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 methodologies used by the Regional Economic Measurement Division of the Bureau of Economic Analysis (BEA) to estimate personal income and employment for states and counties. 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). Personal income is 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. Disposable personal income (estimated for the nation and for states) is the income that is available to persons for spending and saving. It is calculated as personal income less the sum of personal current taxes paid to Federal, state, and local governments.

The state and 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, sum to national totals.[1] Therefore, the state and county definitions of personal income and its components are essentially the same as those used by the NIPA.[2]

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."

A brief history

In the mid-1930's, BEA began work on the estimation of regional income as part of the effort to explain the processes and structure of the nation's economy. As a result, it produced annual state estimates of "income payments to individuals." These income payments were calculated as the sum of (1) wages and salaries, (2) other labor income

[1] Personal income is part of the personal income and outlay account, one of seven summary accounts that compose the national income and product accounts. Of the aggregations in the personal income and outlay account, only personal income, disposable personal income, and personal current tax receipts are estimated for states, and only personal income for counties. In addition, BEA prepares estimates of gross state product (GSP), which correspond to gross domestic product (GDP). With one minor qualification, GSP and state personal income share the following elements of personal income: Compensation, proprietors' income, and rental income of persons. The measure of compensation used in GSP is based on wage and salary *accruals* while personal income is based on wage and salary *disbursements*. The difference between accruals and disbursements is typically very small (see NIPA Table 1.7.5, Line 23). For further information about the relationships among GDP, GSP, and state personal income, see Gerard P. Aman, George K. Downey, and Sharon D. Panek, "Comprehensive Revision of Gross State Product: Accelerated Estimates for 2003: Revised Estimates for 1977-2002," *Survey of Current Business* 85 (January 2005):80-106.

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

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.

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 of Current Business* 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 1929-62.

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 state product by industry. These estimates, as an established series, were first presented in the May 1988 *Survey*.

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

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 measure and track the levels and types of incomes that are received by the people who live or work in a county, metropolitan area, or BEA economic area. These estimates provide a framework for the analysis of each area's economy, and they serve as a basis for decision making.

Federal agencies use these estimates in econometric models, such as those used to project energy and water use. 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.

Geographic characteristics of the source data

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 source data that are used to prepare the estimates of personal income are reported by the recipient's place of work rather than by the recipient's place of residence. Therefore, the estimates of the components that are derived from place-of-work data are adjusted to a place-of-residence basis, and the estimates of these components are presented both by place of work and by place of residence.

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 source 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 recorded by place of residence.

The estimates of farm proprietors' income are derived from source 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 source data that are reported by the place of residence of the income recipient.

Differences in geographic scope and in classifications between the NIPA and state and county estimates

The main differences between the NIPA estimate of personal income and the state and county estimates stem from the treatment of the income of U.S. residents who are working abroad and the income of foreign residents who are working in the United States. The state and county estimates of wage and salary disbursements and supplements to wages and salaries represent mainly the wages and supplements earned by persons who live in the United States and so include the wages and supplements earned by foreign residents working in this country.

The NIPA estimate of personal income is broader. It includes the wages and supplements of Federal civilian and military personnel stationed abroad, other U.S. residents on foreign assignment for less than a year, and the investment income (dividends and interest) received by Federal retirement plans of Federal workers stationed abroad. Wages and supplements of foreign residents are included only if they live and work in the United States for a year or more.

The wages and salaries of U.S. residents who commute to work in Canada and Canadian and Mexican residents who commute to work in the United States are recorded in the rest-of-the-world sector in the NIPA. In the state and county estimates these wages and salaries are part of the residence adjustment.[3]

The wages and salaries of U.S. residents who are employed by international organizations and by foreign embassies and consulates in the United States are classified in the rest-of-the-world sector in the NIPA. In the state and county estimates they are classified in an industry called "other." In published estimates this industry is typically combined with forestry, fishing, and related activities.

The wages and salaries of (1) U.S. residents, other than federal personnel, working temporarily (for 1 year or less) abroad, (2) foreign residents working temporarily in the U.S., and (3) foreign students enrolled in U.S. colleges and universities are recorded in the rest-of-the-world sector in the NIPA.

In the state estimates the wages and salaries of foreign residents and foreign students working in the U.S. are recorded in the industry of employment. The wages and

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[3] The residence adjustment is mainly an estimate of the net flow of labor earnings of intercounty commuters. The state and county estimates of wages by place of work, like the national estimates of wages for domestic industries, exclude the wages of the U.S.-resident border workers and include the wages of the foreign-resident border workers.

salaries of U.S. residents working temporarily abroad are omitted from the state estimates.

The NIPA estimate of personal current transfer receipts, unlike the state and county estimates, also includes the unemployment benefits that are paid by state employment security agencies to individuals who live in outlying U.S. areas, mainly in Puerto Rico. The state and county estimates are adjusted to remove these payments.

State and local estimates of military wages and salaries for 2001-2004 do not show a large decrease for troops sent to Afghanistan and Iraq. For the Army and the Air Force, 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 the Marines, however, domestic base strength is reduced when troops are sent overseas. The current reporting of the Army and the Air Force is different from how troop strength was reported in the Persian Gulf War of 1991. In that conflict, Army troops that were deployed to the Persian Gulf were reported by the Defense Department as overseas. As a result, the counties housing bases that had troops deployed for the Persian Gulf War showed a corresponding drop in strength at the base. The Navy, however, reported no change in strength at its ports because they did not change the home port of the various ships that were sent to the Persian Gulf. Their view was that the ships were temporarily at sea. The Air Force only sent small groups from a large number of bases overseas. In some cases, long range aircraft stationed in the United States were being flown round trip to the Middle East on bombing missions. The call up of reservists for this war was not large and was for a relatively short time.

Industrial classification

For the private sector the North American Industry Classification System (NAICS) is used for the industrial classification of wage and salary disbursements, employer contributions for employee pension and insurance funds, and proprietors' income. NAICS is used for 2001 to the present at the state level and at the county level.[4]

For earlier years the Standard Industrial Classification (SIC) was used. The *Standard Industrial Classification Manual, 1967* was used for the years 1969-74, the 1972 *Manual* was used for the years 1975-87, and the 1987 *Manual* was used for 1988-2001 for states and 1988-2000 for counties.[5]

For the public sector, the estimates of wages and salaries and employer contributions for employee pension and insurance funds are classified by level of government—Federal, state, and local. The estimates for the Federal government are sub classified into civilian and military.

[4] Office of Management and Budget: *North American Industry Classification System, United States, 2002* (Lanham, MD: Bernan Press, 2002)

[5] 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).

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 income is measured at the construction site.[6] 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 resident 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.

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

Personal income, adjusted gross income, and money income

Personal income as defined by BEA differs substantially from adjusted gross income (AGI), the principal measure of the income of individuals that is used by the Internal Revenue Service. Personal income also differs from money income, an income concept developed by the Census Bureau.

As compared with AGI, personal income consists of the income of nonprofit institutions serving individuals, private noninsured welfare funds, and private trust funds as well as of individuals, whereas AGI consists only of the income of individuals who file individual income tax returns. Personal income also includes employer contributions to private health and pension funds and to government employee retirement plans, several types of imputed incomes, transfer receipts, and all of the interest received by individuals, whereas AGI excludes all employer contributions, imputed incomes, most transfer payments, and the nontaxable interest received by individuals. Personal income, unlike AGI, excludes personal contributions for social insurance, realized capital gains and losses, and pensions and annuities from private and government employee retirement plans.[7]

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

Personal income for a given area and year includes the income received by individuals living in that area during that year. In contrast, money income for a given area and year consists of 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 for states, counties, and cities is prepared decennially on the basis of data from the “long-form” sample of the census of population.[8]

[7] For more information, see Mark A. Ledbetter, “Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income,” *Survey* 84 (April 2004): 8-22.

[8] 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 American Community Survey.

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 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 address from which the proprietor's individual tax return is filed, which is usually the proprietor's residence. 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 farms operated by sole proprietors plus the number of partners operating farm partnerships 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. 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 estimates of personal income are primarily based on administrative-records, surveys, and censuses.

The data from administrative records may originate either from the recipients of the income or from the source of the income. These data are a byproduct of the administration of various Federal and state government programs. The most important sources of these data are: The state unemployment insurance programs of the Bureau of Labor Statistics, U.S. Department of Labor; the social insurance programs of the Centers for Medicare and Medicaid Services (CMS, formerly the Health Care Financing Administration), U.S. Department of Health and Human Services, and the Social Security Administration; the Federal income tax program of the Internal Revenue Service, U.S. Department of the Treasury; the veterans benefit programs of the U.S. Department of Veterans Affairs; and the military payroll systems of the U.S. Department of Defense.[9]

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

Some of the estimates are based on data from other sources. For example, the USDA's national and state estimates of the income of all farms constitute the principal

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[9] The data from the state unemployment insurance programs are collected by the various state employment security agencies and are assembled and supplied to BEA by the U.S. Bureau of Labor Statistics.

basis for BEA's national and state estimates of farm proprietors' income. The USDA uses sample surveys, along with census data and administrative-records data, to derive its estimates.

Using administrative records data and census data to measure income as defined in the national income and product accounts has both advantages and disadvantages. By using these data, BEA can prepare detailed annual estimates of personal income for the nation, 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, and geographic detail.

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 total and nonfarm 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 September or October *Survey*.

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

Preparation and revision schedule

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

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

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

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

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

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

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

The state and 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.[10]

In a comprehensive NIPA revision, the national estimates of personal income are affected by the statistical changes that result from the introduction of new source data and the use of improved estimating methods. The national estimates may also be affected by the definitional and classificatory changes that are made so that the NIPA will reflect the evolving economy of the United States. For example, as part of the 2003 comprehensive revision, the definition of property and casualty insurance services was changed to recognize the implicit services that are funded by investment income; to provide a more appropriate treatment of insured losses that reduces the large swings in measured services that result from catastrophes, such as the terrorist attacks of September 11, 2001; and to change the treatment of reinsurance. As a result, personal interest income now includes the imputed value of interest attributable to persons as policyholders, and business transfer payments to persons now includes net insurance settlements received by persons.[11]

Tables

The local area personal income and employment data are organized in a set of tables called the Regional Economic Information System (REIS). The data are available online and on a DVD. Annual data for 1969-2004 are available for counties, metropolitan areas, micropolitan areas, BEA economic areas, states, BEA regions, and for the United States:[12]

- Income and employment summary (table CA04);
- Personal income by major component and place-of-work earnings by industry. North American Industry Classification System (NAICS) three-digit industries are used for current estimates from 2001 to the present (table CA05N) and Standard

[10] For the results of the latest comprehensive revision of the NIPA, see Eugene P. Seskin and Daniel Larkins, "Improved Estimates of the National Income and Product Accounts for 1929-2002: Results of the Comprehensive Revision," *Survey of Current Business* 84 (February 2004): 7-29.

[11] Robert L. Brown, G. Andrew Bernat, Jr., and Adrienne T. Pilot, "Comprehensive Revision of State Personal Income: Preliminary Estimates for 2003: Revised Estimates for 2969-2002," *Survey* 84 (May 2004):27-90.

[12] See "Geographic areas" in the Glossary. Also see the lists of regions and areas together with their constituent counties on the BEA website http://www.bea.gov/bea/regional/articles.cfm?section=other or under "Documentation" on the CD-ROM.

