on the 2009 income tax return filed in 2010 and is a reduction to any Making Work Pay tax credit. Because the eligibility criterion for nontax payers receiving this credit is similar to that for Earned Income Tax Credit recipients, the distribution of the national estimate to states and counties is based on BEA estimates of Earned Income Tax Credits.

Adoption tax credit.—This tax credit is for qualified expenses paid to adopt an eligible child. A temporary modification makes a portion of the credit be refundable in tax years 2010 and 2011. The portion of the credit that is counted as a transfer receipt is calculated as the excess of the tax credit over the tax liability. Because the eligibility criterion for nontax payers receiving this credit is similar to that for Earned Income Tax Credit recipients, the distribution of the national estimate to states and counties is based on BEA estimates of Earned Income Tax Credits.

Energy assistance - consists of both cash payments received by needy households and vendor payments made 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 Administration for Children and Families. The estimates for counties in most states are based on payments data from the various state departments of social services. For counties in states that do not provide these data, the state estimates are allocated to counties in proportion to unpublished Supplemental Security Income enrollment (number of recipients) from the Social Security Administration.

Special Supplemental Nutrition for Women, Infants and Children (WIC) benefits - This program is fully funded by the USDA Food and Nutrition Service and administered mainly through state agencies. The transfers under the program take the form of vouchers issued to low-income women who are pregnant or who have young children; the vouchers are used to purchase supplemental nutritious foods. The state estimates are based on direct data provided by the Food and Nutrition Service. State estimates were allocated to counties in proportion to BEA's estimates of family assistance.

Unemployment insurance compensation

State unemployment insurance compensation - These benefits consist mainly of the compensation 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.⁹ The provisions that govern the eligibility, timing, and amount of benefits vary among the states, but the provisions that govern coverage and financing are uniform nationally.

The state estimates are based on data from the U.S. Department of Labor, Employment and Training Administration. In about one third of the states, the state estimates are allocated to counties by payments data reported by the state employment security agencies. In the other states, state estimates are allocated to counties in proportion to the annual average number of unemployed persons from the Local Area Unemployment Statistics program of the Bureau of Labor Statistics (BLS).¹⁰

Unemployment Compensation for Federal Employees (UCFE) - The UI program for civilian federal employees is a federal program administered by state employment security agencies acting as agents for the U.S. Government. The state estimates are based on data from the Employment and Training Administration. In about half of the states, the state estimates are allocated to the counties by county data or by local-district-office data using the same allocation procedure as that used for state unemployment insurance compensation. For the remaining states, the county allocators are residence-adjusted estimates of federal civilian wages and salaries.

Unemployment compensation for railroad employees - This compensation is received by railroad workers who are unemployed because of sickness or because work is unavailable. This UI program is administered by the Railroad Retirement Board (RRB) under a federal formula that is applicable throughout the Nation. The state and county estimates are based on payments data from the Census Bureau's quarterly FAADS.

Unemployment compensation for veterans (UCX) - This compensation is received by unemployed veterans who have recently separated from military service and who are not eligible for military retirement benefits. The state estimates are based on data from the Employment and Training Administration. For about half of the states, the state estimates are allocated to counties by county data or by local-district-office data from the state employment security agencies using the same allocation procedure as that used for state unemployment insurance compensation. For the remaining states, the county allocator is the population of veterans from the 1990 Census of population.

Other unemployment compensation - This compensation consists of Trade Adjustment Assistance and the benefits received from three defunct programs for the jobless: the Redwood Employee Protection program, the Public Service Employment program, and the Transitional Benefits program.

Trade adjustment assistance - This assistance is received by workers who are unemployed because of the adverse economic effects of international trade arrangements. The state estimates are based on calendar year data for these benefits that are tabulated by "petition" (location of plant) from the Department of Labor, which administers the program. The estimates are residence adjusted by BEA to approximate a geographic distribution based on the place of receipt of the benefits. A county distribution for 1986

⁹ 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 compensation.

¹⁰ Economic and demographic data from the 2006 Louisiana Health and Population Survey were used to supplement BLS Local Area Unemployment Statistics in the preparation of estimates for 2005 and 2006 for the Parishes in Louisiana.

from the Department of Labor is used to allocate the state control for all subsequent years.

Redwood Park benefits - These benefits were provided to workers made jobless by the expansion of the Redwood National Park in California during the period from May 31, 1977 to September 30, 1980. The benefits—which included weekly lay-off benefits, severance payments, and vacation replacement payments, as well as the continuation of health and welfare coverage, accrual of pension rights and credits, and retraining—generally extended to September 30, 1984 (although for any given beneficiary the benefits may have terminated earlier). Eighty-five percent of the state estimate provided by the Employment and Training Administration was allocated to Humboldt County and 15 percent was allocated to Del Norte County.

Public service employment benefits - These benefits were provided to unemployed public service workers who were ineligible for extended unemployment compensation under any other federal or state UI program. The program was authorized through 1979, but the extended into 1980. State employment security agencies made the payments and were reimbursed by the federal government. State estimates from the Employment and Training Administration were allocated to counties in proportion to state UI compensation.

Transitional benefits - These benefits were provided to jobless workers, newly eligible under the state UI program (agricultural workers, private household workers, and state and local government employees), during the first six months after the extended coverage became effective (January 1, 1978). State employment security agencies made the payments to the jobless workers and were reimbursed by the federal government. State estimates from the Employment and Training Administration were allocated to counties in proportion to state UI compensation.

Veterans' benefits

Veterans' pension and disability benefits - These benefits are received primarily by veterans with service-connected disabilities and by the survivors of military personnel who died of service-connected causes. In addition, these benefits 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 and county estimates are based on the data for these benefits from the Department of Veterans Affairs (DVA).

Veterans' readjustment benefits - These benefits are allowances for tuition and other educational costs that are received by veterans and by the spouses and the children of disabled and deceased veterans; and payments for automobiles, conveyances, and specially adapted housing for disabled veterans. The state and county estimates are based on data for these benefits from the DVA.

Veterans' life insurance benefits - These are the claims received by beneficiaries and the dividends received by policyholders from the five veterans' life insurance programs administered by the DVA. The state and county estimates are based on data for these benefits from the DVA.

Other assistance to veterans - This consists of state and local government *assistance to indigent veterans* and state and local government payments of *veterans' bonuses*. The state estimates of state and local government assistance and bonuses are

based on fiscal year data from the Census Bureau's annual *State Government Finances*. The state estimates are allocated to counties in proportion to the population of veterans obtained from the Department of Veterans Affairs.

Education and training assistance

Federal fellowship benefits - These benefits are received by recipients of federal fellowships but represent only a small portion of the total fellowship.¹¹ These benefits are estimated in three subcomponents: 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 and county 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 payment is assigned to the state and county in which the institution is located.

The state and county estimates of the subsistence payments to the cadets are based on payments data for each academy. The amount of the payment is assigned to the state and county in which each academy is located.

The national estimates of the payments to the recipients of all other federal fellowships are allocated to states and counties in proportion to the civilian population.

Federal educational exchange benefits - These benefits are payments to the students who participate in the Fulbright scholarship program and in other international educational exchange programs. The national estimates are allocated to states and counties in proportion to the civilian population.

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 estimates are allocated to states in proportion to the number of individuals enrolled in institutions of higher education located in those states from the Department of Education. The allocator for the county estimates is the civilian population.

Higher education student assistance - This federal assistance consists of Pell Grants to students with low incomes for an undergraduate education and, beginning in 2006, Academic Competitiveness Grants and National SMART Grants to students eligible for Pell Grants. The state estimates are based on award year award data from the Department of Education (tabulated by the location of the institution) and county estimates are based on payments data from the Census Bureau's annual CFFR.

Job Corps benefits - 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 are based on calendar year tabulations of the amount of allowances and allotments disbursed to the

¹¹ The larger portion of a Federal fellowship is paid to the school that the recipient attends. This payment is classified as a transfer payment to a nonprofit institution if the school is privately administered, or it is classified as a government grant-in-aid if the school is publicly administered.

enrollees; the tabulations are from the Employment and Training Administration of the Department of Labor. The state estimates are allocated to counties in proportion to the civilian population.

State educational assistance - These benefits consist of educational assistance provided by states to individuals for tuition and other educational expenses not including loans. The national and state estimates are based on data published by the Census Bureau's annual *State Government Finances*. The state estimates are allocated to counties in proportion to the civilian population.

Other transfer receipts of individuals from governments

Compensation of survivors of public safety officers - These are payments to the survivors of state and local government employees, such as police officers and fire fighters, who are killed in the line of duty; the payments are made under a federal program. In 1988, the payment was \$100,000. Since 1988, it has been \$100,000 plus an allowance for the increase in consumer prices. The state estimates are based on fiscal year data from the Census Bureau's annual CFFR. The county allocator is the number of claims by county from the same tabulations.

Compensation of victims of crime - This compensation consists of payments to crime victims and to vendors on behalf of crime victims. The national estimates of total compensation are allocated to states in proportion to data provided by the Office of Victims of Crime of the Department of Justice. The state estimates are allocated to counties in proportion to the civilian population.

Alaska Permanent Fund benefits - These benefits are the disbursements of property income to the residents of Alaska from the Alaska Permanent Fund. The fund, which is derived from oil revenue, pays a portion of its net property income to every resident. The state estimate is the amount that is paid and that is reported by the state. The state estimate is allocated to the boroughs and Census areas in proportion to the civilian population.

Disaster relief benefits - These benefits are transient accommodations reimbursements to the victims of disasters, such as hurricanes and earthquakes, from the Federal Emergency Management Agency. The national estimates are allocated to states and counties in proportion to the civilian population.¹²

Radiation exposure compensation - These are payments made under the Radiation Exposure Compensation Act, which offers compensation to individuals exposed to radiation released during above-ground nuclear weapons tests and uranium mining. The state estimates are based on direct data from the Department of Justice. The state estimates are allocated to counties in proportion to the civilian population.

Japanese interns redress benefits - These benefits, which were made from 1990 to 1997, are payments to the American citizens of Japanese descent who were interned during World War II. The state and county estimates are based on tabulations of these

¹² The unusually high estimate for 2005 reflects billions of dollars distributed by FEMA directly to the victims of Hurricanes Katrina, Rita, and Wilma. The assistance is largely attributed to Katrina victims and a portion of that estimate was distributed to all states based on the Current Location Report from FEMA. County estimates were based on FEMA data on individual assistance and Florida Office of Insurance Regulations data on claims. Parish estimates were based on FEMA data on individual assistance adjusted for population changes.

payments by ZIP code area from the Department of Justice. The ZIP code tabulations were converted to counties by BEA.

Payment of anti-terrorism judgments - These are payments from the U.S. Treasury to satisfy certain court judgments against countries found to have sponsored terrorism. The national estimates are allocated to states and counties in proportion to the civilian population.

Compensation of victims of September 11 - These payments are from a voluntary, federally-funded program that provides compensation to eligible individuals or relatives of individuals who were killed or physically injured as a result of the terrorist-related aircraft crashes of September 11, 2001. National estimates are allocated to states and counties in proportion to an Associated Press list of confirmed dead.

Bureau of Indian Affairs benefits - These benefits are 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. The state estimates are allocated to counties in proportion to Census Bureau estimates of the "American Indian and Alaska Native Alone" population.

TV converter box coupons - These coupons, worth \$40 each toward the purchase of up to two digital-to-analog converter boxes, were available upon request to all U.S. households. State and county estimates are based on a National Telecommunications and Information Administration report of number of coupons requested by state and 5-digit ZIP code.

American Recovery and Reinvestment Act of 2009 (ARRA) Federal additional compensation for unemployment - These receipts are an additional \$25 weekly for beneficiaries of state and federal unemployment compensation. National estimates are allocated to states based on payment data reported to recovery.gov by the Labor Department's Employment and Training Administration. The state estimates are allocated to counties in proportion to the annual average number of unemployed persons from the Local Area Unemployment Statistics program of the Bureau of Labor Statistics (BLS).

ARRA COBRA premium reduction - This benefit for certain unemployed individuals is a 65 percent subsidy of the premium for health care insurance provided under the *Consolidated Omnibus Budget Reconciliation Act* (COBRA). National estimates are allocated to states in proportion to the number of unemployed persons covered by unemployment insurance programs as reported by Employment and Training Administration. The state estimates are allocated to counties in proportion to the annual average number of unemployed persons from the Local Area Unemployment Statistics program of the Bureau of Labor Statistics (BLS).

ARRA Economic Recovery lump sum - This benefit consists of a \$250 lump sum provided to recipients of Social Security, Supplemental Security Income, Veterans' Pensions and Railroad Retirement benefits. National estimates for each type of beneficiary are allocated to states in proportion to the number of beneficiaries as reported by the administering agencies. The state estimates for Social Security, Supplemental Security Income and Railroad Retirement recipients are allocated to counties in proportion to the number of beneficiaries as reported by the administering agencies. The distribution of the state estimates for Veterans Recipients is based on the county estimates of Veterans' pension and disability benefits.

Alternative Minimum Tax (AMT) credit.—This is a federal income tax credit for certain taxpayers with old unused AMT credit. The portion of the credit that is counted as a transfer receipt is calculated as the excess of the tax credit over the tax liability. The national estimates are allocated to states and counties in proportion to the civilian population.

Current Transfer Receipts of Nonprofit Institutions

These benefits consist of the payments made by federal, state, and local governments and by businesses to nonprofit organizations that serve individuals. These payments exclude federal government payments for work under research and development contracts.

Receipts from the federal government

The national estimates of receipts from the federal government are allocated to states and counties in proportion to the civilian population.

Receipts from state and local governments

These receipts consist largely of Workforce Investment Act benefits received by private nonprofit institutions that provide job training under a work-study program funded by the federal government (formerly authorized by the Job Training Partnership Act). The national estimates are based on data from the *Monthly Treasury Statement*. The national estimates are allocated to the states and counties in proportion to the civilian population.

Receipts from businesses

These transfer receipts are donations by corporate business to nonprofit institutions serving households. The national estimates are allocated to states and counties in proportion to the civilian population.

Current Transfer Receipts of Individuals from Businesses

BP oil spill payments

These are receipts of individuals from BP (either directly or from a \$20 billion escrow account) for losses from the oil spill in the Gulf of Mexico that began in April 2010. State estimates and county estimates are based on claims data from the Gulf Coast Claims Facility.

