XIV INCOME AND WEALTH STATISTICS FOR SELECTED COUNTRIES

This chapter provides illustrations of methodologies currently used to generate statistics on the income and wealth of agricultural households in a range of OECD countries and outlines their main findings. The examples are the United States (the Agricultural Resource Management Survey), Italy (three surveys), Denmark and Sweden (both of which utilise administrative registers that combine several datasets), Canada (results only), Eurostat's Income of the Agricultural Households Sector (IAHS) statistics that contain income estimates for all EU-15 Member States other than the United Kingdom, and Australia.[1] Various forms of data systems are encountered, singly or in combination, including farm accounts surveys, household surveys in which farm families form only one socio-professional group, and taxation records. They also display a wide variety of definitions, particularly of what constitutes an agricultural household and how income is measured, that are important to the results obtained. The lack of comparability between countries is a handicap and demonstrates the potential usefulness of the present Handbook. Nevertheless, some common features can be found that transcend methodological disparities and which are of importance in understanding the economic position of households that operate farms. Attention will be drawn to these in Chapter XV.

The nature of the material means that each country (and the EU) is best treated as a stand-alone section, with its own set of references. Tables and figures are grouped at the end of each section (though they are numbered consecutively throughout the chapter). This structure should also facilitate the incorporation of other country examples in later versions of this Handbook.

XIV.1 United States

XIV.1.1 The Agricultural Resource Management Survey (ARMS)

The Agricultural Resource Management Survey (ARMS) is essential to the research and analysis mission of the Economic Research Service (ERS), and is a key input to economic statistics produced by the United States Department of Agriculture and other agencies. It provides the information base for sector estimates of value added, income for farms by type of commodity specialization, costs of producing major crop and livestock commodities, indices of prices paid by farmers for production inputs, and a report on the status of family farms. The ARMS also supports the Department's estimates of household income and wealth, and is used in a variety of applied farm production, management, technology adoption, resource use, and household well-being research applications. While the ARMS became a stand-alone survey beginning with the 1996 calendar year survey, it retained and built upon features of survey activities that date to the 1970s. This paper provides a synopsis of events that contributed to the development of the ARMS, gives an overview of purposes served by the survey, discusses survey design and content, highlights research program activities, and closes by giving a perspective about the ARMS as an evolving survey instrument.

[1] Readers should also consult publications from the OECD that report results from its member countries, especially OECD (2005) *Policy Brief: Farm Household Income: Towards Better Informed Policies* and OECD (2003) *Farm Household Income: Issues and Policy Responses*, ISBN: 92-64-09965-4. Both are available on www.oecd.org/agr/policy

XIV.1.1.1 Origin of the ARMS as a principal USDA survey

In 1974, the United States Congress wrote legislation that required the United States Department of Agriculture (USDA) to "conduct a study of the costs of producing wheat, feed grains, cotton, and milk and to produce annual estimates of costs that were representative of the sizes and types of farms engaged in production, and the range of technologies in use." The requirement to produce cost estimates was followed by funding to conduct commodity surveys.

Meanwhile, funding was also provided in the mid-1970s to survey farm business establishments about production expenses, capital expenditure, and other general economic information. This survey became the Farm Production Expenditure Survey, which the ERS and the National Agricultural Statistics Service (NASS) shared jointly in developing and funding. This collaborative effort was facilitated since both the research agency and statistical agency were in the same mission area of the Department.

The Farm Production Expenditure Survey contained detailed questions about production practices and input use in crop and livestock production, and about expenditures for the business as an establishment. Information for sales, inventories, assets, or liabilities of the business was incomplete or non-existent in surveys conducted during the late 1970s and into the early 1980s. Inadequate survey content prevented analysts from developing estimates of income for business establishments, producing firm-level balance sheets, or putting into context costs incurred in the production of crop or livestock commodities.

Extending survey activity for farms and households of farm operators

Three events provided motivation to change the survey content and sample design of the Costs of Production and Farm Production Expenditure Surveys. One involved ERS efforts to re-examine economic information produced for the United States farm sector, and a growing recognition of the inadequacy of the "one farm, one farmer, and one farm household concept." Second, was recognition of the need to collect data that more accurately reflected the relationship of households to their farm business. The third major event that crystallized need for improved business-household income and finance data was the farm financial crisis that spanned the United States in the 1980s. The ERS and the NASS were responsible for measuring the extent of financial difficulty in farming and rural communities, and financial institutions, in the United States but existing survey instruments were not suited to this task.

Economic accounts and estimation systems built in the early part of the twentieth century were not very effective in providing information about different groups of farms or households that made up the farm sector a half-century later. The agricultural economic and finance literature was evolving to present a case for thinking about farming in terms of households as well as business establishments (Schertz, 1982). Key questions raised by this work included: To what extent was resource ownership and use separated in farm production? What was the distribution of farms among different household models, ranging from those that owned all resources and retained earnings to those that provided entrepreneurial resources, but only some of the other resources used in production? What was the distribution of income and wealth among different household groups? To what extent did households that provided resources to farming also provide resources to other activities? A system of data that included information on both farms as business establishments and on households offered a solution to address these questions (Schertz, 1982). Microeconomic indicators were needed to test economic hypotheses and to extend the knowledge base for farms and farm households, especially with regard to analyses of income and wealth (Johnson, 1984; Johnson & Baum, 1986; Baum & Johnson, 1986; Gardner, 1975; Ahearn, 1986). These articles pointed to conceptual shortcomings in farm and farm household data and made recommendations for improvement in survey content.

Meanwhile, farm financial difficulties had become an agenda item for the United States farm sector at the beginning of the 1980s. The USDA and the public had only incomplete information and anecdotal evidence with which to assess the scope, intensity, and nature of the problem. ERS analysts had started to revise content of farm business surveys to support estimates of business establishment cash operating margins and to fortify revised farm sector accounts. However, these actions by themselves were insufficient to address debt levels, farm business solvency, and the debt service capability of institutions that operated farms, including farm households. Moreover, the data were not sufficient to address whether household sources of income and equity altered the perspective about farm business vulnerability.

The ERS and the NASS concluded that a new survey design was needed, while recognizing that the agencies faced time and funding constraints. The solution was to merge the independent Costs of Production and Farm Production Expenditure Surveys into an integrated survey of farm businesses. The goal was to meet data needs for specific farm enterprises, farms as business establishments, and for farm operator households, from the perspective of a rudimentary measure of "non-farm" income. These objectives were achieved by developing a new enterprise farm household based survey. The integrated survey established for 1984, called the Farm Costs and Returns Survey (FCRS), consisted of a sample drawn from a list frame of medium to large farms and a complimentary area frame for completeness that covered new entrants and smaller farms. The FCRS used multiple questionnaire versions in a modular design. Each questionnaire version contained common, global questions that permitted collection of data items for farms and households across the entire survey sample.

Improvements in survey design and content resulting from the 1984 merger enabled the USDA to generate estimates of net cash income for business establishments, a measure of net cash income for operator households, and measures of business solvency and debt repayment ability. Information for farms, including debt owed to specific lender groups, allowed ERS analysts to assess the extent of potential loan losses of farmers and lenders and to examine how potential financial problems varied among farms and households by size of business operation, location of farm, and by lender group (Hanson, 1987; Hanson *et al*., 1991; Jolly *et al*., 1985; Johnson *et al*., 1985; Johnson *et al*., 1987). The collaborative nature of work needed to develop the FCRS under tight time constraints and using available resources drew heavily on the ERS and the NASS being in the same mission area of the USDA.

Extending data to support farm financial statements

Recognizing that cash based measures of financial indicators were incomplete, survey questionnaires were revised to enable more complete specification of the income statement and balance sheets prepared for farm businesses. New questions measured depreciation and changes in inventory value, providing the basis to move from cash based measures of income to an accrual basis. Other important data improvements also occurred during the mid-1980s. For example, the use of contract arrangements in commodity production was explicitly measured. This was important because it allowed assignment of income and expenses to the appropriate entity. As a result, both the income statement and balance sheet produced for a farm not only reflected economic and accounting standards and concepts, but that their components were partitioned among farms, landlords, and contractors.

Expanding the scope of household income, wealth, and demographic data

Surveys conducted for 1986 and 1987 were the first attempts to collect more substantial information for farm operator households. Information was collected for four components of off-farm income: non-farm related business income, wages and salaries, interest and dividends, and all other non-farm sources of income. Demographic and other information, such as primary occupation, operator age, and education level, which put farm and household income into a broader context that extended beyond the association with a

business, were also collected. Off-farm income data collected during this period provided the first opportunity to develop a perspective about the ability of households to service debt out of total income. Moving to this level of analysis raised issues for further refinement, such as the existence of non-farm assets and liabilities and the level of household consumption expenditures. This set the stage for modifying the FCRS to allow a more explicit focus on the household.

The survey developed for the 1988 calendar year marked the first extensive collection of data for the operator's household. Innovations that focused on the household included information on household sharing of income with other entities enabling a determination to be made of what portion of the farm business net income was earned by the farm operator household. The survey also gathered information necessary to prepare farm operator household balance sheets. Information on household assets by component of asset, such as cash, chequeing account, money market account, corporate stock, surrender value of life insurance and other financial assets, trucks, cars, and other assets was gathered. Detailed information on household assets was accompanied by questions focused on household debt and more explicit accounting of off-farm income. Hours of off-farm work by the farm operator and spouse were also enumerated along with their on-farm work hours. The survey also collected data on consumption expenditures, and goals and attitudes about the farm operation.

While the 1988 survey could be characterized as the first concerted household data collection, the instrument developed for 1991 was designed to enable estimation of a household model while supporting the development and reporting of estimates of household income and wealth. This was accomplished by extending questions pertaining to household economics to include questions related to operator and spouse labour allocation and employment decisions. The specific types of information included: the number of household members, age and education, commuting distance, years worked at a particular job, how long the household had operated a farm, whether the operator or spouse were raised on a farm, years worked at any off-farm job, benefits from off-farm work, consumption expenditures, and household assets and liabilities. The 1991 survey also contained questions needed to support estimation of farm business and household income and wealth, to establish a relationship between the household and the farm it controlled, and to support assessments of the financial status of farm households drawing on both income and wealth attributes.

The collection of household-farm linked data was enhanced by adding modules of questions focused on the business as an establishment, the household as an institutional unit, and members of the household to an existing survey that was national in scope. While the content and sample design of the ongoing survey were changed, existing funds were used for data collection.

Agricultural Resource Management Survey (ARMS) emerges from ongoing survey activity

In 1996, the ERS and the NASS undertook a second merger of independent survey activities. This merger combined the FCRS and Cropping Practices surveys conducted by the USDA. The Cropping Practices survey focused on collection of yield, production practices, and input use data at a field level. Advantages of this merger were to link household and farm economic data to field-level chemical use and production practice data and to expand information available for assessing cost distributions and technology and practice adoption.

Merger of independent surveys into the ARMS set the stage for further integration of the ARMS into NASS' ongoing Census and national survey programs. Integration with the Census of Agriculture was accomplished in 1997 by including questions in the ARMS survey instrument that were needed to complete a Census questionnaire. The practical result of the Census-ARMS integration was to strengthen the ARMS sample, edit, and summary programs and procedures by drawing from routines created for the Census. Even

beyond this, the integration of the ARMS and the Census provides a direct link from the ARMS to the Census.

XIV.1.1.2 ARMS design characteristics

The ARMS is designed as a multiple phase, multiple version survey. The first phase of the survey is a screening sample to identify operations that are "eligible" or "in-scope" business operations for the ARMS (see Figure XIV.1). The second and third phases of the ARMS collect information to underpin USDA estimation and research responsibilities. The ARMS supports estimation of household income and wealth, business income and performance measures, sector farm income and value added, production costs for crop and livestock enterprises, and chemical use by farmers in the production of crop and livestock commodities. The survey is personally enumerated over several months (from July to April) using multiple survey forms (see Figure XIV.1). Samples qualified in the Phase I screening activities for a cost and return survey are contacted in late fall to obtain field-level information about practices and inputs used in the production of the commodity of interest. Those that respond in Phase II are contacted again for a follow-up interview as part of Phase III, to obtain information about their farms and households. This link enables analysts to not only establish estimates of costs of producing commodities, but to examine adoption and uses of technology, use of conservation and environmental practices, and participation in government programs.

The largest portion of the total sample is focused on farms and households, not commodity production. This portion of the survey is conducted during the winter to collect information from operators about their farm operation and the economic and financial status of their households, along with socio-economic and demographic information used in classification and analysis. Questions are asked about the prior calendar year. Given the sample design, Phase III interviews for commodity producers can be combined with general purpose phase III farm household interviews to achieve greater statistical reliability associated with the larger sample.

ARMS samples are stratified by size of operation, type of industry classification, and commodity acres. For the farm household phase III version of the survey, strata size groups for each state include farms over $1,000,000 in sales, farms with $500,000 to $1,000,000, farms with $250,000 to $500,000, farms with $100,000 to $250,000, and farms with $1,000 to $100,000 in farm value of sales. Farms are further stratified to reflect industry groups such as oilseeds, grains, beans, cotton, milk, or cattle and calves. The farm type classification follows the major industry groups classified in the North American Industry Classification System.

The phase II sample reflects the presence and level of targeted commodity production activities for the reference year. Since the USDA is charged with reporting production costs and returns and chemical use for selected commodities (principally those for which farm programs have traditionally been developed), a portion of the sample has to reflect acreage of major crops. Thus, the sample is stratified to ensure representation of a range of acreage classes. For example in 2004, the sample strata included producers of cotton that had over 1,500 acres, from 1,000 to 1,499 acres, from 500 to 999 acres, from 200 to 499 acres, and from 1 to 200 acres.

XIV.1.1.3 Content of current ARMS survey questionnaires

The ARMS uses a modular questionnaire design, much like the overall design of the survey itself. All but a few modules are oriented towards collecting information needed to implement the sector-household income links illustrated in Figure XIV.2. Remaining modules collect information required to estimate business and household wealth, to measure household labour allocation and sources of off-farm income, to

classify farms and households by structure and demographic attribute, and to support analyses of performance and well-being.

Production characteristics of the farm

The initial section of the questionnaire obtains information about rents paid and received that are used in construction of the farm income account and asks the respondent to identify the type of farm operation based on which commodity (or group) represents the largest portion of gross income. The remainder of the first section contains questions that establish the amount of acreage operated, land ownership, and the commodities produced by the farm (see Figure XIV.3). While focused largely on physical attributes of the farm, information is collected to account for the physical quantities of crops produced, the amount owed a share-rent landlord, and the quantity used on farms as an input in further production activities.

Business income sources

Information needed to estimate a farm's gross revenue is gathered prior to collecting input expenditures (see Figure XIV.4). This follows the organization of typical income statements. Use of contract arrangements is fairly common among larger farm businesses. It is important to establish the presence of, and collect information on, production contracts, since the farm typically does not own the commodity produced under such contracts. As a result, only a fee for service is counted as part of farm earnings. Marketing contracts are different since farms own the commodity. Payment for commodities delivered under a marketing contract may stretch over multiple years. Thus, the presence of contracts affects accounting for income. This is particularly the case at the farm and household level and is a major reason why we cannot assume that operator households earn all of the income generated by farm businesses.

The income account is completed by collecting cash sales and earnings of the farm from other sources. These other earnings generally arise from government payments or from income earned from use of the farm's resources in gainful activity other than production of crops or livestock. Insurance payments that arise from weather damage or some other source, which may vary over time and among farms, are also included in other farm related income.

Purchased inputs

The ARMS accounts for the operating and capital expenditures of operators, their landlords, and any contracting entities that may be participating in the business. All major input categories are covered and are set up to enable development of both a standard business income statement and an estimate of a farm's value added (see Figure XIV.5). The ARMS accounts for employee compensation, real estate and non-real estate interest, and capital consumption. These items are needed to move from an estimate of gross value added to net value added and from net value added to net income. Employee compensation is of special interest to the measurement of household income. While wages paid to the operator or household members are expenses to the farm, they are sources of income to the household. Questioning is set up to support this difference between the farm and the household.

Measurement of household income from farming

Household income from farming draws on output, revenue, and expense data collected to provide estimates of value added, net farm income, and net cash income for the farm (see Figure XIV.6). Cash income for the business is derived by eliminating measures of non-cash income and expenses from estimates of net farm income. This is achieved by collecting information on change in the market value of inventory

for crops, livestock, production inputs, and accounts receivable. In addition to depreciation, data are also collected for non-cash expenses and income items such as unpaid benefits to labour, home consumption of farm produced goods, and imputed rents for operator occupied housing owned by the farm operation. These rents, like other non-cash items, are excluded from net farm income to arrive at a cash based estimate of income from farming.

In the United States, about 300,000 households, in addition to farm operator households, share in the net income of farm businesses. The ARMS explicitly accounts for income accruing to the operator's household by collecting data on the share of farm income received by the operator. To go from this correctly portioned farm business net cash income to an estimate of household income from farming, other sources of farm related earnings such as wages paid to household members by the farm are added. This last measurement step illustrates that, as self-employed farm operators, households may decide to pay themselves a wage, increase farm expenses, and reduce farm income, but when the household is viewed as the measurement unit, farm wages constitute earned income.

Measurement of household income from farm and off-farm sources

Estimates of household income consist of a household's earnings from its farming activities and from its off-farm sources. Based on experience, ERS collects off-farm income data in a series of questions focused on how the household may choose to allocate its resources (labour, entrepreneurial capabilities, financial assets, and physical capital) outside the farm business (see Figure XIV.7). The household may be entrepreneurial and operate another business or a second farm. Or, household members may work off-farm for a wage or salary. For all income except wages and salaries, data are usually collected as a total for the household from each source. For wages and salaries, questions ask about wages earned by the operator and the spouse which, when combined with information on the allocation of labour hours, helps support estimation of household models. In addition to earned income from wages, salaries or self-employment and property income such as interest, dividends or rents, the ARMS asks for transfer income along with any other cash sources of income earned by the household.

Measurement of business and household net worth

Data are collected to develop a current market value basis balance sheet at a point in time, which for the ARMS is the last day of the calendar year. The ARMS' treatment of the balance sheet has made collection of data to improve measurement at all levels of aggregation from sector to farm and household more explicit. For example, the ARMS asks for each component of land and building assets (operator's dwelling, other dwellings, other farm buildings and structure, orchards, trees and vines and land) and sums these to reach a total land and building value (see Figure XIV.8). This approach provides information that supports the income account as well as the balance sheet. Remaining questions for farm assets focus on establishing value levels for crops stored, livestock (including separate estimates for breeding and non-breeding livestock), production inputs (including separate estimates for inputs on hand and inputs used for crops destined to be fed to livestock), trucks, cars, machinery, tools, equipment, stock in farm cooperatives (which may be required to contain business loans, purchase inputs, or sale outputs), money owed the operation for sale or production of agricultural commodities or products, and other assets owned by the operation. For crops, livestock, production inputs and money owed the farm for sales of production, beginning and end of year values are collected. Year over year change in the value of inventory for these items is used in developing farm level estimates of net income and value added. In contrast with the approach used in the sector accounts, physical quantities of crops and livestock on hand at points in time are not collected so that they could be valued with an average price. A more general approach is used to lessen respondent burden.

Information about farm debt is collected to support calculation of net worth, with net worth being equal to total value of assets minus total debt. Specific information for up to the five largest loans is obtained along with the total for any debt owed on additional loans. For each loan, information on the balance at year-end, interest rate, year it was obtained, portion for farm purposes, purpose of the loan (such as refinancing) and whether or not the loan was guaranteed by some government entity is requested. These data are used to produce an estimate of the farm's debt service commitment.

In addition to debt repayment capacity measures, the ARMS business balance sheets are used with farm-level income statements to produce indicators of profitability, solvency, liquidity, and financial efficiency for the farm.

Moving beyond the farm business to the household, the ARMS explicitly measures sources of household non-farm assets and debts on a more frequent basis (see Figure XIV.9). Annual estimates of household assets and liabilities are obtained to combine with detailed farm business asset and debt measures. Detailed components of non-farm assets and debt are collected periodically in the ARMS. These data are used to gauge household participation in a variety of financial markets and to examine savings and investment behaviour in the context of a portfolio that reflects households' goals and objectives, and to compute extended measures of well-being that incorporate both income and wealth measures into the analysis.

Classification and analysis

The ARMS is developed to recognize a long-standing interest in characterizing farms and households using a variety of size, organization, vocation, work status, and income dimensions. This work recognizes farm and household diversity. Recently, emphasis on households and individuals that operate farms has expanded. This expansion has resulted from dual career, multiple job holding experiences becoming more common among farm households and from farms being organized or reorganized so that, in some cases, the operator's household and its members neither provide all assets nor earn all farm income.

Placing these changes into context along with traditional information needs requires data for firms, households, and individuals engaged in farming. The ARMS has been designed to collect data at each level of measurement — farm, household, and individual. For the farm, the focus is on identifying the number of operators engaged in the business, structure of the farm's management team, the legal status of the business, number of households sharing in business income, and the number and types of claimants on farm income. These farm business data help measure how total income produced by the farm is shared among a variety of stakeholders and provides a perspective about the diverse nature of farms in the United States.

Operator, spouse, and household data are intermingled. From an individual perspective data that traditionally have been collected for operators such as age, education, gender, race, occupation, and off-farm work hours have been extended to the primary operator's spouse and for most items, excluding off-farm work, to a second or third operator if present on the farm. Each of these individuals is asked to provide a response to questions about who performs selected managerial or production tasks for the farm. Farm-based questions are expanded by asking respondents about their farm or off-farm occupation and their allocation of work time to off-farm jobs. In addition, the ARMS collects information about years of experience with farm and off-farm jobs, reasons for off-farm work, timing of farm and off-farm work decisions, and type of work performed. These data help put on-farm and off-farm work decisions into perspective. To further characterize differences among households that operate farms, a variety of goal, attitude, managerial choice, and policy response questions are asked. For example, in recent years, questions have been asked about retirement and succession plans, timing of input purchases, and response to changes in input prices.

Information about how farmers generally allocate fixed direct payments received from government programs between farm and household uses has also been requested.

Household questions are designed to provide information about the structure and economic situation of the household. Income, asset, and debt data are extended with a series of questions about the household's estimate of basic needs, living expenditures, prior year levels of income and expenditures, and the size and composition of the household as measured by the number and age of household members.

XIV.1.1.4 ARMS: An evolving survey

The ARMS is an evolving survey instrument. The ERS and the NASS have made many substantive changes to help ensure that survey results more accurately align with official estimates from all parts of the United States farm economy. Likewise, close attention has been paid to survey content from two major vantage points. First, care is taken to make sure that the ARMS provides data to implement economic and accounting concepts ingrained in estimates of income and wealth. Second, the ARMS is used to assist research focused on issues of importance to the USDA and the farm sector. Issues change over time. Likewise, the organization of farms and the households that control them change and adjust to a variety of policy, economic, and personal stimuli. These adjustments in the various target populations (individuals, households, and farm businesses) indicate that the ARMS will continue to adapt. New methods and ways of collecting data, both to be more effective in reaching farmers and in reducing their burden, will be tested. The ERS and the NASS will continue to examine content requirements to meet new data needs while ensuring that up-to-date concepts are used in the measurement of household, business, and sector income and wealth. Taken together these steps will refresh the ARMS and increase the likelihood that it will remain a valuable instrument that adequately represents United States farms and farm households.