Industrial Classification (SIC) two-digit industries are used for 1969-2000 (table CA05);

- Compensation of employees by place of work by NAICS three-digit industries for 2001 forward (table 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 forward (table CA25N) and by SIC Division (the "one-digit" level of classification) for 1969-2000;
- An economic profile table that includes 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 (table CA30);
- Personal current transfer receipts by major program (table CA35); and
- Farm income and expenses that include major categories of gross receipts and expenses for all farms and four measures of farm income (table CA45).

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 December 2003 and the annual revisions released in July 2004 and July 2005.

The estimates are first prepared for the nation, then for states, and then for counties. Estimates for the BEA regions are aggregations of the state estimates, and estimates for metropolitan, micropolitan, and BEA economic areas are aggregations of county estimates.

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

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.[13] 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/bea/regional/reis/ 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/bea/regional/docs/usergrp.cfm to access a list of the BEA User Group members or see the list of members under "Documentation" on the DVD.

For more information, call the Regional Economic Information System at 202-606-5360, fax 202-606-5322, or e-mail reis.remd@bea.gov

[13] BEA's major national, regional, international, and industry estimates, recent issues of the *Survey of Current Business*, and BEA news releases are available on BEA's Web site: Go to www.bea.gov.

II. WAGE AND SALARY DISBURSEMENTS

Wage and salary disbursements consists of the monetary remuneration of employees (including the salaries of corporate officers, commissions, tips, bonuses, and severance pay); employee gains from exercising nonqualified stock options; distributions from nonqualified deferred compensation plans; and an imputation for pay-in-kind (such as the meals furnished to the employees of restaurants).

Wage and salary disbursements are measured before deductions, such as social security contributions, union dues, and voluntary employee contributions to defined contribution pension plans such as 401(K) 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 over 55 percent of total personal income at the national level in 2004 (see table A, which also shows the relationship of the major components of wages and salaries to total personal income).

The state and county estimates of about 98 percent of wages and salaries for approximately 90 private industries, for Federal civilian employees, and for state and local government employees are based 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.[2]

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, 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 wages and salaries that are not covered by UI programs.

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[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 eating and drinking places, and hotels and other lodging places.

[2] See table B, for the relationship between the wage data published by BLS and BEA.

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 nonclassification

The industry detail of the QCEW data regularly shows minor amounts of payroll—only 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 noneducation, local education, and local noneducation.

Adjustments for misreported wage and salary data

An estimate of the wages and salaries that were misreported in the UI contribution reports is added to the QCEW data for each private industry. 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.[3]

In addition, tips are assumed to be understated in the UI contribution reports from the following industries: Taxicabs, which is part of transit and ground passenger transportation; food services and drinking places; accommodation; amusement, gambling, and recreation industries; and personal and laundry services. 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.

[3] 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.

Further, the wages and salaries that employees contribute to tax-deferred thrift savings plans—such as 401(k) plans—are omitted from the UI contribution reports of some employers in some states, although this form of underreporting ended in 1997, with the exception of Alaska. Beginning with 1996, Alaskan employers are no longer required to include the voluntary savings contributions with reported wages and salaries, but 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) are reported by state, not by county. Therefore, the county estimates of the wages and salaries of these employees are 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 are 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.[4]

Wage and salary estimates for the establishments of American Indian Tribal Councils are included in the local government component.

Adjustments for elements that are excluded from the QCEW data

The QCEW payroll data for some industries exclude small portions of the wages either because the employing establishments are not covered by the UI programs or

[4] Arizona is no longer included in this group due to recent improvements in the QCEW data series. This methodological change was applied back to year 2002 and will be taken further back during the next benchmark revision.

because a portion of the establishments' payrolls are not subject to UI reporting. The following procedure is used to prepare the state and county estimates for the industries that include these noncovered elements.

A national estimate of each element is prepared, and then it is allocated to states on the basis of the best available related economic series. The state estimate of the element is added to the QCEW payroll data for the industry of the element. Then, the national estimate for the industry is allocated to states in proportion to the augmented QCEW data.

Because county data for the noncovered elements are unavailable, the state estimates are allocated to the counties in proportion to the unaugmented QCEW data.
This procedure is used to prepare the state and county estimates of the following elements in the following industries:

- 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;
- 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;
- Salaries of corporate officers in Washington state;
- Commissions received by insurance solicitors and real estate agents;
- Allowances paid to Federal civilian employees in selected occupations for uniforms;
- 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.

Wages and salaries not covered by the state UI programs

The estimates of wages and salaries for eight industries are primarily based on data other than QCEW data. The QCEW data are inadequate for five industries—farms, farm labor contractors, private households, private elementary and secondary schools, and religious organizations—because these industries are extensively covered by state UI programs in only a few states. The QCEW data are unavailable for three industries—railroads, military, and "other"—because these industries are not covered by state UI programs.[5] Consequently, the wages and salaries of all eight industries are treated as if they were not covered by state UI programs. In addition, because these estimates are primarily based on data that do not include wages paid in kind, an estimate of pay-in-kind is prepared for each of these industries except farm labor contractors, railroads, and "other."

Farms

The estimates of wages and salaries for farms consist of the cash wages and the pay-in-kind of hired farm labor, including the salaries received by the owner-operators of farm sole proprietorships, partnerships, and family-held corporations. The state estimates of cash wages of hired farm labor are based on estimates of farm labor expenses 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 1997 Census of Agriculture.

However, 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 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 in 1997 from the 1997 Census of Agriculture.

Farm labor contractors

This industry is 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 are based on data for contract farm labor expenses from the 1992 and 1997 Censuses 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.

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 subtracted from the national total of the payrolls of all railroad companies—summed

[5] Military and "other" are BEA industry classifications.

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 a county but worked in another, specified county 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 2004 state and county estimates of railroad wages and salaries reflect the geographic distribution of the 2003 estimates.

Private households

The national estimates of cash wages for private household employees is allocated to states—and the state estimates to counties—in proportion to total wages prepared from unpublished Census JTW data. Summations of these data by place of work were used as the allocators for 1980, 1990, and 2000 and the intervening years were interpolated. The 2000 summations for states were extrapolated forward by the annual change in civilian population, but the 2000 county summations were used as the county allocators for the 2001-forward estimates.[6]

National estimates of pay-in-kind are allocated to states and counties by private household employment.

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*.[7]

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 2002 Survey of private

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[6] State civilian population is from the Census Bureau.

[7] "General Summary," *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.

elementary and secondary schools, or (3) relevant wage data from *County Business Patterns*.[8]

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 are based on CBP data, and the estimates of pay-in-kind are based on data from the *Official Catholic Directory*. However, the CBP county data are too frequently suppressed to avoid disclosure of information about individual organizations to be useful; therefore the state estimates are allocated to counties in proportion to the distribution of the civilian population.[9]

Military

Estimates of wages and salaries for the military consist of estimates of cash wages (including allowances) of full-time military personnel and of the members of the military Reserves including the National Guard and of estimates of the pay-in-kind provided to enlisted personnel.[10]

County estimates of wages and salaries are derived from data from the Department of Transportation for the Coast Guard and from the Department of Defense for each of the other services. 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, which are based mainly on payroll data, are allocated to counties in proportion to the number of personnel for the Coast Guard and to the county payroll estimates prepared by the Department of Defense for each of the other services.

State estimates of cash pay for the Reserves are based on payroll data. 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. The national estimate of the pay-in-kind of the Reserves is allocated to states and counties in proportion to the estimates of cash pay.

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[8] 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.

[9] 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.

[10] 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.

Other

This industry consists of the wages and salaries of U.S. residents who are employed in the United States by international organizations and by foreign embassies and consulates.[11] The national estimate is allocated to states and counties in proportion to estimates of the administrative expenditures of these organizations in 1968.[12]

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[11] This category corresponds to a portion of the rest-of-the-world category in the national estimates, which also includes the wages and salaries of U.S. residents who commute to work in Canada and from which is subtracted the wages and salaries of foreign residents who work in the United States.

[12] The estimates of the expenditures for 1968 were prepared by the Balance of Payments Division of BEA.

Table A.--Relative Importance to Personal Income of Wage and Salary Disbursements, by Component, United States, 2004

	Millions of dollars	Percent of personal income
Personal Income /1/..	9,705,504	100.00
Wage and salary disbursements/2/..	5,383,900	55.47
Farm..	19,726	0.20
Forestry, fishing, related activities and other/3/..	17,213	0.18
Mining..	34,806	0.36
Utilities..	41,031	0.42
Construction..	292,657	3.02
Manufacturing..	687,534	7.08
Durable goods manufacturing..	450,211	4.64
Wood product manufacturing..	18,752	0.19
Nonmetallic mineral product manufacturing..	21,280	0.22
Primary metal manufacturing..	23,695	0.24
Fabricated metal product manufacturing..	61,658	0.64
Machinery manufacturing..	58,026	0.60
Computer and electronic product manufacturing..	96,989	1.00
Electrical equipment and appliance	20,577	0.21
Transportation equipment manufacturing..	100,931	1.04
Furniture and related product manufacturing..	18,548	0.19
Miscellaneous manufacturing..	29,755	0.31
Nondurable goods manufacturing..	237,323	2.45
Food manufacturing..	52,386	0.54
Beverage and tobacco product manufacturing..	9,685	0.10
Textile mills..	8,074	0.08
Textile product mills..	5,228	0.05
Apparel manufacturing..	8,315	0.09
Leather and allied product manufacturing..	1,543	0.02
Paper manufacturing..	24,910	0.26
Printing and related support activities..	26,885	0.28
Petroleum and coal products manufacturing..	8,310	0.09
Chemical manufacturing..	60,321	0.62
Plastics and rubber products manufacturing..	31,666	0.33
Wholesale trade..	305,857	3.15
Retail trade..	380,235	3.92
Transportation and Warehousing..	172,057	1.77
Air transportation	28,300	0.29
Rail transportation	12,647	0.13
Water transportation	3,303	0.03
Truck transportation	51,698	0.53
Transit and ground passenger transportation	9,561	0.10
Pipeline transportation	3,165	0.03
Scenic and sightseeing transportation	674	0.01
Support activities for transportation	21,997	0.23
Couriers and messengers	21,022	0.22
Warehousing and storage	19,690	0.20

Information..	190,644	1.96
Publishing industries, except Internet	55,645	0.57
Motion picture and sound recording industries	19,738	0.20
Broadcasting, except Internet	18,807	0.19
Internet publishing and broadcasting	2,116	0.02
Telecommunications	65,415	0.67
ISPs, search portals, & data processing	26,860	0.28
Other information services	2,063	0.02
Finance and insurance..	422,180	4.35
Real estate and rental and leasing..	80,772	0.83
Professional and technical services..	449,970	4.64
Management of companies and enterprises..	136,157	1.40
Administrative and waste services..	214,708	2.21
Educational services..	84,793	0.87
Health care and social assistance..	532,315	5.48
Arts, entertainment, and recreation..	56,429	0.58
Accommodation and food services..	169,272	1.74
Other services, except public administration..	169,532	1.75
Government and government enterprises..	926,012	9.54
Federal, civilian..	160,369	1.65
Military..	73,959	0.76
State and local..	691,684	7.13

Footnotes

1. Includes the adjustment for residence which is the net inflow of theearnings of interarea commuters. For the United States, it consists of adjustments for border workers: Wage and salary disbursements to U.S. residents commuting to Canada less wage and salary disbursements to Canadian and Mexican residents
2. Includes wages received by border workers employed in the United States.
3. "Other" consists of the wage and salary disbursements of U.S. residents employed by international organizations and foreign embassies and

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

Table B: National Estimates of BEA County Wage and Salary Disbursements, CBP Payrolls, and QCEW Wages

[Billions of dollars]

	2002	2003	2004
Total payroll, CBP...	3,943.2	4,040.9	n.a.
Plus: Differences in coverage...	771.2	785.4	n.a.
Equals: Total wages, QCEW...	4,714.4	4,826.3	5,087.6
Plus: Adjustments:			
For unreported wages and unreported tips on employment tax returns...	106.6	110.3	114.2
For selected industries:			
Private /1/...	84.9	89.3	98.0
Government /2/...	69.4	78.8	83.4
Other adjustments	1.2	0.7	0.7
Equals: Wage and salary disbursements, BEA...	4,976.5	5,105.4	5,383.9

Footnotes

1. Consists of the difference between estimates from more comprehensive source data and BLS wages and salaries.

2. Consists of wages and salaries for insurance agents classified as statutory employees, for students and their spouses employed by public colleges or universities, for the nonprofit organizations not participating in state unemployment insurance programs, for judicial fees paid to jurors and witnesses, for compensation of prison inmates, for marriage and license fees paid to justices of the peace, and of other coverage adjustments.