Other transfer receipts of individuals from businesses

These mostly consist of receipts from insurance companies (commercial automobile liability, medical malpractice, and net insurance settlements), corporate cash prizes, business losses due to fraud and unrecovered thefts, and receipts from personal injury trust funds. Net insurance settlements are actual insured losses (or claims payable) less a normal level of

losses¹³. The national estimates are allocated to states and counties in proportion to the civilian population

¹³ See Brent R. Moulton and Eugene P. Seskin, "Preview of the 2003 Comprehensive Revision of the National Income and Product Accounts: Changes in Definitions and Classifications," *Survey of Current Business* 83 (June 2003):17-34

Table G.--Components of Personal Current Transfer Receipts, United States, 2011

	Millions of dollars	Percent of personal income
Personal income	12,949,905	100.0
Personal current transfer receipts	2,319,212	17.9
Current transfer receipts of individuals from governments	2,249,960	17.4
Retirement and disability insurance benefits	749,880	5.8
Social Security benefits	713,276	5.5
Railroad retirement and disability benefits	10,961	0.1
Workers' compensation	16,904	0.1
Other government retirement and disability insurance benefits /1/	8,739	0.1
Medical benefits	974,728	7.5
Medicare benefits	545,096	4.2
Public assistance medical care benefits /2/ Medicaid /3/	418,330	3.2
Other medical care benefits /4/	403,893	3.1
Military medical insurance benefits /5/	14,437	0.1
Income maintenance benefits	11,302	0.1
Supplemental Security Income (SSI) benefits	278,037	2.1
Family assistance /6/	50,423	0.4
Supplemental Nutrition Assistance Program (SNAP)	21,052	0.2
Other income maintenance benefits /7/	72,741	0.6
Unemployment insurance compensation	133,821	1.0
State unemployment insurance compensation	108,555	0.8
Unemployment Compensation for Federal civilian Employees (UCFE)	105,933	0.8
Unemployment compensation for railroad employees	671	<0.1
Unemployment compensation for veterans (UCX)	85	<0.1
Other unemployment compensation /8/	1,245	<0.1
Veterans benefits	621	<0.1
Veterans pension and disability benefits	63,263	0.5
Veterans readjustment benefits /9/	52,194	0.4
Veterans life insurance benefits	9,622	0.1
Other assistance to veterans /10/	1,411	<0.1
Education and training assistance /11/	36	<0.1
Other transfer receipts of individuals from governments /12/	71,291	0.6
Current transfer receipts of nonprofit institutions	4,206	<0.1
Receipts from the Federal government	40,733	0.3
Receipts from state and local governments	16,344	0.1
Receipts from businesses	7,967	0.1
Current transfer receipts of individuals from businesses /13/	16,422	0.1
	28,519	0.2

Footnotes

1. Consists largely of temporary disability payments, pension benefit guaranty payments, black lung payments, and Panama Canal construction annuity payments.

2. Consists of Medicaid and other medical vendor payments.

3. Consists of Medicaid and the Children's Health Insurance Program (CHIP) expansion under title XIX of the Social Security Act. Prior to 1998 Medicaid is included in Public assistance medical care benefits.

4. Consists of the Children's Health Insurance Program (CHIP) under title XXI of the Social Security Act and general medical assistance. Prior to 1998 general medical assistance is included in Public assistance medical care benefits.

5. Consists of payments made under the TriCare Management Program (formerly called CHAMPUS) for the medical care of dependents of active duty military personnel and of retired military personnel and their dependents at nonmilitary medical facilities.

6. Through 1995, consists of emergency assistance and Aid to Families with Dependent Children (ADFC). Beginning with 1998, consists of benefits-- generally known as Temporary Assistance for Needy Families (TANF)-- provided under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996. For 1996-97, consists of payments under all three of these programs.

7. Consists largely of general assistance; expenditures for food under the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); Other Needs Assistance; refugee assistance; foster home care and adoption assistance; Earned Income Tax Credits (EITC); Child Tax Credits; and energy assistance.

8. Consists of Trade Adjustment Assistance, Redwood Park benefit payments, public service employment benefit payments, and transitional benefit payments.

9. Consists largely of veterans' readjustment benefit payments, educational assistance to spouses and children of disabled or deceased veterans, payments to paraplegics, and payments for autos and conveyances for disabled veterans.

10. Consists largely of state and local government payments to veterans.

11. 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, Pell Grants, Job Corps payments, education exchange payments, and state education assistance payments.

12. Consists largely of Bureau of Indian Affairs payments; Alaska Permanent Fund dividend payments; compensation of survivors of public safety officers; compensation of victims of crime; disaster relief payments; compensation for Japanese internment; the Economic Stimulus Act of 2008 rebates; the American Recovery and Reinvestment Act of 2009 funded Federal Additional Compensation for unemployment, COBRA premium reduction, and the Economic Recovery lump sum payment; and other special payments to individuals.

13. Consists of personal injury payments to individuals other than employees and other business transfer payments.

- All dollar estimates are in current dollars (not adjusted for inflation).

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

Table H

States for Which County-level Medicaid Payments Data are Available

State	Year payments data most recently available
Alabama	2011
Arkansas	2011
Colorado	2010
Delaware	2000
Florida	2011
Georgia	2009
Hawaii	2002
Idaho	2011
Illinois	2002
Indiana	2001
Iowa	2011
Kansas	2009
Kentucky	2002
Louisiana	2011
Maryland	2010
Michigan	2001
Minnesota	2010
Mississippi	2002
Missouri	2011
Montana	2011
Nebraska	2010
Nevada	2001
New Hampshire	1997
New Jersey	2006
New Mexico	2001
New York	2011
North Carolina	2010
North Dakota	2002
Ohio	2010
Oklahoma	2011
Oregon	2011
Pennsylvania	2011
South Carolina	2011
South Dakota	2011
Tennessee	2004
Texas	1996
Utah	2008
Virginia	2009
Washington	2001
Wisconsin	2002
Wyoming	2008

VI. CONTRIBUTIONS FOR GOVERNMENT SOCIAL INSURANCE

Contributions for government social insurance consist of employer contributions for government social insurance and employee and self-employed contributions for government social insurance (formerly called personal contributions for social insurance). It is deducted in the calculation of personal income.

Because most social insurance funds are trust funds with assets that cannot be used for purposes other than those specified by statute or trust agreement, payments to these funds are classified as contributions rather than taxes.

Contributions for government social insurance amounted to 9.7 percent of earnings by place of work at the national level in 2011 (table I). Employer contributions for government social insurance were 53.8 percent of the total, while employee and self-employed contributions for government social insurance made up the other 46.2 percent.

Employer Contributions for Government Social Insurance

Employer contributions for government social insurance amounted to 5.2 percent of earnings by place of work in 2011 (table I). These contributions are a component of supplements to wages and salaries. A complete description of these contributions and the methodology employed to estimate them are presented in Chapter III Supplements to Wages and Salaries.

Employee and Self-employed Contributions for Government Social Insurance

Employee and self-employed contributions for government social insurance consist of payments by employees, by the self-employed, and by other individuals who participate in the following programs: Old-age, Survivors, and Disability Insurance (OASDI); Hospital Insurance (HI, or Medicare Part A); Supplementary Medical Insurance (Medicare Parts B and D); Railroad Retirement; state unemployment insurance (UI); temporary disability insurance; and veterans' life insurance. These contributions amounted to 4.5 percent of earnings by place of work at the national level in 2011 (table I).

Contributions of employees—like their payments of income taxes on wages and salaries—are withheld by their employers from their paychecks. These contributions include the payments that are sometimes made by employers on behalf of their employees (that is, the payments that are customarily made by the employee and that under special arrangement are made by the employer).

The self-employed make their contributions with their quarterly payments of estimated federal individual income taxes or annually with their federal income tax returns.

County contributions data are not available for any of the programs; therefore, the state estimates of these contributions are allocated to counties by related data:

- State estimates of employee contributions to OASDI and HI for private employees excluding farm and railroad employees, federal civilian employees, active duty military, and state and local government employees are allocated to counties using the corresponding wages and salaries of those groups of employees.
- State estimates of self-employed contributions to OASDI and HI are allocated to counties using nonfarm proprietors' income.
- State estimates of contributions to railroad retirement are allocated to counties using wages and salaries of railroad employees.
- The 1991-2011 state estimates of contributions for Supplementary Medical Insurance (Medicare Parts B and D) are allocated to counties by tabulations of the number of persons (both the disabled and the aged) enrolled in the program from the Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration).
- State estimates of contributions for veterans' life insurance are allocated to counties in proportion to the veteran population from the Census of Population. The veteran population for 1991-1999 is an interpolation of the 1990 and 2000 populations; the veteran population for 2000 is held constant for subsequent years.
- State estimates of employee contributions for State UI are allocated to counties in proportion to the civilian population 18 years and over from the Census of Population. The adult civilian population for 1991-1999 is an interpolation of the 1990 and 2000 populations; the adult civilian population for 2000 is held constant for subsequent years. Employees contribute to State UI only in Alabama (1969-70, 1975-85), Alaska and New Jersey (1969-2011), and Pennsylvania (1984-88, 1992-96, and 2003-11).
- State estimates of contributions for temporary disability insurance are also allocated to counties in proportion to the civilian population 18 years and over. Employees contribute to this program only in California, New Jersey, and Rhode Island.

Table I.--Components of Contributions for Government
Social Insurance, United States, 2011

	Millions of dollars	Percent of Earnings
Earnings by Place of Work	9,454,199	100.0
Less: Contributions for government social insurance	917,820	9.7
Employee and Self-employed contributions for government social insurance	423,793	4.5
Contributions to old age, survivors, disability, and hospital insurance	355,470	3.8
Civilian employee contributions	306,049	3.2
Military employee contributions	3,325	<0.1
Self employed contributions	46,096	0.5
Railroad employee retirement contributions	1,290	<0.1
State unemployment insurance and temporary disability contributions	7,117	0.1
Supplementary medical insurance contributions	59,662	0.6
Veterans life insurance contributions	254	<0.1
Employer contributions for government social insurance	494,027	5.2
Old age, survivors, and disability insurance, and hospital insurance	412,021	4.4
Unemployment programs (state UI, Federal unemployment tax, RR UI, Federal UI)	57,918	0.6
Employer Contributions to Military Employee Programs	4,438	<0.1
Other (workers' comp., temporary disability, railroad retirement, pension benefit guaranty)	19,650	0.2

Footnotes

Note.--Detail may not add to totals due to rounding.

VII. RESIDENCE ADJUSTMENT

Personal income is a measure of income by place of residence. The place of residence of individuals is the state and county in which they live. The place of residence of quasi-individuals is the state and county in which the individuals reside who benefit from the activities of the quasi-individuals or on whose behalf quasi-individuals receive income.¹

Accordingly, the residence of military personnel is the state and county in which they live while they are on military assignment, not their permanent or legal state of residence. The income of military personnel on foreign assignment is excluded from the state and local area personal income estimates because their residence is outside of the territorial limits of the United States.²

The residence of seasonal migrant workers is the state and county in which they live while they are working, not their usual place of residence. The residence of foreign citizens who work for international organizations, foreign embassies, or consulates in the United States is the country of which they are citizens. Thus their income is excluded from the state and local area personal income estimates.

This definition of residence differs from that used by the Census Bureau, which provides data used in the preparation of the residence adjustment estimates and the population data that are used to calculate per capita personal income. For example, the residence of seasonal migrant workers is sometimes reported to the Census Bureau as their usual place 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 some components of personal income—personal current transfer receipts, dividends, interest, and rent, and proprietors' income—are recorded, or treated as if they were recorded, on a place-of-residence basis.³ These components account for 42.9 percent of personal income in the United States in 2011.

Most of the source data for the remaining three components (wages and salaries, supplements to wages and salaries, and contributions for government social insurance), which account for 57.1 percent of personal income in in 2011 are recorded on a place of work basis by the source agencies. Accordingly, the state and county estimates of these components reflect the earnings of people who work in each state and county. Therefore, a residence adjustment is calculated so that the state and county personal income estimates reflect the incomes earned by residents of each state and county.

Correctly assigning the place of residence of the recipient of the income is especially important when metropolitan areas extend across state boundaries (for

¹ “Quasi-individuals” consist of nonprofit institutions that primarily serve individuals, private noninsured welfare funds, and private trust funds.

² State and local estimates of military wages and salaries for 2001-2010 do not show a large decrease for Army and Air Force troops sent to Afghanistan and Iraq. The Department of Defense is reporting active duty regular military strength according to the troops' home bases and reserve strength according to the state of the reservists' bases. For more information see the section “Differences in geographic scope and in classifications between the NIPA and the state and county estimates” in Chapter I Introduction.

³ For specific information about the source data for the estimates of the major components, see the section “Geographic characteristics of the source data” in Chapter I Introduction.

example, the Washington-Arlington-Alexandria, DC-VA-MD-WV metropolitan statistical area).

The residence adjustment is prepared by first calculating a net residence adjustment for inter-county commuting flows and then adding the wage inflows and subtracting the wage outflows associated with border workers. Estimates of the residence adjustment by industry cannot be prepared because not all of the source data on which it is based are available by industry.

Net Residence Adjustment for Intercounty Commuting Flows

A discussion of the preparation of estimates for 2001 will be presented first. This will be followed by a discussion of the preparation of estimates for subsequent years. Lastly, the procedures used to estimate the income of inter-county commuters 1990-2000 will be described.

The 2001 county estimates of the residence adjustment were calculated as part of a complete benchmark revision of the personal income and employment estimates. Briefly, using journey to work data from the 2000 Census of Population, each earnings inflow to a given county was divided by the corresponding amount paid to all those working in the source county. Each earnings outflow from the given county was divided by the corresponding amount paid to all those working in that county. These benchmark ratios were then applied to the income subject to adjustment (which is defined as wage and salary disbursements plus supplements to wages and salaries minus contributions for government social insurance) for 2001 and subsequent years to generate gross inflows and outflows. The sum of the outflows from a given county is subtracted from the sum of inflows to that county to yield the net residence adjustment for inter-county commuters.

The county estimates for 2001 were derived in two steps. First, a provisional estimate for each county was prepared using inter-county commuting data from the 2000 Census of Population.⁴ Second, the provisional estimates for some counties were modified.

Provisional estimates for 2001

The procedure used to prepare the provisional estimates of the county residence adjustment for 2001 is illustrated by the following example for a two-county area that comprises counties f and g . The example is easily generalized to the calculation of estimates for more complex areas.