Figure XIV.1 ARMS Has a Modular Design to Reflect Complex Farm-Household Production, Financial Structure and Organization

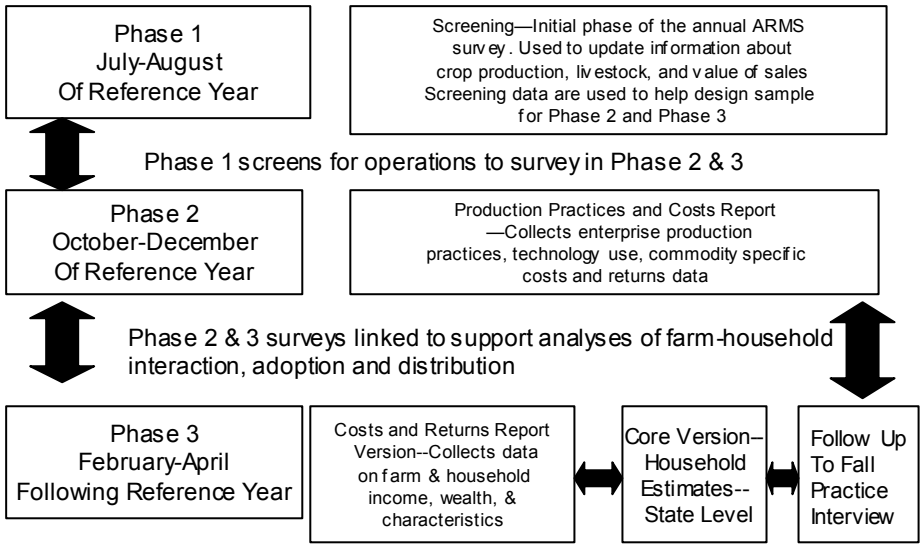


Figure XIV.2 Aggregate Farm Sector-Household Link in Income Estimation

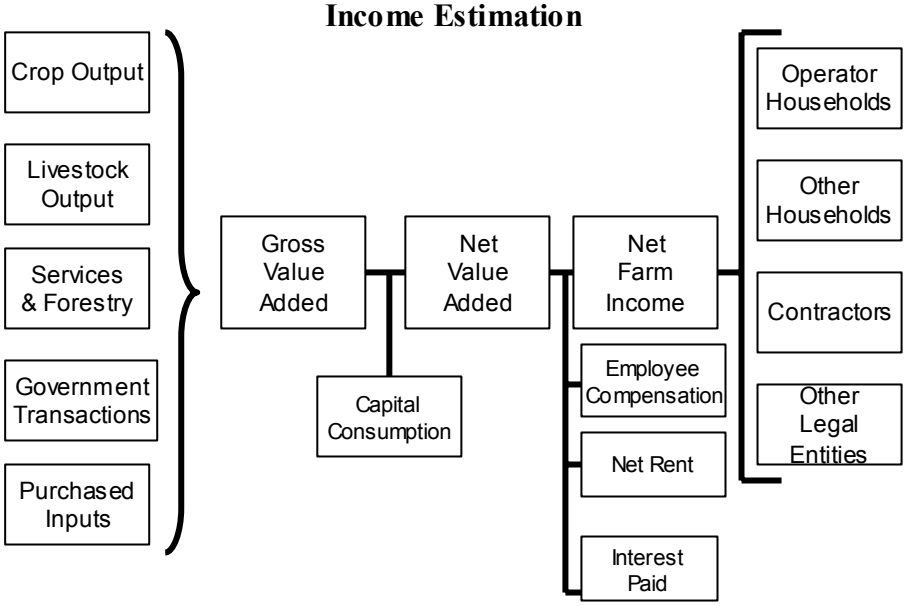


Figure XIV.3 Land Use, Tenure, Crop and Livestock Production

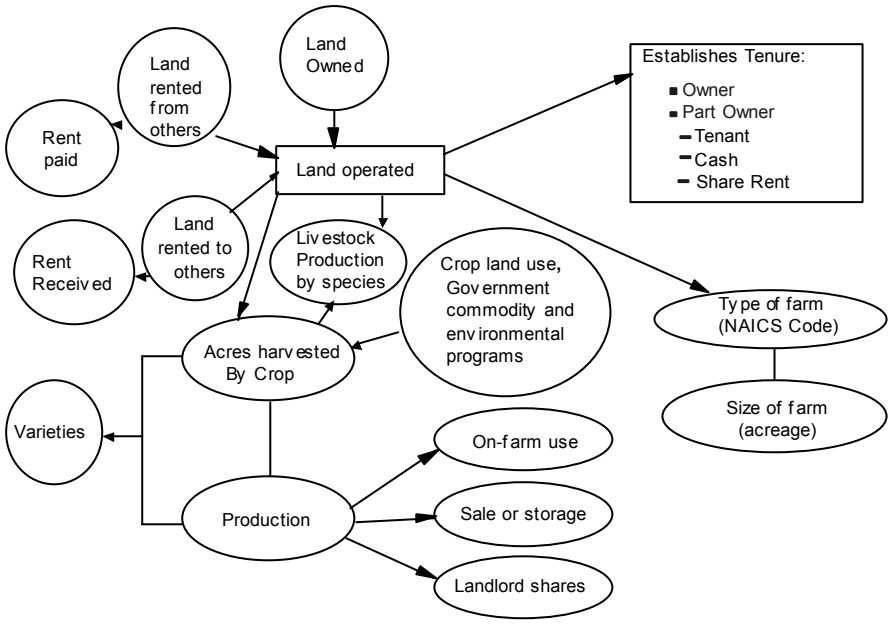


Figure XIV.4 ARMS– Farm Business Income Sources

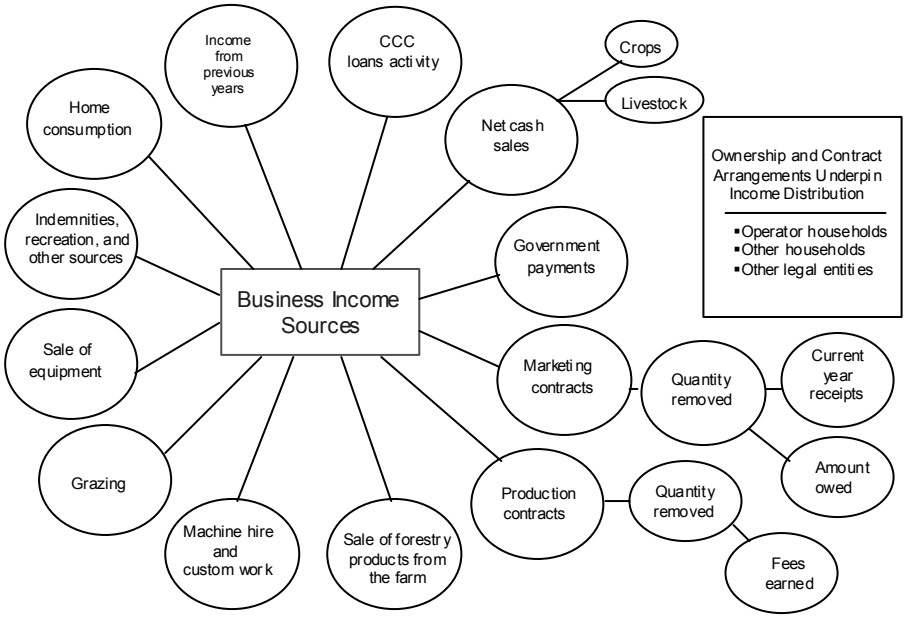


Figure XIV.5 ARMS– Farm Business Expenses

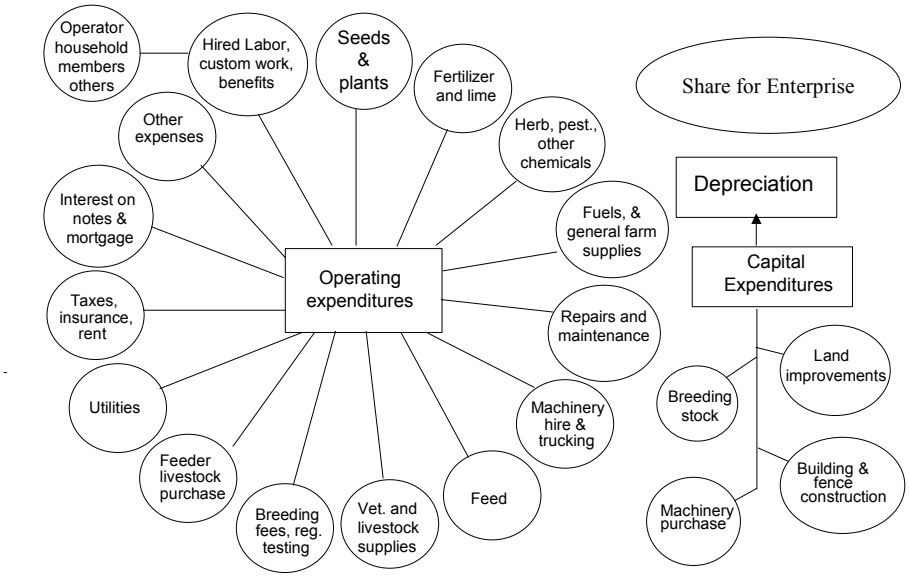


Figure XIV.6 Measurement of Household Income From Farm Activity

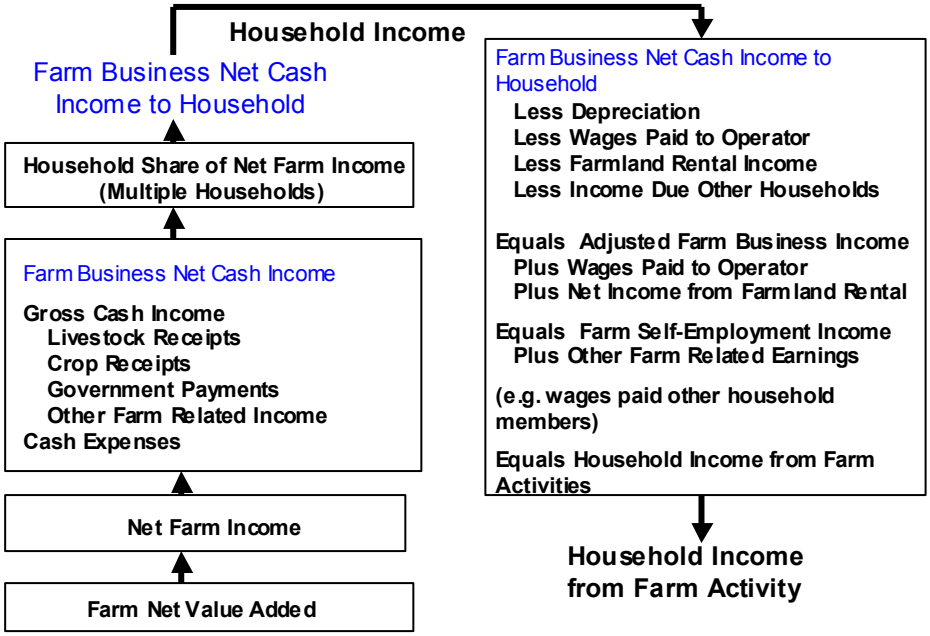


Figure XIV.7 Measurement of Household Income From Farm and Off-Farm Sources

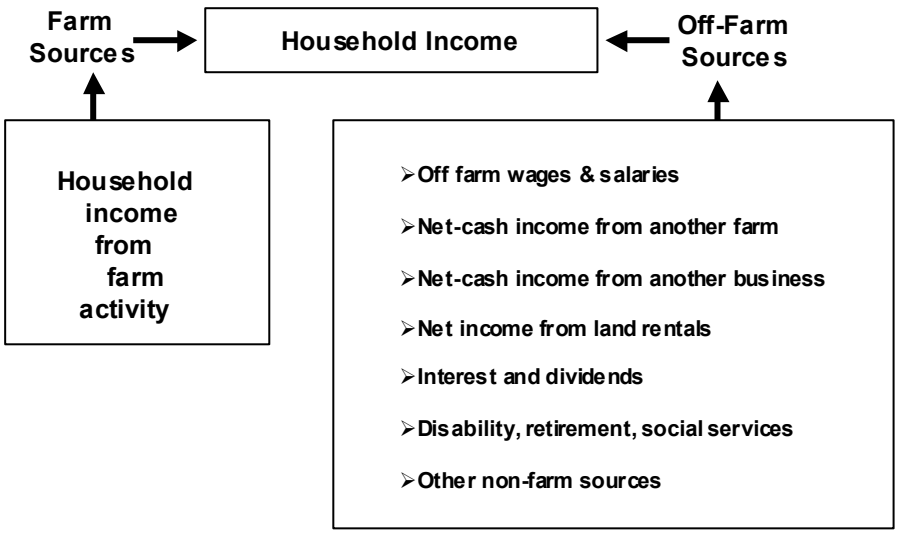


Figure XIV.8 Net Worth of Farm Businesses Operated by Households

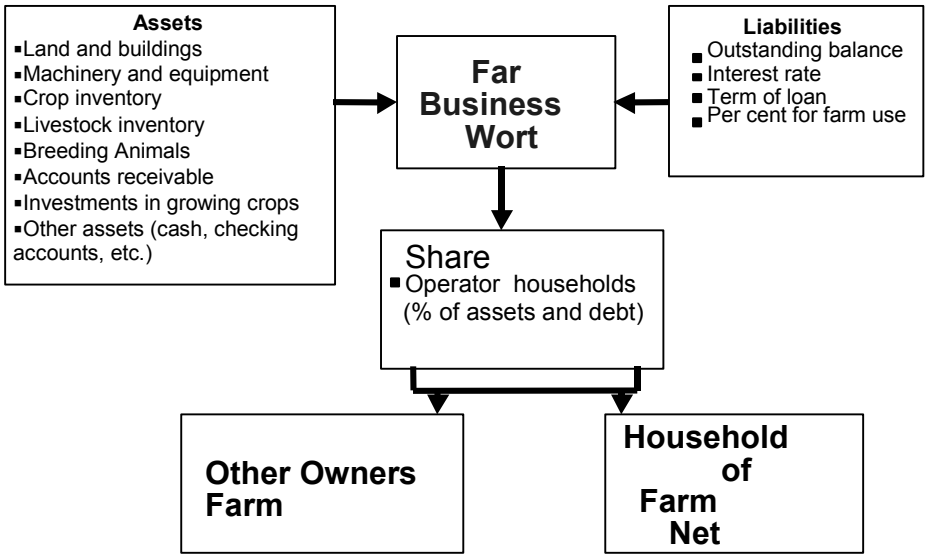
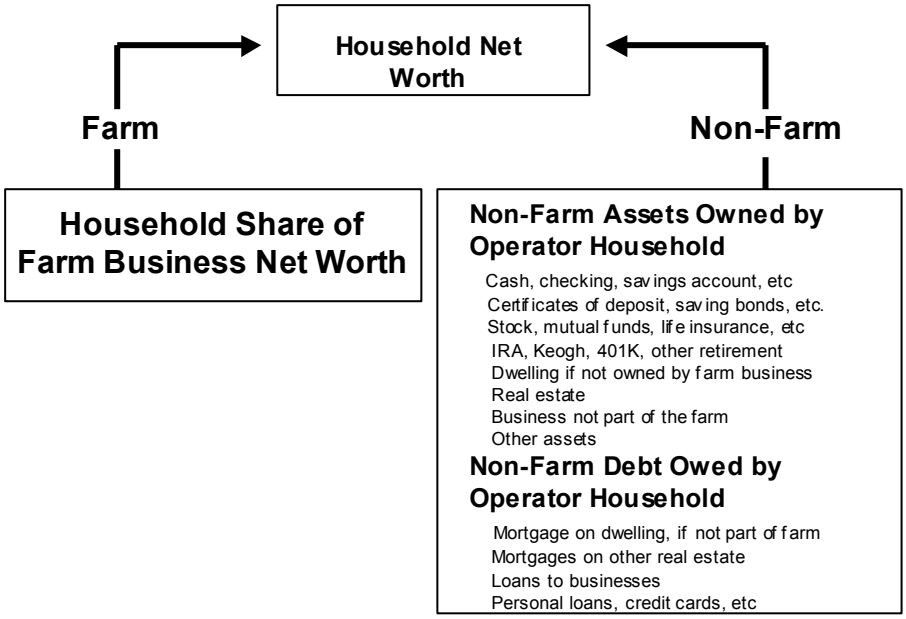


Figure XIV.9 Household Assets, Debt and Net Worth



XIV.1.2 Agriculture household income and wealth statistics

XIV.1.2.1 Introduction

Income from the farm business is now shared among many parties, and farm household income from off-farm work, investment, and other sources has increased dramatically. Returns from farm production activities center on the farm business. However, assessment of farm household well-being must focus on the household as the unit of analysis, or risk drawing incomplete or incorrect conclusions about farmers' income and households' economic well-being. In addition, sector-wide income estimates can obscure structural changes that have occurred in farming and in household labour and investment decisions, and thereby provide incomplete information about the distribution of income among farm households. For these reasons, the farm household is used as the unit of analysis for considering both income and wealth relative to non-farm households, and for considering the distribution of income and wealth, including the ability of income to meet household consumption needs.

The data and analysis below are extracted from *Income, Wealth, and the Economic Well-Being of Farm Households* prepared by the Economic Research Service of U.S. Department of Agriculture. The data for 1999 reported in this publication have been supplemented on a selected basis with data for 2003.

XIV.1.2.2 Income and well-being of farm households

Off-farm work by farm operators and their spouses has increased steadily since the mid 1960s. In 1969, total net income earned by farm households from farming and off-farm earned income was roughly comparable at $15 billion, with off-farm wages and salaries providing $9 billion of the total. By 1999, total off-farm income in the agriculture sector had increased to $120 billion, compared to $44.3 billion in net income earned from farming (see Figure XIV.10). In 2003, off-farm earnings totalled $122.6 billion and net farm income was $59.2 billion, which continues to underscore the importance of off-farm earnings to the total incomes of farm households.

XIV.1.2.3 Income and expenditures by household size

Figure XIV.11 gives details about income and expenditures by three size classes of households in 1999 and 2003. Total expenditures were highest in farm households with five or more people in 2003. This group spent an average of $43,000, compared with $34,000 for households of one or two members. This is expected since households with two or fewer persons have lower average household income, whether farm or non-farm. It is interesting to note that while income rose only marginally between 1999 and 2003 (and, indeed, fell slightly in households with five or more people), expenditures increased substantially for each size class of households. This implied that the non-consumed part of income (income less expenditure as a percentage of income) fell. For households with five or more members the share was almost halved, reaching 36%. For households with three or more members it fell from 56% to 41% and for households with one or two members from 63% to 47%.

As a figure for comparison, in 1999 the average expenditures of all American households amounted to about $37,000.

XIV.1.2.4 Farm households working more off the farm and accumulating wealth

The average money income of farm households in the United States first exceeded that of all United States households starting in 1972. Incomes of farm households periodically exceeded the incomes of all United States households from that time until the mid 1990s. Income of farm households has consistently been

higher since the mid 1990s (see Figure XIV.12). Average farm household income in 2003 was about $68,500, compared with $59,100 for the average non-farm household. Median income for farm households has also been roughly on par with the median income of all United States households in recent years.

What accounts for the closing of the income gap for farm households? Since 1964, earnings from off-farm sources have grown from about $10 billion to $123 billion (in nominal terms). Meanwhile, sector-wide net cash farm income has only increased by a factor of five (see Figure XIV.13). Thus, the increase in farm household earnings has been driven by the increase in off-farm earnings. In fact, net cash farm income has fallen as a percentage of total income from farm and non-farm sources, from 58% in 1964 to 36% in 2003.

Wages and salaries make up a significant proportion of off-farm earnings, even though they declined from 65% in 1964 to about 56% in 2003.

XIV.1.2.5 Largest farms have most income, wealth and debt

Over 90% of United States farms are classified as small farms. However, large and very large family farms, which made up only 8% of all farms in 1999, accounted for 57% of production. Households operating very large farms had the highest average household income, $201,000, about four times the average for all United States households. These farms received only 18% of their income from off-farm sources. In 2003, the income for this group of households had risen to $227,000 (see Figures XIV.14 and XIV.15).

Households operating residential/lifestyle farms or large family farms also had average income above the United States average, but the sources of income differed between the two groups. Residential/lifestyle households received virtually all of their income from off-farm sources, while large farms received just 40% from off the farm. Households operating higher sales small farms had an average income very near the United States average, and half came from off-farm sources.

Limited resource, retirement, and lower sales farm households had average household incomes below the United States average and relied heavily on off-farm income. In fact, income from farming was negative (see Figures XIV.14 and XIV.15). The 2003 income of households with retirement farms also had a negative contribution from farming. In 1999, the Conservation Reserve Program (CRP) was the primary source of farm income for 21% of retirement farms.

Farm size and wealth are positively related. In 1999, the value of farm assets increases from about $77,000 for limited resource farms to about $1,431,000 for very large farms. Limited resource, retirement, and residential/lifestyle farms have farm assets below the level of the average farm household (about $389,000). Farm debt follows a similar pattern, increasing from about $6,600 for limited resource farms to about $368,000 for very large farms. Households operating very large farms had the highest wealth, both farm and non-farm. Interestingly, the wealth of residential/lifestyle farm households is equally divided into farm and non-farm sources, reflecting the importance of non-farm assets to these households.

XIV.1.2.6 Location influences household income and wealth

Since off-farm income is a major source of income to farm households, location of the farm relative to off-farm employment opportunities is vital. Many studies have investigated the potential effects of the availability and accessibility of off-farm jobs. Farmers near urban areas are likely to have access to more active labour markets, and would be expected to supply more labour hours off the farm, all else being equal.

Two thirds of all United States farms are located in non-metro counties. About three fourths of small farms (farming-occupation) and large family farms are in non-metro countries. In addition, about two fifths of higher sales (small) farms and large family farms are in rural counties not adjacent to a metro area, compared with one third of all farms.

On average, about one fifth of the total income of farm households located in rural areas (both adjacent and non-adjacent) came from farming in 2003, indicating a high level of dependence (85%) on off-farm work even here (see Figure XIV.16). The total household incomes of these farms are on par with all United States households. It is also interesting to note that between 1999 and 2003 the increase of $10,000 in total average income was attributed solely to off-farm sources of income.

Farm households in metro areas (central city, fringe, medium metro, and small metro) have the highest level of income ($74,000) among farms by location, and 89% of this income is derived through off-farm sources (mostly wages and salaries). In these households, both the farm operator and the spouse tend to work off-farm.

Farm households located in urban (adjacent and non-adjacent) areas tend to be similar - they have some income from farming but off-farm income again is the major contributor to total household income (see Figure XIV.16). These results reaffirm that location and composition of income in a farm household are related. Still, farm households in remote rural areas depend heavily on off-farm employment.

Wealth for farm households in different locations follows the same pattern as income. Farm households in or near a metro area had the highest level of wealth (a net worth of $650,120 in 1999), one third from non-farm sources. These farm households also had the highest farm assets and lowest farm debt. This suggests they may be full-owners renting land and machinery to part-owners and tenants. At the other extreme, farm households in rural areas have one fourth of their net worth in off-farm assets. Rural farm households had the highest farm debt and considerable farm assets ($378,665) in 1999.

XIV.1.2.7 Comparing farm and non-farm income and wealth

In general, farm and non-farm household income are similar at several points within the overall distribution. Average incomes are similar for non-farm and farm households, though farm household income is more dispersed - larger shares of farm households have negative income and have incomes above $200,000. On the other hand, average wealth for farm households is substantially greater than for non-farm households, and is less dispersed.

XIV.1.2.8 Farm households save more, spend less than non-farm households

Expenditure levels represent an alternative indicator of economic well-being. While household income and wealth measured in any particular year are affected by contemporary economic conditions, the level of household expenditures is affected by the household's beliefs about total income and wealth over a lifetime. Household spending can exceed income by borrowing or liquidating financial capital. One would expect this to occur most at very low levels of income.