CBP Census County Business Patterns

QCEW Bureau of Labor Statistics Quarterly Census of Employment and Wages

BEA Bureau of Economic Analysis

n.a. Not available

III. SUPPLEMENTS TO WAGES AND SALARIES

Supplements to wages and salaries consists of employer contributions for employee pensions and insurance funds (previously called other labor income) and employer contributions for government social insurance. Supplements amounted to 13.3 percent of personal income at the national level in 2004 (table C). In the new presentation of personal income, employer contributions for government social insurance is included as a component of supplements to wages and salaries, compensation, and total earnings. It also is included in total contributions for government social insurance, which consists of both employer contributions and employee and self-employed contributions and which is deducted in the calculation of personal income and net earnings. This change provides the user with a more comprehensive presentation of the costs of production by industry in an area, but it does not affect personal income or net earnings by place of residence.

Employer Contributions for Employee Pension and Insurance Funds

Employer contributions for employee pension and insurance funds consists of employer contributions to private employee pension and welfare funds, privately administered workers' compensation plans, government employee health and life insurance plans, and government employee retirement plans.[1] Employer contributions for employee pension and insurance funds accounted for 9.15 percent of personal income at the national level in 2004 (table C).

Private employee pension and welfare funds.—Contributions by employers to private employee pension and welfare funds, consist of payments to pension and profit-sharing plans, premiums for group health and life insurance plans, and payments to supplemental unemployment benefit plans. These accounted for 64.90 percent of employer contributions for employee pension and insurance funds in 2004 (table C). The property income of pension and profit-sharing plans is included in other components of personal income. However, the capital gains of and benefits paid by these plans are not counted as part of personal income.

The state and county estimates of the payments to these private benefit plans are prepared for each private industry at the North American Industrial Classification System (NAICS) three-digit industry level. Because state and county data are not available from the sources used to prepare the national estimates, the payments amount for each industry is allocated to the states—and the state estimates, to counties—in proportion to the

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[1] Employer contributions for employee pension and insurance funds excludes employer contributions paid to social insurance funds, such as those for the Old-Age, Survivors, and Disability Insurance (social security) program. Generally, government-administered funds that provide benefits to individuals are classified as social insurance; however, government employee retirement plans are treated similarly to private pension plans. The benefits paid from social insurance funds are counted as part of the transfer receipts component of personal income. For the difference in the treatment of government employee retirement plans and social security, see footnote 10 in Brent R. Moulton, Robert P. Parker, and Eugene P. Seskin, "A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts," *Survey of Current Business* 79 (August 1999):11.

estimates of wage and salary disbursements for the industry.[2] However, for the large payments made by two motor vehicle manufacturing firms to previously under funded pension funds in 1992-95, the contribution made by each firm was allocated to states and counties in proportion to the firms' employment in motor vehicle manufacturing plants.

Privately administered workers' compensation plans.—Contributions by employers (private and government) to privately administered workers' compensation plans consist of net premiums paid by employers to private insurance companies for workers' compensation insurance, benefit payments by self-insured employers, and court-awarded payments by the railroad industry and the water transportation industry for work-related injuries.[3] Employer contributions to these plans accounted for 5.40 percent of employer contributions for employee pension and insurance funds in 2004 (table C). Because of the lack of county data, the state estimates of employer contributions in all industries are allocated to counties in proportion to county estimates of wages and salaries by industry.

Government employee health and life insurance plans.—Government employee health and life insurance plans are treated similarly to private employee health and life insurance plans in the national income and product accounts. Employer contributions to these plans accounted for 12.99 percent of employer contributions for employee pension and insurance funds in 2004 (table C). Employee contributions to these plans and benefits paid by these plans are not counted in personal income. State and county estimates of the payments to these plans are prepared separately for each level of government. Because state and county data are not available from the sources used to prepare the national estimates, the payments to government employee group health and life insurance plans are allocated to states—and the state estimates to counties—in proportion to employment data from the BEA employment estimates. Payments are allocated by employment rather than wages because health care premiums typically are a fixed amount per employee rather than a percentage of wages.

Government employee retirement plans.—Government employee retirement plans are treated similarly to private employee pension and profit sharing plans in the national income and product accounts.[4] Employer contributions to the plans are counted as part of employer contributions for employee pension and insurance funds, and the

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[2] 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.

[3] Programs for workers' compensation insurance are authorized by law in all states and the District of Columbia. All but five states authorize programs for private workers' compensation insurance. Federal laws authorize the court-awarded payments by the railroad industry and the water transportation industry. Laws in many states authorize self-insurance. Workers' compensation insurance administered by government-operated funds is classified as social insurance, the premiums paid to these funds are classified as employers' contributions for social insurance, and the benefits paid by these funds are classified as transfer receipts to persons.

[4] In addition to or instead of coverage under government employee retirement plans, many government employees are covered by the Old-Age, Survivors, and Disability Insurance program (social security); see footnote 1.

property income (but not the capital gains) received by the plans is counted as part of personal dividend income or personal interest income. Employer contributions to these plans amounted to 15.77 percent of employer contributions for employee pension and insurance funds in 2004. Employee contributions to the plans and the payment of benefits to retired persons and survivors are not counted in personal income.

The government employee retirement plans for Federal civilian employees consist of the Civil Service Retirement System, which covers only employees hired before 1984; the Basic Benefit Plan of the Federal Employees Retirement System, which covers mainly employees hired after 1983; the Thrift Savings Plan; and several plans that cover specific groups of employees, such as the plan for Foreign Service officers. The national estimate of the employer contributions to all of the retirement plans for Federal civilian employees is allocated to states—and the state estimates to counties—in proportion to Federal civilian wages and salaries.

The national estimate of employer contributions for military retirement is allocated to states—and the state estimates to counties—in proportion to military wages and salaries.

Government employee retirement plans for state and local government employees consist of both plans operated by state and local governments and by private carriers. The pension plans for state and local government employees operated by private carriers consist only of contributions to annuity plans made on behalf of select groups of employees—primarily teachers. Some local government employees are covered by plans operated by state governments. Employee contributions to the state and local government plans may or may not be required.

The state-level estimates—like the national estimates—for government operated plans are based on data from the Census Bureau's annual *Finances of Employee-Retirement Systems of State and Local Governments*. The state estimates of the contributions for state government employees are based on the total contributions received by the state-operated plans less the contributions made for local government employees to those plans. The state estimates of the contributions for local government employees are based on the total contributions received by the plans operated by local governments plus the contributions made for local government employees to the state-operated plans. The state estimates of the contributions made for state government employees and for local government employees are each allocated to counties in proportion to the corresponding estimates of wages and salaries.

The state-level estimates—like the national estimates—for privately operated plans are based on data from the Teachers Insurance and Annuity Association/College Retirement Equities Fund. The state estimates are allocated to counties in proportion to the county estimates of wages and salaries for state and local government education.

Employer Contributions for Government Social Insurance

Employer contributions for government social insurance consists of employer payments under the following government social insurance programs: Old-Age, Survivors, and Disability Insurance (OASDI); Hospital Insurance (HI); unemployment insurance; railroad retirement; pension benefit guaranty; military medical insurance; veterans life insurance; Federal workers compensation; state-administered workers' compensation; and state-administered temporary disability insurance. These contributions amounted to 4.14 percent of personal income at the national level in 2004 (table C). The estimates of employer contributions for government social insurance are developed for each program by industry. The total for all of the programs is included in contributions for government social insurance.

Old-Age, Survivors, and Disability Insurance and Hospital Insurance.— Contributions by employers for OASDI and HI are made on behalf of private sector, federal, state, and local government employees who are covered by the OASDI and HI programs and account for about 84 percent of total employer contributions for government social insurance.

Most employers contribute to both the OASDI and HI programs on behalf of their employees. However, employees of the railroad industry, federal employees in the Civil Service Retirement System, and state and local government employees covered under their employers' pension programs are covered by the HI program but not by the OASDI program.

The national estimates of the contributions are based on data from the Social Security Administration. State estimates of employer contributions to OASDI and HI are prepared separately for each private industry, for Federal civilian employees, for military personnel, for state government employees, and for local government employees.

County estimates of the contributions by private sector employers are based on 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. The county estimates of the contributions by Federal civilian employers are prepared in proportion to the county estimates of wage and salary disbursements for Federal civilian employees. The county estimates of the contributions by the military are prepared in proportion to the county estimates of military wage and salary disbursements excluding pay-in-kind. County estimates of the contributions to OASDI and HI by state and local government employers are prepared in proportion to the county estimates of wage and salary disbursements for state and local government employees.

Unemployment insurance.—Employer contributions to unemployment insurance funds consist of employer contributions to the following four funds: state unemployment insurance (UI); Federal unemployment tax; railroad employees unemployment insurance; and Federal employees unemployment insurance.

The state unemployment insurance and the Federal unemployment tax funds provide for payments of unemployment compensation to workers who have lost their jobs. Private sector employers covered by the unemployment insurance program and state and local governments pay both a Federal and a state unemployment tax.

The national estimates of employer contributions to the state unemployment insurance and federal unemployment tax funds are based on data from the Employment and Training Administration. The state estimates are based on employer contributions data by state and industry from the Unemployment Insurance contributions report, obtained from the Bureau of Labor Statistics of the Department of Labor. County estimates of employer contributions to the state unemployment insurance and federal unemployment tax funds are prepared in proportion to the county estimates of wage and salary disbursements.

The Railroad Unemployment Insurance Act of 1938 established a system of benefits for unemployed railroad workers that was financed by railroad employers and administered by the Railroad Retirement Board (RRB). National estimates of employer contributions for this program are based on data from the *Monthly Treasury Statement of Receipts and Outlays of the United States Government*. State and county estimates of employer contributions for railroad employees' unemployment insurance are based on wage and salary data from the RRB. The data used for the county estimates, which are reported by the RRB on a place-of-residence basis, are converted by BEA to a place-of-work basis using journey-to-work data from the 2000 Census of Population.