The provisional 2001 estimate of the residence adjustment for county f (RA_f) was calculated as the total 2001 inflows of the income subject to adjustment to county f from county g (IN_f) minus the total 2001 outflows of the income subject to adjustment from county f to county g (OUT_f).

⁴ The benchmark year had to be 2001 instead of 2000 because 2001 is the first year that BEA estimates earnings and employment using the North American Industry Classification System (NAICS), the classification system used (with some modification) by the 2000 Census of Population. BEA's estimates of earnings and employment for 2000 are based on the 1987 Standard Industrial Classification (SIC).

$$RA_f = IN_f - OUT_f$$

The estimates of IN_f and OUT_f were prepared in industrial detail.⁵ The inflow ratio ($I_{f,k}$) is the share of total wages in a particular industry k in county g that were earned by residents of county f . It was used in the estimation of industry-level inflows to county f . Analogously, the outflow ratio ($O_{f,k}$) is the share of wages in industry k in county f that were earned by residents of county g . It 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 their average wages (A) by county of work for each county of residence from the 2000 Census of Population.

$$I_{f,k} = \frac{\text{wages earned in } g \text{ by residents of } f}{\text{total wages earned in } g}$$

$$= \frac{(W_{(f \rightarrow g),k})(A_{(f \rightarrow g),k})}{(W_{(f \rightarrow g),k})(A_{(f \rightarrow g),k}) + (W_{(g \rightarrow g),k})(A_{(g \rightarrow g),k})}$$

$$O_{f,k} = \frac{\text{wages earned in } f \text{ by residents of } g}{\text{total wages earned in } f}$$

$$= \frac{(W_{(g \rightarrow f),k})(A_{(g \rightarrow f),k})}{(W_{(g \rightarrow f),k})(A_{(g \rightarrow f),k}) + (W_{(f \rightarrow f),k})(A_{(f \rightarrow f),k})}$$

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, $W_{(f \rightarrow g),k}$ 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 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 ($ISA_{f,k}$).

$$IN_{f,k} = (I_{f,k})(ISA_{g,k})$$

⁵ The inflows and outflows of wages and salaries and of other labor income were estimated for private industries by NAICS sectors and for the public sector by federal civilian, military, and state and local governments. The inflows and the outflows of personal contributions were estimated at a more aggregated level because estimates of employee and self-employed contributions for government social insurance by private-sector employees are not made by industry.

$$OUT_{f,k} = (O_{f,k})(ISA_{f,k})$$

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).

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

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

Modifying the provisional 2001 estimates

The provisional 2001 estimates of the residence adjustment for some counties were modified in three cases. These modifications were made to the overall residence adjustment, not to the flows by industry.

Cluster county adjustment – In the first case, the estimates for each of the over 1200 counties that are in urban clusters that have high rates of commuting among their constituent counties (mostly multicounty metropolitan areas) were modified to incorporate the 1999 distribution of wages and salaries from the 2000 Census of Population.⁶ 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 BEA's wages and salaries are inconsistent.⁷

First, for each county in each cluster the provisional estimate of the residence adjustment for wages was added to place-of-work wage and salary disbursements to obtain a provisional estimate of place-of-residence wage and salary disbursements.⁸ 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 1999 wage-and-salary distribution from the 2000 Census of Population in order to produce the modified estimates of wages and salaries by county of residence. Fourth, the estimate of the modified residence adjustment for each county in the cluster was calculated as the modified estimate of place-of-residence wages minus the provisional estimate of place-of-residence wages plus the provisional estimate of the residence adjustment.

⁶ A BEA cluster county is one county in a group of counties that has a high rate of commuting with other counties in the group. BEA clusters are based mostly on official metropolitan area definitions. The 1999 distribution of wages and salaries reflects the place of residence of the income recipients on April 1, 2000, not their place of residence when they received the wages and salaries.

⁷ For example, the source data may attribute too much of the wages of a multi-establishment firm to the county in which a firm's main office is located; the source data for the wages of the personnel employed 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.

⁸ The net residence adjustment that is used for this calculation includes only the inter-county flows for wages and salaries.

The difference between the modified 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 2001 residence-adjustment estimates to subsequent years. 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. The flows were then divided by the appropriate ISA to form the cluster county adjustment ratio.

Adjacent county adjustment – In the second case, the provisional estimate of the residence adjustment for each county in 90 pairs of adjacent counties that are not in a cluster was modified because the 2001 provisional place-of-residence estimate of wages for one of the counties exceeded the place-of-residence measure of wages from the 2000 Census of Population 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 2001 residence-adjustment estimates to subsequent years, these adjacent-county modifications were also expressed as intercounty flows and converted to a ratio by dividing by ISA.

Alaskan seasonal worker adjustment – In the third case, the provisional 2001 estimates of the residence adjustment for eight county equivalents (boroughs and Census Areas) in Alaska were modified to account for the large amounts of 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 decennial 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. In order to facilitate the extrapolation of the 2001 residence adjustment estimates to subsequent years, these modifications to the eight county equivalents in Alaska were also expressed as intercounty flows and converted to a ratio by dividing by ISA.

The final estimate of net inter-county commuting flows for 2001 was then made by summing gross flows, deducting the sum of the gross outflows and adding the adjustments for cluster counties, adjacent counties, and Alaskan seasonal workers.

Procedure for the income of intercounty commuters, 2002-present

A similar set of procedures was used to estimate the intercounty commuting flows for the years since 2001. The cluster county, adjacent county, and Alaskan seasonal worker adjustment ratios along with the inflow and outflow ratios computed for 2001, were applied to each subsequent year's income subject to adjustment to prepare a preliminary estimate of net intercounty commuting flows. However, the net flows for cluster counties received one further adjustment as discussed next; the net flows for other counties are the final estimate.

IRS Adjustment

The preliminary net intercounty commuting flows for cluster counties were adjusted using county tabulations of wages, salaries, and tips reported on individual income tax return Form 1040 from the Individual Master File of the Internal Revenue Service (IRS). The change from 2001 forward in each county's share of its cluster's total

IRS wages was used to extrapolate that county's share of its cluster's residence-adjusted income subject to adjustment (RAISA).⁹ The extrapolated shares were then multiplied by the cluster's RAISA to obtain an estimate of county RAISA. The difference between RAISA and ISA is the secondary estimate of the net flow for that county.

The final estimate of the net intercounty commuting flow for cluster counties was a weighted average of the preliminary and secondary estimates. The preliminary estimate was weighted 90 percent in 2002 and declines 10 percentage points per year in subsequent years.

Procedure for the income of intercounty commuters, 1990-2000

The county estimates of residence adjustment for 1990-2000 were developed using journey-to-work (JTW) data on intercounty commuting from both the 1990 and 2000 Census of Population. Estimates for the earlier years were based more heavily on the 1990 JTW data, while the later years were based more on the 2000 JTW data. First, inflow and outflow ratios (the percentage of wages in a county that were earned by residents of other counties) were developed from both the 1990 and 2000 JTW data. The 1990 JTW ratios were based on the Standard Industrial Classification (SIC), while 2001 JTW ratios were developed from the 2000 JTW data at an all-industry level.¹⁰

The inflow and outflow ratios for 1990 and 2001 were multiplied with income subject to adjustment estimates for 1990-2000 to derive two sets of estimates of gross commuting flows between counties. These commuting flows were weighted so that the earlier years were weighted more heavily by the 1990 ratios, while the later years were weighted more heavily by the 2001 ratios. The commuting flow data was then summed to the county level to determine provisional net flows.¹¹

As above, the provisional net flows were modified by the cluster county, adjacent county, and Alaskan seasonal worker adjustments.

The IRS adjustment was then applied to the preliminary net flows for cluster counties. First, ratios of residence-adjusted income subject to adjustment (RAISA) to IRS wages were calculated for 1990 and 2001 for each cluster county. Second, the 1990 and 2001 ratios were used to develop weighted RAISA/IRS ratios for 1990-2000 for each cluster county based on the difference amount between the 1990 and 2001 ratios. The difference amount was weighted throughout the decade to capture the relative growth over time. Third, the weighted ratios for 1990-2000 were multiplied with the actual 1990-2000 IRS wage estimates to create adjusted IRS wages for the cluster counties.

⁹ Residence-adjusted income subject to adjustment (RAISA) equals income subject to adjustment (ISA) plus residence adjustment.

¹⁰ JTW ratios for 2001, instead of 2000 ratios, were developed because the 2000 JTW data is based on the North American Industry Classification System (NAICS), while BEA's 2000 income and employment data is based on the Standard Industrial Classification (SIC). The first year that BEA has income and employment estimates available that are based on NAICS sectors is for 2001. For this reason, 2001, instead of 2000, became the benchmark year to apply the new 2000 JTW commuting data.

All-industry JTW ratios for 2001 were developed to apply to BEA income subject to adjustment (ISA) data because BEA estimates of income and employment for 1990-2000 are based on SIC definitions of industries.

¹¹ The core counties in large urban areas (i.e. Cook County, Illinois) often have negative net flows. This is a result of the large number of people who work in the core county but reside in nearby counties. These "outflows" from the core county often exceed the "inflows" of income that residents of the core county earn in other counties.

Next, each cluster county's relative share of adjusted IRS wages for 1990-2000 within its BEA county cluster was calculated. This relative share for each cluster county was multiplied with its county cluster total of RAISA to derive adjusted RAISA estimates for each cluster county for 1990-2000.

The final residence adjustment estimates for 1990-2000 for cluster counties were calculated by subtracting total income subject to adjustment (ISA) from the adjusted RAISA estimates.

Border Workers

The residence adjustment for the income earned by border workers consists of two sets of estimates. The first set of estimates account for the inflows of the wages and salaries earned by U.S. residents who commute to work in Canada and the outflows of the wages and salaries earned by Canadian and Mexican residents who commute to work in the United States.¹² The second set of estimates account for the inflows of wages and salaries earned by U.S. residents employed by certain foreign organizations.

The national estimates of the inflows and outflows of the wages and salaries of border workers are prepared in the context of the balance of payments accounts.¹³ The county estimates of the inflows and the outflows of the wages and salaries of border workers are allocations of the national control totals.¹⁴ The allocated inflows are added

¹² Foreign workers can be classified in three groups: border workers, migrants, and resident aliens. Border workers live in one country and work in another country. They commute to work on a daily or weekly basis. Migrant workers live and work for part of a year in a foreign country but return to their home country for the rest of the year. Resident aliens live and work in a foreign country permanently (that is, for a period longer than a year). No distinction is made between legal and illegal presence. The estimates of state and county personal income count the income of migrants in the state and county in which they work. This treatment differs from how the balance of payments accounts treat their income—it is treated as an export of compensation. The estimates of state and county income and the balance of payments accounts agree in the treatment of the income of border workers and resident aliens. The income of resident aliens is counted in the income of the state and county in which they work. The income of border workers is excluded—through the residence adjustment in the state and county personal income estimates and by classification as an export in the case of the balance of payment accounts.

¹³ See the Balance of Payments Table 1 U.S. International Transactions, Lines 17 and 34. This table is available on the BEA Web site. For further information on the treatment and measurement of the income of foreign workers in the balance of payment accounts see *The Balance of Payments of the United States: Concepts, Data Sources, and Estimating Procedures* (May 1990), pp. 56 and 58; Christopher L. Bach, "U.S. International Transactions, Revised Estimates for 1974-1996," *Survey of Current Business* 77 (July 1997):52-53; Christopher L. Bach, "U.S. International Transactions, Revised Estimates for 1982-1998," *Survey of Current Business* 79 (July 1999):70; and Christopher L. Bach, "Annual Revision of the U.S. International Accounts, 1992-2002," *Survey of Current Business* 83 (July 2003):44-45.

¹⁴ National estimates of the inflows and outflows of the wages and salaries of border workers were revised significantly in the 2010 annual revision of the Balance of Payments Accounts (also known as the International Transactions Accounts). In particular, the measurement of the wages and salaries of short-term workers and undocumented workers was improved. See Mai-Chi Hoang and Erin M. Whitaker "Annual Revision of the U.S. International Transactions Accounts," *Survey of Current Business* 91 (July 2011):58. These revisions are not yet reflected in the regional personal income estimates but will be incorporated in the next comprehensive revision of the state and local area personal income statistics. Revised estimates of the residence adjustment for 2008-2009 are consistent with border flow estimates published in the 2009 annual revision of the Balance of Payments Accounts. Border flow estimates from that revision were extrapolated by holding the amounts constant.

to, and the allocated outflows are subtracted from, the estimates of the net residence adjustment for the income of intercounty commuters to obtain the final residence adjustment estimates for counties.

Inflows from and outflows to Canada and Mexico

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 the border counties of Maine, New Hampshire, and Vermont in proportion to data for employment in the forest product industries.

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

U.S. residents employed by certain foreign organizations

A national estimate of wages and salaries earned by US residents employed by international organizations such as the United Nations, the International Monetary Fund, and the World Bank, and by foreign embassies and consulates located within the geographic borders of the United States are prepared by BEA as part of the Balance of Payments accounts.

Foreign embassies and consulates in the United States are considered to be part of the territory of the countries they represent. U.S. residents working for foreign embassies and consulates in the United States are therefore border workers, that is, persons who live in one country and work in another. The offices of international organizations are treated in a similar fashion, that is, they are treated as if they were located on foreign territory. Therefore the wages and salaries paid to US residents by these embassies, consulates, and international organizations represent inflows to the US.

The national estimate of wage inflows from these foreign organizations is first allocated to twelve very large counties and the District of Columbia in proportion to estimates (from 1968) of the administrative expenditures of these organizations.¹⁵¹⁶ The administrative expenses series was prepared by BEA. This yields a set of place of work estimates. Next, the place of work estimates are adjusted for the place of residence of the workers. The place of work estimates are multiplied by county to county flow ratios

¹⁵ The counties are Los Angeles and San Francisco (in California); Miami-Dade (Florida); Cook (Illinois); Orleans (Louisiana); Bronx, Kings, New York, Queens, and Richmond (New York); Philadelphia (Pennsylvania); and Harris (Texas).

