May, 2004

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 the imputed net rental income of owner-occupants of farm dwellings, but it excludes the imputed net rental income of owner-occupied nonfarm housing as well as the dividends and the monetary interest that are received by nonfinancial business and the nonfarm rental income received by persons not primarily engaged in the real estate business.[2]

Proprietors' income accounted for approximately 8.9 percent of total personal income at the national level in 2002 (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 98 percent of proprietors' income, and farm proprietors' income, for approximately 2 percent.

Nonfarm proprietors' income

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

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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 nonfarm rental income in rental income of persons.

The national estimates of nonfarm proprietors' income are primarily derived from income tax data. Because these data do not always reflect current production and because they are incomplete, the estimates also include four major adjustments--the inventory valuation adjustment, the capital consumption adjustment, the "misreporting" adjustment, and the adjustment for the net margins on owner-built housing.[3]

The inventory valuation adjustment offsets the effects of the gains and the losses that result from changes in the prices of products withdrawn from inventories; this adjustment for recent years has been small, but it is important to the definition of proprietors' income.

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 adds an estimate of the income of sole proprietors and partnerships that is not reported on tax returns. This adjustment accounted for almost half of nonfarm proprietors' income in 2002.

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

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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 84 (April 2004): 45.

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 the "Glossary."

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 damage to fixed capital and to inventories that is caused by disasters, such as hurricanes, floods, and earthquakes. These adjustments are attributed to states and counties on the basis of information from the Federal Emergency Management Agency. These adjustments include those for Hurricanes Andrew and Iniki in 1992, for the Midwest floods and the East Coast storms in 1993, for the Northridge Earthquake in 1994, for Hurricane Opal in 1995, for Hurricane Floyd in 1999, and for Tropical Storm Allison in 2001.

Income of nonfarm sole proprietorships and partnerships.--Both the state and the county estimates of the income of nonfarm sole proprietorships and partnerships for 1992-2000 are based on data for those years that were tabulated by the Internal Revenue Service (IRS) from Schedule C of form 1040 for sole proprietorships and from form 1065 for partnerships.[5]

The national estimates excluding the misreporting adjustment for 1992-2000 were allocated to states in proportion to the IRS data for "net profit less loss" at the Standard Industrial Classification (SIC) two-digit level, and the national estimates of the misreporting adjustment were allocated to states by the IRS data for "net gross receipts" (gross receipts less refunds) at the SIC two-digit level.

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5. The geographic coding of the data is by tax-filing address. This address is assumed to be the same as the address of the place of residence. For additional information, see the section "Geographic characteristics of the source data" in the introduction to "Sources and Methods."

However, the IRS county data at the SIC two-digit level for 1992-2000 could not be used to prepare the county estimates because the usefulness of the data would have been severely impaired by the large number of the suppressions to these data that would have been required to prevent the disclosure of confidential information. Further, the IRS data for net profit less loss could not be used, because of the volatility of these data.[6] Consequently, the IRS data for net gross receipts at the SIC division, or "one-digit," level were used to allocate the state estimates to counties. These data were supplemented by the use of the previous county estimates for 1992-99 for SIC two-digit industries, which are based on extrapolations of IRS data for 1983.[7]

The 1992-2000 county estimates were prepared in two major steps. First, the state estimates were aggregated to the SIC division level. The aggregated state estimates were allocated to counties in proportion to the net gross receipts.

Second, the county estimates for each SIC division were apportioned among the SIC two-digit industries through the use of a dual allocation procedure.[8] In this procedure, the state estimates for each SIC two-digit industry in a division were used for the primary control totals (in the columns), and the county estimates for the division were used for the secondary control totals (in the rows). The state estimates were initially allocated to counties in proportion to the

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

7. For information about the preparation of the county estimates using the 1983 IRS county data for SIC two-digit industries, see U.S. Department of Commerce, Bureau of Economic Analysis, Local Area Personal Income, 1984-89, vols. 1-5 (Washington, DC: U.S. Government Printing Office, 1991): M12-M13; or see the Regional Economic Information System CD-ROM for 1969-91 (May 1993).

8. See "Dual allocation" in the "Technical notes."

previous county estimates for 1992-2000 in order to generate initial county estimates at the SIC two-digit level. Then, each county estimate for a division was allocated to the SIC two-digit industries in the division in proportion to the initial county estimates for the SIC two-digit industries. Finally, the state estimates for each SIC two-digit industry were allocated to counties by the output of the previous step.

The 1999 county estimates for each manufacturing industry were extrapolated to 2000 by the corresponding estimates of wages and salaries. These extrapolations were used to allocate the 2000 state estimates for these industries to counties. .

The 2001-2002 county estimates are prepared in two major steps. First, the state estimates are aggregated to the North American Industry Classification System (NAICS) sector level. The aggregated state estimates are allocated to counties in proportion to the IRS net gross receipts. Second, the county estimates for each sector are apportion among the NAICS three-digit subsectors through a two-way allocation procedure. In this procedure, the state estimates for each three-digit subsector in a sector are used for the primary control totals (in the columns), and the county estimates for the sector are used for the secondary control totals (in the rows). The state estimates are initially allocated to the counties in proportion to number of nonemployer establishments [9] in order to generate initial county estimates at the three-digit subsector level.

Income of 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.

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9. Number of Establishments are from Census Bureau's Nonemployer Statistics.

