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. A sole proprietorship is an unincorporated business required to file Schedule C of IRS Form 1040 (*Profit or Loss from Business*) or Schedule F (*Profit or Loss from Farming*). A partnership is an unincorporated business association required to file Form 1065 (*U.S. Return of Partnership Income*). A tax-exempt cooperative is a nonprofit business organization that is collectively owned by its customer-members. Proprietors' income includes corporate directors' fees 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.[1]

Proprietors' income accounted for approximately 9.0 percent of total personal income at the national level in 2007 (table E). The estimates of proprietors' income are prepared in two parts—nonfarm proprietors' income and farm proprietors' income. Nonfarm proprietors' income accounted for approximately 97 percent of proprietors' income, and farm proprietors' income, for approximately 3 percent.

Nonfarm proprietors' income

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

Income of nonfarm sole proprietorships and partnerships

The national estimates of nonfarm proprietors' income are primarily derived from data reported on income tax returns—Schedule C of Form 1040 for sole proprietorships and Form 1065 for partnerships.[2] Because these data do not always reflect current production and because they are incomplete, 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.[3]

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valuation adjustment offsets the effects of gains and losses that result from changes in the prices of products withdrawn from inventories.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

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

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

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

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

The misreporting adjustment is an estimate of the income of sole proprietors and partnerships that is not reported on tax returns. This adjustment accounted for almost 40 percent of nonfarm proprietors' income in 2007.

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.[5] 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 Hurricanes Charley, Frances, Ivan, and Jeanne in 2004, and Hurricanes Katrina, Rita, and Wilma in 2005.

The national estimates of nonfarm proprietorship and partnership income, 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 "returns and allowances") reported to the IRS, again by three-digit NAICS subsectors.

The IRS county data at NAICS three-digit level could not be used because the data are severely impaired by a large number of suppressions required to prevent the disclosure of confidential information. Further, the proprietorship and partnership income reported to the IRS could not be used, because of the volatility of these data.[6]

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.[7,8]

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

[5] See "Disaster Adjustments" in Chapter X Technical Notes.

[6] 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.

[7] 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.

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 allocated to the counties in proportion to number of nonemployer establishments (using Census Bureau Nonemployer Statistics) 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 state estimates of the income of rural electric and telephone cooperatives are allocated to counties in proportion to estimates of proprietorship and partnership income, excluding the misreporting adjustment in broadcasting and telecommunications (for rural telephone cooperatives) and utilities (for rural electric cooperatives).

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

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[8] State-level nonfarm proprietors' income by sector for 2005-07 was distributed to counties in proportion to IRS net receipts data for 2006, the latest year for which IRS data were available.

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

[10] County-level nonfarm proprietors' income by sector for 2005 was distributed to subsectors using nonemployer statistics for 2005. Sectoral data for 2006-07 were distributed using nonemployer statistics for 2006, the latest year for which the data were available.

[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.

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.[12]

BEA's county estimates of farm proprietors' income for 1992-2007 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.[13]

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 1998-2007, 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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[12] 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* 88 (September 2008): 20. For information on the BEA estimates of depreciation, see Barbara M. Fraumeni, "The Measurement of Depreciation in the U.S. National Income and Product Accounts," *Survey* 77 (July 1997): 7-23. Sales and purchases between farms are excluded from the USDA state estimates of cash receipts from marketing livestock and of expenses for livestock purchases because in the aggregated state estimates of farm income the cash receipts from intrastate interfarm sales offset the expenses for intrastate interfarm purchases. Because these transactions may not be intracounty transactions, BEA estimates the transactions for each state and adds the estimate to the USDA state estimates of these cash receipts and expenses.

[13] 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.[14]

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.[15]

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 2007 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 1998-2007 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 1998-2007 estimates reflect the 1997 census data.

State estimates of the receipts from other farm-related activities for 1992-2007 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 1992-2007 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.

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

[15] 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 1998-2007 estimates are based on data from the 1997 census.[16]

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.[17]

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 1992-2007 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

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[16] 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.

[17] 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 1998-2007 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 1998-2007 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 1998-2007. Second, the adjustment ratio is multiplied by the county estimate of the total net income of all farms in order to derive the initial estimate of corporate farm income for each county. Third, the state estimates of corporate farm income are allocated to counties in proportion to the initial county estimates. Fourth, the allocated county estimates of the income of corporate farms for each county are subtracted from the estimates of the income of all farms to obtain estimates of farm proprietors' income.