¹⁶ National estimates of the wages and salaries earned by US residents employed by international organizations were revised significantly in the 2010 annual revision of the Balance of Payments Accounts (also known as the International Transactions Accounts). See Mai-Chi Hoang and Erin M. Whitaker "Annual Revision of the U.S. International Transactions Accounts," *Survey of Current Business* 91 (July 2011):58. These revisions are not yet reflected in the regional personal income estimates but will be incorporated in the next comprehensive revision of the state and local area personal income statistics. Revised estimates of the residence adjustment for 2008-2009 are consistent with estimates of wages and salaries earned by US residents employed by international organizations published in the 2009 annual revision of the Balance of Payments Accounts. Estimates of wages and salaries for these workers from 2009 were extrapolated forward by holding the amounts constant.

(discussed above in the Intercounty Commuters section) to estimate gross wage inflows and gross wage outflows. County estimates of wage inflows from foreign organizations by place of residence are the sum of the place of work estimates and the estimates of the gross in and out wage flows.

VIII. EMPLOYMENT

Introduction

BEA's estimates of state and local area employment consist of the number of wage and salary jobs, sole proprietorships, and general partners. The estimates are available annually beginning with 1969.

The county employment estimates are a complement to the place-of-work earnings estimates. Earnings is estimated on a place-of-work basis, by North American Industry Classification System (NAICS) three-digit subsector beginning in 2001 and by Standard Industrial Classification (SIC) two-digit industry for 1969 to 2000, and net earnings (net of contributions for government social insurance) is estimated on a place-of-residence basis for the sum of all industries. The employment estimates are designed to conform conceptually and statistically with the place-of-work earnings estimates; the same source data—generally from administrative records—are used for both the earnings and employment estimates whenever possible. The earnings estimates reflect the scale and industrial structure of an area's economy rather than the income of the area's residents. Therefore, the employment estimates measure the number of jobs in a county, instead of the number of workers who perform the jobs. The characteristics of the county employment estimates follow from this concept and from the characteristics and limitations of the available source data.

The state and local area employment estimates are not fully consistent with the National Income and Product Accounts (NIPA) employment estimates.¹ The county estimates are prepared only on a full-time and part-time basis, while the NIPA estimates are prepared on both a full-time and part-time basis and on a full-time equivalent basis. The county estimates exclude overseas jobs—mainly federal civilian and military employment of U.S. citizens abroad—and border worker adjustments—the addition of U.S. persons commuting to work abroad and subtraction of foreign commuters and seasonal workers in the United States—that are included in the NIPA estimates. Finally, the county estimates include all sole proprietorships and general partners—approximating a full-time and part-time basis, whereas the NIPA estimates of the number of proprietors count only persons whose principal occupation is their self-employment—approximating a full-time equivalent basis of measurement.

Employment estimates measure the number of jobs

Employment can be measured either as a count of workers or as a count of jobs. In the former case, an employed worker is counted only once; in the latter case, all jobs held by the worker are counted. The county employment estimates are a count of the number of jobs, so that, as with the earnings estimates, a worker's activity in each industry and location of employment is reflected in the measure.

¹ The NIPA employment estimates are published in tables 6.4, 6.5, 6.7, and 6.8, which are available on the BEA web site. A list of all NIPA tables (with hyperlinks to the data) can be found by clicking on the *Interactive Data Tables* link on the home page and then clicking on the *National income and product accounts* link.

Treatment of part-time jobs

County employment is estimated on a full-time and part-time basis because of the limitations of the available source data. County-level data that separate part-time jobs and wages from full-time jobs and wages, which are needed to prepare full-time equivalent measures, are not available. An average earnings measure can be calculated from the BEA county employment and earnings estimates. Average earnings reflect the extent of part-time employment in the given area and industry, as well as more basic factors such as hourly wage rates.

Geography

County employment estimates, like wage and salary estimates, are measured by place-of-work—the job location—instead of by place of residence—where the worker lives. Thus the estimates are more representative of the county's industrial base than of the activities of the residents of the county. For nonfarm sole proprietors' employment, the only available annual data are classified by tax filing address, which is usually the filer's residence. BEA assumes that place-of-work and place-of-residence are identical for nonfarm sole proprietors. Since most farm operators live on or near their land, place of work and place of residence are also identical for farm proprietors.

Temporal dimension

The estimates of wage and salary employment are annual averages of twelve monthly observations for the year. This gives a job which lasts only part of the year a lesser weight than a year-round job. In contrast, the estimates of nonfarm proprietors' employment are counts of the number of proprietors active during any portion of the year. This is because the available source data do not indicate the portion of the year that the businesses are in operation.

Wage and Salary Employment

Wage and salary employment is a measure of the average annual number of full-time and part-time jobs in each area by place of work. All jobs for which wages and salaries are paid are counted. Although compensation paid to jurors, expert legal witnesses, prisoners, and justices of the peace (for marriage fees), is counted in wage and salary disbursements, these activities are not counted as jobs in wage and salary employment. Corporate directorships are counted as self-employment.

The following description of the sources and methods used in estimating wage and salary employment is divided into two sections: Employment in industries covered by unemployment insurance (UI) programs, and employment in industries not covered by UI.²

² The relevant UI programs are state UI, which covers most private sector and state and local government employment, and Unemployment Compensation for Federal Employees. The agency administering the UI program for railroad employees compiles data differently from the state UI program, and there is no employment reporting under the UI program for persons leaving the military services; accordingly, railroads and the military services are treated as noncovered industries in the estimation of local area employment.

Employment in industries covered by UI programs

The estimates of about 94 percent of wage and salary employment are derived from tabulations of quarterly unemployment insurance (UI) contribution reports (Form ES-202) filed with state employment security agencies (table J). Employers subject to UI laws usually submit reports for each operating establishment, classified by county and industry. However, in some cases, an employer may group very small establishments into a single “statewide” report without county designation. Each quarter, the state employment security agencies submit the tabulations to the Bureau of Labor Statistics (BLS), which provides the data to BEA. The tabulated data (called the Quarterly Census of Employment and Wages, QCEW) consist of monthly employment and quarterly wages by county by NAICS six-digit detail (beginning in 2001) or by SIC four-digit detail (through 2000).³

BEA adds several million administrative records received from the states and the District of Columbia to its database annually. The records are checked for major errors by several computerized edit routines. One edit routine analyzes the current quarter county data for invalid industry codes, duplicate records, and records that contain no data. Another edit routine calculates expected county-level average employment and average wages on a quarterly basis, based on percentage changes for that quarter in the previous two years. If the difference between the actual numbers and the estimated numbers exceeds established limits, the record is identified for further review. Anomalies that remain unreconciled after reviewing comments and other supporting data are referred back to BLS for further investigation.

The basic procedure for preparing the local area estimates of wage and salary employment for each UI-covered industry is to average the 12 monthly QCEW employment observations and to allocate the higher level geographic total in proportion to the averaged series. However, QCEW employment does not precisely meet the statistical and conceptual requirements for BEA’s employment estimates. Consequently, the data must be adjusted to meet the requirements more closely. The necessary adjustments affect both the industrial and geographic patterns of county employment.

Adjustment for industry non-classification -The industry detail of the QCEW tabulations regularly shows minor amounts of employment that have not been assigned to an industry. The industrial classification scheme used by BEA for its estimates does not allow for a not-elsewhere-classified category. Therefore, for each county, the amount of QCEW employment in this category is distributed among the covered industries in proportion to the industry-classified employment. The amounts involved in this adjustment are quite small—about 0.2 percent of total employment nationally. No error is introduced into the total employment estimate for a county because the adjustment involves only an apportionment within the county of the amount reported for that county.

Misreporting adjustment - An adjustment is made to the QCEW data for misreporting of private sector employment. In 2011 misreported employment accounted for 1.2 percent of BEA wage and salary employment (table J). The national estimate of misreported employment for each industry is made in two parts: One for the

³ The monthly employment observations represent the number of employees receiving wages for the pay periods that include the 12th day of the month. The QCEW tabulations reflect the 1972 SIC for years up to 1987, the 1987 SIC for 1988 through 2000 and the 2002 NAICS for years 2001 through 2006. Beginning in 2007, QCEW tabulations reflect 2007 NAICS.

underreporting of employment on UI contribution returns filed by employers and one for the employment of employers that fail to file UI contribution returns. The data necessary to replicate this methodology below the national level are not available. Instead, the national adjustment for each industry is allocated to the counties in proportion to QCEW employment.

Adjustment for statewide reporting - Employment reported for statewide units is allocated to counties in proportion to the distribution of the employment reported by each county.

Geographic adjustments for government employment -In several cases, BEA has determined that the QCEW reports attribute government employment to the wrong states or counties; the best available information is used to remedy these deficiencies. Examples of how BEA adjusts the government employment are as follows:

- The QCEW tabulations of federal civilian employment assign all of the employment of the U.S. Congress and its staff to the District of Columbia, although members of Congress employ some of their staff in home district offices. BEA assumes that this home district employment accounts for 25 percent of total congressional employment and reassigns that portion of the total to the states in proportion to their congressional representation. No explicit adjustment is made at the county level; in effect, the home district employment is allocated to counties in proportion to QCEW federal employment.
- For the federal sector, detailed civilian employment data available from the Office of Personnel Management (OPM) is used to evaluate the county coding of the corresponding QCEW data and remedy the deficiencies. Prior to 2002, for New York, BEA allocated the QCEW state employment totals for the Postal Service to counties in proportion to the OPM series for that agency.
- For the noneducation component of state government, a comparison of the QCEW data with comparable data from the Census of Population indicated that an excessively large proportion of the QCEW employment was reported in the county of the state capital for six states. For these states—Illinois, Michigan, New Jersey, Rhode Island, Tennessee, and Wisconsin—the state totals of state government noneducation employment for 1990 and later years are allocated to counties in proportion to an unpublished tabulation of the place-of-work segment of the journey-to-work Census data.

Employment not covered by UI programs

Farms - This industry is only partially covered. Farm employees have mandatory UI coverage or almost complete voluntary coverage in the following states: Arizona, California, Connecticut, Delaware, Florida, Hawaii, Massachusetts, New Jersey, Rhode Island, and Washington. Therefore, county estimates of hired farm employment for these states are derived from QCEW data. For the remaining states, the county estimates of hired farm employment are based on the geographic distribution of the number of hired farm workers who worked 150 days or more reported in Census of Agriculture.

Farm labor contractors - This industry is classified in support activities for agriculture and forestry rather than in farms. The UI coverage in Arizona and California is complete enough to permit the use of the QCEW data for both the state and county estimates, but most state UI programs only partially cover this industry. For these states,

the county estimates of farm labor contractor employment are based on the geographic distribution of expenditures for contract labor reported in the Census of Agriculture.

Railroads - The railroad industry is covered by its own unemployment insurance program, which is administered by the Railroad Retirement Board (RRB), rather than by the state UI system. Data suitable for estimating local area employment of railroads are available from the RRB only on a place-of-residence basis.⁴ Because BEA's employment estimates are designed to conform conceptually and statistically to the place-of-work earnings estimates, the RRB data are adjusted to a place-of-work basis by using journey-to-work data from the 2000 Census of Population. The national totals for all railroad companies combined are allocated to counties in proportion to the adjusted RRB series.

Private elementary and secondary schools - Private elementary and secondary schools are treated as a noncovered industry because religiously affiliated elementary and secondary schools, which account for most of the employment in this industry, remain largely outside the scope of the UI program. The state estimates of private elementary and secondary school employment are primarily based on the employment reported annually by the Census Bureau's *County Business Patterns* (CBP). The CBP data are tabulated from the administrative records of the social security program—Old-Age, Survivors, Disability, and Hospital Insurance—and are more complete for elementary and secondary schools than the data prepared under the UI program. The social security program, although exempting nonprofit religious organizations—including schools—from mandatory coverage, has elective coverage provisions that have resulted in broad participation among religiously affiliated elementary and secondary schools.

In about half of the states, the UI coverage of elementary and secondary schools is complete enough to permit the use of QCEW data as the basis for the county employment estimates. For the other states, the county estimates are based on the best available series of private elementary and secondary school employment chosen from data published by state departments of education, data from the U.S. Department of Education's survey of private elementary and secondary schools, or data from CBP, which cannot be used more generally because they are frequently suppressed at the county level to prevent disclosures.

Religious organizations - The Federal Unemployment Tax Act permits states to exclude religious organizations from mandatory UI coverage. Although most state UI laws do have some provisions for elective coverage, about 11 percent of the national total employment of religious organizations are covered. Therefore, the county estimates of the employment of religious organizations are based on CBP data. The CBP data are adjusted proportionately to sum to the BEA national employment totals for this industry.

Private households - For this largely non-covered industry—mainly domestic servants—the national employment estimates are allocated to counties in proportion to place-of-work private household employment from the Census of Population journey-to-work data.

Military - County military employment is measured as the number of military personnel assigned to active duty units that are stationed in the county plus the number of military reserve unit members. The estimates of active duty employment for the Army, Air Force, Navy, Marine Corps, and Coast Guard are based on the annual averages of 12

⁴ The data are converted to counties on the basis of 5-digit ZIP codes.

monthly observations, for a given year, from reports received from each branch of service.⁵ Navy personnel assigned to ships and other mobile units and Marines assigned to Fleet Marine Force units are measured according to the units' home ports rather than their actual locations as of the reporting date.

The measure of employment of the military Reserves—including the National Guard—is confined to members of reserve units that meet regularly for training. The state estimates are based on fiscal year—ending September 30—tabulations of military reserve strength provided by the Department of Defense. For consistency with the BEA estimates of military reserve wages, the state totals of military reserve employment are allocated to counties in proportion to civilian population.⁶

Adjustments for noncovered segments of UI-covered industries - BEA makes adjustments to add the employment of several noncovered segments. If relevant source data are not available, the national adjustments are allocated to states in proportion to the QCEW employment of the affected industry or industries. In all cases, the state adjustments are allocated to counties in proportion to QCEW employment. Examples of BEA adjustments for noncovered segments of UI-covered industries are as follows:

- Some insurance solicitors and real estate agents are omitted from UI coverage because they are paid solely by commissions. The national estimates for these two segments are allocated to states in proportion to QCEW employment in each industry.
- Establishments of railroad carrier affiliates and railway labor organizations are covered by the Railroad Unemployment Insurance system rather than by state UI. The state adjustments are based on data provided by the Railroad Retirement Board.
- Corporate officers in Washington State are omitted from UI coverage. The Washington Employment Security Department provides BEA with estimates of the number of corporate officers by NAICS six digit by county.
- Some nonprofit organizations are exempt from UI coverage because they have fewer than four employees. The national estimates are allocated to states in proportion to the QCEW employment of each industry.
- Students and the spouses of students who are employed by the institutions of higher education in which the students are enrolled are generally omitted from UI coverage. State estimates of the noncovered student employment of private, state government, and local government institutions are based on the differences between the relevant QCEW employment data and alternative employment data that include student employment. The alternative data are reported annually by the Census Bureau in *County Business Patterns* for the private institutions and on the Census Bureau's *Annual Survey of Government Employment*.