For both farm and non-farm households, spending tended to increase with income level, over much of the income distribution. However, the data show that farm household expenditures tend to be lower than non-farm household expenditures, even when controlling for differences in income, age, location, and size of population. Data for 2003 show that the exception was at low levels of income (below $15,000), where farm households tended to consume more than non-farm households (see Table XIV.1). It is likely that

many farms in this category had experienced temporary dips in their incomes to particularly low levels due to weather or other factors, and used their assets to support consumptions at their "normal," higher level.

Expenditures for farm and non-farm households increase with age through the age group 45-54, and then decline, tracking the earnings profile among farm households. Income exceeds expenditures by the most for the 45-54 age group.

Farm and non-farm households had comparable expenditure profiles across the different household sizes. In general, households with more members had greater expenditures, although a plateau was reached at about four members for non-farm households and was still rising at five members for farm households.

The trend for farm household expenditures to be lower than non-farm household expenditures is sustained by simple summary analysis. For example, farm households may more readily categorize their expenses as business versus personal household expenses. As such, non-farm households may be required to assume more transportation and work-related expenses directly relative to farm households, whose expenses are often commingled with the business. Farm households may also be able to spend less by providing a portion of their own consumption from their farm. Although food is the most obvious savings, in some parts of the country a farm's oil and gas expenses are waived in return for resource extraction agreements with utilities. Or perhaps farm households choose to save, rather than consume, a greater portion of their income as a form of self-insurance against greater income variability, to service their debt, or for inter-generational transfers to help their son or daughter get a start in farming. The greater savings may be invested into the farm or some other business, or saved in more liquid accounts.

XIV.1.2.9 Main findings and policy implications

The data above draw a picture of farmers' well-being in the context of income, wealth, and consumption at the household level. They also compare the economic status and well-being of farm operator households within the farm sector and relative to all United States households. The main findings of this analysis are:

- Farm households are no different from other households in being pluriactive, pursuing multiple careers and diversifying earnings.
- The farm business as a source of income has become increasingly less important to farm households, especially among farms with sales of less than $250,000 per year, which make up over 90% of all farms.
- For most non-farm proprietorship households, the business is the main source of income; in contrast, for most farm proprietorship households, the farm detracts from total household income.
- While farm income exhibits considerable variability, farm **household** income is more stable.
- The average wealth of farm households has increased, and farm households have broadened their investment portfolio to include more non-farm components.
- While the life cycle is a dominant influence on differences in the level and source of household income and wealth, other contributing factors include farm type and size, operator education, farm tenure, and household size.

- Average incomes are similar for farm and non-farm households, but farm household income is more dispersed.
- Farm household wealth is considerably greater on average than non-farm household wealth, and is less dispersed.
- The conventional wisdom that farm households are financially disadvantaged compared with other United States households does not hold.

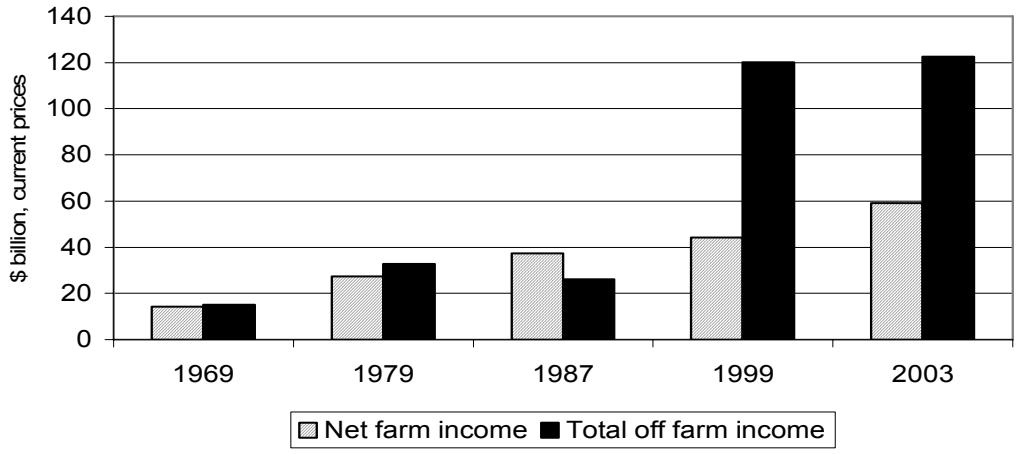
Results of the joint income and wealth analyses, comparing farm households to the median of all United States households, revealed that in 1999:

2.6% had higher incomes and lesser wealth;
6.0% had both lower income and wealth;
42.6% had lower income but higher wealth;
48.7% had both higher income and wealth.

On average, farm households have higher incomes, greater wealth, and lower consumption expenditures than all United States households. Incomes of farm households are, on average, sufficient to support a standard of living (defined as meeting consumption and basic household needs) that either is comparable to or exceeds that for all United States households. No longer do farm households inhabit one all-defining group that is considered either disadvantaged or without problems.

Figure XIV.10

Sources of income in the agriculture sector

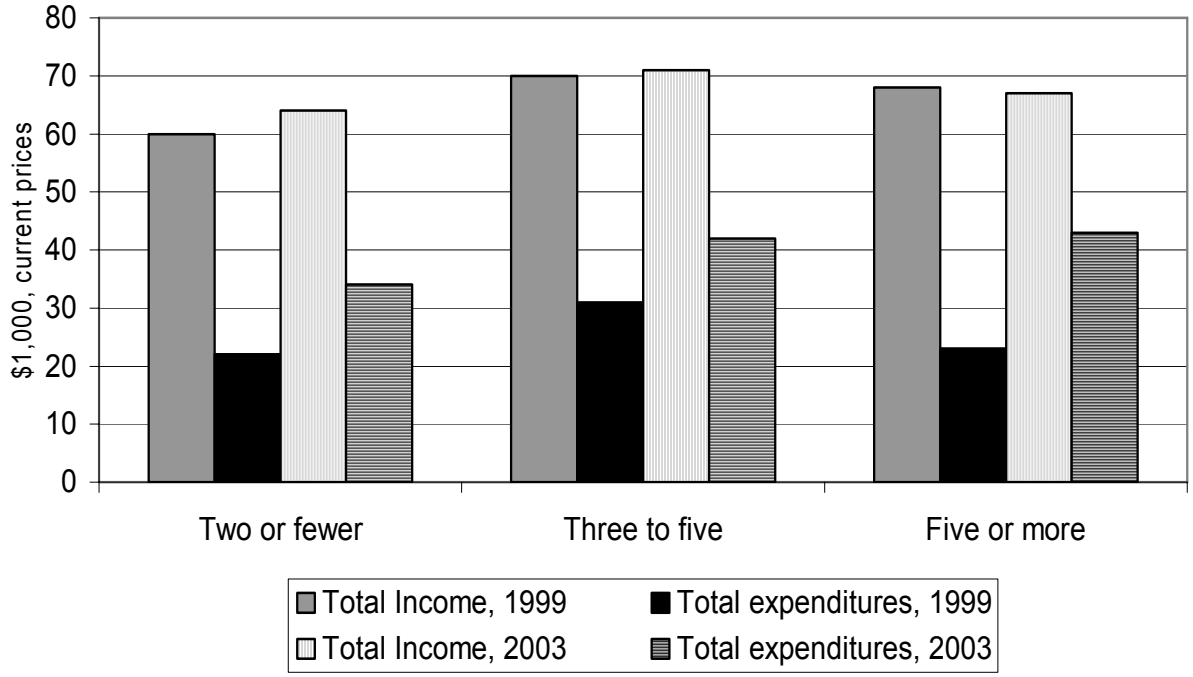


Source: Economic Research Service of US Dept.of Agriculture.

	Net farm income	Total off farm income	Net farm income as a percentage of total income
	$ billion, current prices		
1969	14.3	15.1	48.6
1979	27.4	32.8	45.5
1987	37.4	26.2	58.8
1999	44.3	120.1	26.9
2003	59.2	122.6	32.6

Figure XIV.11

Total income and expenditures per operator household, by household size, 1999 and 2003

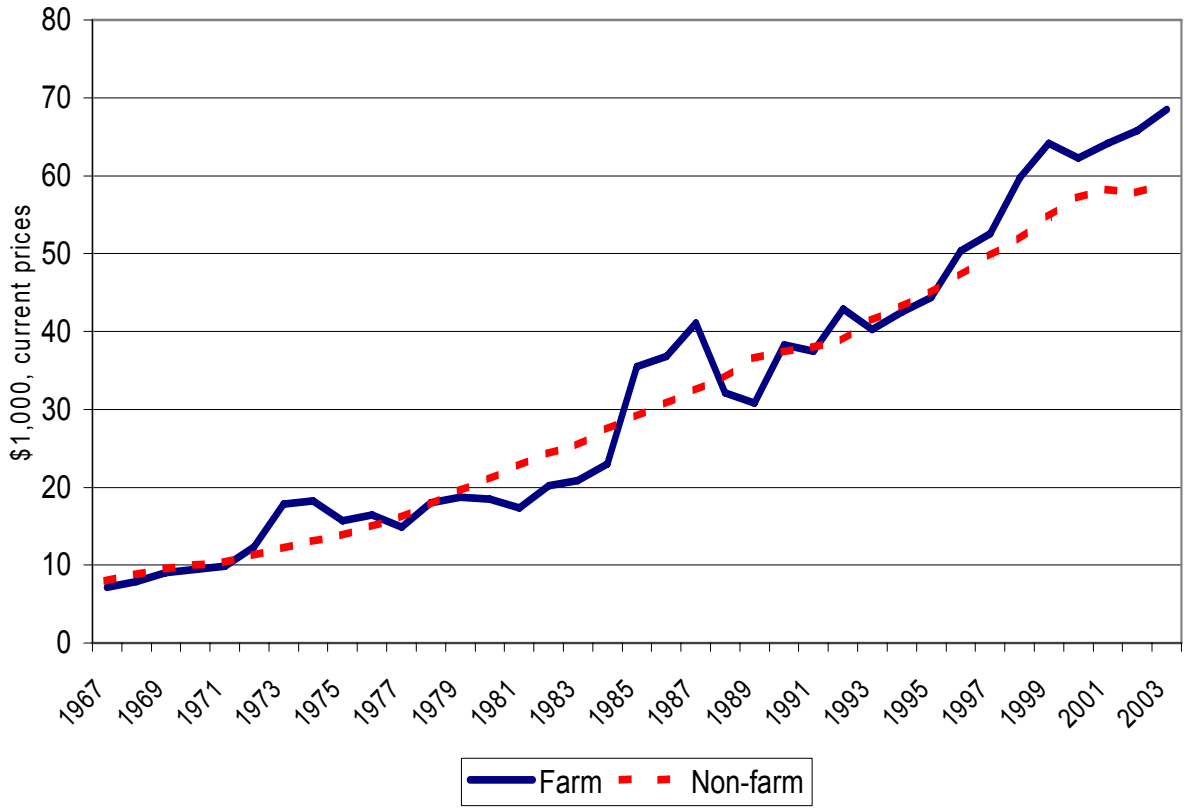


Source: Economic Research Service of US Dept.of Agriculture.

Household size	Total Income, 1999 $1,000	Total expenditures, 1999 $1,000	Total Income, 2003 $1,000	Total expenditures, 2003 $1,000	Net diff. 1999 $1,000	**% of income 1999**	Net diff. 2003 $1,000	**% of income 2003**
Two or fewer	60	22	64	34	38	**63.3**	30	**46.9**
Three to five	70	31	71	42	39	**55.7**	29	**40.8**
Five or more	68	23	67	43	45	**66.2**	24	**35.8**

Figure XIV.12

Average income of farm and nonfarm households, 1967-2003, in $1,000 current prices



Source: Economic Research Service of US Dept.of Agriculture.

$1,000 current prices

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Farm	6.191	6.526	7.244	7.519	8.206	9.629	11.442	12.041	12.408	13.539
Non-farm	7.989	8.76	9.544	10.001	10.383	11.286	12.157	13.094	13.779	14.922

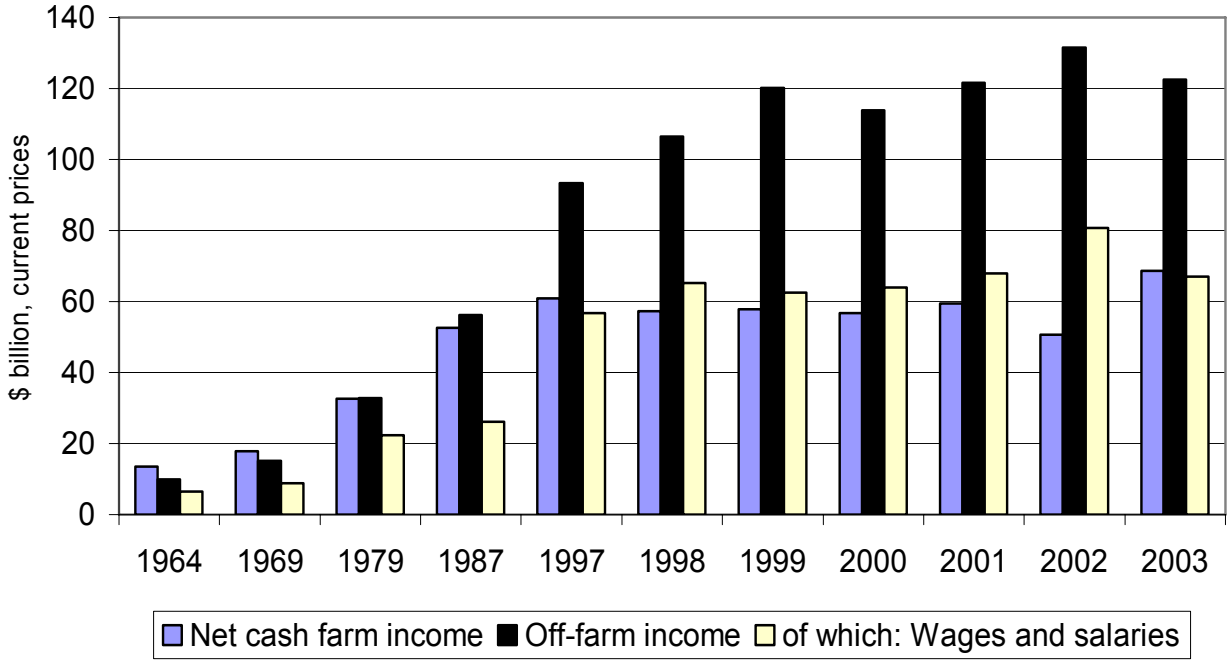
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Farm	14.111	17.016	19.499	18.123	18.842	20.382	21.534	23.013	24.119	27.56
Non-farm	16.1	17.73	19.554	21.063	22.787	24.309	25.401	27.464	29.066	30.759

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Farm	29.822	31.155	34.156	39.269	36.839	42.911	40.223	42.469	44.392	50.361
Non-farm	32.144	34.017	36.52	37.103	37.922	38.84	41.428	43.133	44.938	47.123

	1997	1998	1999	2000	2001	2002	2003
Farm	52.562	59.734	64.347	62.223	63.983	65.761	68.506
Non-farm	49.693	51.855	54.842	57.135	58.208	57.852	59.067

Figure XIV.13

Farm sector net cash income and income of farm households from off-farm sources, 1964-2003, in $ billion, current prices

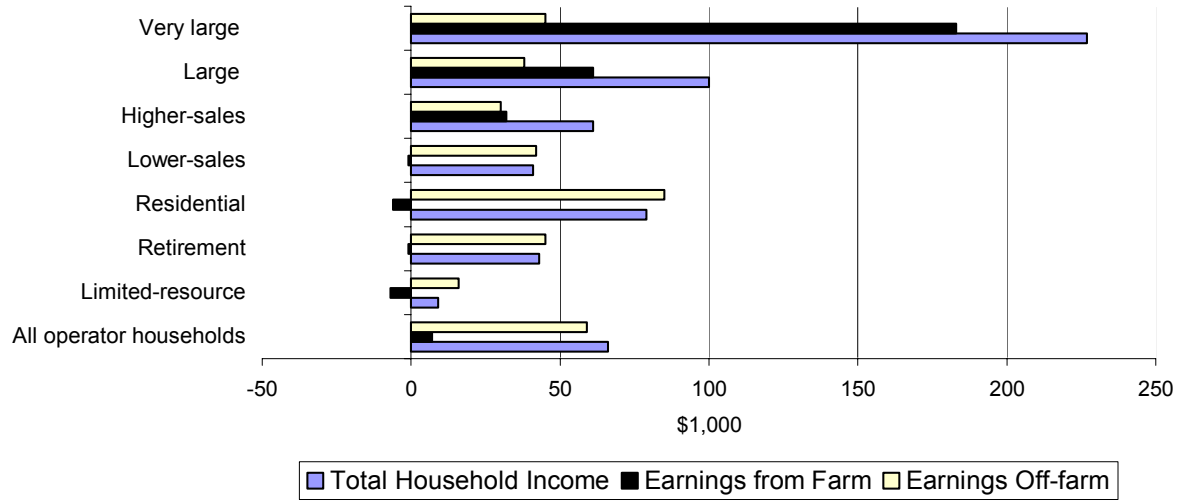


Source: Economic Research Service of US Dept.of Agriculture.

$ billion, current prices	1	2	3	4	5
	Net cash farm income	Off-farm income	of which: Wages and salaries	1 in % of (1+2)	3 in % of 2
1964	13.6	10.0	6.5	57.6	65.0
1969	17.8	15.1	8.8	54.1	58.3
1979	32.6	32.8	22.3	49.8	68.0
1987	52.6	56.3	26.2	48.3	46.5
1997	60.9	93.3	56.7	39.5	60.8
1998	57.3	106.4	65.2	35.0	61.3
1999	57.8	120.1	62.5	32.5	52.0
2000	56.7	113.9	63.9	33.2	56.1
2001	59.5	121.7	68.0	32.8	55.9
2002	50.7	131.6	80.8	27.8	61.4
2003	68.6	122.6	67.0	35.9	54.6

Figure XIV.14

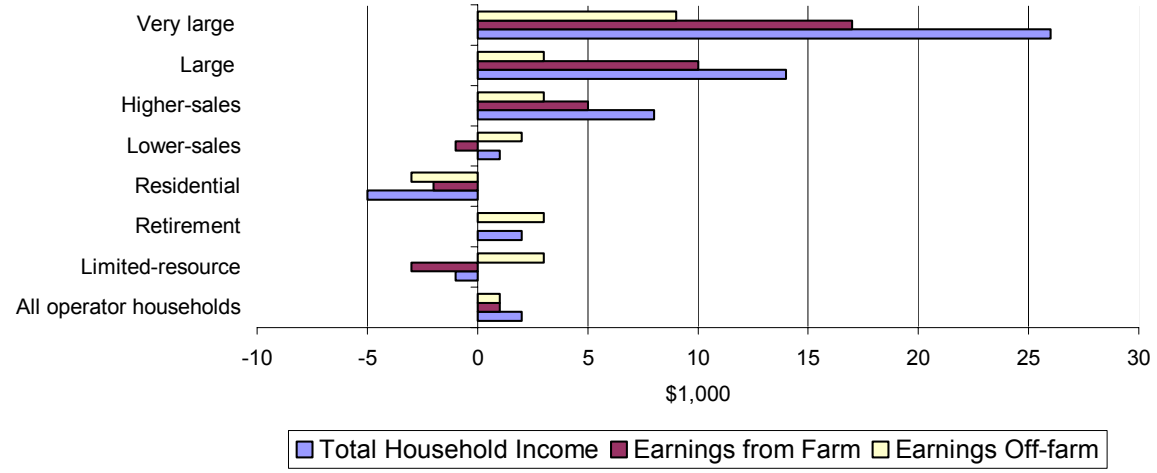
Total, farm-related and off-farm income per household, by farm typology group, 2003, in $1,000



Source: Economic Research Service of US Dept.of Agriculture.

Figure XIV.15

Total, farm-related and off-farm income per household, by farm typology group, difference between 2003 and 1999, in $1,000

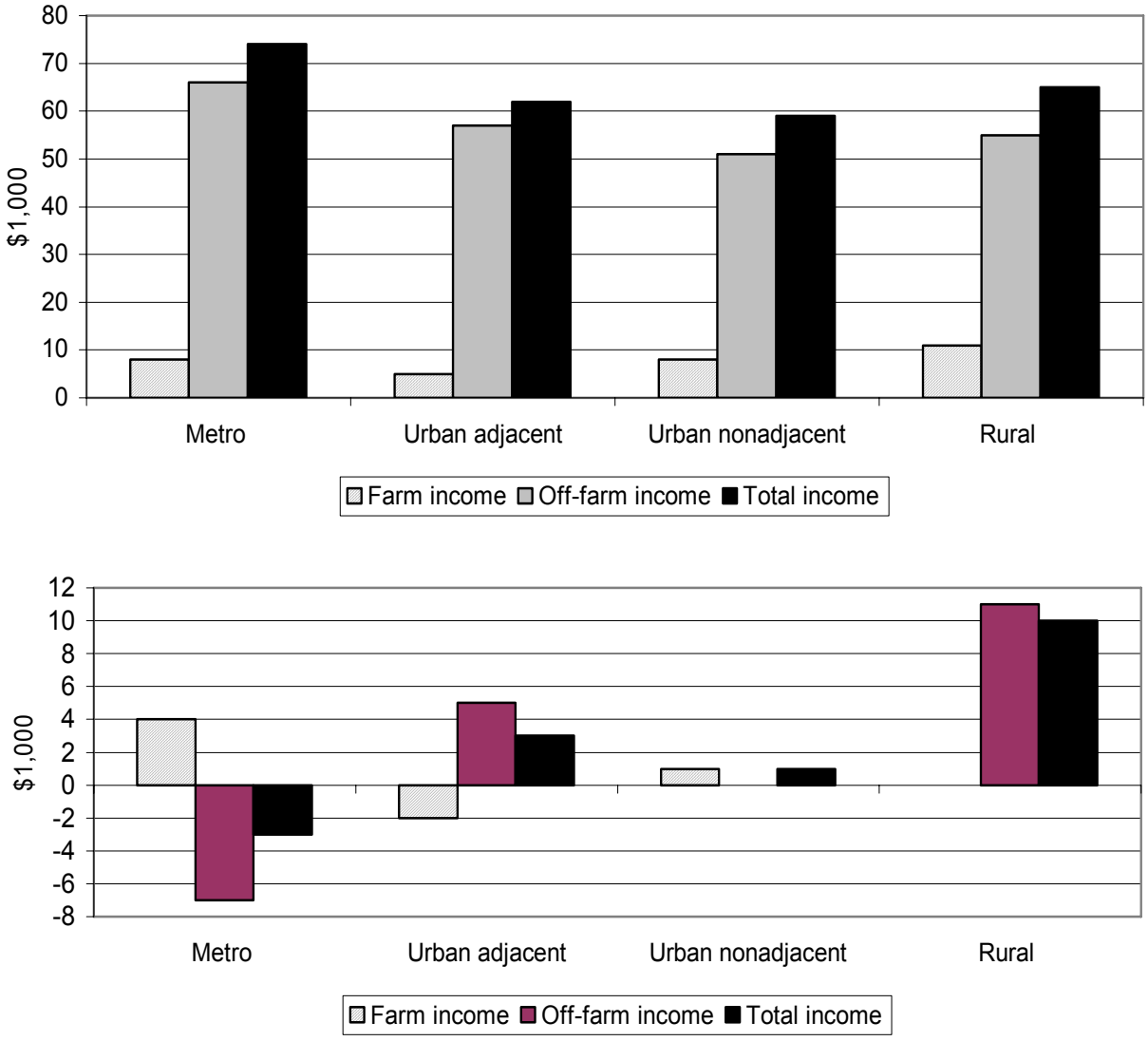


Source: Economic Research Service of US Dept.of Agriculture.