The Unemployment Compensation for Federal Employees (UCFE) program and the Unemployment Compensation for Ex-Service members (UCX) program provide benefits to former Federal civilian employees and to unemployed, newly discharged servicemen. Estimates of employer contributions for these two programs are imputations based on benefits paid to unemployed former Federal employees.

Employer contributions for the UCFE and UCX programs are estimated separately. National estimates are based on data from both the Office of Management and Budget and the Employment and Training Administration. County estimates are based on wage and salary disbursements for Federal civilian workers and for active duty military personnel.

Military Employee Programs.—Contributions for military employee programs consist of contributions for veterans' life insurance and contributions for military medical insurance. Contributions for veterans' life insurance are the premiums that are paid by the Federal government for life insurance under the five life insurance programs administered by the Department of Veterans Affairs (DVA). The national estimate of these contributions is based on unpublished data provided by DVA.

Military medical insurance (TRICARE) is a program that covers health care at nonmilitary facilities for active duty and retired members of the uniformed services, their families, and survivors. Benefits to dependents of active duty personnel of this program are treated as paid by a social insurance fund in order to make the compensation of military personnel comparable to the compensation of other government and private sector employees. A social insurance contribution—equal to the benefits paid—is imputed to the military employer. The national estimates of employer contributions for military medical insurance are based on data from the Department of Defense. State and county estimates for the combined military employee programs are based on BEA estimates of military wage and salary disbursements.

Other Programs.—State estimates of contributions to railroad retirement; pension benefit guaranty; Federal workers compensation; state-administered workers compensation; and state-administered temporary disability insurance are combined before allocating to counties.

Railroad retirement is treated in the NIPA as a social insurance fund. Railroad employers contribute a percentage of wages that matches the rate of OASDI and HI. In addition, employers contribute a supplemental tax that is calculated to yield benefits comparable to private pensions. The national estimates of the employer contributions for this federally-administered program are based on taxable wages and tax rate data from the RRB. The state estimates are prepared in proportion to wages and salaries as reported by RRB.

The Pension Benefit Guaranty Corporation (PBGC) is a Federal government corporation established by Title IV of the Employee Retirement Income Security Act of 1974 to encourage the continuation and maintenance of defined benefit pension plans, and to provide timely and uninterrupted payment of pension benefits to participants and beneficiaries in plans covered by the PBGC. The PBGC collects insurance premiums from employers that sponsor insured pension plans. Coverage in this program is not universal. The national estimates of employer contributions to PBGC are based on data from the budget of the United States. The state estimates are based on BEA employment estimates by industry.

The Federal government pays workers' compensation benefits to Federal employees injured on the job. All estimates of workers' compensation contributions are imputations based on estimates of benefits paid to employees. The national estimates of employer contributions for Federal workers' compensation are based on data from the Employment Standards Administration of the Department of Labor. The state estimates are based on Federal civilian wages and salaries.

Many states have created state-administered workers' compensation funds to provide benefits to individuals with employment-related injuries and illnesses and to survivors of individuals who died from employment-related causes. These government insurance funds and state-administered second injury funds are treated in the NIPA as social insurance funds. The national and state estimates of employer contributions for state-administered workers' compensation are based on government finance data provided by the Census Bureau.

State-administered temporary disability insurance programs provide workers with partial compensation for loss of wages caused by temporary non-occupational disability. Five states have a temporary disability insurance program: California, Hawaii, New Jersey, New York, and Rhode Island. Of these five states, only New Jersey has a program that requires employers to contribute. Therefore, the national estimate equals the estimate for the state of New Jersey. The national estimates of employer contributions for temporary disability insurance are based on government finance data provided by the Census Bureau. County estimates of employer contributions to these programs are based on BEA estimates of wages and salaries by industry.

Table C.--Relative Importance to Personal Income of Supplements to Wages and Salaries, by Component, United States, 2004

	Millions of dollars	Percent of personal income
Personal Income..	9,705,504	100.00
Supplements to wages and salaries	1,290,402	13.30
Employer contributions for employee pension and insurance funds	888,450	9.15
Private	624,613	6.44
Employer contributions to private pensions and health and welfare funds	576,598	5.94
Workers' compensation (private)	48,015	0.49
Government	263,837	2.72
Employer contributions to government employee retirement plans	140,143	1.44
Federal, civilian	46,717	0.48
Military	40,321	0.42
State and local	53,105	0.55
Employer contributions to government employee health and welfare funds	115,369	1.19
Workers' compensation (government)	8,325	0.09
Employer contributions for government social insurance	401,952	4.14
Old age, survivors, and disability insurance, and hospital insurance	339,288	3.50
Unemployment programs (state UI, Federal unemployment tax, RR UI, Federal UI)	40,202	0.41
Federal Employee Programs (veteran's life insurance, fed. civilian workers' compensation, military medical)	7,566	0.08
Other (private workers' compensation, temporary disab railroad retirement, pension benefit guaranty	14,896	0.15

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

IV. 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.[1] Proprietors' income includes corporate directors' fees and excludes the dividends and the monetary interest received by nonfinancial business, the nonfarm rental income received by persons not primarily engaged in the real estate business, and the imputed net rental income of owner-occupied housing.[2]

Proprietors' income accounted for approximately 9.2 percent of total personal income at the national level in 2004 (table D). The estimates of proprietors' income are prepared in two parts—nonfarm proprietors' income and farm proprietors' income. Nonfarm proprietors' income accounted for approximately 95.4 percent of proprietors' income, and farm proprietors' income, for approximately 4.6 percent.

Nonfarm proprietors' income

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.[3] Because these data do not always reflect current production and because they are incomplete, five major adjustments are made—an inventory valuation adjustment, a capital consumption adjustment, a misreporting adjustment, an imputation for the net margins on owner-built housing, and an adjustment for uninsured damage to fixed capital caused by major disasters.[4]

The inventory valuation adjustment offsets the effects of gains and losses that result from changes in the prices of products withdrawn from inventories. In recent years this adjustment has been small.

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.[5]

The misreporting adjustment adds an estimate of the income of sole proprietors and partnerships that is not reported on tax returns. This adjustment accounted for almost 40 percent of nonfarm proprietors' income in 2004.

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

[2] The dividends are included in personal dividend income, the monetary interest in personal interest income, and the rental income in rental income of persons.

[3] Corporate directors' fees are reported on Schedule C.

[4] 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.

[5] 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 XII Glossary.

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.

In addition, the national estimates include adjustments made to reflect decreases in monetary and imputed income that result from uninsured damage to fixed capital and to inventories that is caused by disasters, such as hurricanes, floods, and earthquakes. These adjustments are allocated to states and counties on the basis of information from the Federal Emergency Management Agency and private sources.[6] Adjustments were made for Hurricanes Andrew and Iniki in 1992, the Midwest floods and the East Coast storms in 1993, the Northridge Earthquake in 1994, Hurricane Opal in 1995, Hurricane Floyd in 1999, and Tropical Storm Allison in 2001 and Charley, Frances, Ivan, and Jeanne in 2004.

Income of nonfarm sole proprietorships and partnerships

The national estimates of the income of nonfarm sole proprietorships and partnerships, excluding the misreporting adjustment, were allocated to states by North American Industry Classification System (NAICS) three-digit subsectors in proportion to the income reported to the IRS on Schedule C and Form 1065. The national estimates of the misreporting adjustment were allocated to states by the "net receipts" ("gross receipts or sales" less "refunds 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 the 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.[7]

Consequently, the county estimates were prepared in two steps. First, the state estimates were aggregated to the NAICS two-digit sector level. The aggregated state estimates were then allocated to counties in proportion to the IRS data for net receipts.[8]

Second, the county estimates for each NAICS sector were apportioned among the NAICS three-digit subsectors through the use of a dual allocation procedure.[9] In this procedure, the state estimates for each NAICS three-digit subsector in a sector were used for the primary control totals (in the columns), and the county estimates for the sector were used for the secondary control totals (in the rows). The state estimates were initially

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[6] See "Disaster Adjustments" in Chapter XI Technical Notes.

[7] 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.

[8] 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. For additional information, see "Geographic characteristics of the source data" in Chapter I Introduction.

[9] See "Dual allocation" in Chapter XI Technical notes.

allocated to the counties in proportion to number of nonemployer establishments in order to generate initial county estimates at the three-digit subsector level.[10]

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*.[11] 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 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 estimates of the income of rural electric and telephone cooperatives are based on annual data for the net margin, or profit, of these cooperatives that have outstanding loans from the Rural Utilities Service (RUS) of the Department of Agriculture.[12] The net margin of each cooperative is allocated to states and counties in proportion to the distribution of its customer-members that is reported by the RUS. The allocated amount for each type of cooperative is summed to state and county totals, and these totals are then used to allocate the national estimates to states and counties.

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 based on data provided by the Rural Business-Cooperative Service of the Department of Agriculture. Because no source data for counties are available, the state estimates of the income of these cooperatives are allocated to counties in proportion to the income of sole proprietorships and partnerships in wholesale trade.

[10] The number of nonemployer establishments is from Census Bureau's Nonemployer Statistics.

[11] 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.

[12] The data for the electric cooperatives are for the total number of the customer-members, including businesses; the data for the telephone cooperatives are for the number of residential customer-members.

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.[13]

BEA's county estimates of farm proprietors' income for 1992-2004 are primarily derived from county data from the 1992 and 1997 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.

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.[14]

For 1992 and 1997, 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 1993-96 and for 1998-2004, 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.

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[13] 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* 85 (August 2005): 170. 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.

[14] The derivation of the estimate of farm proprietors' income for each county is available in table CA45, "Farm Income and Expenses."

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.[15]

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 15 states are prepared by NASS-affiliated state offices. BEA uses these estimates to allocate the USDA state estimates to the counties in these states.[16]

For the other states, the USDA state estimates of cash receipts from the marketing of each commodity are summed into the 13 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 1992 and for 1997 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 1992 and 1997 and extrapolated to 2004 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 1993-96 and for 1998-2004 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 1992 and 1997 state estimates of cash receipts were allocated to counties in proportion to the corresponding census data for those years. The 1993-96 county estimates reflect interpolations between the 1992 and 1997 census data, and the 1998-2004 estimates reflect the 1997 census data.

State estimates of the receipts from other farm-related activities for 1992-2004 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 1992-2004 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.

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

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

Farm production expenses

State estimates of most farm production expenses for 1992 and 1997 were allocated to counties in proportion to production expense data from the censuses for those years; the 1993-97 county estimates are based on interpolations of the data from the censuses, and the 1998-2004 estimates are based on data from the 1997 census.[17]

County estimates of three production expenses are based on data that are related to the expenses from the censuses. Estimates of rent paid to landlords who are not farm operators are based on the acreage of the farms operated by tenants; estimates of the depreciation of machinery are based on the value of the machinery and equipment; and estimates of the depreciation of buildings are based on the value of the farm land and buildings.[18]

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 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 1992-2004 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

[17] Direct allocators for the following expenses are available from the 1992 and 1997 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; and a miscellaneous category that includes animal health costs.

[18] The rent paid by farm operators to landlords who are also farm operators is omitted from production expenses and from gross receipts because it is assumed that the tenant and the landlord usually operate farms in the same county and that the rent paid usually offsets the rental income received.

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 1992 and 1997 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 1992 and 1997 state estimates were allocated by the data for crop production from the censuses for those years, the 1993-96 state estimates were allocated by the interpolations of the data from the censuses, and the 1998-2004 state estimates were allocated by the data from the 1997 census.