⁵ The Coast Guard data are provided to BEA by 5-digit ZIP-code. BEA converts to counties.

⁶ Military reserve wages are estimated directly on a place-of-residence basis because there are no source data to convert a place-of-work series to a place-of-residence basis for inclusion in personal income. County total population is from the Census Bureau. County civilian population is obtained by subtracting BEA's estimate of active duty military employment, adjusted to a place of residence basis, from total population.

- UI coverage of state and local government employees excludes elected officials and members of the judiciary. The national estimates are allocated to states in proportion to QCEW state and local government employment.

Alternative measures of wage and salary employment

Current Employment Statistics - The Bureau of Labor Statistics (BLS)—in cooperation with state employment security agencies—prepares the Current Employment Statistics (CES)—a set of state and local area wage and salary employment estimates—that is similar to the BEA estimates. Both are job-count measures of full-time and part-time employment on a place-of-work basis. The CES estimates are based on a monthly sample survey—using Form BLS-790—of nonagricultural establishments with employees. The sample for UI-covered industries is drawn from all establishments reported in employers’ UI contributions returns, and the monthly sample-based series for covered industries is benchmarked annually to QCEW employment; thus both the BEA and the CES series are grounded on the same set of administrative records data. A detailed description of the sampling and estimating methodologies for the CES estimates is presented in the “Explanatory Notes” of BLS’s monthly *Employment and Earnings*.

The CES estimates are timelier than the BEA estimates; preliminary BLS estimates are released with a one-month lag. By contrast, the BEA estimates are prepared only as annual averages and are released at the state level nine months after the reference year. At the county level, the all-industry totals are released 12 months after the reference year, and the estimates by industry are released 17 months after the reference year.

The BEA series is somewhat broader in its coverage than the CES series. The BEA series includes industries—agriculture, forestry, fishing, and hunting; private households; and the military—that CES excludes.⁷ A misreporting adjustment is unique to the BEA series. However, the CES series includes, within the scope of its coverage, all the noncovered segments of UI-covered industries for which BEA makes explicit adjustments.

The BEA estimates of wage and salary employment are accompanied by a self-employment series that is consistent with the wage and salary employment series as much as the available source data allow. No self-employment series is available in conjunction with the CES employment estimates.

At the national and state levels, the BEA estimates of wage and salary employment are available at the NAICS three-digit subsector beginning with 2001 and by SIC two-digit level for 1969-2000. By contrast, the CES estimates for the nation (in *Employment and Earnings*) are available in more detail: At the state level the CES estimates are presented only at the NAICS sector or SIC division (“one-digit”) level; however, more detailed estimates are available from some of the state employment security agencies. At the county level, the BEA estimates of wage and salary employment are available at the all-industry level, and at the NAICS sector or SIC division level, when combined with BEA’s self-employment estimates. The CES local area estimates are available at the NAICS sector or SIC division level.

⁷ More precisely, the CES excludes all of NAICS sector 11 (agriculture, forestry, fishing, and hunting) except logging (1133).

The BEA estimates are available for almost all counties, and for all county-based metropolitan areas as defined for federal statistical purposes. The local area CES estimates presented in *Employment and Earnings* are for the larger metropolitan areas only, but estimates for smaller metropolitan areas and for counties are available from some of the state employment security agencies. BLS uses the alternative city-and-town definitions of the metropolitan areas in the New England states, while BEA uses the standard county-based metropolitan area definitions.

County Business Patterns - Another measure of county employment by place of work is the employment data published in the Census Bureau's *County Business Patterns* (CBP). It differs in source data and coverage from BEA's employment and QCEW employment.

The CBP data are derived from Census Bureau business establishment surveys and federal administrative records.

The coverage of the CBP data differs from that of the QCEW data primarily because the CBP data exclude most government employees, while the QCEW data cover civilian government employees.⁸ CBP data also exclude several private industries covered at least in part by the QCEW: crop and animal production; rail transportation; insurance and employee benefit funds; trusts, estates, and agency accounts; and private households. However, the CBP data cover the employees of educational institutions, membership organizations, and small nonprofit organizations in other industries more completely than the QCEW data.⁹ In addition, the CBP data reports employment for the month of March only; the QCEW employment data are quarterly and annual averages of monthly data.

Beginning in 2001, QCEW classifies employees of Indian tribal governments and enterprises in local government. These employees were previously classified in the relevant private industries.¹⁰ In the CBP data, these employees are still classified in private industries.

Nonfarm Self-Employment

The BEA local area estimates of nonfarm self-employment consist of the number of sole proprietorships and the number of individual general partners.¹¹ The nonfarm self-employment estimates resemble the wage and salary employment estimates in that

⁸ The CBP data cover only those government employees who work in government hospitals, federally chartered savings institutions and credit unions, retail liquor stores, wholesale liquor establishments and university publishers. QCEW data in most states exclude state and local elected officials, members of the judiciary, state national and air national guardsmen, temporary emergency employees, and those in policy and advisory positions.

⁹ Some religious elementary and secondary schools are not covered by QCEW because of a 1981 Supreme Court decision stating "schools operated and supported by churches and not separately incorporated [are] held exempt from unemployment compensation taxes." College students (and their spouses) employed by the school in which they are enrolled and student nurses and interns employed by hospitals as part of their training are also excluded from QCEW. While QCEW coverage varies, half of the states only include nonprofit organizations with four or more employees during twenty weeks in a calendar year.

¹⁰ For example, employees of casinos owned by tribal councils were included in the North American Industry Classification System subsector "Amusement, Gambling, and Recreation Industries."

¹¹ Partners can be individuals, corporations, partnerships, estates, trusts, limited liability companies, tax-exempt organizations, or individual retirement arrangements. They can be either general or limited.

both measure jobs—as opposed to workers—on a full-time and part-time basis. However, because of limitations in source data, two important measurement differences exist between the two sets of estimates. First, the self-employment estimates are largely on a place-of-residence basis rather than on the preferred place-of-work basis. Second, the self-employment estimates reflect the total number of sole proprietorships or partners active at any time during the year—as opposed to the annual average measure used for wage and salary employment.

National totals

For each NAICS three-digit subsector (or SIC two-digit industry in years prior to 2001), the national total of nonfarm self-employment equals the sum of the number of sole proprietorships and the number of individual general partners.

Sole proprietorships - Income from a nonfarm sole proprietorship is reported on Schedule C—*Profit, or Loss, from Business or Profession*—of Internal Revenue Service (IRS) Form 1040—*U.S. Individual Income Tax Return*. A schedule is filed for each business operated by the filer and the industry of the proprietorship reported. In addition, corporate directors—who are not officers in the corporation—use Schedule C to report their director’s fees. BEA uses the number of Schedule Cs filed (including those filed by corporate directors) as its measure of the number of sole proprietorships. The national estimate of the number of nonfarm sole proprietorships in each NAICS three-digit subsector is based on a sample of these schedules.¹² In the absence of IRS data for the most recent years, the number of proprietorships is extrapolated forward using prior years’ growth rates.

Partners - A preliminary national estimate of the number of nonfarm partners by NAICS three-digit subsector is based on a sample of returns of IRS Form 1065—*U.S. Partnership Return of Income*. One Form 1065 is filed by each business partnership. The number of partners which can include corporations and other legal entities as well as individuals) and the industry of the business are indicated on the form.

The preliminary estimate of the number of partners by industry is adjusted by using relationships from two special tabulations of partnership tax data provided by the IRS. The first tabulation, available annually, is of the number of limited partners—generally at the NAICS sector level. The second tabulation, available for 1986 only, is the number of partners by SIC division by type (e.g. individuals, corporations, other partnerships acting as partners, and fiduciaries) in partnerships with 10 or fewer partners.

The adjustment of the preliminary estimate is at the NAICS sector level. The preliminary estimates of the number of partners are summed to the appropriate industry totals. The number of limited partners from the first IRS special tabulation is subtracted from the preliminary estimate to obtain the number of general partners. Next, the ratio of the number of individual partners to the total number of partners is calculated for each industry from the second IRS special tabulation. This ratio is multiplied by the number of general partners in the industry in each year to yield the number of individual general partners. Finally, the NAICS sector totals of the number of individual general partners are allocated to the three-digit subsectors in proportion to the number of partnerships to yield the final estimate of partners.

¹² When a husband and wife jointly operate a nonfarm sole proprietorship (e.g. a restaurant) and file a joint income tax return, only one will be counted as a proprietor.

In the absence of IRS data for the most recent years, the number of partners is extrapolated forward using prior years' growth rates.

State and county estimates

Preliminary state and county estimates of self-employment are also based on tabulations of the number of nonfarm sole proprietorships filing IRS Schedule C, Form 1040 and on the number of nonfarm general partners as reported on IRS Schedule B, Form 1065. However, the entire population of returns is used (rather than just the sample used for the national estimates) and slightly different data from the forms are available for states and counties. Specifically, data are available on the number of partners in each partnership and the type of partnership. Up to four partners in each partnership are counted except limited partnerships which are assumed to have a single general partner.¹³ Tabulations are prepared by NAICS three-digit subsector. The national estimates of sole proprietorships and partners are combined to form an estimate of total self-employment and allocated to states in proportion to the preliminary state estimate of total self-employment. In the absence of IRS data for the most recent years, the state allocators for prior years are used.

At the county level, tabulations of Schedule C and Form 1065 are available at the NAICS sector level only. Therefore state estimates are summed to the NAICS sector level for use as control totals for the county estimates. The controls are then allocated to the counties in proportion to preliminary estimates of county self-employment. In the absence of IRS data for the most recent years, the county allocators for prior years are used.

Farm Self-Employment

Farm self-employment is defined as the number of non-corporate farm operators, consisting of sole proprietors and partners. In 1974 the U.S. Department of Agriculture (USDA) set the definition of a farm as an establishment that produces, or normally would be expected to produce, at least \$1,000 worth of farm products—crops and livestock—in a typical year. Starting in 2002, BEA adjusts this \$1,000 threshold for inflation to be more consistent with how we estimate non-farm self employment. Because of the low cutoff point for this definition even when adjusted for inflation, the farm self-employment estimates are effectively on a full-time and part-time basis. The estimates are consistent with the job-count basis of the estimates of wage and salary employment because farm proprietors are counted without regard to any other employment. The distinction between place-of-work and place-of-residence is not significant because most farm operators live on or near their land. Similarly, because of the annual production cycle of most farming, the distinctions between the point-in-time, the average annual, and the any-activity temporal concepts of employment measurement are not significant.

The national estimates of farm self-employment are prepared by the application of a series of ratios to the annual estimates of the number of all farms prepared by the National Agricultural Statistics Service (NASS), U.S. Department of Agriculture (USDA). The ratios use data from the USDA's annual Agricultural Resource

¹³ Up to 500 partners are counted in law and accounting firms.

Management Study (ARMS), previously called the Farm Costs and Returns Survey (FCRS), and the Census of Agriculture. Prior to calculating the ratios, the Census data on the number of operators on sole-proprietor and partnership farms are adjusted to remove hired farm managers. Also, the Census data on the number of sole-proprietor and partnership farms are adjusted to remove farms that fail to meet an inflation adjusted definition of a farm.¹⁴ The Census ratios are interpolated between Census years, and the ratios from the last Census are used for each subsequent year.¹⁵ The sequence of estimating steps is as follows:

1. The number of non-corporate farms is derived as the product of the NASS number of all farms and the ratio of the number of non-corporate farms to all farms.
2. The number of sole-proprietor farms is derived as the product of the number of non-corporate farms (step 1) and the ratio of the number of sole-proprietor farms to non-corporate farms.
3. The number of operators in sole-proprietor farms is derived as the product of the number of sole-proprietor farms (step 2) and the ratio of the number of operators to sole-proprietor farms.¹⁶
4. The number of partnership farms is derived as the product of the number of non-corporate farms (step 1) and the ratio of the number of partnership farms to non-corporate farms.
5. The number of farm partners is derived as the product of the number of partnership farms (step 4) and the ratio of the number of farm partners to partnership farms. For years prior to 1993, FCRS-based ratios are used. For 2002 forward, the Census-based ratios were used. For the intervening years for which the number of farm partners is lacking, the ratios are an interpolation.
6. Lastly, total farm self-employment is the sum of the number of operators in sole-proprietor farms and the number of farm partners.

State estimates are prepared in a similar manner using national ratios when state-level data are unavailable. The state estimates are adjusted to sum to the national control total.

State estimates of the number of operators in sole-proprietor farms are allocated to counties on the basis of the number of sole proprietor farms and state estimates of the number of farm partners are allocated to counties on the basis of the number of partnership farms.

¹⁴ The 1974 USDA definition of a farm (\$1,000 worth of farm products) was adjusted using the “All Farm Index: Prices Received & Prices Paid” from NASS. BEA then obtained special tabulations of Census data on the number of farms by type of organization using the inflation adjusted sales thresholds.

¹⁵ The most recent Census of Agriculture in use for the BEA employment estimates is that for 2007.

¹⁶ For years prior to 2002, it was assumed there was one operator per sole-proprietor farm (due to data limitations). However, data from the 2002 Census revealed that this is not always true. So for 2002 forward, the ratios of farm operators to sole-proprietor farms are derived from Census data.

Table J. - Relation of BEA Wage and Salary Employment to BLS Total Employment

	<u>2009</u>	<u>2010</u>	<u>2011</u>
Total Employment, BLS	128,608,000	127,820,000	129,411,000
Plus:			
Adjustment for misreporting of employment on tax returns	1,496,000	1,561,000	1,590,000
Private employment exempt from UI coverage ¹	3,686,000	3,667,000	3,639,000
Government employment exempt from UI coverage ²	3,031,000	3,060,000	3,075,000
Equals: Wage and Salary Employment, BEA	136,821,000	136,108,000	137,715,000

¹Consists mostly of employment in the religious organizations industry (NAICS 8131), private education (6111), and private households (814). Also consists of employment in the agriculture, forestry, and fishing, rail transportation, hospitals, and social assistance industries; employment of some nonprofit organizations having fewer than four employees (in any industry); insurance solicitors and real estate agents classified as statutory employees; and corporate officers in the state of Washington.