$1,000	2003			Difference 2003 - 1999		
	Total Household Income	Earnings from Farm	Earnings Off-farm	Total Household Income	Earnings from Farm	Earnings Off-farm
All operator households	66	7	59	2	1	1
Limited-resource	9	-7	16	-1	-3	3
Retirement	43	-1	45	2	0	3
Residential	79	-6	85	-5	-2	-3
Lower-sales	41	-1	42	1	-1	2
Higher-sales	61	32	30	8	5	3
Large	100	61	38	14	10	3
Very large	227	183	45	26	17	9

Figure XIV.16

Total, farm-related and off-farm income per household, by farm location, 2003 and increase 1999-2003, in $1,000



Source: Economic Research Service of US Dept.of Agriculture.

	2003			Difference 2003 - 1999		
$1,000	Farm income	Off-farm income	Total income	Farm income	Off-farm income	Total income
Metro	8	66	74	4	-7	-3
Urban adjacent	5	57	62	-2	5	3
Urban nonadjacent	8	51	59	1	0	1
Rural	11	55	65	0	11	10

Table XIV.1

Income and expenditures for farm and non-farm households by income class, 1999 and 2003, $

	Less than $5,000	$5,000 to $9,999	$10,000 to $14,999	$15,000 to $19.999	$20,000 to $29,999	$30,000 to $39,999	$40,000 to $49,999	$50,000 to $69,999	More than $70,000
1999									
Farm household expenditures	20,611	13,345	13,294	15,215	19,093	20,781	21,930	24,464	35,178
Farm household income	-30,316	7,578	12,518	17,408	24,810	35,105	44,823	59,122	158,036
Income less expenditures	*-50,927*	*-5,767*	*-776*	*2,193*	*5,717*	*14,324*	*22,893*	*34,658*	*122,858*
Nonfarm household expenditures	17,983	14,921	19,710	24,367	28,916	35,048	40,826	49,606	76,742
Nonfarm household income	1,633	7,631	12,338	17,311	24,467	34,353	44,321	58,473	113,441
Income minus expenditures	-16,350	-7,290	-7,372	-7,056	-4,449	-695	3,495	8,867	36,699
2003									
Farm household expenditures	25,534	20,781	22,467	22,610	25,991	31,223	31,844	37,428	54,827
Farm household income	-30,142	7,703	12,578	17,398	25,048	35,177	44,514	59,111	155,319
Income less expenditures	*-55,676*	*-13,078*	*-9,889*	*-5,212*	*-943*	*3,954*	*12,670*	*21,683*	*100,492*
Nonfarm household expenditures	17,453	15,245	19,344	22,923	28,196	33,794	39,531	48,281	74,912
Nonfarm household income	1,200	7,799	12,455	17,410	24,655	34,485	44,294	58,900	117,960
Difference 2003 - 1999									
Farm household expenditures	4,923	7,436	9,173	7,395	6,898	10,442	9,914	12,964	19,649
Farm household income	174	125	60	-10	238	72	-309	-11	-2,717

Source: Economic Research Service of US Dept.of Agriculture.

Table XIV.2

Income and expenditures for farm and non-farm households by age class, 1999 and 2003, $

1999	Under 35	35 to 44	45 to 54	55 to 64	65 and over
Farm household expenditures	21,965	25,864	28,112	24,744	18,895
Farm household income	74,831	64,826	86,194	63,784	39,625
Income less expenditures	*52,866*	*38,962*	*58,082*	*39,040*	*20,730*
Nonfarm household expenditures	31,866	42,792	46,511	39,394	26,521
Nonfarm household income	35,286	53,579	59,822	49,436	26,581
Income less expenditures	*3,420*	*10,787*	*13,311*	*10,042*	*60*

2003	Under 35	35 - 44	45 - 54	55 - 64	65 and over
Farm household expenditures	32,685	38,604	40,754	42,093	27,723
Farm household income	49,939	76,617	76,482	80,522	48,986
Income less expenditures	*17,254*	*38,013*	*35,728*	*38,429*	*21,263*
Nonfarm household expenditures	35,063	47,037	50,254	43,996	29,167
Nonfarm household income	41,384	61,091	68,028	58,672	30,437
Difference 2003-1999					
Farm household expenditures	10,720	12,740	12,642	17,349	8,828
Farm household income	-24,892	11,791	-9,712	16,738	9,361
Income less expenditures	*-35,612*	*-949*	*-22,354*	*-611*	*533*

Source: Economic Research Service of US Dept.of Agriculture.

XIV.2 Italy

This section on income and wealth statistics for Italy covers three sources, the Ismea survey (directed specifically at agricultural households), the REA survey and the RICA-REA project (a business survey for the agricultural sector integrated with the Italian component of the European Commission's farm accounts survey), and the Bank of Italy's general survey of household income and wealth that includes agricultural cases.

XIV.2.1 The ISMEA survey

XIV.2.1.1 Overview

The Institute for Services in Agriculture and Agro-food Markets (Ismea) survey not only provides data on production practices and resource use in agriculture, but also the information needed to model farm household behaviour. The survey undertaken in 1996 was designed in collaboration with the *Microsimulation-Unit* of the University of Verona[2] and fulfilled the mandate under which Ismea had to build an agri-food Input-Output (I/O) table. In addition, the data provided essential information to policymakers (at the regional, national and Communitarian level) and agricultural organizations for designing and judging various policies and programs that touch the farm sector or affect farm families. The provision of this information was also part of the policy mandate of Ismea. The aim of this section is to provide a detailed description of the Ismea survey and to discuss its utility with regard to monitoring the living conditions of the rural and farm population.

XIV.2.1.2 The survey

The Ismea survey was designed to collect statistical information on the behaviour of each member of the agricultural household and on the way that public and private resources were shared within the household. This would permit an empirical analysis of the household decision-making process with regard to these resources. In general, production, consumption and labour supply decisions are usually analysed separately in terms of the behaviour of producers, consumers, and workers, respectively. Agricultural households integrate all these usually separate decision-making units within a single institution. Therefore, it makes sense to analyse the linkage between income, consumption and labour supply within farm households.

XIV.2.1.3 The sample design

The Ismea survey was a probability weighted, stratified survey (by European Size Unit (ESU)[3] and Farm Type[4]) that collected information from 1,881 farms, 1,777 of which were household-farms.[5] Appropriate sample weights (expansion factors) were available so that estimates for the entire population could be determined from the survey results.

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[2] http://pilar.univr.it

[3] The European Size Unit (ESU) is the indicator used by FADN to measure the economic dimension of a farm. It is based on the standard gross margins (SGM) attributed to the farm, that is on the potential gross margins producible in a farm with given structural characteristics. In 1995: 1ESU = 1200 ecu = 920.95 euro.

[4] The classification of farms into types is based on the financial potential of the various agricultural activities of the farm and the combination of these activities.

[5] The size of the Ismea survey is in line with the indications given by the Living Standards Measurement Study (LSMS) of the World Bank. The LSMS surveys tend to use small samples, often in the order of 1,600 to 3,200 households and rarely more than 5,000 households. Although larger samples would have smaller sampling error, it was judged by survey designers that non-sampling errors would increase more than concomitantly.

The collection units were the farms, defined in official statistics as the economical-technical unit composed of land (even if not contiguous), plant and tools, and where agricultural, animal and forestry production is undertaken by a person, company or agency which bears the risks.

Sampling was based on the Agricultural Census conducted in 1991 by the Italian National Statistical Institute (ISTAT). Farms below an economic size of 4 ESU were excluded. This removed those enterprises where the agricultural activity was either marginal or negligible. The universe was divided into 15 main farm types and three ESU classes on the basis of the census results. The sample was statistically representative at the macroregional level (north, center and south).

XIV.2.1.4 The questionnaire

The objective of the Ismea survey was to gather data about both the farm and the household that could be used to assess both the structure and the behaviour of the farm. Further, it was designed to evaluate the effects that various agricultural and rural policies had on household behaviour and welfare by using a collective household approach.[6] Accordingly, a multitopic questionnaire was designed to collect data on several dimensions of farm and household well-being, including consumption at the individual level, income, savings, financial wealth, governmental and intra-household transfers, education and housing (see Table XIV.3).

The design of the Ismea questionnaire was inspired by the questionnaires in use for farm production data collection (for example that used by the FADN/RICA- farm production), those on the consumption of household members (such as the one used by ISTAT), by the EU time budget and by the questionnaire used by the Bank of Italy to collect data on household incomes. The final result was a set of questions very close to those suggested by the LSMS[7] to assess the welfare of rural households.

XIV.2.1.5 Production and factor use information are structured by activity

A peculiarity of the Ismea survey was that, in contrast to the questionnaire used by the FADN/RICA, the sections on production and on factor use were structured by activity. This level of detail was needed to build the Input-Output table of the agricultural sector.

XIV.2.1.6 From the farm operation to the farm household-firm unit perspective

Another important characteristic of the Ismea questionnaire was that the attention shifted from a traditional farm operation perspective to a farm household-firm unit perspective. For example, information on the social characteristics (gender, age, level of education, professional characteristics, etc.) not only of the farm operator but of all family members was collected. In addition, the questionnaire contained a stylized time sheet[8] describing how much time each family member devoted to activities such as on- and off-farm work, household work, child care and pure leisure time. This type of information was very useful when the work roles and off-farm labour participation of different members of the family were analysed. In addition, the data gathered in the time budgets were also essential for estimating the full and extended household income (see Chapter X for a discussion of these concepts).

[6] That is, using models that explicitly take into account differing resource allocation decisions amongst the individuals of the same household.
[7] The Living Standards Measurement Study, which was established by the World Bank in 1980.
[8] The time sheet is comparable to that used by ISTAT in the "Multiscopo survey" and in the Communitarian survey on time budgets conducted by Eurisko.

XIV.2.1.7 An agricultural standard of living survey

The Ismea survey was designed to provide the information needed to assess not only the economic impact of policy programmes at the farm level, but also the socioeconomic impact at the farm household level. In other words, the survey was designed to assess the impact policy programmes had on the standard of living and economic welfare of farm households. In order to facilitate this, a module of questions gathering information on the quality of life and on other characteristics of farm households was added.

The first group of questions concerned housing characteristics. The responses to these questions were used to infer the standard of living of the agricultural household. The second group of questions collected detailed information on household consumption: the consumption of food, either bought from the market (recording both quantity and price) or grown on the farm, and the consumption of both semi-durable and durable goods (distinguishing between children and adult goods). Measurement of consumption was emphasized in the questionnaires because this kind of information allows a better estimate of household economic welfare than does information on income.

The first part of the questionnaire was complemented by a module containing questions on the intra-household decision-making process for both farm and household decisions with regard to household goods, intra-household transfers, subjective measures about the risk associated with future investments in agriculture and intentions about the future development of the farm. This information, not usually available in the traditional agricultural statistics, proved to be very useful, for example, in addressing problems such as modelling the intergenerational succession of household-farms, or the on- and off-farm labour decisions within the farm household.

The collection of data on household welfare was completed by a group of questions on household income (comparable to the survey on household income conducted by the Bank of Italy and by the European Community Household Panel), savings and financial investments of the family.

Table XIV.3 shows that the Ismea survey incorporates much of the information on the household that was suggested by the LSMS to analyse the quality of life of households. Annex 10 gives further details about the coverage of various types of surveys. The information gathered by the Ismea survey allows analysis of the standard of living of agricultural households. It is easy to see that information on non-farm enterprises run by the household members and on the services that they use is required to facilitate the study of living standards, not only of agricultural households but of all rural households.

XIV.2.1.8 From an agricultural to a rural living standard survey

Ismea is now planning a new socioeconomic survey, which will take place during 2006. The new survey intends to broaden its focus from an agricultural living standard to a rural living standard. The survey will be based on a double sampling, incorporating both agricultural and rural households, with between 9,000 and 10,000 units. The household data collected by the survey will be combined with detailed territorial statistics drawn from the GeoStarter database.

Table XIV.3
Modules in the Ismea survey

Module	Respondent	Subject
Section I : «General information about the household»		
Tenure, legal status, structural and other characteristics of the farm	Best informed farm member	Tenure, owned and rented land, physical size, altitude, etc.
Section II: «Characteristics of the households and labour organization:»		
Information on the family	Best informed family member	Social characteristics (gender, age, level of education, professional characteristics, etc.) and hours of labour worked by the household members
Information on wage workers (fixed and temporary)	Best informed farm member	Gender, hours of labour worked in high and low season, gross monthly wage by qualification???.
Section III: «Commercialization:»		
Purchase of inputs and sales of farm products	Best informed farm member	Product marketing and institutional arrangements
Section IV: «Production:»		
Crops, livestock and products of livestock.	Best informed farm member	Quantities produced, self-employed and processed products, stocks, sales and prices, premiums and subsidies.
Other farm revenues	Best informed farm member	It collects information on farm revenues different from the sale of agric. products (machine hiring, custom work, land rents, production contracts, agri-tourism, insurance payments, etc.)
Section V: «Factor use:»		
Inputs and labour used for crops and livestock	Best informed farm member	Cash expenditure for inputs (fertilizers, other chemicals, seeds, feeds, water, oil and insurances) by activity and number of hours worked by family members, waged workers and machines.
Labour cost	Best informed farm member	Salaries paid
Other expenses	Best informed farm member	Overheads, environmental, etc.
Section VI: «Investments and financial activities:»		
Land and investments	Best informed farm member	Value of land capital and investments
Credits	Best informed farm member	farm credits by type
Debts	Best informed farm member	debts and loans by type
Section VII: «The Household:»		
Housing characteristics	Best informed household member	Type of dwelling. Durable goods owned (cars, televisions, bicycles, sewing machines, etc.) and percentage of use in the farm and in the household.
Time use	Head of household/principal respondent	On- and off-farm labour time per member of the household and time spent to reach the workplace by means of transportation. Sector of activity and expected reserve wage in agriculture or in other sectors.

Module	Respondent	Subject
Household consumption	Best-informed household member	
Annual consumption		List (value of durable goods distinguishing between children and adult goods)
Monthly consumption		List (value of semi durables goods)
Weekly consumption		Food quantity and prices of bought food and self-consumption
Responsibilities and intra-household decision	Best-informed household member	Who decide in farm, in family and out of farm. Separated income between wife and husband
Household goods	Best-informed household member	Hh header growths in farm. Time spent in family Sons in farm. Farm inheritance and farm legacy
Intra-household transfers	Best-informed household member	Gifts, inheritance, familiar loans
Other information about the farm and the household	Best-informed farm member	Technology, bookkeeping. Subjective measures of risk, intentions about the future development of the farm
Income and savings	Best-informed household member	Monthly global household income and wife's income contribution; number of pensions preceptors and range of perceived pension; annual savings and investment in accounts, bonds, shares, financial funds

XIV.2.2 The REA survey and the RICA-REA project

XIV.2.2.1 Overview

The REA survey is the Business survey for the agricultural sector in Italy that investigates the economic results of farms and the off-farm income of households involved in agricultural production[9]. The survey, managed by Istat since 1997, is part of a general project (RICA-REA) within the National Statistical System (SISTAN). The RICA-REA is the result of the integration of the Italian FADN/RICA, conducted by the National Institute for Agricultural Economics (INEA), with the REA survey. As a result of an agreement sponsored by the Ministry of Agriculture that involves Regions and Autonomous Provinces in 2003, just one national survey is now conducted.

The survey produces statistical information that meets the needs of the National Accounts unit in Istat to satisfy the requirements of the European System of Accounts (ESA95) and to estimate agricultural household income. Economic aggregates of the agricultural sector have been directly estimated on a farm basis for the first time, paving the way for a comparison with economic results of industrial and services firms. Moreover, since the present survey is harmonized with the Farm Structure Survey (FSS), it is possible to integrate physical and monetary variables at the microeconomic level and to analyse farm performance in relation to their structural characteristics. Finally, with the microdata it is possible to investigate, for the first time, the multifunctionality of farms and their socioeconomic and environmental sustainability.

[9] www.istat.it/strumenti/rispondenti/indagini/rea/indice_rea.html
www.istat.it/strumenti/rispondenti/indagini/ricarea/ricarea02.htm

This survey is an example of how official needs for information at the macrosector level can be combined with the increasing demand for statistical data at the microfarm level. The result has been achieved through an institutional agreement inside the Italian public administration, and has involved those public research institutes with interest in the subject.

XIV.2.2.2 Survey characteristics

REA is an annual survey, carried out through face-to-face interviews on a random sample of farms. Data are collected at the regional level by FADN/RICA, under the statistical responsibility of Istat.

The reference population, for estimation purposes, is the national population of farms of any typology and size, including exclusively zoo-technical farms. Since the 2002 reference period, the observation field has been restricted to the so-called European Union (EC) field, that excludes microfarms with less then € 2,066 of sales or farms with under one hectare of Agricultural Area Utilised (AAU).

The sample in the 2004 reference year contains about 25,000 farms and, following a panel criteria, is partially renewed over time. It is extracted from the database generated by the General Census of Agriculture which is updated by annual sample surveys.

XIV.2.2.3 The questionnaire

An innovative questionnaire has been introduced for the REA survey. Information is collected on the main economic phenomena going on inside the farm and the holder' household using only a limited number of questions. Data are collected on:

1. Costs;
2. Revenues of the farm by kind of activity (principal and secondary activities);
3. Self-consumption by the household of the holder;
4. Consumption of farm products as inputs;
5. Stocks at the start and at the end of the reference year;
6. Buying and selling of capital goods;
7. Public and Common Agricultural Policy (CAP) subsides;
8. Labour force and costs of employees;
9. Holder and the holder's household;
10. Off-farm income of the household members.

The REA questionnaire is just four pages long with the first page restricted to the analysis of costs: inputs for cultivation, animal breeding, energy consumption, administrative and functioning costs, interests and direct taxes on goods and production. In this respect, it includes a specific survey on costs necessary to compile the Italian Input-Output table.

An important section of the questionnaire is dedicated to the structure of the holder's household and the income sources of its components. The overlapping of a unit of economic activity (the farm) and a unit of consumption (the household) allows a double level analysis: the farms' economic performance coupled with the income distribution within households that are involved in agricultural production and have direct management of the farm.

XIV.2.2.4 From micro to macro estimates

Data on sampled farms allows estimations at different levels of aggregation: from typologies of farms and households (by dimensional classes, kind of activity, geographical location, income sources, types of farming, etc.) to the whole agricultural sector.

An example of national accounts aggregates estimated for the 2002 reference year, is shown in Tables XIV.4. Tables XIV.5(a) and XIV.5(b) are examples of analyses at the farm level of the income structure of the household and the opportunity for income brought about by multiple activities.

Table XIV.4
Farms economic results [(a)] – Years 2002

ECONOMIC VARIABLES	Farms	Farms with more than 5 ha	
		Absolute values	%
Absolute values (*thousand of units*)			
Farms [(b)]	1 838	459	25.0
ULA [(b)]	1 295	641	50.0
Dependent ULA [(b)]	164	126	76.8
Absolute values (*millions euro*)			
Production [(c)]	32 095	24 383	76.0
- *Turnover*	27 232	20 542	75.4
Intermediate costs	13 772	10 479	76.1
Value added [(c)]	**18 323**	**13 904**	**75.9**
Labour cost	2 412	1 935	80.2
Gross operative margin (GOM)	**14 911**	**11 969**	**75.2**
Other net profits	619	317	51.2
Social contributions due by operators and families	1 333	833	62.5
Gross management result (GMR)	**15 197**	**11 453**	**75.4**
Average farm values (*units*)			**Ratios**
ULA [(b)]	0.8	1.4	1.8
Dependent ULA [(b)]	0.1	0.2	2.0
(*euro*)			
Production [(c)]	17 474	53 090	3.0
- *Turnover*	14 826	44 727	3.0
Intermediate costs	7 498	22 817	3.0
Value added [(c)]	**9 976**	**30 272**	**3.0**
Labour cost	1 313	4.214	3.2
Gross operative margin (GOM)	**8 663**	**26 059**	**3.0**
Other net revenues	337	691	2.1
Social contributions due by operators and families	726	1 813	2.5
Gross management result (GMR)	**7 274**	**24 937**	**3.0**

(a) Only individual farms and corporate farms.
(b) Unit of labour.
(c) Basic prices values.
Source: Istat – Business Survey on Farms (REA).

Table XIV.5(a)
Income and labour force employed in farms directly managed by households by classes of AAU – 2002

Classes of AAU (hectares)	Households with a directly managed on a farm and with off-farm incomes (%)					Number of household members working in farm (average by farm)	GOM per household member working in farm (euro)
	Total	With indep. work income	With dependent work income	With pensions	With capital income		
Less and equal 1	84.2	18.8	36.9	47.0	1.0	2.0	619
1-5	74.4	16.5	29.5	45.7	2.2	2.1	1 788
5-20	59.5	14.3	21.4	37.7	1.1	2.1	6 158
20-50	49.1	15.8	15.4	24.9	1.8	2.3	16 925
More than 50	32.2	7.8	11.0	20.0	4.6	2.4	25 382
Total	**72.9**	**16.7**	**29.5**	**43.2**	**1.6**	**2.1**	**3 535**

Source: Istat – Business Survey on Farms (REA).

Table XIV.5(b)
Composition of total income of households managing mono- and multiactive farms by income source and by classes of AAU – 2002 (%)

Classes of AAU (hectares)	Income source						
	Strict agricultural activity	Secondary activities connected to agriculture	Independent work	Dependent work	Pension	Capital	Total
	Households managing mono-active farms						
Less and equal 1	21.8	-	14.9	32.9	29.5	0.9	100.0
1-5	37.6	-	10.8	23.4	27.3	1.1	100.0
5-20	71.5	-	5.9	10.5	11.8	0.2	100.0
20-50	91.2	-	2.1	2.8	3.5	0.4	100.0
More than 50	96.9	-	0.9	0.9	1.0	0.2	100.0
Total	**57.6**	**-**	**8.0**	**16.5**	**17.4**	**0.6**	**100.0**
	Households managing multiactive farms						
Less and equal 1	20.4	34.2	9.1	15.6	18.2	2.5	100.0
1-5	37.5	28.5	8.7	9.6	15.6	0.1	100.0
5-20	55.4	27.3	2.2	6.5	8.0	0.6	100.0
20-50	68.1	24.1	1.8	2.4	3.0	0.6	100.0
More than 50	74.7	22.5	0.7	0.8	1.2	0.2	100.0
Total	**56.5**	**26.3**	**3.5**	**5.6**	**7.5**	**0.6**	**100.0**

Source: Istat – Business Survey on Farms (REA).

XIV.2.2.5 Conclusions and final recommendations

The examples used in this section have suggested some potential uses of the REA survey microdata. A business survey, similar to REA, for the agricultural sector can be a suitable tool, at least in the European context, for micro and macroanalysis applied to agriculture. Nevertheless, some conditions have to be satisfied in order to establish a reliable and useful database without significantly increasing the response burden for agricultural holders:

- business surveys should include farms without a relevant amount of agriculture production but important for rural development monitoring;
- business surveys should be carried out on a random sample to avoid significant bias due to voluntary sample designs;
- business and structural surveys should be coherent with respect to the definitions of statistical units and common structural variables used to obtain consistent estimates;
- in the case of non-overlapping samples, the business survey must collect a minimum set of structural variables useful for calibration to the structural survey results and for microeconomic analysis.

XIV.2.3 Survey of Household Income and Wealth

The microdata collected in national Surveys of Household Income and Wealth or in Household Budget Surveys can be of help in analysing the economic well-being of rural and agricultural households. Moreover, this microdata can help to identify those individuals or households groups, within the rural community, which have a low enough standard of living to be potential beneficiaries of rural and agricultural policies aimed at alleviating poverty.