The 1992 and 1997 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 1993-96 state estimates were allocated by the interpolations of the data from the censuses, and the 1998-2004 state estimates were allocated by the data from the 1997 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 the acreage of corporate farms to the total acreage of all farms is computed for each county using acreage data from the 1992 and 1997 censuses. The ratio is interpolated between the censuses and the 1997 ratio is used for the 1998-2004. 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 is subtracted from the estimate of the income of all farms to yield the estimate of farm proprietors' income.

Table D.--Relative Importance to Personal Income of Proprietors' Income, by Component, United States, 2004

	Millions of dollars	Percent of personal income
Personal income..	9,705,504	100.00
Proprietors' Income/1/..	895,286	9.22
Farm..	41,479	0.43
Forestry, fishing, and related activities..	7,652	0.08
Mining..	26,315	0.27
Utilities..	24,064	0.25
Construction..	107,478	1.11
Manufacturing..	63,853	0.66
Wholesale and retail trade..	73,420	0.76
Transportation and warehousing..	30,000	0.31
Information..	48,487	0.50
Finance and insurance..	62,691	0.65
Real estate and rental and leasing..	100,376	1.03
Professional and technical services..	144,108	1.48
Management of companies and enterprises..	1,796	0.02
Administrative and waste services..	28,838	0.30
Educational services..	3,087	0.03
Health care and social assistance..	75,063	0.77
Arts, entertainment, and recreation..	14,578	0.15
Accommodation and food services..	10,259	0.11
Other services except public administration..	31,742	0.33

Footnotes

1. Shown with inventory valuation and capital consumption adjustments.

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

V. 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 about 16 percent of personal income at the national level in 2004 (table E).

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 consists of payments in cash and 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 accounted for 5.1 percent of personal income at the national level in 2004 (table E).

Dividends received by individuals and quasi-individuals.—State estimates of the dividends received by individuals are combined with state estimates of the dividends received by quasi-individuals and the combined amount is 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. 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.[2]

For the dividends received by private noninsured pension funds, the state estimates of the currently employed portion are allocated to counties using place-of-residence estimates of employer contributions to these plans.[3] The state estimates of the

[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] 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.

[3] The place-of-residence estimates of employer contributions to private pension plans are based on 1990 and 2000 benchmark estimates: The 1990 and 2000 national estimates of the contributions for each Standard Industrial Classification two-digit industry are allocated to states and then to counties in proportion to the earnings of wage and salary workers employed in that industry as reported in the 1990 and 2000 Census of Population. The 1991-1999 estimates are straight-line interpolations between the benchmark years. The 2000 state estimate for each industry is then extrapolated to subsequent years by the relative change in the BEA estimates of wage and salary disbursements for the industry. The estimates by industry are then summed to the all-industry level. The 2000 county estimates are summed to the all-industry level and then extrapolated to subsequent years by the relative change in all-industry, place-of-residence wages and salaries, which is approximated as the sum of place-of-work wages and salaries and the adjustment for residence.

retired portion are allocated to counties using 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, are allocated using county estimates of Federal civilian retirement benefits.[5]

State estimates of the dividends received by the state and local government employee retirement plans, both the currently employed and the retired portions, are allocated to counties in proportion to place-of-residence 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 9.3 percent of total personal income at the national level in 2004 (table E); monetary interest accounted for 5.5 percent and imputed interest for about 3.9 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.[6] It also includes the interest accrued on 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 this interest 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 combined, and the combined estimates are used as the control totals for the county estimates. The state estimates 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.[7] Second, this ratio is multiplied by the

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[4] See Chapter VI Transfers.

[5] County estimates of benefits (including lump-sum withdrawals) received by retirees and their survivors from the Civil Service Retirement System; the Basic Benefit Plan of the Federal Employees Retirement System; and special contributory and noncontributory retirement plans, such as those of the Foreign Service, the Federal Reserve Board, and the Tennessee Valley Authority are obtained from the Census Bureau's *Consolidated Federal Funds Report*.

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

[7] The national estimate of the reportable interest that is received by individuals from these companies is prepared as part of the reconciliation of personal income and adjusted gross income. See Mark A. Ledbetter, "Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross

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.

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.[8] 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 estimates of Federal military retirement benefits 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.[9]

The imputed value of depositor services is an estimate of the value of services such as checking and record keeping that financial intermediaries 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 investment 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 investment income.

State estimates of aggregate imputed interest are allocated to counties in proportion to interest reported by individuals to the IRS, as tabulated from the IMF.

Income: New estimates for 2002: Revised estimates for 2001," *Survey of Current Business* 84 (November 2004): 9-14.

[8] The division of the interest of the military retirement plan into current and retired portions is based on information obtained from the Department of Defense.

[9] See "Imputation" in Chapter XI 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.[10] 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 estimates include BEA adjustments for uninsured losses to fixed capital caused by disasters, such as hurricanes and floods.[11] The national estimate of the rental income of persons accounted for 1.4 percent of total personal income in 2004 (table E). Monetary rental income accounted for 0.5 percent of total personal income, and imputed rental income accounted for 0.9 percent.

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 rents received by individuals, (excluding disaster adjustments and 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.[12] The national disaster adjustments are assigned to states and counties on the basis of data from the Federal Emergency Management Agency and private sources. 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 1997 Census are used for subsequent years.

The state estimates of the royalties received by individuals are allocated to counties in proportion to the IMF data for interest.

The state estimates of the rents and royalties received by nonprofit organizations and fiduciaries are allocated to counties using rents and royalties received by individuals excluding disaster adjustments.

Net rents and royalties received by private noninsured pension funds.—A portion of the rents and royalties received by private noninsured pension funds is

[10] The net rental income received by persons who are primarily engaged in the real estate business is included in nonfarm proprietors' income.
[11] See "Disaster Adjustments" in Chapter XI Technical Notes.
[12] 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.

assumed to be received on behalf of current employees, and a portion on behalf of retired persons and their survivors.[13] The state estimates of the currently employed portion are allocated to counties using residence-adjusted estimates of employer contributions to these plans.[14] The state estimates of the retired portion are allocated using county estimates of 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.[15] 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 the imputed net income received from the rental of all other dwellings for census years were allocated to states and counties using estimates of the gross rental value of owner-occupied, single-family dwellings derived from Census of Housing. 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.

[13] See footnote 2.
[14] See footnote 3.
[15] See “Imputation” in Chapter XI Technical Notes.

Table E.--Relative Importance to Personal Income of Personal Dividend Income, Personal Interest Income, and Rental Income of Persons, by Component, United States, 2004

	Millions of dollars	Percent of personal income
Personal income..	9,705,504	100.00
Personal dividend income, personal interest income, and rental income of persons..	1,529,780	15.76
Personal dividend income..	490,575	5.05
Personal interest income..	904,999	9.32
Monetary..	530,135	5.46
Imputed..	374,864	3.86
Rental income of persons/1/..	134,206	1.38
Monetary..	46,376	0.48
Imputed..	87,830	0.90

Footnotes

1. Shown with the capital consumption adjustment.

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

VI. 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 almost 15 percent of total personal income at the national level in 2004 (table F).

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 data for the benefits; for some programs, data may be drawn from Census 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 F. 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

Old-age, Survivors, and Disability Insurance (OASDI) benefits.—These benefits, popularly known as social security, 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 OASDI. The state estimates are based on payments data from the Census Bureau's annual CFFR. The

[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 entered in the national income and products accounts as part of personal outlays.

[2] The estimates of transfer receipts in subcomponent detail for 1969-2004 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 ¾ of the amount for one fiscal year to ¼ 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.

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 nonoccupational 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; those whose eligibility was established since June 1973 receive benefits from the Department of Labor. The state and county estimates of the benefits received from each agency are based on fiscal year data from the Census Bureau's annual 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 estimate is allocated to states based on payments data from PBGC. The state estimates are allocated to counties in proportion to OASDI benefits, which are assumed to reflect the geographic distribution of the retired population.

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[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 through intermediaries to beneficiaries for the care provided to individuals under the provisions of 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 area 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 1996-2004 are extrapolated from the estimates for 1995 by the change in Medicare enrollment from CMS.

Public assistance medical care benefits.—These medical benefits are received by low-income individuals. The benefits consist mainly of the payments made through intermediaries for care provided to individuals under the federally assisted, state-administered Medicaid program and the State Children's Health Insurance Program (SCHIP). They include payments made under the general assistance medical programs of state and local governments.

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 and the general assistance medical programs are based on Medicaid payments data from the state departments of social services. See table G 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 SCHIP 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*.

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.

Food stamps.—These benefits are measured as the value of the food stamps 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 stamps. The state estimates are based on tabulations of the value of the distributed stamps 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 Women, Infants and Children (WIC) program.

General assistance benefits are received from state and local governments by low-income individuals and families who do not qualify for help under federally supported programs.[6] The state estimates are based on payments data from the Census Bureau's annual *State and Local Government Finances*. The county estimates are based on payments data from the various state departments of social services. 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*.

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 are Federal income tax refunds to low-income workers, mainly those with minor children. Eligibility for the tax credits is determined by the size of the adjusted gross income, or the earned income, and by certain household characteristics. 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 Census Bureau's annual CFFR. State estimates for 1998 onward are allocated to counties in proportion to county estimates for 1998. The 1998 county estimates are based on the tabulations of these payments by ZIP Code from the Internal Revenue Service. The IRS tabulations were converted to counties by BEA.[7]

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[6] The Federal Government neither funds nor regulates these programs.

[7] Tax credits for a ZIP code were assigned to county 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

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.

Women, Infants and Children (WIC) benefits. This program is fully funded by the USDA Food and Nutrition Service, operating 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.[8] The provisions that govern the eligibility, timing, and amount of benefits vary among the states, but the provisions that govern the coverage and financing are uniform nationally.

The state estimates are based on the data from the Labor Department's Employment and Training Administration. The state estimates are allocated to counties by the payments data reported by the state employment security agencies. Most of the data are reported by county. However, some of the data are reported by local district office; these data are allocated to the counties in the jurisdiction of the local district office in proportion to the estimates of the annual average number of unemployed persons from the Local Area Unemployment Statistics program of the Bureau of Labor Statistics (BLS). When the availability of the county data is delayed or discontinued, the latest payments-based estimates are extrapolated by the change in the number of unemployed persons.

Unemployment Compensation for Federal Employees (UCFE).—The UI program for 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.

Postal Service. Tax credits for ZIP codes that cross county lines were allocated to counties in proportion to their population.

[8] 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.

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 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—These benefits are *Trade Adjustment Allowances* 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 from the Department of Labor is used to allocate the state control for all subsequent years.

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 estimates are based on the data for these benefits from the Department of Veterans Affairs (DVA). The county estimates are based on payments data from the Census Bureau's quarterly FAADS.

Veterans' readjustment benefits.—These 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 estimates are based on data for these benefits from the DVA. The county estimates are based on data from the Census Bureau's quarterly FAADS.

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

Other assistance to veterans.—This consists of state and local government assistance to indigent veterans and state and local government payments of bonuses to veterans. 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.

Federal 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.[9] 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.

Because of the lack of pertinent data, 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.

Interest payments on guaranteed student loans.—These payments are made by the Department of Education to commercial lending institutions on behalf of the individuals who receive low-interest, deferred-payment loans from these institutions in order to pay the expenses of higher education. The national estimate is allocated to states in proportion to the number of individuals enrolled in institutions of higher education from the Department of Education. The allocator for the county estimates is the civilian population.