²Consists mostly of military employees (active duty and reserve officers and enlisted personnel). Also consists of state and local elected officials, members of the judiciary, students and their spouses employed by public colleges and universities, and employees of public railroads.

IX. TECHNICAL NOTES

Allocation Procedures

Allocation procedures impart to the state (or county) estimates the characteristics of the national (or state) estimates that are not reflected in the available state-level (or county-level) source data; for most components of personal income, the state and county source data are less comprehensive and less reliable than the data that are available for the national estimates. In addition, these procedures allow the use of state and county data that are related to, but that do not precisely match, the component being estimated. For example, state control totals of unemployment compensation are allocated to counties of some states in proportion to direct payments data provided their employment security agencies. For the states not providing such data, the control totals are allocated in proportion to the number of unemployed persons estimated by the Bureau of Labor Statistics.

In the allocation procedures, the national or state control total for a component is allocated to states or counties in proportion to each state's or county's share of related data. In many cases the related data are modified or augmented before the allocation by preliminary estimation—for example, by the summation of wages, tips, and pay-in-kind, by the multiplication of wages and the number of employees, or by interpolation or extrapolation.

Because the allocation procedures use the national control totals for the state estimates, and state control totals for county estimates, their use yields an additive system in which the county estimates sum to the state estimates which in turn 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 , Y_n is the national estimate of the component (which is used as the control total for the state estimates of the component), X_s is the value for state s from the data related to the component, and X_n is the sum over all states of the related data ($X_n = \sum_s X_s$).

In 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:

$$A_s = (A_n) \left(\frac{X_s}{X_n} \right)$$
$$Y_s = X_s + A_s$$

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.

For example, the national estimates of wages and salaries for many industries consist of the sum of state data plus a few small adjustments, which 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).

Dual Allocation

Dual allocation is a statistical procedure that forces the elements of a matrix to sum to column and row control totals. It is used to adjust, for instance, a preliminary estimate of income by state and industry so that sum of income in an industry across all states equals a national control total for that industry and simultaneously the sum of income in a state across all industries equals a control total for that state. It is also used to adjust a preliminary estimate of quarterly state personal income so that it is consistent with both national control totals by quarter and annual state control totals.

Specifically, dual allocation subtracts the sum of the algebraic values in a row from the row control total. It divides this difference by the sum of the absolute values in the row and then multiplies the resulting ratio by the absolute value of each element in the row and adds the result to the algebraic value of that element. This procedure is repeated for each row and then a parallel procedure is repeated for each column. The whole process is repeated five times.

After the fifth repetition, any differences between the row and column control totals and the output matrix row and column sums are eliminated by a process called feathering. This is accomplished by selecting the first column with a non-zero difference and the first non-zero row difference with the same sign. The smaller of the two differences is subtracted from the element in that row and column and from the final row and column sums. This procedure forces the difference between either the final row sum and its corresponding control total or the final column sum and its corresponding control total to zero.

Before performing any subtraction, the element in the row and column selected is checked for a zero value and to see if the subtraction would cause a change in the element's sign. If either of these tests is true, the next non-zero row difference with like sign is selected.

The entire feathering process is repeated until all differences between final column sums and column control totals have been forced to zero. At this point the row sums and row control totals will also be equal.

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 as much information as possible. It balances these responsibilities by presenting the estimates for regions, states, and local areas only

at the North American Industry Classification System (NAICS) subsector level or Standard Industrial Classification (SIC) two-digit level, even though it receives source data at the NAICS four- and five-digit industry levels or SIC three- and four-digit levels.

Most of the data that BEA receives from other agencies are not confidential. The agencies summarize their data by program, ZIP code, county, or state, so that each record, or data cell, contains data for enough individuals or establishments to preclude the identification of data for a specific individual or establishment and, therefore, to preclude disclosure of confidential information.

However, the Quarterly Census of Employment and Wages (QCEW, formerly known as ES-202 data) 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 that are derived from the QCEW data.

To prevent either the direct or the indirect disclosure of the confidential information, BEA uses the BLS state and county nondisclosure file. BEA uses as many BLS nondisclosure cells as possible, but cannot use some of them for various reasons. The most important reasons are that the industry structure published by BEA does not exactly match the NAICS subsector or SIC two-digit detail provided by BLS and that BEA does not use QCEW data for the farm sector. When BEA drops BLS nondisclosure cells, other cells must be selected to prevent the disclosure of confidential information. In order to determine which estimates should be suppressed, the total wages and salaries file and the wages-and-salaries-nondisclosure file are used to prepare a multidimensional matrix. This matrix is tested, and the estimates that should be suppressed are selected.¹

BEA's estimates for micropolitan and metropolitan statistical areas, metropolitan divisions, combined statistical areas, BEA economic areas, and the metropolitan and nonmetropolitan portions of states are aggregations of its county estimates. It often happens that an area consists of two or more counties with a relatively small amount of suppressed income or employment in a particular industry relative to the aggregate for all counties in the area. When the suppressed amount is below a certain percentage threshold, BEA publishes the portion of the aggregate which is disclosable and flags it with a code (E) indicating that the published amount constitutes the major portion of the aggregate for the area. For a given area, the number of counties that are aggregated in an (E) estimate can vary from industry to industry and from year to year.

Imputation

One of the principles of the national income and product accounts (NIPA) is that they reflect market transactions. In a few instances, a comprehensive account of total income and production requires BEA to impute a value or a transaction. This keeps the NIPA invariant to how certain activities are carried out. For instance, some transactions, such as the provision of food, lodging, and clothing to employees have an element of barter—food is bartered for labor (at least in part). In this case, imputation involves placing a market value on the food employees received so that the estimate of their total compensation is comprehensive and invariant to changes in the proportions received in

¹ 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.

cash and in kind. In other transactions, such as the rental of housing to an owner-occupant, no transaction appears in the records of the economy. In this case, imputation involves constructing a transaction between a producer and a consumer (who happen to be the same person) and placing a market value on the housing services exchanged. If the imputation were not made, then housing output and consumption would fall if a household purchased the house it had been renting. A third type of imputation is the attribution of the income of one sector or legal form of organization to another. For instance, the NIPA attributes the property income life insurance carriers earn on annuity reserves to the persons who own the annuities.

The imputations that affect personal income include: (a) pay-in-kind, (b) employer-paid health and life insurance premiums, (c) the value of food and fuel produced and consumed on farms, (d) the net rental value of owner-occupied housing, (e) the value of depositor services furnished without payment by financial intermediaries except life insurance carriers, (f) premium supplements for property and casualty insurance, and (g) the interest received from life insurance carriers.^{2 3} These imputations accounted for 10.1 percent of personal income at the national level in 2009.

Imputed pay-in-kind is added to the estimates of wage and salary disbursements so that all the earnings of employees who 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 partial or full payment for their services.

The *imputation for employer-paid health and life insurance premiums* is included in employer contributions for employee pension and insurance funds, a component of supplements to wages and salaries.

The *imputed value of food and fuel produced and consumed on farms* is included in farm proprietors' income so that that measure reflects the income from all of the production of noncorporate farms.

The *imputed net rental value of owner-occupied housing* is included in the rental income of persons. 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 *imputed value of depositor services furnished without payment by financial intermediaries except life insurance carriers* is included in personal interest income. The value of depositor services 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

² See NIPA table 7.12, "Imputations in the National Income and Product Accounts," which are available on the BEA web site. A list of all NIPA tables (with hyperlinks to the data) can be found by clicking on the Interactive Data Tables link on the home page and then clicking on the National income and product accounts link.

³ There are other imputations such as the imputation of an employer contribution for government social insurance equal to the benefits paid by the Unemployment Compensation for Federal Employees and Unemployment Compensation for Ex-Service Members, military medical insurance (TRICARE), and federal workers' compensation programs. These are pay-as-you-go, self-insurance programs in contrast to the funded insurance programs.

(such as checking and record keeping) that these institutions provide to persons without an explicit charge.⁴

Premium supplements for property and casualty insurance is the property income that property and casualty insurance carriers earn on reserves held to pay claims. This income is deemed to be paid out to policyholders and then paid back as premium supplements even though in actuality the insurance companies retain the property income. The income is recorded as a component of personal interest income.⁵

Also included in personal interest income is the *imputed interest received from life insurance carriers*. It consists of the property income life insurance carriers earn on life insurance and annuity reserves. This income is deemed to be paid out to policyholders and then paid back as premium supplements even though in actuality the insurance companies retain the property income. It is attributed to policyholders in order to include it in personal saving, rather than in business saving, and when the income is earned, rather than when it is distributed.

Interpolation and Extrapolation

Interpolation and extrapolation are used to prepare the first approximations of some 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 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 Census of Population but employment data were available annually from another source, the first approximations of wages and salaries for 1981-89 could be interpolated from the wages and salaries data for 1980 and 1990, the two census benchmark years, and from the annual employment data for 1980-90.

Extrapolation is used to derive first approximations for years that are beyond the most recent benchmark year. For example, the first approximations of wages for 1991-99 might be extrapolated from the census benchmark data for 1990 and from the employment data for 1990-99. 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 1991-99 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 areas A, B, and 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.

⁴ See “Measuring the Services of Commercial Banks in the NIPAs,” *Survey* 83 (September 2003):33-44.

⁵ See “Measuring the Services of Property-Casualty Insurance in the NIPAs,” *Survey* 83 (October 2003): 10-26.

In the first example, “straight-line interpolation” is used to derive the first approximations for years 2 and 3 from the data for benchmark years 1 and 4.⁶ 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.

Table K. Wages and salaries in thousands of dollars

	Year 1 (benchmark)	Year 2 (interpolation)	Year 3 (interpolation)	Year 4 (benchmark)
Area A	28	34	40	46
Area B	34	43	53	62
Area 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 four 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.⁷ This method of interpolation is illustrated in three steps.

First, average wages for years 1 and 4 are calculated from the wage and employment data for those years. Wages for each year are divided by the number of employees for the year to yield the average wages of the employees.

Table L. Employment and average wages

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

⁶ 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.

⁷ Using an indicator series for interpolation between two 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.

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

Table M. Average wages in dollars

	Year 1 (benchmark)	Year 2 (interpolation)	Year 3 (interpolation)	Year 4 (benchmark)
Area A	7,000	8,500	10,000	11,500
Area B	5,667	5,845	6,022	6,200
Area 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.

Table N. Employment and wage approximations

	Year 2		Year 3	
	Employment	Wages in thousands of dollars	Employment	Wages in thousands of dollars
Area A	5	43	4	40
Area B	7	41	9	54
Area 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 average wages for year 4—used here as the extrapolation ratios—and employment data for year 5.⁸ The average wages are multiplied by employment to yield the first approximations of wages for year 5.

Table O. First approximations of wages for year 5

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

After interpolation or extrapolation is used to calculate the first approximations of a component of personal income, the approximations are adjusted proportionately to sum to the component's control total.

⁸ 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.

The Underground Economy

The term ‘underground economy’ can encompass a wide variety of illegal activities such as theft and prostitution as well as legal activities conducted “off the books” or by illegal immigrants. BEA’s estimates of the underground economy are limited to adjustments made to the amounts reported on various tax returns to correct for underreporting and for returns that were not filed but should have been. The adjustments that are made do not distinguish between the reasons for misreporting, whether to evade taxes or because of a misinterpretation of the instructions.

The two most important tax returns used in the estimation of personal income are those used in the administration of the unemployment insurance system and the federal income tax. Employers must report wages and salaries paid to state employment security agencies and individuals must report their wages and other income to the Internal Revenue Service.

Misreporting adjustments are made for four components of personal income: (1) wage and salary disbursements, (2) nonfarm proprietors’ income, (3) personal interest income, and (4) rental income of persons.

BEA published a series of three articles in the May, June, and July 1984 issues of the *Survey of Current Business* that describe its framework for measuring the underground economy in the National Income and Product Accounts (NIPA).⁹ Although some things have changed since their publication, the articles still provide a reliable overview of the issues involved.

The data used to prepare the NIPA misreporting adjustments for personal income are not available for states and counties. The NIPA estimates are therefore allocated to states and counties in proportion to Quarterly Census of Employment and Wages payroll (in the case of wage and salary disbursements) and in proportion to gross receipts or sales less returns and allowances as reported on IRS Form 1040 Schedule C and Form 1065 (in the case of nonfarm proprietors’ income). Details are in the respective chapters. The NIPA estimates of misreported rental income and net interest income are allocated to states and counties in the same fashion as reported income.

⁹ Carol S. Carson, “The Underground Economy: An Introduction,” *Survey of Current Business* 64 (May 1984):21-37; Robert P. Parker, “Improved Adjustments for Misreporting of Tax Return Information Used to Estimate the National Income and Product Accounts, 1977,” *Survey of Current Business* 64 (June 1984):17-25; and Carol S. Carson, “The Underground Economy: An Introduction,” *Survey of Current Business* 64 (July 1984):106-17.

X. GLOSSARY

Allocation procedures.—Allocation procedures are used in the estimation of state and county personal income because the available state and county data for many of components of personal income may not be as comprehensive or as reliable as the national data. A national estimate of a component is allocated to states in proportion to their 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 received by individuals is allocated to states—and the state estimates are allocated to counties—in proportion to dividends reported by individuals on their federal income tax returns. *See also* “Allocation procedures” in *Chapter X Technical Notes*.

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. Each of the BEA economic areas consists of one or more economic nodes—metropolitan or micropolitan statistical areas that serve as regional centers of economic activity—and the surrounding counties that are economically related to the node.¹

Capital consumption adjustment (CCAdj).—The capita consumption adjustment 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.² Private capital consumption allowances consist 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 in the estimation of proprietors’ income—both farm and nonfarm—and rental income of persons.

Combined statistical area.—An area consisting of two or more adjacent metropolitan or micropolitan statistical areas with a sufficiently large employment interchange. Areas with less but still significant employment interchange may be combined if local opinion in both areas favors combination.

Compensation.—Compensation is the income accruing to employees as remuneration for their work. As a component of personal income, compensation is the sum of wage and salary *disbursements* and supplements to wages and salaries; as a

¹ For a description of the economic areas and the methodology used to define them, see Kenneth P. Johnson and John R. Kort, “2004 Redefinition of the BEA Economic Areas,” *Survey of Current Business* 84 (November 2004): 68-75. This article and a list of the economic areas and their constituent counties and county equivalents are available on BEA’s Web site at www.bea.gov.