In this section, a distributive analysis of income, consumption and wealth of Italian agricultural and rural households is presented.

XIV.2.3.1 The data

The following analysis relies on data from the Historical Archive (HA) of the Survey of Household Income and Wealth (SHIW) conducted by the Bank of Italy, covering the years 1995, 1998, 2000 and 2002. The survey was originally designed to collect data on incomes and savings. However, over the years the range of collected data expanded to the extent that wealth (both in terms of real assets and financial assets) and other information relevant for analysing the economic and financial behaviour of Italian households became available. Presently the sample covers more then 8,000 households and 21,000 individuals.

The variables used to analyse the economic situation of the households are income, consumption and wealth. Household income comprises income from work (whether as an employee or self-employed), pensions, public assistance, private transfers, income from real properties, the imputed rental income from owner-occupied dwellings, and interest on financial assets net of interest paid on mortgages. All components are recorded net of taxes and social security contributions. Household consumption is given by the sum of expenditures on durables (transport equipment, furniture, etc.) and non-durables goods. Household wealth is calculated from the sum of real (property, companies, and valuables) and financial assets (deposits, government securities, equity, etc.), net of financial liabilities (mortgages and other debts).

In the following analysis, all the economic variables are expressed in constant 2000 prices, using the consumer price index as the deflator. Observations are weighted by using adjusted weights, available in the

HA, obtained by post-stratifying the samples to re-establish the marginal distributions of components by sex, age group, type of job, geographical area and the demographic size of the municipality of residence, as registered in population and labour force statistics. These weights provide greater stability when comparing results from different years.

Rural and agricultural households

So far a common concept of what constitutes a rural area has not been developed at the EU level. To collect statistics on the main economic, social and environmental features of rural areas, though, we need to have an approximation of the area defined as rural and which may, therefore, be the recipient of rural policy. Following the example recently given by the European Commission, the OECD definition that identifies local areas (municipalities) as rural if the population density is below 150 inhabitants per square kilometre was applied. This definition has proven to be useful in making international comparisons of rural conditions and trends. Unfortunately, this information on the population density of the municipality in which households in the SHIW reside is available only for the year 2002. For the purposes of this section, this group is called the *Rural Household Group.*

In addition to this rural household group, two other groups of households have been identified. Both of these have strong agricultural involvement.

The first group encompasses those households that are identified by applying the so-called "broad" definition of an agricultural household. These are those households that derive some income from *independent activity in agriculture* (other than income solely in kind). This income can arise from activity of the head of household or any other member (see Chapter IX of this Handbook for a fuller discussion of the definition of the agricultural household-firm). For simplicity, this group is called the *Farm Household Group*.

In Italy, around 40% of the total agricultural workforce is composed of salaried workers. In countries with a high share of salaried workers in agriculture, like Italy, it is important to monitor not only the economic situation of the farm households but also that of the agricultural wage worker households.[10] As a consequence, a second group of agricultural households have been identified, comprising those households that derive some income from salaried activity in agriculture. This group is termed the *Agricultural Dependent Household Group.*

XIV.2.3.2 Economic conditions of rural and agricultural households

The sample sizes of the three groups of households identified above (the farm household, the agricultural dependent household and the rural household) is shown in Table XIV.6.

The top three charts in Figure XIV.17 show the evolution from 1995-2002 of the levels of three variables (income, consumption and wealth) for five groups of Italian households. These household groups are:

- Total households;
- Total self-employed households;
- Rural households;

[10] On average, the share of salaried workers within the total agricultural work force in the EU25 is around 24%. Apart from Italy, EU countries in which salaried work is particularly important are the Czech Republic (78%), Finland (78%) and Slovakia (55%). In addition, in Denmark, Germany, Spain and the Netherlands salaried workers constitute more than one third of the total labour input to agriculture.

- Farm households;
- Agricultural dependent households.

The last three are those groups previously defined. By combining these household groups into one chart, visual comparisons can easily be made. Note that data for rural households are only available for the year 2002.

It can be seen that the agricultural dependent households are disadvantaged relative to the other household groups. They record the lowest values on all three variables of income, consumption and wealth for every year of the study period. Conversely, farm households are better off than the Italian average household on all variables, with the largest difference being in the wealth category. This confirms the results of previous analysis (ISTAT, 1998; Eurostat, 1998). It is interesting to note that farm households appear to be better off even than the Italian self-employed group for some years of the study period (and for wealth they are better off in every year). An additional characteristic of the farm households is that they have a higher variability than in the rest of the household groups for all the variables. This is mainly due to unpredictable weather and the biological risks inherent in agricultural production. A final feature of farm households, mentioned earlier, that should be emphasised is that they show levels of wealth much higher than the rest of the Italian households. This is mainly due to the ownership of physical farm assets, the most important of which is the ownership of land.

The 2002 data of rural non-agricultural household type shows results that are very close to the average Italian household for all the variables.

The last two charts in Figure XIV.17 show the results for the income and consumption variables in adult equivalents. In order to perform inter-household comparisons, as it is usually done when a poverty analysis is undertaken, we need to convert households differing in size and composition into adult equivalents (see Chapter IX). This conversion has been done by applying the OECD modified equivalence scale.[11] Distribution is thus measured across adult equivalents, attributing to each person the equivalent income and consumption of the household to which he or she belongs.

It is interesting to note that when the differences in household size and composition are taken into account, the differentials among income and consumption levels of the farm and non-farm household types tend to shrink.

However, the relative disadvantage of the agricultural dependent households observed previously is confirmed even when differences in household size and composition are accounted for. Conversely, the relative position of the rural household type worsens both in terms of income and consumption. Finally, it is interesting to note that in terms of both income and consumption, farm households are no longer better off than the self-employed household group in most years.

Inequallity and poverty

A summary statistic that can be used to characterise the distribution of incomes within a group is the Gini coefficient (or index) (see Chapter XI for a fuller explanation of the Gini coefficient). The higher the Gini index, the more unequal (or more concentrated) is the distribution. In this section, the Gini index is used to analyse the distribution of the three economic variables within each household group.

[11] This scale assigns value 1 to the first adult, 0.5 to any other person aged 14 or older and 0.3 to any person younger than 14.

The data reported in Figure XIV.18 show that the large variability previously observed in the *levels* of income and consumption in the farm household group is matched by a large variability in the distribution of these variables. Due to the extreme fluctuations it is difficult to define the relative position of farm households in distributive terms. For example, the concentration of their income is approximately equal to the other household groups in 1998 and 2000 but is much higher in 1995 and 2002. In terms of consumption, the concentration of distribution is higher in the farm household group than all others for every year of the study period. This pattern is even more pronounced when the size and composition of households is taken into account (as shown in the "Equivalent consumption" chart). Apart from 1998, farm households' wealth concentration is lower than in the rest of the household groups. Finally rural households present a lower concentration of both equivalent income and equivalent consumption (i.e. when the size and composition of households are taken into account) relative to the rest of the population.

In order to measure the incidence of poverty a poverty line must first be established. A poverty line is the minimum standard of living achieved before a person or household is no longer deemed to be "poor." For the purposes of this section, the poverty line has been set at 50% of the median equivalent income.

Figure XIV.19 shows the proportion of households in each household group that fall below the poverty line. Apart from the agricultural dependant household group, the data show that the incidence of poverty is more or less the same across the different household groups. Moreover, the incidence of poverty tends to decrease over the study period. Over the period, the proportion of the agricultural dependant household group below the poverty line appears to have been higher than the rest of the groups under analysis, in some years more than double. However, this finding should be treated with caution, as the costs of some important consumption items may be lower for farm households (though for others it may be higher).

The effect of relatively high income variability in the farm household group can even be seen in this index. In 2000, the fall in farm household income, mainly due to the fall in farm net income, manifested itself in a rise in the poverty rate amongst this household group to 23.4%.

XIV.2.3.3 Conclusion

This section has demonstrated how the data collected in national Household Budget Surveys can be used to perform distributive analyses of the rural and agricultural population. By making use of data on income, consumption and wealth, the relative position in terms of economic well-being of different household groups can be assessed and the possible presence of poverty or low-income detected.

An advantage of Household Budget Surveys in regard to activity-specific data sets is that the economic situation of rural and agricultural dependent households can be studied and monitored and directly compared to that of farm households. This is particularly important for Italy with its relatively high share of agricultural dependent households.

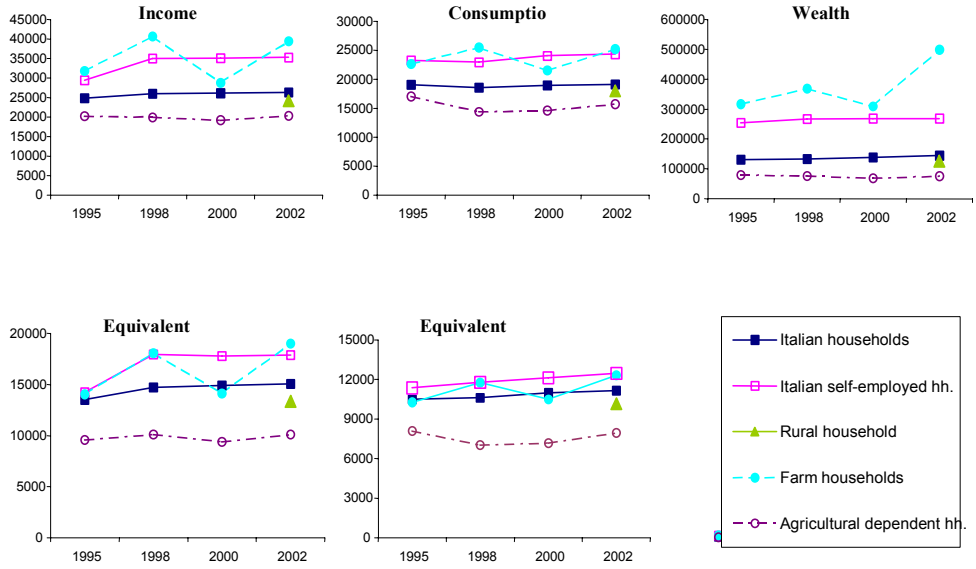
There are, however, some limitations imposed by the use of Household Budget Surveys. The most important limitation is that Household Budget Surveys do not provide information on the type of farm business run by the household. As a consequence, while the overall economic well-being of farm households can be monitored, it is not possible to detect the impact that specific farm business types have, for example, on low-income or poverty among that group.

Table XIV.6
Italian households and individuals by household type

	1995			1998			2000			2002		
	Hholds	%	Individ.	Hholds	%	Individ.	Hholds	%	Individ.	Hholds	%	Individ.
Household type												
Farm	144	1.77	557	78	1.09	290	124	1.55	441	113	1.41	401
Agr. dependent	132	1.62	495	155	2.17	589	192	2.40	691	192	2.40	634
Rural non-agricultural										1,111	13.9	3,049
Total population	8,135	100	23,924	7147	100	20901	8,001	100	22,268	8,011	100	21,148

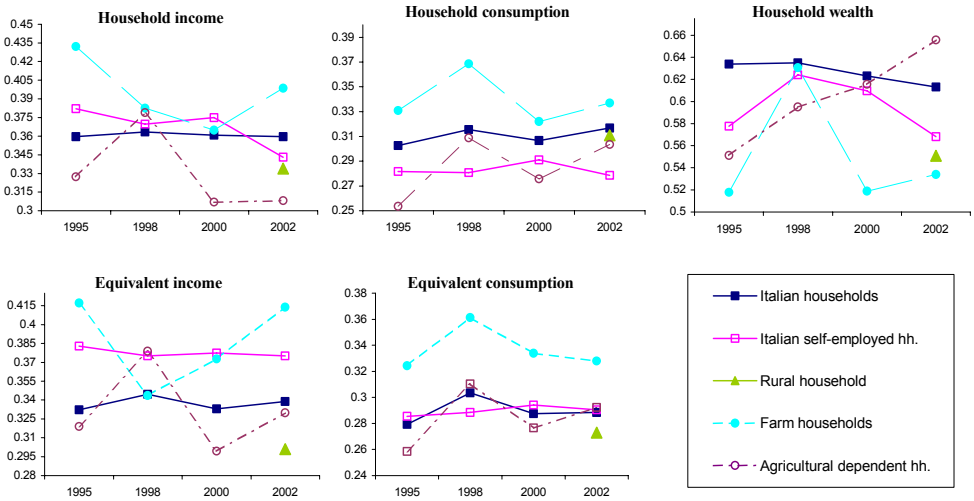
Source: Salvioni and Colazilli (2005).

Figure XIV.17
Household and equivalent income, consumption and wealth, Italy, 1995 to 2002



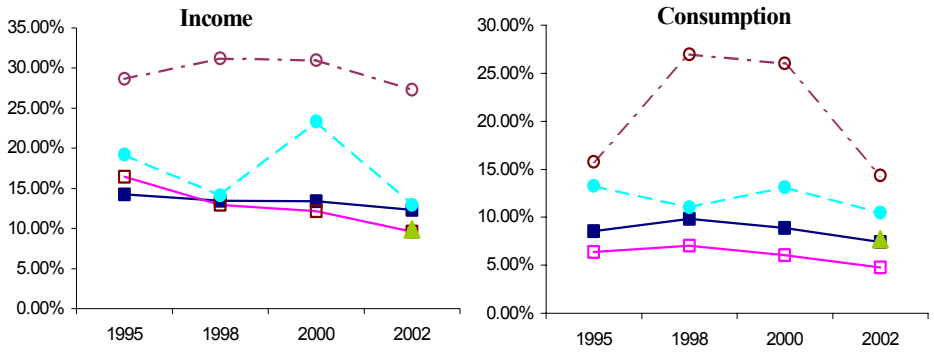
Source: Salvioni and Colazilli, 2005.

Figure XIV.18
Gini index on household and equivalent income, consumption and wealth, Italy, 1995 to 2002



Source: Salvioni and Colazilli (2005).

Figure XIV.19
Headcount ratio on household and equivalent income and consumption, Italy, 1995 to 2002



Source: Salvioni and Colazilli (2005).

XIV.3 Denmark – register based agricultural income statistics

[Editor's note: Readers should be aware that interest payments in Denmark represent a uniquely large share of the cost faced by farmers among the Member States of the European Union. This is linked to the way in which agricultural assets are transferred between generations that, typically, involve sales from parents to children. In order to support the high interest burden that results from the credit taken to purchase these assets by family successors there is a tendency for the spouses of Danish farmers, and frequently the farmers also, to work full-time or part-time outside agriculture, particularly in the early years of succession. This in turn has some impact on the choice of farming enterprise, since some forms of production (such as cereals) are more compatible with part-time activity than others (such as dairying). The high burden of interest payments (which often leads to negative profits from the farm business) and the treatment of interest in the taxation system of Denmark means that there is an emphasis on measuring income before interest charges. It also means that when households are classified according to their main income source (which, for farming, would normally be after deducting interest charges associated with the business), numbers of agricultural households appear to be disproportionately small. Further discussion is contained in Eurostat (2002)[12]]

XIV.3.1 Introduction

For many years, Statistics Denmark has compiled agricultural household income statistics, partly to accord with an agreement with Eurostat for EU statistics and partly to provide domestic information. A main objective for Eurostat's Income of the Agricultural Households Sector (IAHS) statistics is to compare agricultural household income with the income of other socio-professional households, while the main objective for the domestic statistics is to show differences between different types of farming.

The household income statistics are based on a combination of registers of persons, households, income and agricultural holdings. The methodology is further described in section XIV.3.2 below. The statistics for Eurostat are presented in section XIV.3.3. In section XIV.3.4 the income situation for different types of agricultural holdings and other subgroups of farms is presented. Finally, the issue of wealth is introduced with the presentation of figures from the Danish Farm Accountancy Data Network (FADN) statistics. The FADN statistics include information on the assets and debts of family farms.

XIV.3.2 Combining of registers and income information

The statistics introduced here are based on registers of agriculture, households and income. The income register is basically information from tax authorities, which provide Statistics Denmark with data on different kinds of income of all relevant inhabitants. Furthermore, there is information on tax, interest and social contributions. Information on disposable income can be calculated from these data.

The income register contains information on the kind of economic activity undertaken by the individual, for example, whether the individual is an employer (broken down by line of business) or an employee.

The household register records information on individuals belonging to a household unit. From these data the number of households and the number of consumer units (CU) can be calculated. The principal, or head, of the household unit counts as 1 CU, other adults within the household count as 0.7 CU

[12] Eurostat (2002) *Income of the Agricultural Household Sector 2001 Report.* Theme 5. Eurostat, Luxembourg. ISBN 92-894-4471-1.

and children in the household count as 0.5 CU. The key to the income register is the personal ID-number of the individual.

The agricultural register is the Farm Structure Survey (FSS) register. This contains the annual sample of approximately 50,000 farms in Denmark that have more than five hectares of land or are of similar economic size in terms of production. The register includes, for example, information on the type of farming, standard labour hours, farm location and the age of the farmer. As a result, several subgroups can be delineated.

Almost all farms in the FSS (more than 98%) are associated with an individual owner who has a Danish ID-number. It is the presence of this ID-number that facilitates linkage to the other registers. Using the sample to represent the whole population of farm holdings, a specific income statistic on farmers can be compiled. Moreover, farm income can be broken down by subgroup.

In the full dataset, the following variables are compiled:

A. Income from agriculture (calculated according to tax regulations)
B. Income from other enterprises (calculated according to tax regulations)
C. Remuneration of owner-occupied dwellings
D. Wages and salaries
E. Property income (including interest from financial assets)
F. Social benefits received (including pensions)
G. ***Total income*** **(A+B+C+D+E+F)**
H. Interest on loans
I. Tax on income and capital
J. Social contributions, including savings for retirement
K. ***Disposal income*** **(G-H-I-J)**

In cases where farmers (known from the farm register) have other businesses in addition to farming, the allocation of income is based on the most import business.

In addition, the remuneration from owner-occupied dwellings, calculated as a percentage of the value assessed by the public authority, is not taken into account in the specific Danish statistics as almost all farmers own their dwelling. Therefore, the artificial calculation used to improve comparability between owned and rented dwellings is not relevant.

Finally, it should be mentioned, that the variables do not include all the specifications listed in the questionnaire from Eurostat. However, it generally covers the overall framework.

XIV.3.3 Comparison between farmers and other professional groups

One of the main reasons for compiling agricultural household income statistics is to analyse the situation in terms of the targets set out in the EU's Common Agricultural Policy (CAP), namely to ensure a fair income among farmers and their families. To make any assessment of this kind a comparison with other groups is necessary. In Table XIV.7, figures comparing farmers to other socio-professional groups within Denmark are presented.

It is important to note, that the definition of farmers in this context is the "narrow" definition, where only families whose main income comes from farming are included (see Chapter IX of this Handbook). This number (approximately 15,000 in 2002) represents only about 30 per cent of the total

number of "farmers" In Denmark. It should be further noted, that the number of farms defined as "full-time" farms in 2002 was approximately 23,000. The discrepancy in the numbers indicates that about one third of full-time farm could not fulfil the income criteria of the "narrow" definition that year.

Looking at the results, it is difficult to make comparisons of the income composition on all the variables. In particular, because profit from agriculture and other businesses do not include a deduction for interest related to the business. However, looking at the bottom line, the farmers' net disposable income (202,000 DKK per household in 2002) is among the lowest of all the groups. This is particularly important in light of the fact that farm households had the highest consumer units per household.

Looking at the composition of income, it can be seen that households with employers as the main person providing income still have a relatively high income from wages and salaries. This suggests that the spouse of the employer often works for wages outside of the family business. Furthermore, the figures show that, amongst all employers and own-account workers, farmers have the highest level of interest payments. This indicates that debts (probably related to high capital input) are very high for farm households.

XIV.3.4 Comparison between different types of farms

In the Danish context, the compilation of agricultural household income is seen as an important supplement to the Economic Accounts of Agriculture, because agricultural activity is very rarely the only income generating activity for the farm family. In fact, part-time farmers (where the standard labour input to the farm is less than one work unit), account for more than half of all farmers in Denmark. In 2002, part-time farms constituted 53% of all farms in the Farm Structure Survey.

Figure XIV.20 shows disposable income broken down by full-time and part-time farms. It can be seen that part-time farmers, in general, have a higher disposable income than full-time farmers. Furthermore, there was a steep decrease in the disposable income for full-time farms in 2002. The figures are in the Annex to this section (Tables 1-3).

The disposable income for all farms in 2002 is 176,000 DKK. However, it was seen in the previous section that farms, using the "narrow" definition, had an income of 202,000 DKK. Corrected for the remuneration of own dwelling this figure is reduced to 191,000 DKK, still 15,000 DKK higher than for all farms.

Figure XIV.21 shows the composition of total income for agricultural households. It can be seen that less than the half of total income is derived from agricultural activity. Income from wages and salaries is as important as agriculture – even before agricultural income has been reduced by any interest related to farming activities. This is a significant result.

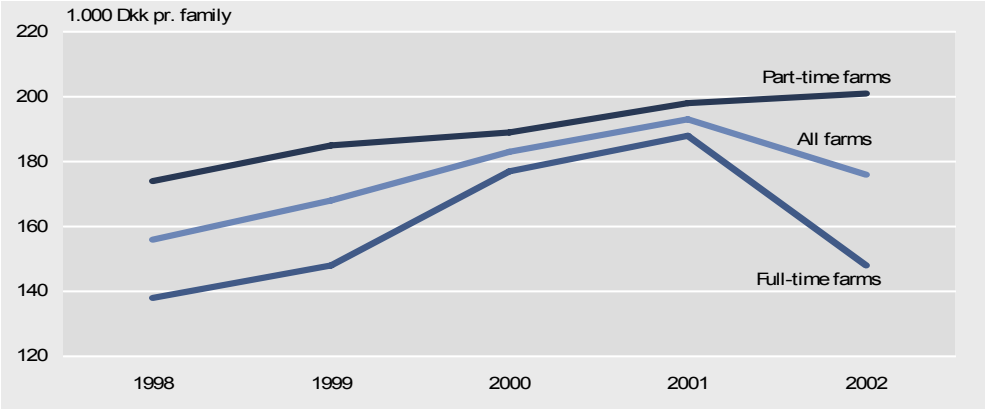
However, it is very important to distinguish between full-time and part-time farms when analysing the composition of income. With full-time farms, almost 60% of total income in 2002 was derived from agricultural profit whereas it was only 7% for part-time farms. However, the portion from wages and salaries was 21% for full-time farms and 65% for part-time farms. Social benefits counted more for part-time farming households where the number of pensioners is relatively high.