Higher education student assistance.—This Federal assistance, called Pell Grants, is to students with low incomes for an undergraduate education. The state 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 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.

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

[9] 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.

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 city 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 estimate of total compensation is allocated to states in proportion to data provided by the Office of Victims of Crime of the Department of Justice. The county allocator is the geographic distribution of 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.

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 an 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 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.

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.

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.

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 of payments for education assistance and payments for employment and training. The national estimates of the payments for education assistance are allocated to states by payments data published by the Census Bureau in *State Government Finances*, and those for the payments for employment and training, by the civilian population. The state estimates of both categories of payments are allocated to counties in proportion to the civilian population.

Receipts from businesses.—These receipts consist mainly of corporate gifts of money, securities, and real property to nonprofit institutions serving individuals. The national estimate is based on data tabulated from Federal corporate income tax returns by the Internal Revenue Service. The national estimates are allocated to states and counties in proportion to the civilian population.

Current Transfer Receipts of Individuals from Businesses

These receipts consist primarily of personal-injury liability payments to individuals other than employees. The national estimates are allocated to states and counties in proportion to the civilian population. The estimates also include BEA adjustments for net insurance settlements when actual insured losses exceed normal insured losses caused by disasters, such as hurricanes, floods, earthquakes, and the terrorist attacks of September 11, 2001.[10]

[10] See "Disaster Adjustments' in Chapter XI Technical Notes.

Table F.--Relative Importance to Personal Income of Personal Current Transfer Receipts, by Component, United States, 2004

	Millions of dollars	Percent of personal income
Personal income..	9,705,504	100.00
Personal current transfer receipts ($000)	1,428,159	14.71
Current transfer receipts of individuals from governments	1,361,666	14.03
Retirement & disability insurance benefit	517,840	5.34
Old age, survivors, and disability insurance payments	485,932	5.01
Railroad retirement and disability benefits	9,009	0.09
Workers' compensation	14,801	0.15
Other government retirement and disability insurance benefits/1/	8,098	0.08
Medical benefits	609,035	6.28
Medicare benefits	303,322	3.13
Public assistance medical care benefits/2/	299,667	3.09
Military medical insurance benefits/3/	6,046	0.06
Income maintenance benefits	141,490	1.46
Supplemental security income (SSI) benefits	37,299	0.38
Family assistance/4/	18,492	0.19
Food stamps	25,779	0.27
Other income maintenance benefits/5/	59,920	0.62
Unemployment insurance compensation	37,119	0.38
State unemployment insurance compensation	35,605	0.37
Unemployment compensation for Fed. Civilian employees (UCFE)	281	0.00
Unemployment compensation for railroad employees	79	0.00
Unemployment compensation for veterans (UCX)	431	0.00
Other unemployment compensation/6/	723	0.01
Veterans benefits	33,806	0.35
Veterans pension and disability benefits	29,956	0.31
Veterans readjustment benefits/7/	2,159	0.02
Veterans life insurance benefits	1,678	0.02
Other assistance to veterans/8/	13	0.00
Federal education and training assistance/9/	14,833	0.15
Other transfer receipts of individuals from governments/10/	7,543	0.08
Current transfer receipts of nonprofit institutions	44,997	0.46
Receipts from the Federal government	11,049	0.11
Receipts from state and local governments/11/	22,412	0.23
Receipts from businesses	11,536	0.12
Current transfer receipts of individuals from businesses/12/	21,496	0.22

Footnotes

1. Consists largely of temporary disability payments, pension benefit guaranty payments, and black lung payments.

2. Consists of medicaid and other medical vendor payments.

3. 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.

4. Through 1995, consists of emergency assistance and aid to families with dependent children. Beginning with 1998, consists of benefits--generally known as temporary assistance for needy families-- provided under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996. For 1996-97, consists of payments under all three of these programs.

5. Consists largely of general assistance; expenditures for food under the supplemental program for women, infants, and children; refugee assistance; foster home care and adoption assistance; earned income tax credits; and energy assistance.

6. Consists of trade readjustment allowance payments, Redwood Park benefit payments, public service employment benefit payments, and transitional benefit payments.

7. 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.

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

9. Consists largely of federal fellowship payments (National Science Foundation fellowships and traineeships, subsistence payments to state maritime academy cadets, and other federal fellowships), interest subsidy on higher education loans, basic educational opportunity grants, and Job Corps payments.

10. Consists largely of Bureau of Indian Affairs payments, education exchange payments, Alaska Permanent Fund dividend payments, compensation of survivors of public safety officers, compensation of victims of crime, disaster relief payments, compensation for Japanese internment, and other special payments to individuals.

11. Consists of state and local government educational assistance payments to nonprofit institutions and other state and local government payments to nonprofit institutions.

12. 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 due to rounding.

Table G.--States for Which County-level Medicaid Payments Data are Available

State	Year payments data most recently available
Alabama	2004
Arkansas	2004
Delaware	2000
Florida	2002
Georgia	2004
Hawaii	2002
Idaho	2004
Illinois	2002
Indiana	2001
Iowa	2004
Kansas	2004
Kentucky	2002
Louisiana	2004
Maryland	2003
Michigan	2001
Minnesota	2004
Mississippi	2002
Missouri	2004
Montana	2004
Nebraska	2004
Nevada	2001
New Hampshire	1997
New Jersey	2004
New Mexico	2001
New York	2004
North Carolina	2004
North Dakota	2002
Ohio	2004
Oklahoma	2004
Oregon	2004
Pennsylvania	2003
South Carolina	2004
South Dakota	2004
Tennessee	2004
Texas	1996
Utah	2004
Virginia	2004
Washington	2001
Wisconsin	2004
Wyoming	2004

VII. CONTRIBUTIONS FOR GOVERNMENT SOCIAL INSURANCE

Contributions for government social insurance consists 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.

Contributions for government social insurance amounted to 8.46 percent of personal income (table H) in 2004. Employer contributions for government social insurance was 49 percent of the total, while employee and self-employed contributions for government social insurance made up the other 51 percent.

Employer Contributions for Government Social Insurance

Employer contributions for government social insurance amounted to 4.14 percent of personal income (table H) in 2004. 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 the Supplements to Wages and Salaries chapter.

Employee and Self-employed Contributions for Government Social Insurance

Employee and self-employed contributions for government social insurance consists 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) and Supplementary Medical Insurance; Railroad Retirement; state unemployment insurance (UI); temporary disability insurance; and veterans' life insurance. These contributions amounted to 4.32 percent of personal income at the national level in 2004 (table H).

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.

In the calculation of personal income, the treatment of contributions for government social insurance differs from the treatment of income tax payments. Personal contributions are excluded from personal income: They are subtracted from the sum of the other components of personal income. In contrast, income tax payments are treated as part of personal income—as though the income from which the payments are withheld were first received by the employee and then paid to the government; this treatment is consistent with the definition of personal income as a before-tax measure.

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 1991-2004 state estimates of contributions for supplementary medical insurance are allocated to counties by tabulations of the number of persons 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 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 (1969-2004), New Jersey (1969-2004) and Pennsylvania (1984-88, 1992-96, and 2003-04).
- 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 H.--Relative Importance to Personal Income of Contributions for Government Social Insurance, by Component, United States, 2004

	Millions of dollars	Percent of personal income
Personal income /1/..	9,705,504	100.00
Less: Contributions for government social insurance..	820,790	8.46
Employee and self-employed contributions for government social insurance..	418,838	4.32
Contributions to old age, survivors, disability, and hospital insurance..	379,681	3.91
Civilian employee contributions..	336,536	3.47
Military employee contributions..	3,686	0.04
Self-employed contributions..	39,459	0.41
Railroad employee retirement contributions..	1,467	0.02
State unemployment insurance and temporary disability contributions..	5,951	0.06
Supplementary medical insurance contributions..	31,247	0.32
Veterans life insurance contributions..	492	0.01
Employer contributions for government social insurance	401,952	4.14
Old age, survivors, and disability insurance, and hospital insurance	339,288	3.50
Unemployment programs (state UI, Federal unemployment tax, RR UI, Federal UI)	40,202	0.41
Federal employee programs (veterans' life insurance, fed. civilian workers' compensation, military medical)	7,566	0.08
Other (private workers' comp., temporary disability, railroad retirement, pension benefit guaranty)	14,896	0.15

Footnotes

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

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

Detail may not add to totals due to rounding.

VIII. 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 of the residence of the individuals 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. Thus, 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, except those working in Alaska, is the state and county in which they live while they are working, not their usual place of residence. As discussed further below, the residence of Alaskan seasonal migrant workers is 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.

These definitions of residence differ slightly from some of those used by the Census Bureau, which provides source data that are used in the preparation of the residence adjustment estimates and the estimates of population 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]

Most of the source data for the remaining three components, which amounted to more than 60 percent of personal income in 2004, are recorded by place of work. These components are wage and salary disbursements, supplements to wages and salaries, and contributions for government social insurance. Therefore, these place-of-work estimates are adjusted so that they will be on a place-of-residence basis and so that the income of the recipients whose place of residence differs from their place of work will be correctly assigned to state and county of residence of the recipients.

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[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 2001-2004 do not show a large decrease for troops sent to Afghanistan and Iraq. The Department of Defense continues to report 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 national 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.

Correctly assigning the place of residence of the recipient of the income is more important for the state and county estimates than for the national estimates. The income of individuals who commute to work between counties is especially important for those counties in multi-county metropolitan areas.

The county estimates of the residence adjustment are prepared for net labor earnings—or "income subject to adjustment"—of intercounty commuters and for the wages of border workers. Income subject to adjustment is defined as wage and salary disbursements plus supplements to wages and salaries minus contributions for government social insurance. Estimates of the residence adjustment by industry cannot be published because not all of the source data on which it is based are available by industry.

Procedure for the income of intercounty commuters

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 are then applied to the income subject to adjustment (ISA) 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 intercounty commuters. More complete details follow.

The county estimates for 2001 were derived in three steps. First, a provisional estimate for each county was prepared using intercounty commuting data from the 2000 Census of Population.[4] Second, the provisional estimates for some counties were modified. Third, the modified provisional estimates for some counties were adjusted.

Provisional estimates for 2001.—The procedure that is 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 ($OUT_{f.}$).

$$RA_f = IN_f - OUT_f$$

[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).

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.

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

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

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

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

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

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

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

[5] The inflows and outflows of wages and salaries and of supplements to wages and salaries 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 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.[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, the provisional estimate of wages and salaries by place of residence for each county in each cluster was calculated as the sum of wages and salaries by place of work plus the net residence adjustment for wages and salaries.[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 in order to produce the modified provisional estimates of wages and salaries by county of residence. Fourth, the estimate of the residence adjustment for each county in the cluster was calculated as the modified provisional estimate of place-of-residence wages minus the provisional estimate of place-of-residence wages plus the provisional estimate of the residence adjustment.

The difference between the estimate of the residence adjustment and the provisional estimate of the residence adjustment was expressed as a flow between pairs

[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 intercounty flows for wages and salaries.

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 136 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 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 2002-2004, these modifications to the eight county equivalents in Alaska were also expressed as intercounty flows and converted to a ratio by dividing by ISA.

A preliminary estimate of net intercounty commuting flows was then made by summing the gross inflows, deducting the sum of the gross outflows and adding the adjustments for cluster counties, adjacent counties, and Alaskan seasonal workers. The net flows for cluster counties receive one further adjustment as discussed next; the net flows for other counties are final.