² For further information, see Arnold J. Katz and Shelby W. Herman, “Improved Estimates of Fixed Reproducible Tangible Wealth,” *Survey* 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.

component of Gross Domestic Product by state, compensation is the sum of wage and salary *accruals* and supplements to wages and salaries. The difference between disbursements and accruals is typically very small and arises when employees receive retroactive wage payments. Such payments are recorded in wage and salary accruals when earned and in wage and salary disbursements when paid.

Contributions for government social insurance.—Contributions for government social insurance is deducted from earnings in the derivation of personal income. It consists of payments by employers, employees, the self-employed, and other individuals who participate in the following government programs: Old-age, Survivors, and Disability Insurance; Medicare; unemployment insurance; railroad retirement; pension benefit guarantee; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance. *See also Employer contributions for employee pension and insurance funds and Employee and self-employed contributions for government social insurance.*

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

County.—Counties consist of counties and county equivalents, such as the parishes of Louisiana, the boroughs and Census Areas of Alaska, the District of Columbia, and the independent cities of Maryland, Missouri, Nevada, and Virginia. The estimates for Kalawao County, Hawaii and the small independent cities of Virginia—generally those with fewer than 100,000 residents—are combined with estimates for adjacent counties.

County equivalents.—*See County.*

Disclosure-avoidance procedures.—*See “Disclosure-avoidance procedures” in Chapter X Technical Notes.*

Disposable personal income.—Disposable personal income is personal income less personal current taxes. It is the portion of personal income that is available for spending and saving. *See also Personal income and Personal current taxes.*

Dual allocation.—*See “Dual allocation” in Chapter X Technical Notes.*

Earnings by place of work.—Earnings by place of work is the sum of three components of personal income—wage and salary disbursements, supplements to wages and salaries, and proprietors' income. *See also Net earnings by place of residence and Net labor earnings.*

Employment.—Employment is a count of jobs, full-time plus part-time, by place of work. Full-time and part-time jobs are given equal weight. Employees, sole proprietors, and general partners are included, but unpaid family workers and volunteers are not.

Employee and self-employed contributions for government social insurance.—Employee and self-employed contributions for government social insurance (formerly called personal contributions for government social insurance) 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 (Medicare Part A); Supplementary Medical Insurance (Medicare Parts B and D); unemployment insurance; 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 by place of work, Net labor earnings, and Personal income.*

Employer contributions for employee pension and insurance funds.—Employer contributions for employee pension and insurance funds consists of employer payments to private and government employee retirement plans, private group health and life insurance plans, privately administered workers' compensation plans, and supplemental unemployment benefit plans. It was formerly called other labor income.

Employer contributions for government social insurance.—Employer contributions for government social insurance is a component of earnings and compensation. It consists of employer payments under the following federal and state and local government programs: Old-age, Survivors, and Disability Insurance (OASDI); Hospital Insurance (HI); unemployment insurance; railroad retirement; pension benefit guaranty; veterans' life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability insurance. These contributions are excluded from personal income by definition, but as part of supplements to wages and salaries, they are included in earnings by place of work and compensation.

ES-202.—The reporting form used by the Quarterly Census of Employment and Wages (QCEW). *See also Quarterly Census of Employment and Wages.*

Extrapolation.—*See “Interpolation and extrapolation” in Chapter X Technical Notes.*

Farm income.—Farm income is the sum of wage and salary disbursements, employer contributions for employee pension and insurance funds, and proprietors' income in the farm industry (NAICS subsectors 111—crop production and 112—animal production). It comprises the net income of sole proprietors, partners, and hired laborers arising directly from the current production of agricultural commodities, both livestock and crops, and specifically excludes the income of non-family farm corporations.

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 National Income and Product Accounts. A fiduciary is required to report the income that the private trust fund receives on behalf of the beneficiaries of the estate or trust to the Internal Revenue Service.

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

Income subject to adjustment.—Income subject to adjustment is the sum of wage and salary disbursements and other labor income less personal contributions for government social insurance.

Imputation.—An imputation constructs a transaction or places a market value on a transaction so that the measurement of personal income and its components is invariant

to how certain activities are carried out, or attributes the income of one sector or legal form of organization to another. *See also "Imputation" in Chapter X Technical Notes.*

Interpolation.—*See "Interpolation and extrapolation" in Chapter X Technical Notes.*

Inventory valuation adjustment (IVA).—The inventory valuation 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 NIPAs). 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 reversed. No adjustment is needed to farm proprietors' income because inventories reported in the source data are measured on a current-market basis that approximates current replacement cost.

Local areas.—Local areas consist of counties, micropolitan statistical areas, metropolitan statistical areas, metropolitan divisions, combined statistical areas, BEA economic areas, metropolitan portions, and nonmetropolitan portions. *See also entries for the individual types of areas.*

Metropolitan division.—A county or group of counties within a metropolitan statistical area that contains an urban area with a population of at least 2.5 million. A metropolitan division consists of one or more main and secondary counties that represent an employment center or centers, plus adjacent counties associated with the main county or counties through commuting ties.

Metropolitan portion.—The metropolitan portion of a state consists of all counties that are parts of metropolitan statistical areas.

Metropolitan statistical area.—An area consisting of a core county or counties in which lies an urban area having a population of at least 50,000, plus adjacent counties having a high degree of social and economic integration with the core counties as measured through commuting ties.

Micropolitan statistical area.—An area consisting of a core county or counties in which lies an urban area having a population of 10,000 to 50,000, plus adjacent counties having a high degree of social and economic integration with the core counties as measured through commuting ties.

Net earnings by place of residence.—Net earnings by place of residence is earnings by place of work less contributions for government social insurance plus an adjustment to convert it from a place of work to a place of residence basis. *See also Earnings by place of work.*

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

Nonmetropolitan portion.—The nonmetropolitan portion of a state consists of all counties that are outside of metropolitan statistical areas.

North American Industry Classification System (NAICS).—NAICS is an industry classification system that classifies economic units that have similar production processes in the same industry. This is a supply-based or production-oriented economic

concept. Statistics Canada, Mexico's Instituto Nacional de Estadística Geografía e Informática (INEGI), and the Economic Classification Policy Committee (ECPC) of the United States, acting on behalf of the Office of Management and Budget, created a common classification system that replaced the existing classification systems of each country, the Standard Industrial Classification (1980) of Canada, the Mexican Classification of Activities and Products (1994), and the Standard Industrial Classification (1987) of the United States. NAICS is used in the presentation of state estimates of earnings and employment by industry from 1990 forward and in the local area estimates from 2001 forward. It is used by BEA for the estimates of the private sector only, although it is designed to cover both public and private earnings and employment activities. *See also Standard Industrial Classification.*

Other labor income.—*See Employer contributions for employee pension and insurance funds.*

Other private business.—Other private business consists of tax-exempt cooperatives and all entities required to report rental and royalty income on Schedule E of IRS Form 1040 (*Supplemental Income and Loss*). *See also Sectors and legal form of organization.*

Partnership.—A partnership is an unincorporated business association required to file IRS Form 1065 (*U.S. Return of Partnership Income*). *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 received by employees from their employers as full or partial payment for services performed. *See also "Imputation" in Chapter X 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. Per capita personal income is often used as an indicator of consumers' purchasing power and of the economic well-being of the residents of an area. *See also "Per capita personal income" in Chapter I Introduction.*

Personal contributions for government social insurance.—*See Employee and self-employed contributions for government social insurance.*

Personal current taxes.—Personal current taxes are payments, net of refunds, made by persons that are not chargeable to business expense. Personal current taxes consist of taxes on income, including realized net capital gains, taxes on personal property, payments for motor vehicle licenses, and several miscellaneous taxes, licenses, and fees. Social security and Medicare taxes are not personal current taxes. They are treated as an employer (or employee or self-employed) contribution for government social insurance. Personal current taxes also exclude taxes on real property, sales taxes, and certain penalty taxes. Taxes on real property paid by persons, except those primarily engaged in the real estate business, are treated as a business expense that is deducted from both gross monetary rental income and gross imputed rental income in the derivation of net rental income. Real property taxes paid by persons primarily engaged in the real estate business are also treated as a business expense and are deducted in the derivation of proprietors' income. Sales taxes are included in personal consumption

expenditures. Penalty taxes such as the penalty tax on early IRA withdrawals are treated as a personal current transfer payment to government.

Personal current transfer receipts.—Personal current transfer receipts (formerly called transfer payments) are benefits received by persons for which no current services are performed. It consists of benefits received by individuals and nonprofit institutions that primarily serve individuals from federal, state, and local governments and from businesses. Benefits received by individuals from government include retirement and disability insurance benefits, medical benefits (mainly Medicare and Medicaid), income maintenance benefits, unemployment insurance compensation, veterans' benefits, and federal education and training assistance. Benefits received by nonprofit institutions from government exclude payments by the federal government for work under research and development contracts. Benefits received by persons from businesses consist primarily of compensation for personal injury and corporate gifts to nonprofit institutions.

Personal dividend income.—Personal dividend income consists of payments in cash or in 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. Personal dividend income includes the net income of S Corporations received by individuals as well as their receipt of dividends from C Corporations. Personal dividend income does not include interest from regulated investment companies reported as dividends on individual income tax returns. The dividend income of noninsured pension funds is imputed to persons and counted as part of personal dividend income.

Personal income.—Personal income is the income received by persons from participation in production, plus transfer receipts from government and business, plus government interest (which is treated like a transfer receipt). It is defined as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance. Because the personal income of an area represents the income that is received by, or on behalf of, all the persons who live in that area, and because the estimates of some components of personal income (wage and salary disbursements, supplements to wages and salaries, and contributions for government social insurance) are made on a place-of-work basis, state personal income includes an adjustment for residence. The residence adjustment represents the net flow of compensation (less contributions for government social insurance) of interstate commuters. *See also Contributions for government social insurance; Personal current transfer receipts; Personal dividend income; Personal interest income; Persons; Proprietors' income with inventory valuation and capital consumption adjustments; Rental income of persons with capital consumption adjustment; Residence adjustment; Residence, place of; Supplements to wages and salaries; and Wage and salary disbursements.*

Personal interest income.—Personal interest income is the interest income (monetary and imputed) of persons from all sources. The property income earned on the reserves that property, casualty, and life insurance carriers hold to pay claims and the interest income of noninsured pension funds is imputed to persons and counted as part of personal interest income.

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

Population.—Number of individuals (both civilian and military) who reside in an area as of July 1. *See also Residence, place of.*

Property income.—Property income is another name for income received in the form of dividends, interest, rents, and royalties.

Proprietors' income with inventory valuation and capital consumption adjustments.—Proprietors' income with inventory valuation and capital consumption adjustments is the current-production income (including income in kind) of sole proprietorships, partnerships, and tax-exempt cooperatives. Corporate directors' fees are included in proprietors' income. Proprietors' income includes the interest income received by financial partnerships and the net rental real estate income of those partnerships primarily engaged in the real estate business. *See also Capital consumption adjustment and Inventory valuation adjustment.*

Quarterly Census of Employment and Wages (QCEW).—The Quarterly Census of Employment and Wages is a program of the Bureau of Labor Statistics (BLS) which collects data from the administration of the state unemployment insurance (UI) system. The data originate from employers' quarterly contributions reports filed on form ES 202 with state employment security agencies. The data, which are provided to BEA by the BLS, include quarterly wages and monthly employment by county and industry. *See also ES-202 and Wage and salary disbursements.*

Quasi-individuals.—Quasi-individuals consist of nonprofit institutions that primarily serve individuals, private noninsured welfare funds, and private trust funds. *See also Persons.*

Regions.—BEA developed a regional classification of the states and the District of Columbia in the mid-1950s.³ The eight regional classifications, Far West, Great Lakes, Mideast, New England, Plains, Rocky Mountain, Southeast, and Southwest, 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.

Rental income of persons with capital consumption adjustment.—Rental income of persons with capital consumption adjustment is the net income of persons from the rental of real property (except for the net rental real estate income of partnerships primarily engaged in the real estate business), the imputed net rental income of owner-occupants of housing, and the royalties received by persons from patents, copyrights, and rights to natural resources. The rental income of noninsured pension funds is imputed to persons and counted as part of rental income of persons with capital consumption adjustment. *See also Capital consumption adjustment and Proprietors' income.*

Residence adjustment.—The residence adjustment is the net flow of 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

³ See Charles Schwartz, Robert Graham, Henry Shryock, and Morris Ullman, (1955) *Description of Commerce Department's Proposed New Regional Classification of States*. A list of the regions and their constituent states is available in Chapter XII Appendix.

source data for most of the components of wage and salary disbursements, supplements to wages and salaries, and contributions for government social insurance are on a place-of-work basis. Consequently, a residence adjustment is made to convert the estimates based on these source data to a place-of-residence basis.⁴ *See also Net labor earnings and “Geographic characteristics of the source data” in Chapter I Introduction.*

Residence, place of.—The place of residence of an individual is the state and county in which he or she lives. The residence of military personnel is the state and county in which they live while they are on military assignment, not their permanent or legal state and county of residence. The residence of seasonal migrant workers is the state and county in which they live while they are working; this may differ from the usual state and county of residence they report on the decennial Census of Population. *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 (NIPAs), gross domestic product and other major aggregates are presented in terms of three economic sectors: Business, household and institution, 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 (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, f 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*).⁵ **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 tax-exempt cooperatives and all entities that are required to report rental and royalty income on IRS Schedule E (*Supplemental Income and Loss*).⁶ **Government enterprises** are government agencies that cover a

⁴ In BEA’s state and local data tables, each of the components of net labor earnings—wage and salary disbursements, supplements to wages and salaries, and contributions for government social insurance—is presented by place of work. The residence adjustment is estimated for net labor earnings, and that statistic is presented by place of residence.

⁵ Also included in sole proprietorships are similar entities operated by individuals who do not meet the reporting requirements.