Table XIV.7
Income and income composition by socio-professional group

	Farmers	Other employers	All employers	Manual employees	Non-manual employees	All others	All except farmers	All households
	1,000 DKK per household							
Profit, agriculture	481	0	65	0	0	0	0	3
Profit, other enterprises	3	420	364	3	6	1	18	18
Remuneration of own dwelling	11	18	17	7	16	2	7	7
Wages and salaries	123	122	122	321	516	8	232	231
Property income	18	15	15	3	7	7	6	6
Social benefits received	34	33	33	34	30	165	85	85
Gross income	669	608	616	368	576	182	349	351
Interest on loans	264	99	121	29	48	7	27	29
Taxes on income and capital	124	171	165	96	176	47	97	97
Social contributions	79	89	88	46	69	4	36	36
Net disposal income	202	248	242	197	283	125	189	189
	numbers, 1,000							
Households	15	95	109	857	547	988	2486	2501
Household members	39	225	263	1,746	1,309	1,383	4,663	4,702
Consumer units	29	174	203	1,399	1,007	1,246	3,826	3,855
	per household							
Household members	2.65	2.38	2.41	2.04	2.39	1.40	1.88	1.88
Consumer units	1.99	1.84	1.86	1.63	1.84	1.26	1.54	1.54

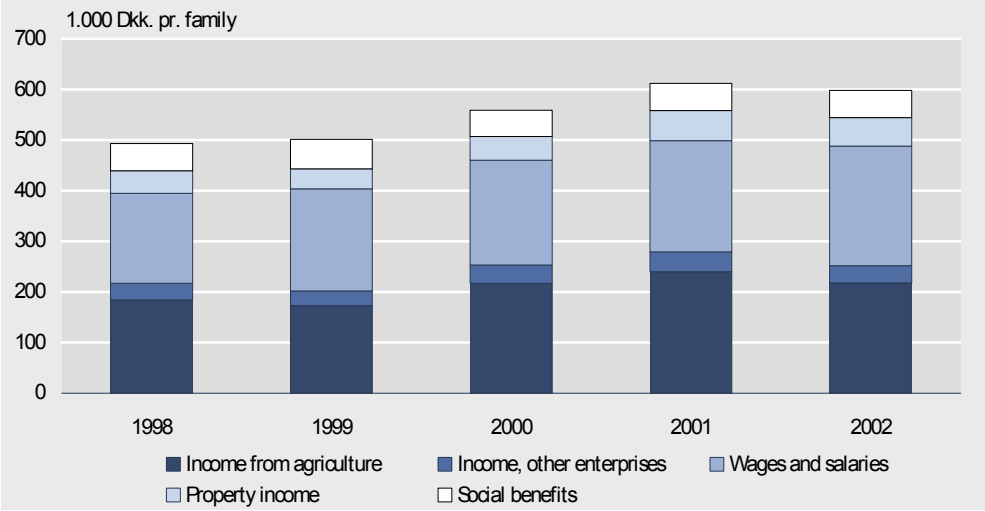
Source: Income of Agricultural Household Statistics 2002, delivery to Eurostat.

Figure XIV.20
Disposable income for agricultural households, all farms



Source: Income of Agricultural Households Statistics in Denmark, Statistics Denmark, SE 2004:11.

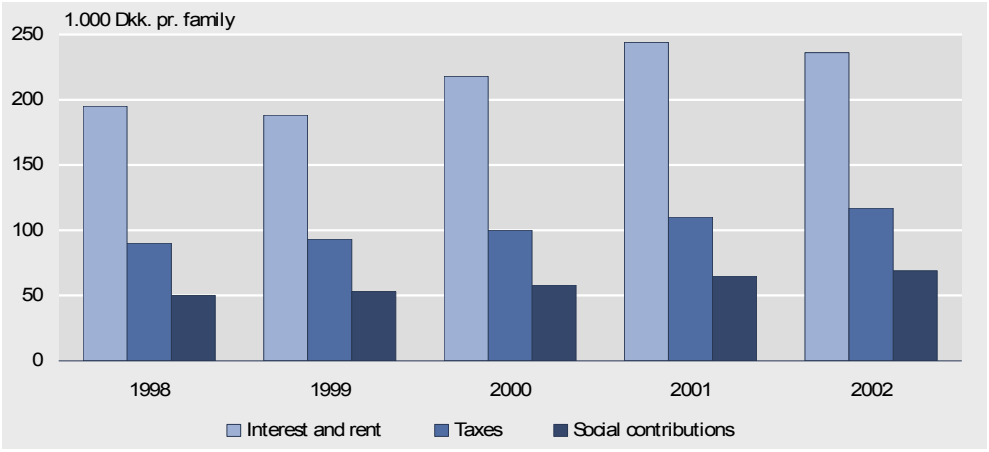
Figure XIV.21
Composition of gross income for agricultural households, all farms



Source: Income of Agricultural Households Statistics in Denmark, Statistics Denmark, SE 2004:11.

The main costs paid out of total income is shown in Figure XIV.22. It is obvious that interest is the most important element. In fact, interest is twice as high as taxes for all agricultural households. Looking at full-time farms, however, the interest is 3.4 times the taxes, while the taxes on a part-time farm are 25% higher than the interest. This difference is mainly explained by differences in debt which is, in turn, related to the farm capital input.

Figure XIV.22
Interest, taxes and social contributions at agricultural households, all farm



Source: Income of Agricultural Households Statistics in Denmark, Statistics Denmark, SE 2004:11.

Looking at farms broken down by age of farmer (see Tables 4-6 in the Annex), there is a tendency for older farmers (up to 60 years) to have a slightly decreasing portion of their total income derived from agriculture and an increasing portion of their income derived from wages and salaries and from property income. On the expenditure side, it is significant that interest payments lower with age while taxes increase.

These patterns hold for both full-time and part-time agricultural households. However, when comparing income composition by age groups, it should be noted, that the family size of the agricultural households in the youngest and oldest groups is much smaller than in the other groups.

XIV.3.5 Development of wealth in agricultural households

Statistics Denmark has no specific statistics on wealth among agricultural households. However, The Danish Institute of Food Economics is compiling Farm Account Data Network (FADN) statistics on Denmark. This FADN framework means that some information on wealth by household will be available even though it will not be possible to get full information on all farms.

Table XIV.8
Assets and liabilities: Age groups, full-time farms, 2003

	Farmer's age, years				
	- 34	35-44	45-54	55-64	65 -
	1,000 DKK per farm				
Balance in the end of the year					
Agricultural assets	11,071	10,984	10,480	8,890	9,005
Other physical assets	1,313	1,654	1,865	1,588	1,656
Financial assets	649	756	1,060	971	1,662
Assets Total	13,033	13,394	13,405	11,449	12,322
Bond loans	7,728	6,872	5,688	4,310	3,282
Bank loans	1,944	1,476	1,402	1,059	701
Other liabilities	873	738	620	504	518
Debt capital, total	10,545	9,086	7,710	5,873	4,501
Net capital	2,487	4,308	5,695	5,576	7,821
Ratio of debts	80.9	67.8	57.5	51.3	36.5

Source: Agricultural Account Statistics 2003, Danish Institute of Food Economics

However, statistics on the assets and debts of full-time farms are available. The assets and debts of full-time farms, for five age groups, are shown in Table XIV.8. It is important to note that the market value of the farm is based on public assessment and can be over- or underestimated. Nevertheless, the figures in the table clearly indicate that there is a consistent gain of net capital during the life of the farmer, with at increase in net capital from approximately 2.5 million DKK for young farmers to 7.8 million DKK in the oldest group, even though they have broadly similar total assets. From a lifetime income perspective this substantial gain of capital is important, particularly when comparing income in the agricultural sector with the income in other groups.

XIV.4 Sweden – another example of register based statistics

XIV.4.1 Introduction

Sweden provides another example of how registers can be used for calculating agriculture household income. Data are extracted from the following three registers:

- **The Farm Register (LBR)** which changed somewhat in 2000, resulting in a slight reduction in the number of operators per farm and a sharp reduction in the number of old operators.
- **The Register of Total Income Statistics (IoT)**, which contains information for the whole Swedish population, with unique personal identifiers, about income, deductions, taxes and social transfers.
- **The Register of the Total Population (RTB)**. As of 1999, the household concept was changed for the calculation of IAHS. Previously, only the operators and the spouse were included. In the new concept a maximum of two generations are included provided they are related to each other and are registered at the same address.[13]

XIV.4.2 Agriculture household income 1999-2002

In 2002, the average agriculture household income, before transfers, amounted to about 314,000 SEK, of which net income from self-employment (including interest adjustment for the self-employed) amounted to 23% (see Table XIV.9). This share was only slightly above the corresponding share in 2000 when the new family concept was adopted. While net disposable income increased by 18% in the period 1999-2002, the household income before transfers only rose by 11%. Wages and salaries rose by 14% while income from self-employment surged by 29%. This was partly offset by a fall of 35% in net capital income.

Average net disposable income for agricultural households amounted to just over 90% of average net disposable income for all households. Its share rose, however, by about three percentage points in the period 1999-2000.

XIV.4.3 Agriculture household income according to IAHS – comparison between socio-economic groups

IAHS data for Sweden are available for 1999 and 2000. Of a total population of 75,281 agricultural households ("broad" definition) (or about 1.6% of all households in Sweden), 18,339, or 24% of all agriculture household and 0.4% of all households, fulfilled the IAHS criteria for the "narrow" definition.

In 2000, the average agricultural household ("narrow" definition) net disposable income amounted to about 213,000 SEK. This compares with 203,000 SEK for other self-employed, 233,000 SEK for employees, 220,000 SEK for all farm households ("broad" definition) and 189,000 SEK for all households (see Table XIV.10 and Figure XIV.23). Households with only employees thus had 23% higher net disposable income than the average of all households, the category all farm households were 16% better off, farmers ("narrow definition") +13% and other self-employed +7%. On the other hand, the growth in net

[13] There is no information about couples living together but not having common children. This results in an overestimation of single-person households.

disposable income between 1999 and 2000 was, compared with all households, twice as large or more for farmers (both "broad" and "narrow" categories) and other self-employed.

Of total resources received, net operating surplus from independent activity, but excluding owner-occupied housing, amounted to 60% for farmers with the "narrow" definition, 62% for other self-employed and 18% for all farmers.

Looking at the distribution of average farm household ("narrow" definition) income by the three major regions of Sweden, there are rather marginal differences (see Figure XIV.24). However, when household income distribution is broken down by farm size it is a different story. Average household income for farms with 200 or more hectares is twice that of households with farm size of 5-10 hectares and of 10-20 hectares (see Figure XIV.25).

As would be expected average household income peaks for operators in the age group 40-49 years and is lowest in the age group 30-39 years (see Figure XIV.26).

Statistics Sweden and the Swedish Board of Agriculture have not published IAHS statistics for the years 2001 and 2002 as the calculations of owner-occupied housing, with the method applied, is considered to be misleading. This is mainly due to the evolving differences in the tax evaluations of houses on farms, compared with other houses.

Table XIV.9

Agriculture household income after transfers, 1999-2002. Average per household in Swedish kronor

	2002	2001	2000	1999	%, 99-02
Wages and salaries	246,100	235,200	226,400	215,300	14.3
General deductions	4,300	4,300	4,200	3,600	
Net income from self-employment (including agriculture)	52,400	51,200	45,900	40,600	29.1
Changes in expansion capital	20	1,200	1,700	600	
Net capital income	19,700	22,900	29,000	30,400	-35.2
of which Net interest adjustment for self-employed */	19,700	19,700	18,600	16,300	
Household income before transfers	**313,920**	**306,200**	**298,800**	**283,300**	**10.8**
Net income from self-employment (incl Net interest adjustment for self-employed) as a percentage of household income before transfers	**23.0**	**23.2**	**21.6**	**20.1**	
Positive transfers	11,900	11,400	10,700	9,500	25.3
Negative transfers	100,300	101,600	104,000	102,400	-2.1
Net disposable income	**225,520**	**216,000**	**205,500**	**190,400**	**18.4**
Net disposable income for all household with members of 18 years and over	247,400	240,600	239,000	214,800	15.2
Farm households as a percentage of all households	91.2	89.8	86.0	88.6	

Source: Statistics Sweden and the Swedish Board of Agriculture: Statistiska Meddelanden, JO 42 SM 0401.

Note: Data for all households (source: Statistics Sweden: *Disponibel inkomst för samtliga hushåll 18-år, medelvärde, löpande priser, kr, efter hushållstyp, ålder och tid*) are calculated from a different survey than farm households. Only a rough comparison can be made between the two sets of data.

*/ Net interest adjustment can be used by farmers and other self-employed in order to get corresponding taxation as other enterprises.

Table XIV.10

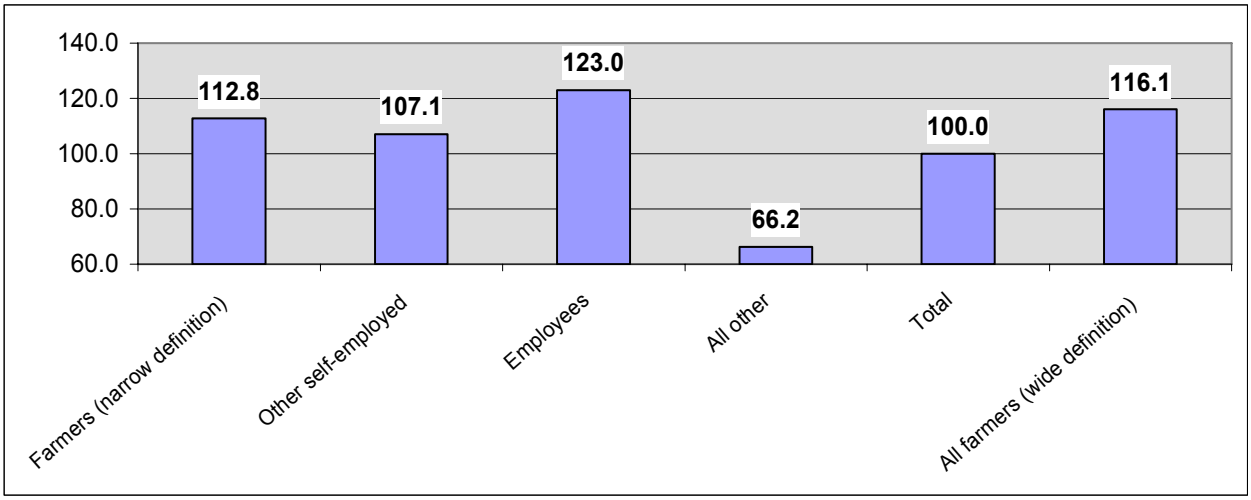
Income for socio economic groups in 2000 according to IAHS definitions. Average per household in Swedish kronor

		Farmers (narrow definition)	Other self-employed	Employees	All other	Total	**All farmers (wide definition)**
1a+ 1b	Net operating surplus (mixed income) from independent agricultural and non-agricultural activities	**227,500**	291,600	4,200	1,300	11,600	**79,100**
1c	From imputed rental value of owner-occupied dwellings	**26,900**	19,600	16,000	8,400	13,100	**26,300**
2a	Compensation to members of agricultural households as employees, from agricultural and non-agricultural activity, i.e. wages and salaries	**52,000**	67,600	315,800	10,400	186,900	**169,800**
2c	Imputed social contributions	**21,800**	28,500	132,800	4,200	78,500	**71,200**
3	Property income received (rent, interest, dividends etc.)	**10,400**	11,900	5,800	9,700	7,500	**10,300**
4	Non-life insurance claims (personal and material damage)						
5	Social benefits (other than Social benefits in kind)	**42,000**	53,600	45,700	158,900	90,800	**72,200**
6	Miscellaneous inward current transfers						
7	**Total resources (sum of 1 - 6)**	**380,600**	**472,900**	**520,200**	**192,900**	**388,400**	**428,900**
8	Property income paid	**8,900**	19,400	17,100	4,600	12,200	**13,300**
9	Net non-life insurance premiums						
10	Current taxes on income and wealth	**78,800**	150,000	106,300	53,600	86,400	**86,900**
11	Social contributions	**76,800**	95,700	161,300	7,700	98,200	**106,100**
12	Miscellaneous outgoing current transfers	**2,700**	5,200	2,700	1,800	2,400	**3,000**
13	**Net disposable income (7 minus 8 - 12)**	**213,400**	**202,600**	**232,800**	**125,300**	**189,200**	**219,600**
	Net disposable income in 1999	**195,000**	**182,700**	**222,000**	**125,000**	**181,500**	**203,800**
	Percentage change 1999/2000	**9.4**	**10.9**	**4.9**	**0.2**	**4.2**	**7.8**
	Number of:						
	persons in the households	**47,364**	272,925	5,845,825	2,705,462	8,871,576	**194,223**
	households	**18,339**	123,852	2,672,850	1,854,608	4,669,648	**75,281**
	persons per household	**2.58**	2.20	2.19	1.46	1.90	**2.58**

Source: Statistics Sweden and the Swedish Board of Agriculture: Statistiska Meddelanden, JO 42 SM 0201.

Figure XIV.23

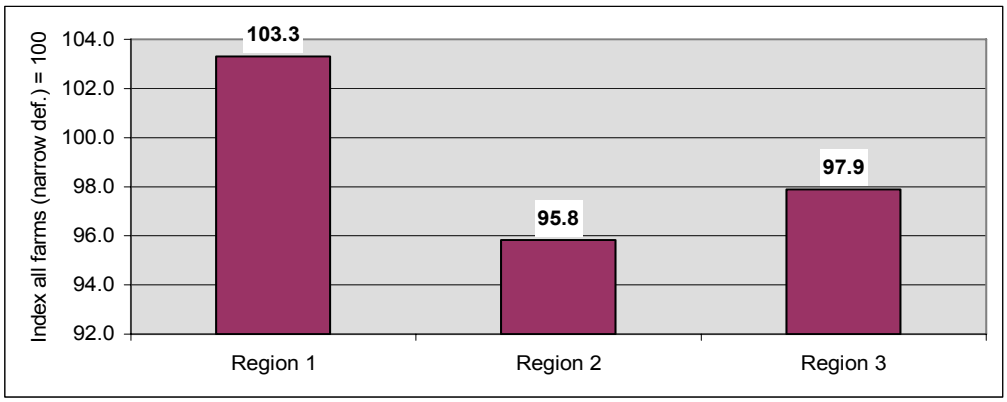
Index of net disposable household income 2000 by socio-economic groups, total households = 100.



Source: Statistics Sweden and the Swedish Board of Agriculture: Statistiska Meddelanden, JO 42 SM 0201.

Figure XIV.24

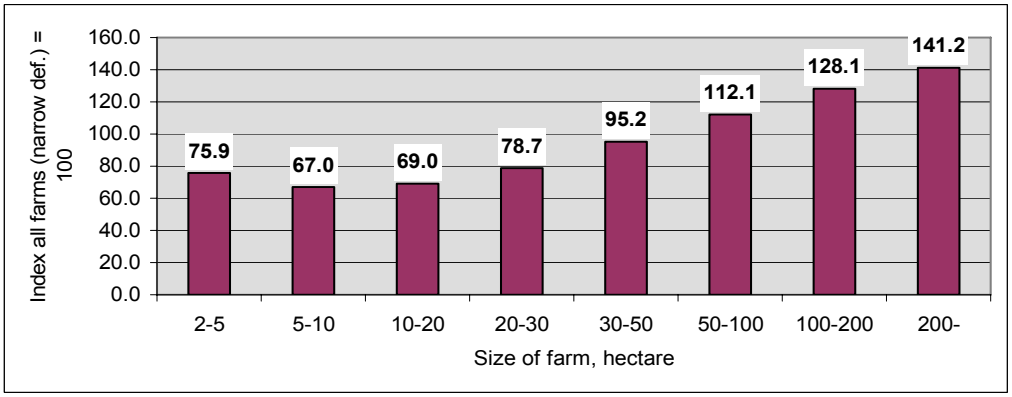
Index of average farm household net disposable income (narrow definition) by type of region in 2000. All farm households (narrow definition) = 100



Source: Ibid. Region 1: Mainly farm land areas.
Region 2: Mainly forest areas. Region 3: North Sweden.

Figure XIV.25

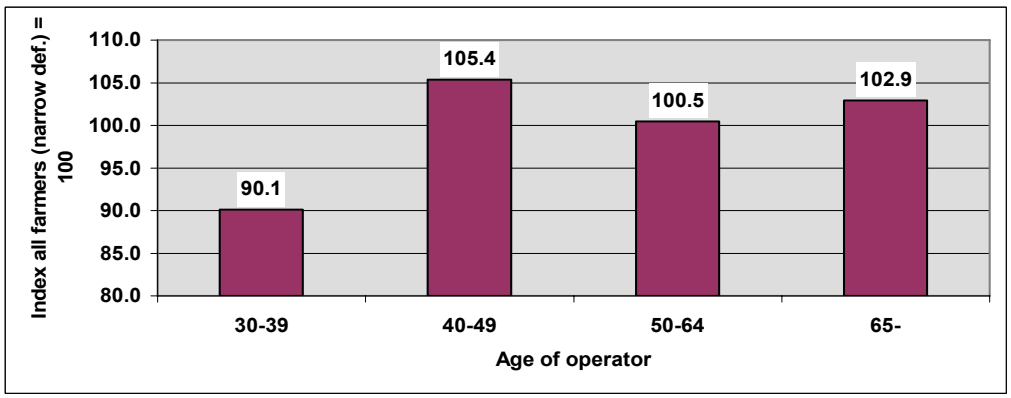
Index of average farm household net disposable income (narrow definition) by size of arable land in hectare in 2000. All farm households (narrow definition) = 100



Source: Ibid.

Figure XIV.26

Index of average farm household net disposable income (narrow definition) by the age of the operator in 2000. All farm households (narrow definition) = 100



Source: Ibid.

XIV.5 Canada

XIV.5.1 Gross and net revenues per farm – medium-sized farms have the highest operating margin

In 1996, almost half of all farms in Canada (234,390) reported net cash operating revenue of less than $10,000 and half of these reported losses.[14] Table XIV.11 and Figure XIV.27 show the distribution of the number of farms, gross farm revenues and net cash operating revenue by size class of gross revenue in 1996 and 2001. It is interesting to note that while farms in the gross revenue class of $10,000-$49,999 increased their average net operating income from $1,541 to $2,297, an increase of 49%, farms in all the other revenue classes saw their income increase only by between 1% and 3.1%.

In 2001, farms with gross revenues of $500,000 or more, which made up 6.5% of all farms, accounted for almost 51% of aggregate gross revenues but for only 37% of aggregate net cash operating revenue. It is also interesting to note that their operating margin is lower than farms in all other gross revenue classes, except for that of the $10,000-$49,999 class. In fact, the highest operating margin, whether measured before or after capital cost allowance, is found among medium-sized farms, that is those with gross revenues of $100,000-$249,999.

XIV.5.2 Farm operators' off-farm income exceeds net cash farm operating revenue

In the period 1993-2001, average net cash operating revenue from the farm and average off-farm income per operator have steadily increased (see Table XIV.12 and Figure XIV.28). Between 1993 and 1999, off-farm income for operators increased its share from 52% of total operator income (before capital cost allowance) to 58%. By 2001, however, it had dropped to just below 55%. While average off-farm income rose by almost 48%, average net cash farm operating revenue increased by only 34%, indicating that operators of farms with over $10,000 in gross revenue are getting increasingly dependent on off-farm income opportunities for their living.

Wages and salaries are the most important source of off-farm income

Wages and salaries are the most important source of off-farm income. In 2001, they accounted for 31% of total operator income (before capital cost allowance) and 56% of off-farm income. Wages and salaries are followed by investment income and pension income at 9% and 8% of total operator income (16% and 14.5% of off-farm income), respectively (see Table XIV.13 and Figure XIV.29).

Off-farm income as a share of total operator income (before capital cost allowance) is smaller for operators of larger farms

In general, off-farm income as a share of total operator income (before depreciation) is smaller for operators of larger farms. Operators of the smallest farms tend to use off-farm income to cover losses from the farm or, equally likely, operators of the smallest farms began with an off-farm job and have started a small hobby farm on the side. In 2001, off-farm income represented about 94% of total operator income

[14] "Farms", as published in Statistics Canada (1998) **Economic Overview of Farm Incomes: All Farms, 1996** (Ottawa: Statistics Canada, Catalogue no. 21-005) (www.statcan.ca:8096/bsolc/english/bsolc?catno=21-005-X&CHROPG=1) refers to unincorporated farms with gross revenues of $10,000 or more plus incorporated farms with gross revenues of $25,000 or more (if 51% of more of their sales are generated by agricultural activities) plus communal farming operations such as Hutterite colonies.

(before capital cost allowance) for operators of small farms with gross revenues of $10,000 to $49,999, compared with about 33% for the operators of the largest farms (see Table XIV.13).