The estimates of the income of rural electric cooperatives and of rural telephone cooperatives are based on annual data for the net margin, or profit, of these cooperatives that have outstanding loans from the Rural Utilities Service (RUS) of the Department of Agriculture.[10] 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 included under 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 estimates of the income of the sole proprietorships and partnerships in wholesale trade.

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 the income that is received by corporate farms.

The national and state estimates of farm proprietors' income are primarily derived from the national and state 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 rental value of farm housing and income of corporate farms and exclude a measure of the change in

10. 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 inventories of materials and supplies. Also, the USDA measures of depreciation differ from the BEA measures.[11]

To prepare the county estimates of farm proprietors' income, BEA first prepares county estimates of the income of all farms, and it uses primarily the USDA state estimates of the components of farm income as control totals. Then, the USDA state estimates are adjusted for the differences in the measures of depreciation and to include the sales and purchases of livestock between farms, which are excluded from the USDA estimates of two components of farm income--cash receipts and expenses.[12]

The county estimates of farm proprietors' income are calculated in three major steps. First, estimates of "realized net income" of all farms are computed as the gross receipts of all farms less the production expenses of all farms. Second, the estimates of realized net income are modified by the inventory change adjustment so that only the income and expenses from current production is measured; this modification yields the estimates of "total net income" of all

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11. 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 (NIPA's) to Net Farm Income as Published by the U.S. Department of Agriculture (USDA)," Survey 84 (March 2004): 35.

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.

12. These transactions are excluded from the USDA state estimates of the cash receipts from marketing livestock and of the 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 of these expenses.

farms. Third, the income of corporate farms is estimated, and the estimates are subtracted from the estimates of total net income to yield the estimates of farm proprietors' income.[13]

The county estimates of farm proprietors' income for 1992-2002 were primarily derived from county data from the 1992 and 1997 Censuses of Agriculture and from selected 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, were used.

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 were derived mainly from the census of agriculture for those years. For 1993-96 and for 1998-2002, the county estimates for each state were prepared in the component detail that corresponded to the best annual county data available for the state.

Farm gross receipts.--The estimates of the gross receipts of all farms consist primarily of the following items: (1) The cash receipts from farm marketing of crops and livestock, (2) the receipts from other farm-related activities, including recreational services, sales of forest products, and custom-feeding services performed by farm operators, (3) the 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 produced and consumed on farms.[14]

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

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

The largest component of gross receipts is the cash receipts from marketing. The USDA state estimates include estimates of the 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 the 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, the county estimates of cash receipts for selected groups of commodities were interpolated between 1992 and 1997 and extrapolated to 1998-2002 by the value-weighted series for the annual production of selected crops and for the inventories of selected categories of livestock; these series 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 1998-2002 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 the cash receipts were allocated to counties in proportion to the corresponding census data for those years. The 1993-96 county

15. The 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.

estimates reflect interpolations between the 1992 and 1997 census data, and the 1998-2002 estimates reflect the 1997 census data.

The state estimates of the receipts from other farm-related activities for 1992-2002 were similarly allocated to counties in proportion to the data for the receipts from these activities from the censuses or from interpolations between the censuses.

The state estimates of the Federal Government payments to farmers for 1992-2002 were allocated to counties in proportion to annual tabulations of the payments from the Farm Service Agency, USDA.

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

Farm production expenses.--The state estimates of the production expenses for most items for 1992 and 1997 were allocated to counties in proportion to the data for the item from the censuses for those years; the 1993-97 county estimates are based on interpolations of the data from the censuses, and the 1998-2002 estimates are based on data from the 1997 census.[16]

The county estimates of the production expenses for three items are based on series that are related to the items from the censuses. The estimates of the rent paid to landlords who are not farm operators are based on the acreage of the farms operated by tenants.[17] The estimates of

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

the depreciation of machinery are based on the value of the machinery and equipment. The estimates of the depreciation of buildings are based on the value of the farm land and buildings.

Inventory change adjustment.--This adjustment is an estimate of the value of the net change during the year in the farm inventories of the livestock and crops that are held for sale and private farm inventories of materials and supplies (i.e., purchased inputs such as feed, seed, fertilzer, and chemicals). This estimate is added to the estimate of realized net income in the second major step in the calculation of the estimates of farm proprietors' income, so that the estimate of farm proprietors' income for a year will include only the farm income and expenses from production 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, so that the amount held in inventory declines and the 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, so that 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, so that the amount held in inventory rises and

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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.

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 1992-2002 state estimates of the value of the net change in livestock inventories on farms for these states were allocated to the counties in these states in proportion to the number of livestock of each type in farm inventories at the end of each year. The county estimates for the other states are based on the county distribution of the number of livestock units in farm inventories reported in the 1992 and 1997 censuses.

The 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 1998-2002 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 data from the censuses for the following production expense items: 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 1998-2002 state estimates were allocated by the data from the 1997 census.

Adjustment to exclude the income of corporate farms.--This adjustment is made in the third major step in the calculation of farm proprietors' income, because the estimates of the total

net income of all farms that are calculated in the second major step include the income of corporate farms.

The adjustment is calculated in four steps. First an adjustment ratio is computed as the ratio of the acreage of corporate farms to the total acreage of all farms in each county; the data for the acreage are from the 1992 and 1997 censuses and from interpolations between the censuses; the 1997 ratio is used for the 1998-2002 estimates. 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.