⁶ Also included in other private business are entities with rental and royalty income whose individual owners who do not meet the reporting requirements.

substantial portion of their operating costs by selling goods and services to the public and that maintain separate accounts.⁷

Sole proprietorship.—A sole proprietorship is any entity required to file IRS Schedule C (*Profit or Loss from Business*) or Schedule F (*Farm Income and Expenses*). *See also Sectors and legal form of organization and Proprietors' income with inventory valuation and capital consumption adjustments.*

Standard Industrial Classification (SIC).—The SIC is an establishment-industry classification system that was prepared by the Office of Management and Budget for use by all federal statistical agencies.⁸ The SIC is used in the presentation of the state and local area estimates of earnings by industry through 2001 for states and 2000 for counties. 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.⁹ *See also North American Industry Classification System.*

Supplements to wages and salaries.—Supplements to wages and salaries consists of employer contributions for government social insurance and employer contributions for employee pension and insurance funds.

Tax-exempt cooperative.—A tax-exempt cooperative is a nonprofit business organization that is collectively owned by its members. Although tax-exempt cooperatives are incorporated, in the NIPAs 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.—*See Personal current transfer receipts.*

Wage and salary disbursements.—Wages and salaries are broadly defined to include commissions, tips, and bonuses; voluntary employee contributions to deferred compensation plans, such as 401(k) plans; employee gains from exercising stock options; and receipts-in-kind that represent income. It reflects the amount of wages and salaries disbursed, but not necessarily earned (or accrued), during the year. This component is measured before deductions, such as social security contributions, union dues, and voluntary employee contributions to defined contribution pension plans. *See also Pay-in-kind.*

⁷ For further information, see *MP-5: Government Transactions* (September 2005). This publication is available on BEA's Internet site: Go to www.bea.gov and select "Methodology Papers."

⁸ See Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1997*, National Technical Information Service order no. PB 87-100012.

⁹ Establishments, as defined in the SIC, are economic units, generally at a single physical location, where business is conducted or where services or industrial operations are performed.

XII. APPENDIX

Concordance between BEA line codes and NAICS industry codes

Line	BEA Industry Description	NAICS Code
0000	Total	...
0081*	Farm	111-112
0082*	Nonfarm	...
0090	Private	113-814
0100	Forestry, fishing, related activities	113-115
0101	Forestry and logging	113
0102	Fishing, hunting, and trapping	114
0103	Agriculture and forestry support activities	115
0200	Mining	21
0201	Oil and gas extraction	211
0202	Mining (except oil and gas)	212
0203	Support activities for mining	213
0300	Utilities	22
0400	Construction	23
0401	Construction of buildings	236
0402	Heavy and civil engineering construction	237
0403	Specialty trade contractors	238
0500	Manufacturing	31-33
0510	Durable goods manufacturing	321,327-339
0511	Wood product manufacturing	321
0512	Nonmetallic mineral product manufacturing	327
0513	Primary metal manufacturing	331
0514	Fabricated metal product manufacturing	332
0515	Machinery manufacturing	333
0516	Computer and electronic product manufacturing	334
0517	Electrical equipment and appliance manufacturing	335
0518	Motor vehicles, bodies & trailers, and parts manufacturing	3361-3363
0519	Other transportation equipment manufacturing	3364-3369
0521	Furniture and related product manufacturing	337
0522	Miscellaneous manufacturing	339
0530	Nondurable goods manufacturing	311-316,322-326
0531	Food manufacturing	311
0532	Beverage and tobacco product manufacturing	312
0533	Textile mills	313
0534	Textile product mills	314
0535	Apparel manufacturing	315
0536	Leather and allied product manufacturing	316
0537	Paper manufacturing	322
0538	Printing and related support activities	323
0539	Petroleum and coal products manufacturing	324

Line	BEA Industry Description	NAICS Code
0541	Chemical manufacturing	325
0542	Plastics and rubber products manufacturing	326
0600	Wholesale trade	42
0700	Retail Trade	44-45
0701	Motor vehicle and parts dealers	441
0702	Furniture and home furnishings stores	442
0703	Electronics and appliance stores	443
0704	Building material and garden supply stores	444
0705	Food and beverage stores	445
0706	Health and personal care stores	446
0707	Gasoline stations	447
0708	Clothing and clothing accessories stores	448
0709	Sporting goods, hobby, book and music stores	451
0711	General merchandise stores	452
0712	Miscellaneous store retailers	453
0713	Nonstore retailers	454
0800	Transportation and warehousing	48-49
0801	Air transportation	481
0802	Rail transportation	482
0803	Water transportation	483
0804	Truck transportation	484
0805	Transit and ground passenger transportation	485
0806	Pipeline transportation	486
0807	Scenic and sightseeing transportation	487
0808	Support activities for transportation	488
0809	Couriers and messengers	492
0811	Warehousing and storage	493
0900	Information	51
0901	Publishing industries, except Internet	511
0902	Motion picture and sound recording industries	512
0903	Broadcasting, except Internet	515
0904	Internet publishing and broadcasting	516
0905	Telecommunications	517
0906	ISPs, search portals, and data processing	518
0907	Other information services	519
1000	Finance and insurance	52
1001	Monetary authorities - central bank	521
1002	Credit intermediation and related activities	522
1003	Securities, commodity contracts, investments	523
1004	Insurance carriers and related activities	524
1005	Funds, trusts, and other financial vehicles	525
1100	Real estate and rental and leasing	53
1101	Real estate	531
1102	Rental and leasing services	532
1103	Lessors of nonfinancial intangible assets	533

Line	BEA Industry Description	NAICS Code
1200	Professional, scientific and technical services	54
1300	Management of companies and enterprises	55
1400	Administrative and waste management services	56
1401	Administrative and support services	561
1402	Waste management and remediation services	562
1500	Educational services	61
1600	Health care and social assistance	62
1601	Ambulatory health care services	621
1602	Hospitals	622
1603	Nursing and residential care facilities	623
1604	Social assistance	624
1700	Arts, entertainment, and recreation	71
1701	Performing arts and spectator sports	711
1702	Museums, historical sites, zoos, and parks	712
1703	Amusement, gambling, and recreation	713
1800	Accommodation and food services	72
1801	Accommodation	721
1802	Food services and drinking places	722
1900	Other services, except public administration	81
1901	Repair and maintenance	811
1902	Personal and laundry services	812
1903	Membership associations and organizations	813
1904	Private households	814
2000	Government and government enterprises	...
2001	Federal, civilian	...
2002	Military	...
2010	State and local	...
2011	State government	...
2012	Local government	...

* In Tables CA05 and CA06 farm has a line code of 0081 and nonfarm has a line code of 0082. In Table CA25 farm has a line code of 0070 and nonfarm has a line code of 0080.

Concordance between BEA line codes and SIC industry codes

<u>Line</u>	<u>BEA Industry Description</u>	<u>SIC Code</u>
0000	Total	...
0081*	Farm	01-02
0082*	Nonfarm	...
0090	Private	...
0100	Agricultural services, forestry, fishing	...
0110	Agricultural services	07
0120	Forestry and fishing	...
0121	Forestry	08
0122	Fishing	...
0200	Mining	B
0210	Metal mining	10
0220	Coal mining	12
0230	Oil and gas extraction	13
0240	Nonmetallic minerals, except fuels	14
0300	Construction	C
0310	General building contractors	15
0320	Heavy construction contractors	16
0330	Special trade contractors	17
0400	Manufacturing	D
0410	Durable goods	...
0413	Lumber and wood products	24
0417	Furniture and fixtures	25
0420	Stone, clay, and glass products	32
0423	Primary metal industries	33
0426	Fabricated metal products	34
0429	Industrial machinery and equipment	35
0432	Electronic and other electric equipment	36
0435	Motor vehicles and equipment	371
0438	Other transportation equipment	372-379
0441	Instruments and related products	38
0444	Miscellaneous manufacturing industries	39
0447	Ordnance	...
0450	Nondurable goods	...
0453	Food and kindred products	20
0456	Tobacco products	21
0459	Textile mill products	22
0462	Apparel and other textile products	23
0465	Paper and allied products	26
0468	Printing and publishing	27
0471	Chemicals and allied products	28
0474	Petroleum and coal products	29

<u>Line</u>	<u>BEA Industry Description</u>	<u>SIC Code</u>
0477	Rubber and miscellaneous plastics products	30
0480	Leather and leather products	31
0500	Transportation and public utilities	E
0510	Railroad transportation	40
0520	Trucking and warehousing	42
0530	Water transportation	44
0540	Other transportation	41, 45-49
0541	Local and interurban passenger transit	41
0542	Transportation by air	45
0543	Pipelines, except natural gas	46
0544	Transportation services	47
0560	Communications	48
0570	Electric, gas, and sanitary services	49
0610	Wholesale trade	F
0620	Retail trade	G
0621	Building materials and garden equipment	52
0622	General merchandise stores	53
0623	Food stores	54
0624	Automotive dealers and service stations	55
0625	Apparel and accessory stores	56
0626	Home furniture and furnishings stores	57
0627	Eating and drinking places	58
0628	Miscellaneous retail	59
0700	Finance, insurance, and real estate	H
0710	Depository and nondepository institutions	60, 61
0730	Other finance, insurance, and real estate	62-65, 67
0731	Security and commodity brokers	62
0732	Insurance carriers	63
0733	Insurance agents, brokers, and services	64
0734	Real estate	65
0735	Combined real estate, insurance, etc.	...
0736	Holding and other investment offices	67
0800	Services	I
0805	Hotels and other lodging places	70
0810	Personal services	72
0815	Private households	88
0820	Business services	73
0825	Automotive repair, services, and parking	75
0830	Miscellaneous repair services	76
0835	Amusement and recreation services	79
0840	Motion pictures	78
0845	Health services	80
0850	Legal services	81
0855	Educational services	82
0860	Social services	83

<u>Line</u>	<u>BEA Industry Description</u>	<u>SIC Code</u>
0865	Museums, botanical, zoological gardens	84
0870	Membership organizations	86
0875	Engineering and management services	87
0880	Miscellaneous services	89
0900	Government and government enterprises	...
0910	Federal, civilian	...
0920	Military	...
0930	State and local	...
0931	State government	...
0932	Local government	...

* In Tables CA05 and CA06 farm has a line code of 0081 and nonfarm has a line code of 0082. In Table CA25 farm has a line code of 0070 and nonfarm has a line code of 0080.

BEA Regions

State FIPS code	State or Region name	Abbreviation	Region code	State FIPS code	State or Region name	Abbreviation	Region code
	New England Region	NENG	1		Southwest Region	SWST	6
09	Connecticut	CT	1	04	Arizona	AZ	6
23	Maine	ME	1	35	New Mexico	NM	6
25	Massachusetts	MA	1	40	Oklahoma	OK	6
33	New Hampshire	NH	1	48	Texas	TX	6
44	Rhode Island	RI	1				
50	Vermont	VT	1		Rocky Mountain Region	RKMT	7
				08	Colorado	CO	7
	Midwest Region	MEST	2	16	Idaho	ID	7
10	Delaware	DE	2	30	Montana	MT	7
11	District of Columbia	DC	2	49	Utah	UT	7
24	Maryland	MD	2	56	Wyoming	WY	7
34	New Jersey	NJ	2				
36	New York	NY	2		Far West Region	FWST	8
42	Pennsylvania	PA	2	02	Alaska	AK	8
				06	California	CA	8
	Great Lakes Region	GLAK	3	15	Hawaii	HI	8
17	Illinois	IL	3	32	Nevada	NV	8
18	Indiana	IN	3	41	Oregon	OR	8
26	Michigan	MI	3	53	Washington	WA	8
39	Ohio	OH	3				
55	Wisconsin	WI	3				
	Plains Region	PLNS	4				
19	Iowa	IA	4				
20	Kansas	KS	4				
27	Minnesota	MN	4				
29	Missouri	MO	4				
31	Nebraska	NE	4				
38	North Dakota	ND	4				
46	South Dakota	SD	4				
	Southeast Region	SEST	5				
01	Alabama	AL	5				
05	Arkansas	AR	5				
12	Florida	FL	5				
13	Georgia	GA	5				
21	Kentucky	KY	5				
22	Louisiana	LA	5				
28	Mississippi	MS	5				
37	North Carolina	NC	5				
45	South Carolina	SC	5				
47	Tennessee	TN	5				
51	Virginia	VA	5				
54	West Virginia	WV	5				

BEA modifications to FIPS codes

Code	Place name
15901	Maui and Kalawao, HI 15005 Kalawao 15009 Maui
51901	Albermarle+Charlottesville, VA 51003 Albermarle 51540 Charlottesville
51903	Alleghany+Covington, VA 51005 Alleghany 51580 Covington
51907	Augusta+Staunton+Waynesboro, VA 51015 Augusta 51790 Staunton 51820 Waynesboro
51909	Bedford+Bedford City, VA 51019 Bedford 51515 Bedford City
51911	Campbell+Lynchburg, VA 51031 Campbell 51680 Lynchburg
51913	Carroll+Galax, VA 51035 Carroll 51640 Galax
51918	Dinwiddie+Colonial Heights+Petersburg, VA 51053 Dinwiddie 51570 Colonial Heights 51730 Petersburg
51919	Fairfax, Fairfax City+Falls Church, VA 51059 Fairfax 51600 Fairfax City 51610 Falls Church
51921	Frederick+Winchester, VA 51069 Frederick 51840 Winchester
51923	Greensville+Emporia, VA 51081 Greensville 51595 Emporia
51929	Henry+Martinsville, VA 51089 Henry 51690 Martinsville

Code	Place name
51931	James City+Williamsburg, VA 51095 James City 51830 Williamsburg
51933	Montgomery+Radford, VA 51121 Montgomery 51750 Radford
51939	Pittsylvania+Danville, VA 51143 Pittsylvania 51590 Danville
51941	Prince George + Hopewell, VA 51149 Prince George 51670 Hopewell
51942	Prince William+Manassas+Manassas Park, VA 51153 Prince William 51683 Manassas 51685 Manassas Park
51944	Roanoke+Salem, VA 51161 Roanoke 51775 Salem
51945	Rockbridge+Buena Vista+Lexington, VA 51163 Rockbridge 51530 Buena Vista 51678 Lexington
51947	Rockingham+Harrisonburg, VA 51165 Rockingham 51660 Harrisonburg
51949	Southampton+Franklin, VA 51175 Southampton 51620 Franklin
51951	Spotsylvania+Fredericksburg, VA 51177 Spotsylvania 51630 Fredericksburg
51953	Washington+Bristol, VA 51191 Washington 51520 Bristol
51955	Wise+Norton, VA 51195 Wise 51720 Norton
51958	York+Poquoson, VA 51199 York 51735 Poquoson

Code	Place name
55901	Shawano (incl. Menominee), WI (prior to 1989)
55078	Menominee
55115	Shawano