The highest dollar amount from wages and salaries was earned by operators of very large farms followed by the smallest farms

The highest dollar amount from wages and salaries (about $24,600 in 2001, or about 63% of their reported total off-farm income) was earned by operators of larger farms (see Table XIV.13 and Figure XIV.29). This may be attributed to the fact that many farms in this size class are likely to be incorporated farms. Operators of incorporated farms receive the income from their farms in the form of wages and salaries or as dividends. The wage and salary expense reduces net operating revenue of the farm enterprise, while the wage and salary income increases the reported off-farm income of the farm operator. Note also the high amount of investment income (which includes the dividends paid by the corporate farm) received by operators of larger farms.

Operators of the smallest farms also receive a large amount in wages and salaries – about $17,400, or 57% of their total off-farm income. The lowest average earned level of wages and salaries was recorded by operators of farms with gross revenues of $100,000 to $249,999 - about $8,200, or 48% of their total off-farm income. The farmers in this category spend relatively more effort on their farms than other categories, which, as was seen above, also results in the highest operating margin.[15]

Investment income as a percentage of total off-farm income tend to increase by revenue size – for pension income it is the reverse

Investment income as a percentage of total off-farm income tends to be higher for operators of larger farms - 12% for the smallest category rising to 22% for operators of farms with revenues of $500,000 or more (see Figure XIV.29). As noted above, investment income of operators of larger farms would be expected to be higher, in part due to the dividends flowing from an incorporated farm to the operator. For pension income it is the reverse. For the largest farms, pension income represents only 5% of total off-farm income while it constitutes as much as 19% for the operators in the smallest farm category.

Non-farm self-employment income is fairly stable at between 5% to 7% of total income for operators in all farm categories.

XIV.5.3 Total farm family income increases steadily as a result of increasing off-farm income

Between 1996 and 2000, the total number of families associated with unincorporated farms (with gross revenue of $10,000 or more) declined continuously by almost 9% to just below 148,000 (see Table XIV.14). In the same period, the average operating income per farm family fell by 0.4% while the average off-farm income surged by over 24%. This resulted in an increase of average total income per farm family of almost 17%, reaching about $66,300 ($54,500 after deduction for capital costs). The share of total income represented by off-farm income rose from 69% in 1996 to 73.5% in 2000.

[15] Note that the operating margins reported here are gross revenues minus cash expenses, including the wages paid to the operator and other family members. If these wages were classified as income, rather than an expense, then the calculated margins of the larger farms would be expected to be higher.

Increased payments from farm aid programs, as well as higher livestock and product revenues as a result of strong demand, limited the losses in average net farm operating income. The rise in average off-farm income was largely driven by a surge in labour income.

Off-farm income exceeds 70% of total family income

On average, farm families received 26.5% of their total income from farming activities and 73.5% from off-farm income. Wages and salaries and non-farm self-employment income taken together accounted for 67% of total off-farm income (see Table XIV.15). Pension income represented 12.6% and investment income 10.5%.

Average total family income varied greatly

Table XIV.15 introduces a further breakdown of unincorporated Canadian farms into those that are business-focused and those that are non-business-focused (or "lifestyle") farms. Average total family income varied greatly across these different farm typology groups, from about $16,500 for the families associated with large unincorporated farms that are low-income non-business-oriented farms to $117,600 for families associated with unincorporated very large business-focused farms.

The contribution from off-farm income varied from 32% to 102% of total income

The contribution from off-farm income also varied considerably - from 32% for families associated with unincorporated very large business-focused farms to 102% for families operating farms classified as medium-sized lifestyle farms. In the latter case, off-farm income is thus used not only for the totality of the families' living but also the operation of a small hobby farm holding (see Table XIV.15 and Figure XIV.30).

For small non-business focused farms, the share of off-farm income is 77% and of this amount the share from wages and salaries and non-farm self-employment income account for only 24%. Investment income and pension income was, not surprisingly, high at 22% and 46.5%, respectively. The income of families with very large business-focused farms was 32% from off-farm income and of this source about 68% originated from wages, salaries and non-farm self-employment income. Investment income had a share of 16%.

Families operating farms in the categories of small, medium and large business-focused farms as well as the medium-sized lifestyle farms all had a very large share of wages, salaries and non-farm self-employment income as a share of total off-farm income - between 72% and 88%. Investment income and pension income were less than 10% for these groups of farms.

XIV.5.4 Steady increase in wealth accumulation

The economic well-being of the farm family is not only dependent of total family income but also on their wealth. In the period 1996-2000, average total income per farm family operating an unincorporated farm increased by almost 17% (see Table XIV.14). In the same period, equity in the agriculture sector increased by almost 16%. For the period 1995-2003, the increase amounted to 30.5% (see Table XIV.16 and Figure XIV.31).

In 2003, farm real estate accounted for almost 60% of total farm sector assets, of which land accounted for 44%. Machinery had a share of 14% followed by "quota", which essentially is a licence to sell a certain amount of a specific product, with 10%. The value of this item increased by 119% in the period

1995-2003. The value of farm real estate increased by 37%, of which service buildings and homes had the highest growth, 42% and 48%, respectively.

With respect to the debt structure of Canadian farms, Figure XIV.31 shows that current liabilities in relation to total liabilities increased from about 17% in 1997 to about 23% in 2003. Return of equity shows rather large fluctuations - almost halving between 1996 and 1997 after which it slowly increased or was flat until 2001. It then dropped between 2001 and 2002 before immediately recovering in 2003 to the trend level of 1997-2001.

XIV.5.5 Notes to the data and the data sources

- The average net income measures do not include any income in kind such as the value of goods produced for home consumption, less cost of inputs.

- The value of owner-occupied housing is not imputed for any of the data on total incomes for the "operator," "family" or the "household" associated with farms.

- Tables XIV.11 to XIV.13 relate to the operators of unincorporated and incorporated farms. Tables XIV.14 and XIV.15 represent only for unincorporated farms.

- If nothing else is mentioned, net operating income refers to income before capital cost allowance. When income is measured after capital cost allowance, the capital cost allowance is obtained from the income tax returns. This does not correspond to the economic depreciation used in the farm income accounts (in aggregate, they are somewhat similar in magnitude, however).

- Farm family refers to a married couple or a common-law couple with or without children at home; or a lone parent of any marital status, with at least one child living at home. There is no restriction on the age of the children. Children must report a marital status other than married or living common-law and have no children in the household. The concept of farm family thus differs somewhat from the concept of household.

- Within Statistics Canada, the division responsible for generating statistical data from the income tax records of individuals (the Small Area and Administrative Data Division (SAADD)) assembles a "family file" (for families as defined above) using the information on the individual income tax records that indicate the Social Insurance Number of the spouse and the number of dependent children. For the total income of "farming families", the detailed information on farm revenues by item and farm expenses by item from the farm taxation record is linked, via the Social Insurance Number of the operator, to the SAADD "family file."

Table XIV.11

Operating revenues and expenses by revenue classes in Canada, 1996 and 2001

	Revenue classes					
	$10,000 - $49,999	$50,000 - $99,999	$100,000 $249,999	$10,000 - $49,999	$500,000 - and over	All
1996						
Number of farms	103,475	45,770	55,045	20,310	9,805	234,390
Average total revenues per farm, C$	25,036	72,330	158,704	341,451	1,285,967	145,837
Average net operating income per farm, C$	**1,541**	**13,818**	**34,031**	**67,835**	**160,801**	**23,977**
2001						
Number of farms	97,220	40,010	49,590	23,310	14,545	224,670
Average total revenues per farm, C$	25,322	72,167	160,633	344,071	1,519,559	193,329
Average net operating income per farm, C$	**2,297**	**14,043**	**34,713**	**68,544**	**165,751**	**28,998**
Percentage change 1996-2001	**49.0**	**1.6**	**2.0**	**1.0**	**3.1**	**20.9**
Average net operating income per farm after capital cost allowance, C$	**-1,438**	**5,097**	**16,282**	**31,832**	**70,177**	**11,725**
Operating margin	0.09	0.19	0.22	0.20	0.11	0.15
Operating margin after capital cost allowance	-0.06	0.07	0.10	0.09	0.05	0.06

Sources: Statistics Canada, Farm and Off-Farm Income Statistics 2001, Catalogue no. 21-019-XIE, May 2004.
Statistics Canada, Economic Overview of Farm Incomes, 1996, Vol. 1, No. 1, Oct 1998

Figure XIV.27

Percentage distribution of revenues, operating income and number of farms by revenue classes in Canada in 2001

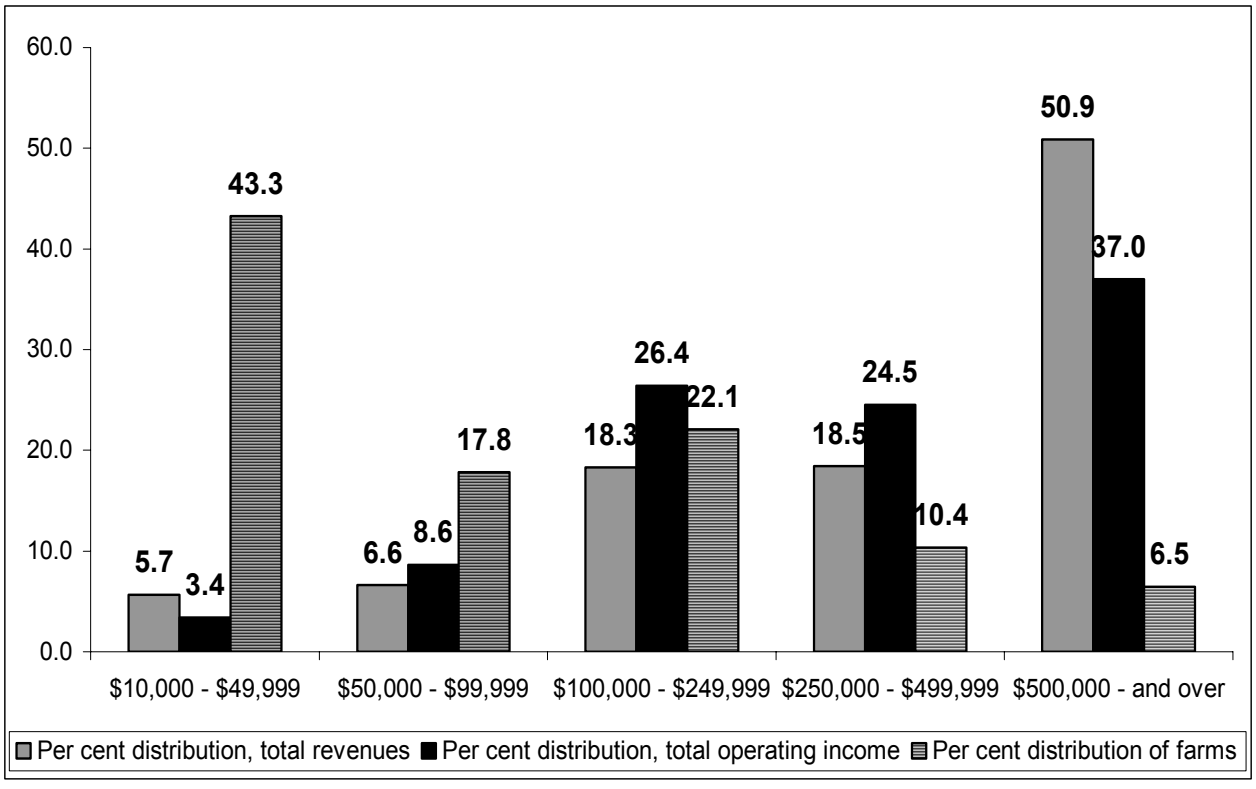


Table XIV.12

Average total income per operator in Canada, 1993-2001, current C$

	1993	1995	1999	1999	2000	2001	% change 1993-2001
Average total income per operator, C$ */	**33,334**	**37,220**	**39,976**	**40,009**	**43,558**	**46,998**	**41.0**
Average off-farm income per operator, C$ **/	17,434	19,206	22,220	23,210	24,455	25,729	47.6
Average net operating income per operator, C$ ***/	15,900	18,014	17,757	16,800	19,103	21,269	33.8
Off-farm income per operator. % **/	52.3	51.6	55.6	58.0	56.1	54.7	
Net operating income per operator ***/	47.7	48.4	44.4	42.0	43.9	45.3	

Sources: Statistics Canada, Economic Overview of Farm Incomes, Vol. 2, No. 1, Dec. 2001.
Statistics Canada, Farm and Off-Farm Income Statistics 2001, Catalogue no. 21-019-XIE, May 2004.
*/ Excludes communal farming operations. **/ Excludes taxable capital gains. ***/ Before capital cost allowance.

Figure XIV.28

Percentage share of net farm income and off-farm income per operator in Canada, 1993-2001

Table XIV.13

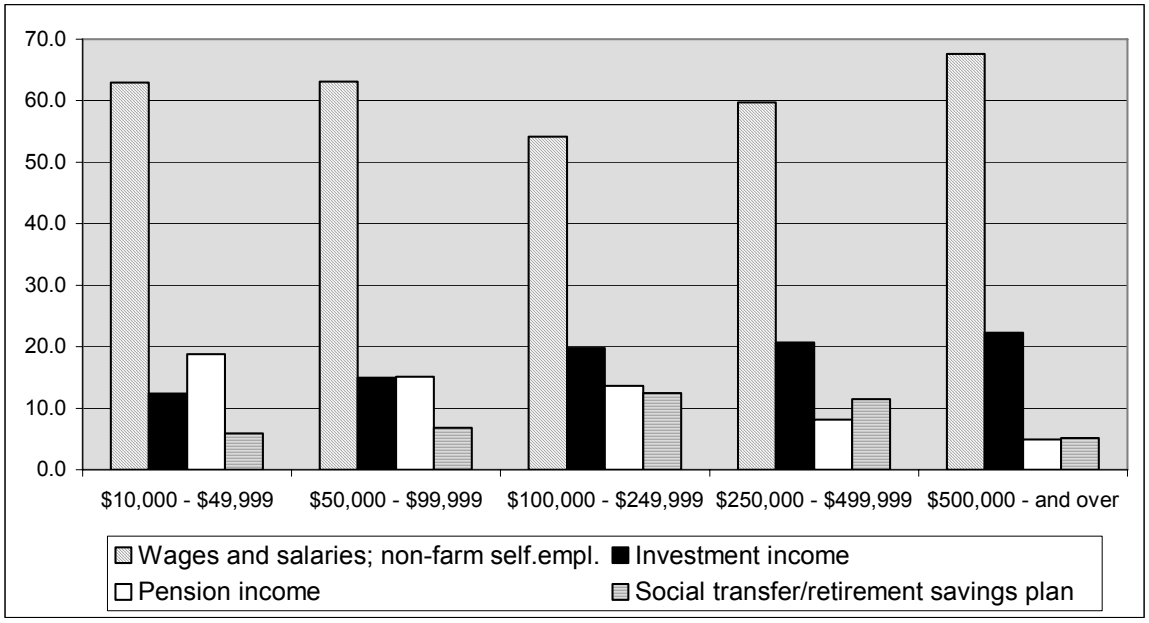
Total income of farm operators by revenues classes, unincorporated and incorporated sectors, Canada, 1998 and 2001.
Average per operator, C$

	Revenue classes						
	$10,000 - $49,999	$50,000 - $99,999	$100,000 $249,999	$250,000 $499,999	$500,000 and over	All	%
1998							
Number of operators	118,150	54,330	71,670	33,720	18,890	296,760	
Number of farms	101,480	45,140	52,650	20,310	10,390	229,970	
FARM INCOME							
Total revenues	21,594	59,807	117,497	206,114	717,126	116,962	
Total expenses	20,107	48,057	92,591	166,618	646,205	99,205	
Net operating income	**1,487**	**11,750**	**24,906**	**39,496**	**70,921**	**17,757**	**44.4**
OFF-FARM INCOME							
Wages and salaries	15,881	10,760	6,671	9,834	22,282	12,426	31.1
Net non-farm self-employment income	1,847	1,182	1,056	1,033	1,611	1,427	3.6
Investment income	3,212	2,853	2,745	4,749	7,691	3,494	8.7
Pension income	4,593	3,238	1,685	1,308	1,621	3,080	7.7
Government social transfer	715	503	465	468	386	567	1.4
Other off-farm income	700	1,027	1,012	1,083	1,026	899	2.2
Retirement savings plan income	420	330	318	354	371	368	0.9
Total off-farm income (excluding taxable capital gains)	**27,366**	**19,882**	**13,845**	**18,687**	**34,828**	**22,220**	**55.6**
Total operator income	**28,853**	**31,632**	**38,751**	**58,183**	**105,749**	**39,977**	**100.0**
Off-farm income as a share of total income (%)	**94.8**	**62.9**	**35.7**	**32.1**	**32.9**	**55.6**	
2001							
Number of operators	114,020	49,060	66,380	37,910	26,630	293,990	
Number of farms	97,215	40,005	49,590	23,310	14,265	224,380	
FARM INCOME							
Total revenues							
Total expenses							
Net operating income	**1,958**	**11,451**	**25,934**	**42,164**	**80,673**	**21,269**	**45.3**
OFF-FARM INCOME							
Wages and salaries	17,389	13,720	8,217	10,213	24,563	14,431	30.7
Net non-farm self-employment income	1,679	1,677	1,154	1,157	1,926	1,515	3.2
Investment income	3,756	3,657	3,414	3,936	8,734	4,137	8.8
Pension income	5,673	3,680	2,357	1,551	1,929	3,721	7.9
Government social transfer	691	546	524	595	512	601	1.3
Retirement savings plan income	1,099	1,125	1,635	1,585	1,516	1,325	2.8
Total off-farm income (excluding taxable capital gains)	**30,287**	**24,405**	**17,301**	**19,037**	**39,180**	**25,730**	**54.7**
Total operator income	**32,245**	**35,856**	**43,235**	**61,201**	**119,853**	**46,999**	**100.0**
Off-farm income as a share of total income (%)	**93.9**	**68.1**	**40.0**	**31.1**	**32.7**	**54.7**	
% change 1998-2001							
Number of operators	-3.5	-9.7	-7.4	12.4	41.0	-0.9	
Number of farms	-4.2	-11.4	-5.8	14.8	37.3	-2.4	
FARM INCOME							
Total revenues							
Total expenses							
Net operating income	**31.7**	**-2.5**	**4.1**	**6.8**	**13.8**	**19.8**	
OFF-FARM INCOME							
Wages and salaries	9.5	27.5	23.2	3.9	10.2	16.1	
Net non-farm self-employment income	-9.1	41.9	9.3	12.0	19.6	6.2	
Investment income	16.9	28.2	24.4	-17.1	13.6	18.4	
Pension income	23.5	13.7	39.9	18.6	19.0	20.8	
Government social transfer	-3.4	8.5	12.7	27.1	32.6	6.0	
Retirement savings plan income	161.5	240.9	414.2	347.7	308.6	260.1	
Total off-farm income (excluding taxable capital gains)	**10.7**	**22.7**	**25.0**	**1.9**	**12.5**	**15.8**	
Total operator income	**11.8**	**13.4**	**11.6**	**5.2**	**13.3**	**17.6**	

Sources: Statistics Canada, Farm and Off-Farm Income Statistics 2001, Catalogue no. 21-019-XIE, May 2004.
Statistics Canada, Economic Overview of Farm Incomes, Vol. 2, No. 1, Dec. 2001.

Figure XIV.29

Sources of off-farm income as a percentage of total off-farm income



	$10,000 - $49,999	$50,000 - $99,999	$100,000 $249,999	$250,000 $499,999	$500,000 and over	**All**
Wages and salaries	57.4	56.2	47.5	53.6	62.7	**56.1**
Net non-farm self-employment income	5.5	6.9	6.7	6.1	4.9	**5.9**
Investment income	12.4	15.0	19.7	20.7	22.3	**16.1**
Pension income	18.7	15.1	13.6	8.1	4.9	**14.5**
Government social transfer	2.3	2.2	3.0	3.1	1.3	**2.3**
Retirement savings plan income	3.6	4.6	9.5	8.3	3.9	**5.1**
	100.0	100.0	100.0	100.0	100.0	**100.0**

Sources: Statistics Canada, Farm and Off-Farm Income Statistics 2001, Catalogue no. 21-019-XIE, May 2004.
Statistics Canada, Economic Overview of Farm Incomes, Vol. 2, No. 1, Dec. 2001.

Table XIV.14

Off-farm and net operating income per farm family, unincorporated sector, Canada, 1996-2000

	1996	1997	1998	1999	2000	%, 1996/2000
Number of farm families	161,580	162,450	154,970	151,840	147,680	-8.6
Number of farms	157,810	159,060	152,980	150,500	146,400	-7.2
Average off-farm income per farm family	39,131	41,165	43,677	45,419	48,682	24.4
Average operating income per farm family	17,658	18,029	17,432	16,803	17,588	-0.4
Average total income per farm family	56,789	59,194	61,109	62,222	66,270	16.7
Off-farm income as a percentage of total income	**68.9**	**69.5**	**71.5**	**73.0**	**73.5**	
Average total income per farm family after capital cost allowance	46,290	48,178	49,586	50,328	54,545	17.8

Source: Statistics Canada, Farm and Off-Farm Income Statistics 2001, Catalogue no. 21-019-XIE, May 2004.

Table XIV.15

Average off-farm income by source and average net operating income of farm families by farm typology group, unincorporated sector, in Canada in 2000, C$

	Business-focused farms				Non-business focused farms			
	Small farms	Medium farms	Large farms	Very large farms	Small farms	Medium farms	Large farms	**Total**
Number of farm families	13,970	17,340	40,220	3,590	35,140	24,780	12,640	147,680
Number of farms	14,020	17,550	39,340	3,070	35,140	24,500	12,770	146,400
OFF-FARM INCOME								
Wages and salaries	23,837	42,210	22,680	22,942	9,677	78,904	7,522	30,133
Net non-farm self-employment income	2,401	3,731	2,459	2,950	1,118	5,408	1,328	2,694
Investment income	2,121	4,198	3,395	6,012	10,054	4,975	1,390	5,110
Pension income	2,040	1,809	751	406	21,183	2,192	1,071	6,120
Government social transfer	3,317	2,382	2,536	2,731	615	2,003	2,707	2,065
Other off-farm income	1,046	2,522	3,213	2,861	2,861	2,474	814	2,561
Total off-farm income	**34,762**	**56,852**	**35,034**	**37,902**	**45,508**	**95,956**	**14,832**	**48,683**
Net program income	1,616	5,073	10,627	25,389	4,148	1,583	3,003	5,770
Market income	2,052	7,288	29,071	54,306	9,611	-3,812	-1,353	11,818
Net operating income	**3,668**	**12,361**	**39,698**	**79,695**	**13,759**	**-2,229**	**1,650**	**17,588**
Total income of farm families	**38,430**	**69,213**	**74,732**	**117,597**	**59,267**	**93,727**	**16,482**	**66,271**
Percentage share off-farm income	***90.5***	***82.1***	***46.9***	***32.2***	***76.8***	***102.4***	***90.0***	***73.5***
Percentage of total off-farm income:								
Wages and salaries + non-farm self empl.	75.5	80.8	71.8	68.3	23.7	87.9	59.7	67.4
Investment income	6.1	7.4	9.7	15.9	22.1	5.2	9.4	10.5
Pension income	5.9	3.2	2.1	1.1	46.5	2.3	7.2	12.6
Other	12.6	8.6	16.4	14.8	7.6	4.7	23.7	9.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Statistics Canada, Farm and Off-Farm Income Statistics 2001, Catalogue no. 21-019-XIE, May 2004.