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 1999 to 2001 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 is a weighted average of the preliminary and secondary estimates. The preliminary estimate is weighted 70% and the secondary estimate 30%.

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

Procedure for the income of intercounty commuters, 2002-2004.—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. As before, the net flows for cluster counties are only a preliminary estimate; the net flows for other counties are the final estimate. The IRS adjustment was then applied to the preliminary net flows for cluster counties to prepare the secondary estimates. The final estimate of the net intercounty commuting flows for cluster counties is a weighted average of the preliminary and secondary estimates. The preliminary estimate is weighted 60% in 2002 and declines 10 percentage points per year in subsequent years.

Procedure for the income of intercounty commuters, 1990-2000.—The procedure for estimating the income of intercounty commuters for 1990-2000 is very similar to the procedure just outlined for the subsequent years. 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 estimates for cluster counties were also modified by the IRS adjustment. 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

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[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, IL) 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.

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.

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.

Procedure for the Income of Border Workers

The residence adjustment for the income earned by border workers accounts for the inflows of the wages and salaries earned by U.S. residents who commute to work in Canada and the outflows of the wages and salaries earned by Canadian and Mexican residents who commute to work in the United States.[12]

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

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.

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[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 treats 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] 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 1974-96," *Survey of Current Business* 77 (July 1997):52-53; Christopher L. Bach, "U.S. International Transactions, Revised Estimates for 1982-98," *Survey* 79 (July 1999):70; and Christopher L. Bach, "Annual Revision of the U.S. International Accounts, 1992-2002," *Survey* 83 (July 2003):44-45.

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 states and counties in proportion to data from the Immigration and Naturalization Service.

IX. EMPLOYMENT

Introduction

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

The county employment estimates are a complement to the place-of-work earnings estimates. Earnings are estimated on both 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 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 estimates that are normally published in the August issue of the *Survey of Current Business*.[1] The county estimates are prepared only on a full-time and part-time basis, while the national 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 national estimates. Finally, the county estimates include all sole proprietorships and general partners—approximating a full-time and part-time basis, whereas the national 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.

Treatment of part-time jobs.—County employment estimates are estimated on a full-time and part-time basis because of the limitations of the available source data.

[1] See Eugene P. Seskin, Shelly Smith, and Teresa L. Weadock, "Annual Revision of the National Income and Product Accounts: Annual Estimates for 2002-2004 and Quarterly Estimates for 2002:1-2005:1," SURVEY 85 (August 2005): 13-33.

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 reflects 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 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 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 that 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 estimates measure 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]

Employment in industries covered by the UI programs

The estimates of about 95 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. 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

[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.

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 wage estimates 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 nonclassification.—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 amongst 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 an area of the amount reported for that area.

Misreporting adjustment.—An adjustment is made to the QCEW data to include estimates of employment subject to UI reporting that employers do not report for all private sector industries. At the national level, the estimate for each industry is made in two parts: One for the 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 source 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.

[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 and the 1987 SIC for 1988 through 2000. Beginning in 2001, QCEW tabulations reflect 2002 NAICS.

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.

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 in unpublished tabulations of public employment data for the government institutions.
- UI coverage of 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.

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. For New York, BEA allocates 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.[4]

Employment not covered by the UI programs

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.[5] Because BEA's employment estimates are designed to conform conceptually and statistically with 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 households.—For this largely noncovered industry—mainly domestic servants—the national employment estimates are allocated to counties in proportion to place-of-work private household employment from the Census journey-to-work data.

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.

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[4] Arizona is no longer included in this group due to recent improvements in the QCEW data series. This methodological change was applied back to year 2002 and will be taken further back during the next benchmark revision.

[5] RRB provides these data to BEA summed to ZIP-code area totals; BEA assigns these data to counties.

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 2002 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, less than 10 percent of the national total employment of religious organizations obtain coverage. 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.

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 monthly observations, for a given year, from reports received from each branch of service. 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 the 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 Army, Air Force, Navy, Marine Corps, and Coast Guard.[6] For consistency with the BEA estimates of military reserve wages, the state

[6] The payroll tabulations include only pay for regularly scheduled training duty; National Guard pay for service during natural disasters, riots, and the like is not included.

totals of military reserve employment are allocated to counties in proportion to civilian population.[7]

Other.—U.S. residents employed in the United States by international organizations and by foreign embassies and consulates are classified in an "other" industry. "Other" differs from "rest-of-the-world"—the corresponding category in the national employment estimates—in that "rest-of-the-world" also includes the net flow of international border workers—i.e., U.S. residents working across the border in Canada and foreign residents working in the United States. U.S. residents working in Canada and Mexico are not reflected in the county employment estimates.

County estimates of "other" employment are made by allocating the national totals for all years to counties in proportion to estimated 1968 administrative expenses of international and foreign organizations operating in the United States. The administrative expenses series was prepared by the BEA.

Comparison of the BEA estimates with the Current Employment Statistics estimates

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 more timely 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; the military; and "other"—that CES excludes.[8] The misreporting adjustment—see the section on employment covered by the UI programs—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.

[7] 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.

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

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.

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.

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.[9] The nonfarm self-employment estimates resemble the wage and salary employment estimates in that 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 is derived as the sum of the number of sole proprietorships and of 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,

[9] 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.

corporate directors—who are not officers in the corporation—use Schedule C to report their director's fees. The national estimate of the number of nonfarm sole proprietorships in each NAICS three-digit subsector is based on a sample of these schedules.[10] 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—including 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—including 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 yield the number of general partners. Next, the 1986 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.

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 form 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.[11] 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-

[10] 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.

[11] Up to 500 partners are counted in law and accounting firms.

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. A farm is defined 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. Because of the low cutoff point for this definition, 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 farmers 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.

National and State Estimates

Both the national and state 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). For the BEA national estimates, the ratios are drawn from the USDA's annual Agricultural Resource Management Study (ARMS), previously the Farm Costs and Returns Survey (FCRS); for the state estimates, the ratios are drawn from the quinquennial Census of Agriculture. The census ratios are interpolated between census years, and the ratios from the last census are used for each subsequent year.[12] The sequence of estimating steps for the national totals and the preliminary state estimates 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.

[12] The most recent Census of Agriculture in use for the BEA employment estimates is that for 1997.

3. 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.
4. The number of farm partners is derived as the product of the number of partnership farms (step 3) and the ratio of the number of farm partners to partnership farms. The 1992 FCRS-based ratio is used for each subsequent year because BEA has not received a survey-based number of farm partners since 1992. In addition, the national annual ARMS-based ratios are used for the state—as well as the national calculations—because the number of farm partners is not available from the Census of Agriculture.
5. Total farm self-employment (final for the nation; provisional for the states) is derived as the sum of the number of sole-proprietor farms (step 2) and the number of farm partners (step 4).

Finally, the national totals are allocated to states in proportion to the provisional state estimates (the allocators developed in step 5).

County Estimates

The county estimates of farm self-employment are based on the state totals, the quinquennial Census of Agriculture counts of the number of sole-proprietor farms and partnership farms by county, and the FCRS-based national ratios of the number of farm partners to farm partnerships. The census counts of the number of sole-proprietor farms and of partnership farms are interpolated between census years, and the counts from the last census are used for each subsequent year. For each county and year, the number of farm partners is approximated as the product of the census-based number of partnership farms and the FCRS-based national ratio of the number of farm partners to farm partnerships. Provisional county estimates of total farm self-employment are derived as the sum of the census-based number of sole-proprietor farms and the approximation of the number of farm partners. The final county estimates of farm self-employment are derived by the allocation of the state totals in proportion to the provisional estimates.

X. ALTERNATIVE MEASURES OF COUNTY EMPLOYMENT AND WAGES

Three widely used measures of county employment and wages by place of work are employment and payroll published in the Census Bureau's *County Business Patterns* (CBP), employment and wages from the Quarterly Census of Employment and Wages (QCEW) program of the Bureau of Labor Statistics (BLS), and wage and salary disbursements and employment from the Bureau of Economic Analysis (BEA).[1] These measures differ in source data and coverage.

The CBP data are derived from Census Bureau business establishment surveys and Federal administrative records. The QCEW data are tabulations of monthly employment and quarterly wages of workers covered by state unemployment insurance programs or by the unemployment insurance program for federal civilian employees. The BEA estimates of employment and wages are primarily derived from the QCEW data, but the estimates are also based on supplemental data from other agencies—such as the Department of Defense, Department of Agriculture, and the Railroad Retirement Board—for industries that are either not covered or not fully covered by the QCEW.[2]

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.[3] The QCEW data also include some farm and private household employees that are excluded by the CBP data. 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.[4] 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, both QCEW and BEA include employees of Indian tribal governments and enterprises in local government. These employees were previously included in the relevant private industries.[5] In the CBP data, these employees are still classified in private industries.

The BEA estimates of employment and wages differ from the QCEW data because BEA adjusts estimates to account for employment and wages not covered, or not fully covered, by unemployment insurance programs. BEA adds estimates of

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[1] See table B.

[2] The QCEW data account for 95 percent of BEA wages and salaries.

[3] The CBP data cover only those government employees who work in government hospitals, federally chartered savings institutions and credit unions, liquor stores, and wholesale liquor establishments. 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.

[4] 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.

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

employment and wages to the QCEW data to bridge small gaps in coverage for nonprofit organizations (in several industries), for students and their spouses employed by colleges or universities, for elected officials and members of the judiciary (in state and local government), for interns employed by hospitals and by social service agencies, and for insurance agents classified as statutory employees (in insurance agencies and brokerages). In addition, BEA uses supplemental source data to estimate most or all of the employment and wages for the following: Farms, farm labor contractors and crew leaders, private households, private elementary and secondary schools, membership organizations, rail transportation, military, and U.S. residents who are employed by international organizations and by foreign embassies and consulates in the United States. BEA also adjusts for employment and wages subject to unemployment insurance coverage, but not reported by employers. Estimates of unreported tips, judicial fees paid to jurors and witnesses, compensation of prison inmates, and marriage and license fees paid to justices of the peace are added to wages.

XI. 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.[1] 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.

Before allocating a national estimate of some component of personal income it is adjusted for any definitional or classificatory differences from the state estimates. The adjusted national estimates are used as "control totals" for the state estimates.

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 ($X_n = \sum_s X_s$).

[1] However, the national estimates of most components of wages and salaries and personal current transfer receipts, which together account for about 71 percent of personal income, are based mainly on the sum of source data that are available by state. Therefore, the use of the allocation procedures to prepare the state estimates of these components results in estimates that do not differ greatly from the source data.

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).

Disaster Adjustments

The estimates of personal income and several of its components have been adjusted for various disasters: Hurricanes Andrew and Iniki in 1992, the Midwest floods and the East Coast storms in 1993, the Northridge Earthquake in 1994, Hurricane Opal in 1995, Hurricane Floyd in 1999, Tropical Storm Allison in 2001, the terrorist attacks of September 11, 2001, Hurricanes Charley, Frances, Ivan, and Jeanne in 2004, and Hurricanes Katrina, Rita, and Wilma in 2005.

The extensive damage caused by these disasters necessitated adjustments to rental income of persons—a component of dividends, interest, and rent—and proprietors' income to reflect uninsured losses of property owned by household enterprises.[2] Business payments to persons, a component of personal current transfer receipts, was adjusted to reflect net insurance settlements for damage to consumer durable goods.[3] Other effects of the disaster are embedded in BEA's source data and cannot be identified.

A disaster has two effects on personal income. It increases both the consumption of fixed capital and business transfer payments. As discussed below, damage to the property of household enterprises affects proprietors' income and rental income. They are reduced by the amount of uninsured losses measured by consumption of fixed capital less business transfer payments. Damage to consumer durable goods affects only personal current transfer receipts. It is raised by the amount of the insured losses for these goods. In the personal income account, the consumption of fixed capital is an expense that is subtracted in the calculation of proprietors' income and rental income of persons. The damage or destruction of fixed capital (residential and nonresidential) by disasters, such as hurricanes, is recorded as an increase in the consumption of fixed

[2] Household enterprises are proprietorships, partnerships, tax exempt cooperatives, and owner-occupied housing.

[3] These settlements are called net because they consist of actual benefits less normal benefits. Normal, or expected, losses are deducted from the premiums that policyholders pay for insurance.

capital.[4] The damage or destruction of consumer durable goods (such as cars, boats, and household appliances) does not affect the consumption of fixed capital, because the purchases of these goods are treated as consumption, not investment.

Property insurance is also an expense that is subtracted in the calculation of proprietors' income and the rental income of persons. The recent comprehensive revision of the national income and product accounts introduced a distinction between the level of losses that normally occur and the extraordinary losses that occur during major disasters.[5] Normal, or expected, losses are deducted from the premiums that policyholders pay for insurance.[6] Extraordinary losses (claims) are recorded as business transfer payments from the insurance industry to persons or to other industries.

National estimates of the effects of the disasters on proprietors' income, rental income of persons, and current personal transfer receipts are distributed to states on the basis of reports of insured losses by state from private sources and on the basis of grants for disaster housing assistance by state from the Federal Emergency Management Agency.

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 series that BEA receives from other agencies are not confidential. The agencies summarize their data by program, 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.[7]

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

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[4] The methodology used to estimate consumption of fixed capital does not account for losses due to disasters (see U.S. Bureau of Economic Analysis, *Fixed Assets and Consumer Durable Goods in the United States, 1925–99* (Washington, DC: U.S. Government Printing Office, September 2003)). In general, an adjustment for a disaster is made if the cost of the damage exceeds 0.25 percent of total private consumption of fixed capital.

[5] 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.

[6] Purchases of property and casualty insurance services are measured as premiums plus premium supplements less normal losses and dividends paid to policyholders.

[7] For a list of some of the agencies that provide data to BEA, see "Sources of the data" in Chapter I Introduction.

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.[8]

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.[9]

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.

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[8] For specific information, see Chapter II Wage and Salary Disbursements.

[9] 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.

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 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 net margins on owner-built housing, (f) the value of depositor services furnished without payment by financial intermediaries except life insurance carriers, (g) premium supplements for property and casualty insurance, and (h) the interest received from life insurance carriers.[10] These imputations accounted for about 10 percent of personal income at the national level in 2004.

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.

[10] See table 7.12, "Imputations in the National Income and Product Accounts," *Survey* 85 (August 2005): 168-169. 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.

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

The *imputed 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 (such as checking and record keeping) that these institutions provide to persons without an explicit charge.[11]

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 investment income. The income is recorded as a component of personal interest income.[12]

Also included in personal interest income is the *imputed interest received from life insurance carriers*. It consists of the investment 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 investment 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 censuses 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 employment data for 1980-90.

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[11] See "Measuring the Services of Commercial Banks in the NIPAs," *Survey* 83 (September 2003):33-44.

[12] See "Measuring the Services of Property-Casualty Insurance in the NIPAs," *Survey* 83 (October 2003): 10-26.

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.

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.[13] The first approximations for year 2 equals the amount for year 1 plus one-third of the increase from year 1 to year 4; the preliminary estimate for year 3 equals the amount for year 1 plus two-thirds of the increase.

Wages and salaries in thousands of dollars

	Year 1 (benchmark)	Year 2 (interpolation)	Year 3 (interpolation)	Year 4 (benchmark)
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.[14] This method of interpolation is illustrated in three steps.

[13] 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.

[14] 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.

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.

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

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

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.

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.[15] The average wages are multiplied by employment to yield the first approximations of wages for year 5.

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

First approximations of wages for year 5

	Year 4	Year 5	
	Average Wages in dollars	Employment	Wages in thousands of dollars
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.

XII. 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 II Sources and Methods.*

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] *See also* ***Geographic areas****.*

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.

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 component of Gross State Product, 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

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[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 http://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.

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; hospital insurance (Medicare Part A); supplementary medical insurance (Medicare Part B); unemployment insurance; railroad retirement; pension benefit guaranty; veterans life insurance; publicly-administered workers' compensation; military medical insurance; and temporary disability 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 independent cities of Maryland, Missouri, Nevada, and Virginia, and the District of Columbia. The estimates for Kalawao County, Hawaii and the small independent cities of Virginia—generally those with fewer than 100,000 residents—are combined with those for adjacent counties. *See also **Geographic areas**.*

County equivalents.—*See **County**.*

Disclosure-avoidance procedures.—*See "Disclosure-avoidance procedures" in Chapter XII Technical Notes.*

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

Dual allocation.—*See "Dual allocation" in Chapter XII 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. Net earnings by place of residence is calculated as earnings 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 **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. *See also "Employment" in Chapter XII Technical Notes.*

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 Part B); 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 XII 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 (crop production and animal production only—NAICS subsectors 111 and 112). 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 NIPAs. 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.

Geographic areas.—The estimates of personal income are prepared for the following geographic areas: counties, metropolitan areas, micropolitan areas, BEA Economic Areas, states, and regions.—*See also **County, Metropolitan areas, BEA Economic Areas,** and **Regions**.*

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 supplements to wages and salaries less 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 XII Technical Notes.*

Interpolation.—*See "Interpolation and extrapolation" in Chapter XII 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, metropolitan areas, micropolitan areas and BEA economic areas. *See also* ***Geographic areas****.*

Metropolitan areas.—Metropolitan areas are defined for Federal statistical purposes by the Office of Management and Budget.[3] In New England metropolitan areas are defined in terms of both cities and towns and in terms of counties. BEA uses the county-based definitions. Metropolitan areas consist of metropolitan statistical areas, metropolitan divisions, and combined statistical areas. *See also* ***Geographic areas****.*

Net earnings by place of residence.—Net earnings 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.—Net labor earnings is the sum of wage and salary disbursements and supplements to wages and salaries less contributions for government social insurance. This measure, also known as "income subject to adjustment," is used in the residence adjustment procedure for both the annual and the quarterly estimates of state personal income and for the annual county estimates. *See also* ***Earnings by place of work****.*

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 Estadistica Geografia e Informatica (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 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

[3] The list of the metropolitan areas and their constituent counties and county equivalents is available on BEA's Web site at http://www.bea.gov.

United States. NAICS is used in the presentation of state and local area estimates of earnings and employment by industry from the year 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 that are required to report rental and royalty income on IRS Schedule E (Supplemental Income and Loss). *See also* ***Sectors and legal form of organization***.

Partnership.—A partnership is an unincorporated business association of two or more partners. *See also* ***Sectors and legal form of organization***.

Pay-in-kind.—Pay-in-kind is an imputed component of wage and salary disbursements. The estimates of pay-in-kind reflect the value of the food, lodging, clothing, and miscellaneous goods and services that are received by employees from their employers as full or partial payment for services performed. *See also "Imputation" in Chapter XII 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 the character of consumer markets and of the economic well-being of the residents of an area. *See also "Per capita personal income" in Chapter XII Technical Notes.*

Personal current taxes.—Personal current taxes are tax payments (net of refunds) by persons that are not chargeable to business expense and certain other payments that are made by persons to government agencies that are treated like taxes. Personal taxes includes taxes on income, including realized net capital gains, and on personal property. Personal current taxes exclude contributions for government social insurance, real estate taxes, and sales taxes. Real estate taxes are excluded because, in the calculation of the imputed net rental income of owner-occupied housing, they are considered business expenses. Sales taxes are included in the selling price of the commodity and are treated as being paid by the seller. Personal current taxes are used in the derivation of disposable personal income, which is calculated as personal income less personal current taxes.

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 by nonprofit institutions 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 business consist primarily of compensation for personal injury, corporate gifts to nonprofit institutions, and net insurance settlements when actual insured losses exceed normal losses (as in disasters).

Personal dividend income.—Personal dividend income consists of the payments in cash or other assets, excluding the corporation's own stock, made by corporations located in the United States or abroad to persons who are U.S. residents. It excludes that portion of dividends paid by regulated investment companies (mutual funds) related to capital gains distributions. 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 government and business transfer payments, plus government interest (which is treated like a transfer payment). It is calculated 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. The personal income of an area is the income that is received by, or on behalf of, all the persons who live in the area; therefore, the estimates of personal income are presented by the place of residence of the income recipients. *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 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.

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 excludes dividends and monetary interest received by nonfinancial business and rental income received by persons not primarily engaged in the real estate business; these incomes are included in dividends, net interest, and rental income of persons, respectively. *See also* ***Capital consumption adjustment*** *and* ***Inventory valuation adjustment****.*

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 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-1950's. 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.[4] *See also **Geographic areas**.*

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 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. 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 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.[5] *See also **Net labor earnings** and "Geographic characteristics of the source data" in Chapter II Sources and Methods.*

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, except those working in Alaska, 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,

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[4] For a brief description of the regional classification of states used by BEA, see U.S. Department of Commerce, Bureau of the Census, *Geographic Areas Reference Manual*, Washington, DC, U.S. Government Printing Office, November 1994, pp. 6-18—6-19. A list of the regions and their constituent states is available on BEA's Web site at http://www.bea.gov.

[5] In the tables on this disc, 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.

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, households and institutions, and general government. Businesses are classified into five categories, generally according to legal form of organization: Corporations, sole proprietorships, partnerships, other private business, and government enterprises. **Corporate business** consists of entities required to file Federal corporate tax returns (IRS form 1120 series) and the following entities: Mutual financial institutions and cooperatives subject to Federal income tax, private noninsured pension funds, nonprofit organizations that primarily serve businesses, Federal Reserve banks, and federally sponsored credit agencies. **Sole proprietorships** are all entities that are required to file IRS Schedule C (Profit or Loss from Business) or Schedule F (Farm Income and Expenses).[6] **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).[7] **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.[8]

Sole proprietorship.—A sole proprietorship is an unincorporated business owned by a person. *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.[9] 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.[10] *See also **North American Industry Classification System**.*

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

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

[8] For further information, see U.S. Department of Commerce, Bureau of Economic Analysis, *Methodology Paper Series MP-5*, *Government Transactions* (Washington, DC: U.S. Government Printing Office, November 1988). This publication is available on BEA's Internet site: Go to www.bea.gov and select "Methodologies."

[9] 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. The Manual is available on the Web site of the Occupational Safety and Health Administration: Go to www.osha.gov/oshstats/sicser.html.

[10] 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.

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.—Wage and salary disbursements consists of the monetary remuneration of employees (including the salaries of corporate officers, commissions, tips, bonuses, and severance pay); employee gains from exercising nonqualified stock options; distributions from nonqualified deferred compensation plans; and an imputation for pay-in-kind (such as the meals furnished to the employees of restaurants). 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, such as 401(k) plans. *See also* ***Pay-in-kind***.