Figure XIV.30

Average off-farm income and net operating income per farm family by farm typology in Canada in 2000, C$

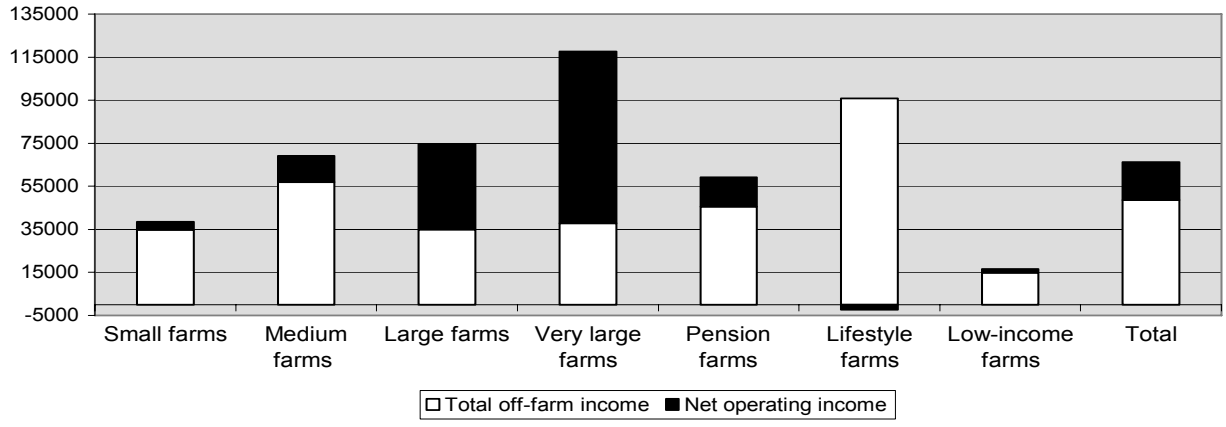


Table XIV.16

Balance sheet of the agriculture sector, including non-operator landlords and excluding personal shares of households, current C$ million

	1995	2000	2001	2002	2003	% 95 03	% share 2003
Current assets (CA)	17,100	19,200	19,800	20,100	21,100	23.4	9.1
of which:							
Inventories	14,300	16,200	16,400	16,400	17,100	19.6	
Quota	10,500	18,200	18,800	22,100	23,000	119.0	10.0
Breading livestock	7,600	9,800	9,900	9,600	9,900	30.3	4.3
Machinery	25,600	30,900	31,600	31,700	31,900	24.6	13.8
Farm real estate	100,200	126,700	130,400	134,300	137,600	37.3	59.6
of which:							
Land	75,500	95,000	97,600	99,900	102,400	35.6	44.3
Service buildings	18,500	24,000	24,900	25,600	26,200	41.6	11.3
Homes	6,100	7,700	7,900	8,800	9,000	47.5	3.9
Other long-term assets	5,800	6,600	6,400	7,600	7,400	27.6	3.2
Total assets (TA)	166,900	211,400	217,000	225,400	230,900	38.3	100.0
Current liabilities (CL)	4,300	7,500	8,200	8,500	9,900	130.2	
Long-term liabilities	19,200	28,300	29,300	32,300	34,000	77.1	
Total liabilities (TL)	23,500	35,700	37,600	40,800	43,900	86.8	
Equity (E)	**143,400**	**175,700**	**179,400**	**184,600**	**187,100**	**30.5**	
Current liquidity ratio (CA/CL)	3.991	2.569	2.404	2.368	2.133		
Debt structure (CL/TL)	0.182	0.209	0.219	0.208	0.226		
Return on equity	0.029	0.021	0.022	0.014	0.020		

Source: Statistics Canada. Balance sheet of the agriculture sector, May 2004. Catalogue No. 21-016-XIE, Vol. 3, No.1.

Table XIV.17

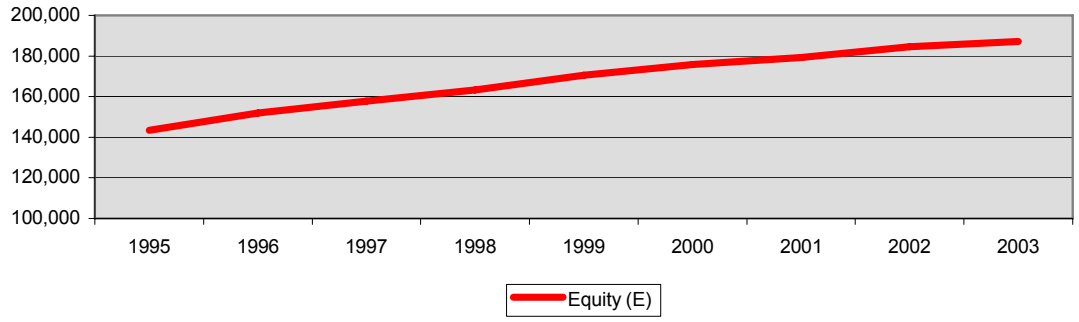
Net farm income in Canada, 1995- 2003, current C$ million

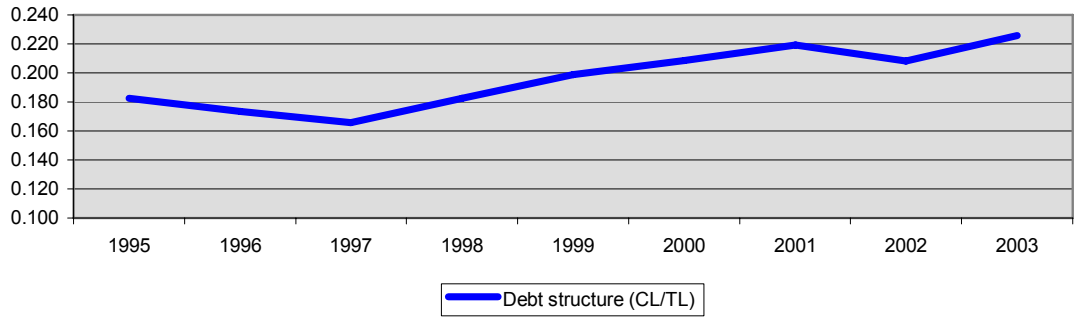
	1995	2000	2001	2002	2003
Net cash income */	5,590	6,360	8,090	7,290	4,440
Depreciation charges	3,460	4,330	4,460	4,520	4,590
Value of inventory change	710	280	-1,030	-1,580	2,660
**Total net income ** **	**2,990**	**2,460**	**2,720**	**1,330**	**2,630**

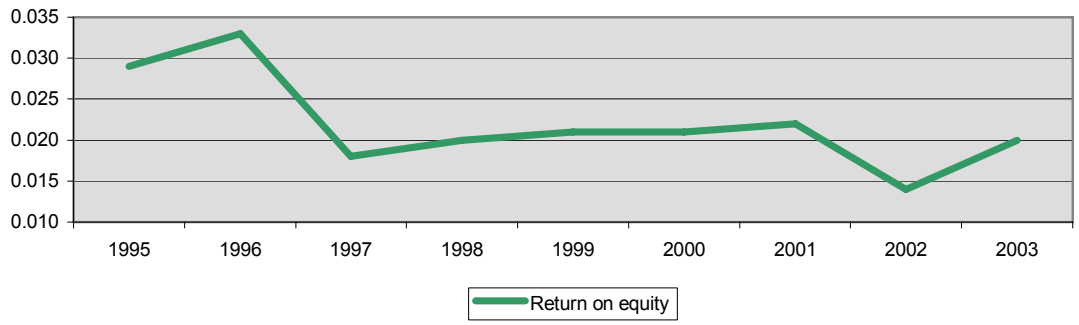
Source: Statistics Canada. Net farm income, November 2004. Catalogue No. 21-010-XIE, Vol. 3, No.2
*/ Net cash income = total cash receipts - operating expenses after rebates
**/ Total net income = net cash income + income in kind - depreciation charges + value of inventory change

Figure XIV.31

Equity, debt structure (current liabilities in relation to total liabilities) and return on equity in Canada, 1995-2003







XIV.6 European Union

XIV.6.1 Introduction

In the European Union, Eurostat, besides measuring income from agriculture production, has set up a methodology for measuring the income of agricultural households. These Income from Agriculture Household Sector (IAHS) statistics were established with the objectives of:

- Monitoring the year-on-year changes in the total income of agricultural households at the aggregate level in Member States;
- Monitoring the changing composition of income, especially the proportions of income from the agricultural holding and from other gainful activities, from property and from welfare transfers;
- Comparing the trends in the total income of agricultural households per unit (household, household member, consumer unit) with that of other socio-professional groups;
- Comparing the absolute income of farmers with that of other socio-professional groups, on a per unit basis.

The main concepts in the IAHS methodology are described in the box below.

The main aggregate income concept used in the IAHS project is **net disposable income,** adapted from national accounts methodology (see also Chapter IX). This concept includes not only income from farming and from other gainful activities, but also from pensions and other forms of transfer. The value of farm-produced goods consumed by agricultural households and the rental value of the farmhouse are treated as positive components of income. Elements deducted include current taxes and social contributions. Provision exists within the methodology to use **adjusted net disposable income** that also takes into account social benefits received in kind (such as state-provided education and health care); this has advantages in terms of drawing comparisons between countries and over time but is not yet a practical measure in most Member States.

Income and households: Concepts and definitions

Income: the main concept is household **net disposable income**, that includes all income from independent activity (self-employment), dependent activity (employment), property, social and other transfers, and is after the deduction of items such as current taxes, social contributions and other payments. It is expressed in aggregate, per household, per household member and per consumer unit.
Household: the household includes all members living together (this varies in detail between Member States), and includes, in agricultural households, both those who work on the agricultural holding and those who do not.
An agricultural household ("narrow" definition) is one where the main income of the household reference person (typically the head of household) is from independent activity in agriculture (farming). A range of other socio-professional groups can be established on the same basis for the purpose of comparison. A second, supplementary, "broad" definition of an agricultural household includes all households where any member has some income from independent activity in agriculture.

For the purpose of measuring net disposable income, the most appropriate institutional unit is the **household**, so the aggregate income relates to that received by a sector made up of households. The logic for preferring the household as the basic unit rather than the individual is that members of households, and especially married couples and their dependent children, usually pool their incomes and spend on behalf of the members jointly. This is not to deny that there may be some differentiation and individual control of personal incomes. However, in general, it makes much more sense to measure across the whole household. In the IAHS methodology, a household is defined as in national Family Budget Surveys. Although there are small differences between Member States these definitions typically include all members who live under the same roof and share meals. Consideration has also been given to an alternative household concept - the single budget household - that excludes persons who are financially independent, such as grown-up children of the farmer and spouse who still live at home but who work full-time off the farm. However, it has not yet been possible to make income estimates on this basis because of data problems in many Member States.

In order that households of different sizes and compositions can be brought together for income analysis purposes, it is convenient to express incomes per household member and per consumer unit. While the former is simply the result of a count of the number of persons within households, the latter uses coefficients (in the form of an equivalence scale) to express children and additional adults in terms of consumer units. Small variations in the scales used are found between Member States (which may reflect real differences in socio-economic conditions between countries), but in practice most Member States adopt a standard set of coefficients; typically the head of the household counts as 1 unit, additional adults 0.7 units, and children as 0.5 units. It is important to note that households of farmers, defined in this way, may include persons who contribute no labour input to the agricultural holding.

The most significant part of the IAHS methodology, and one which can have a substantial effect on the results, is the system used for **classifying households as agricultural or belonging to some other socio-professional group**. Reflecting both theoretical and practical considerations, for the purpose of classification in IAHS statistics, households are allocated to socio-professional groups on the basis of the main source of income of the reference person (typically the head of household or the largest contributor to the household budget). This system allows a complete and consistent allocation of households to occupational groups. Thus an agricultural household is one in which the main source of income of the reference person is from independent activity in agriculture.[16] Some Member States, that cannot at present use an income criterion, substitute the main declared occupation of the reference person.

In the context of the IAHS statistics this definition of an agricultural household is sometimes labelled "**narrow**" since it excludes those households which operate a holding but where farming is not the main income of the reference person (or the person's main occupation). Of course, when measuring household income the incomes of all members are summed, but these additional incomes are not considered at the classification stage.

It should be noted that households headed by hired workers in the agricultural industry are not included within the agricultural household group when defined in this way. In practice, only farmer households are covered in the IAHS results. This situation may need to be revised on a future occasion to allow for the coverage of households found on the large-scale agricultural units of some of the new Member States.

[16] Where possible, the group of agricultural households should not include forestry or fishing households.

XIV.6.2 An overview of results

Summary of selected IAHS findings

1. The number of agricultural households (where the main income of the reference person comes from farming) is substantially smaller than the number of households where there is some income from farming, and generally smaller than the number of agricultural holdings.

2. Where data exist over time, absolute numbers of agricultural households have been falling, in some instances very rapidly. The fact that results do not relate to a constant set of households must be borne in mind when interpreting changes in incomes per household over time.

3. Agricultural households (defined as above) in all countries are recipients of substantial amounts of income from outside agriculture. Though typically about a half to two thirds of the total comes from farming, there are large differences between Member States and some differences between years.

4. The total income of agricultural households is more stable than their income from farming alone. Non-agricultural income (taken together) is less variable from year to year than is farming income. Disposable income seems to be less stable than total income, but the relationship between the two depends on a variety of factors, including the way that taxation is levied.

5. Agricultural households have average disposable incomes per household that are typically similar to, or higher than, the all-household average, although the relative position is eroded or reversed when income per household member or per consumer unit is examined.

6. On average, households with an agricultural holding but where farming is not the main income source of the reference person appear to derive little income from farming; their average disposable income can be greater or smaller than incomes of agricultural households, depending on the country in question.

The IAHS statistics are not at the same level of development throughout the European Union. Any consideration must, at this stage, bear in mind that full harmonization in the methodology has not yet been achieved and that gaps in the data exist. Results should therefore be regarded as indicative and, in the case of some countries, experimental.

XIV.6.3 Availability of results

IAHS results are available for all Member States of the EU-15 using the "narrow" definition of an agricultural household. However, countries differ widely in the number of years covered, the most recent year for which results are available, the degree of disaggregation of the households sector and the extent to which results are integrated with national accounts. In terms of length of series, at one extreme is Germany, where annual figures for the period 1972-1993 are held in Eurostat's IAHS database, broken down within the framework of national accounts into socio-professional groups, of which agricultural households form one. At the other are countries for which only a single year is currently represented in the database, such as Ireland (1987 - though data from later surveys should be available soon) and Luxembourg (1989), or a larger

number where comparable figures for non-agricultural households are not broken down into their constituent socio-professional groups.

There is a commitment by all Member States to (i) expand the number of years for which results are available, carrying the series forwards to year t-2, (ii) to apply universally the "minimum" list of socio-professional groups, thereby enabling a more detailed comparison of the incomes of agricultural households, and (iii) to make other improvements in the methodology and quality of results. However, difficulties in providing resources for IAHS work in the face of competing priorities means that progress since the 2001 IAHS report was published has been limited, with only a minority of countries generating annual results. Furthermore, IAHS statistics which are at the sector level cannot throw light onto the distributional issues that may be important (such as the numbers of low-income farm households). Data may not be readily available for the calculation of net disposable income as defined in IAHS statistics, which corresponds to National Accounts methodology. Furthermore, the definition adopted for household surveys is (arguably) more relevant to the objectives for which IAHS results were intended. This has led to pressure to develop statistics on a microeconomic basis to set aside, and perhaps replace, the sector-level IAHS ones.

XIV.6.4 Main findings

Despite the lack of complete harmonization in IAHS statistics, gaps in the years covered and the general criticisms of their sector-level approach, some preliminary findings can be drawn from them that are of general interest to decision-making under the CAP and other EU policies. A summary was given in the box above; some are based on results from all Member States while others depend on the greater quantity of information available in a minority of countries but which, nevertheless, are likely to be found throughout the EU.

This overview concentrates on four of the possible areas of analysis - the implications of applying the IAHS definition of what constitutes an agricultural household on the numbers of households covered, the composition of the total income of these agricultural households, the relative stability over time of the income from farming and total income, and comparisons of average disposable income between agricultural households and the entire households sector.

XIV.6.5 Numbers of agricultural households

In most countries, the number of households that satisfy the IAHS definition of an agricultural household is much smaller than the number of holdings shown in the Community survey on the structure of agricultural holdings. In 1987, the number of agricultural households for the European Union as a whole (EU-12) appeared to be less than half the number of holdings. In some countries (notably Italy, Spain, Portugal and Denmark) the number of agricultural households was particularly low in relation to the number of holdings, implying that on two thirds or more of holdings there were no households whose reference person (head) had farming as the main income source (or occupation). However, on some (typically large) holdings there could be more than one agricultural household. This and other technical factors helped explain why in the United Kingdom the numbers of holdings and agricultural households were almost the same, despite the known existence of many smaller holdings where no household could satisfy the definition of being an agricultural one.

Due to the non-correspondence between agricultural holdings and households, a preferable approach is to compare the numbers of households that satisfy the target "narrow" definition with those of households where at least one member of the household has some income from farming (that is, the target "broad" definition). This also throws some light onto the households that are outside the former definition but inside the latter, which might be called "marginal" agricultural households. Only seven countries can

provide such information at present (Denmark, Germany, Greece, Ireland, Netherlands, Finland and Sweden), and mostly for only one year, so caution must be exercised in interpreting the findings.[17] In each country, whilst the use of the "narrow" definition reduced the number of agricultural households compared with the numbers which qualified under the "broad" definition, the extent varied substantially; the number of "narrow" households as a percentage of "broad" households ranged (in ascending order) from 33% in Denmark (1996), 41% in Ireland (1987), 53% in Finland (1992), 57% in Sweden (1992), 58% in Germany (1983), 60% in the Netherlands (1988), and 65% in Greece (1994). Further consideration of the "marginal" agricultural households is given later in this section (figures for later years may now be available for the Scandinavian countries and Ireland, but these are unlikely to change the general picture).

In countries where IAHS results are available for a run of years on a comparable basis, it is clear that the number of agricultural households has been in decline. In Germany (as constituted before October 1990) the fall was from 349,000 households in 1984 to 261,000 in 1993 (25%, or an annual average decline of 3.2%) against an overall rise (13%) in the total number of private households. In France, farm household numbers fell even faster, with a fall of 27% (or 3.9% annually) in the number of agricultural households in the seven-year period 1984-1990. This was against a background of a 7% increase in the total number of households. In the following five years, the disparities were even greater; the number of agricultural households fell by another 25% (or 5.5% annually) whilst the number of households as a whole increased 7%. In Portugal, the fall in agricultural household numbers between 1980 and 1989 was 37% (or an average decline of 4.9% per year). Interpretations of income movements over time must recognize that the agricultural households group is not of a constant composition but is changing and contracting.

XIV.6.6 Composition of income of agricultural households, and deductions

IAHS statistics show that, in all countries, agricultural households ("narrow" definition) are recipients of substantial amounts of income from outside agriculture. Typically only about a half to two thirds of the households' total income comes from farming, though there are substantial differences between Member States (see Figure XIV.32) and for individual countries over time. In the periods shown (three-year averages ending in the latest available year or, where this is not possible, single years), countries in which substantially less than half of the total household income came from farming were Germany, Finland and, most notably, Sweden (where only a quarter of total income came from farming in the three years centred on 1996). At the other end of the spectrum, with more than three quarters (78%) coming from farming but still with a substantial minority of their income coming from other sources, was the Netherlands. There is substantial variation between years for some countries, reflecting, in particular, changes in the income from farming. For example, in Germany the share of the total coming from farming declined from 43% in 1991 through 39% in 1992 to 30% in 1993, a change clearly linked to the drop in earnings from farming. On the other hand, a fall in Finland from 41% in 1993 to 33% in 1994 was largely explained by an almost threefold increase in income from other independent activity (largely forestry); in subsequent years this fell back somewhat and income from farming increased (the share coming from farming stabilizing around 34%). Such sharp short-term changes, however, do not significantly affect the validity of the general conclusion.

The second most important source of income of agricultural households was usually wages or social receipts; in the United Kingdom it was property income. Income from other forms of independent (self-employed) activity, such as operating other (non-agricultural) businesses, was generally unimportant, except in Finland where farm-forestry appears to provide the explanation. However, there may have been some underrepresentation of other forms of independent activity because data sources (such as taxation

[17] Some other countries (Spain and Austria) do have definitions for the household that are broader than the "narrow" definition but are not the target "broad" definition.

statistics) may not reflect the extent to which they are carried out within the framework of what is primarily a farm business.

Countries also differed in the amounts of household income taken in taxation and other deductions, so that the same average total income figure can imply different levels of disposable income in different Member States. At one extreme were Denmark, Germany and Sweden where a quarter or more (on average) of an agricultural household's income was taken as taxes and social contributions in the latest period for which results are available. At the other extreme were Portugal and Greece, where less than 5% was taken.

Of course, these differences reflect national policies on taxation for which there may be a counter-provision of goods and services provided in the form of social benefits. Only some of these are at present captured in the measurement of net disposable income. For example, the provision of individual non-market goods or services (such as education and health services) is not currently covered (though they are in the concept of net adjusted disposable income). Consequently, the net effect on consumption is impossible to assess without more detailed information.

Another general finding was that, in many countries, the proportion of total income taken by current taxes and social contributions was lower (often much lower) among agricultural households than among households in general. Denmark, Germany and Sweden are the exceptions, where agricultural households have shares taken which are above or very close to the national averages. However, no conclusions can be drawn as to the relative burdens of taxation without much more information on the levels and distributions of income, and details of the tax regimes applied to income from self-employment in general and agriculture in particular vis-à-vis income from employment and other sources.

XIV.6.7 Stability of income of agricultural households

There is evidence from several Member States that the total household income for agricultural households is more stable than their income from farming alone. Non-agricultural income (taken all together) is less variable from year to year than is farming income (though this is not a necessary condition for total income to be more stable). Disposable income seems to be less stable than total income; a variety of factors seem to be operating here, including the way that taxation is levied. The implication is that the year-to-year movements in indicators of the income from agricultural activity should not be taken to imply movements of the same proportion in the total income of agricultural households. These are likely to be smaller.

Figure XIV.33 shows the change in income (from farming and total income) between the beginning and end of similar periods. For all countries other than Finland and Sweden, the percentage change in total income was smaller than the percentage change in income from farming alone and the change was always in the same direction. In Finland and Sweden, the falls in farming income were more than offset by rises in other sources, so total income rose. This pattern is consistent with the above observation, and again illustrates the point that changes in farming income are not necessarily a good guide to changes in overall household income.

XIV.6.8 Comparisons of the income of agricultural households with the all-households average

The latest available IAHS results, taking three-year averages where possible (see Figure XIV.34), indicate that, for most Member States, the average net disposable income of agricultural households was close to or higher than the all-households average (comparisons are not possible for all countries). The main exception was Portugal, where it was much less (less than half). Somewhat lower levels were also found in

Greece (86%) and Italy (90%).[18] The relative position was eroded when income per household member or per consumer unit was examined. Nevertheless, on all three measures (per household, per household member and per consumer unit) agricultural households had incomes at or above the national averages in France, Ireland, Luxembourg and (most notably) the Netherlands.[19] However, agricultural households on average usually had incomes lower than households headed by other self-employed reference persons in the same Member State.

Again, some large short-term fluctuations can be observed. The relatively low-income position of agricultural households in Germany (not including the area of the former GDR) in 1993 reflected a sharp decline in incomes from farming compared to 1992 (when the disposable income per household had been 99% of the all-households average); 1992 was itself the end of a four-year period in which agricultural households had disposable incomes substantially above the national all-households average. Finland, in contrast, saw a rise in the relative position of agricultural households (from 131% of the all-households average in 1992 to 170% in 1994), the result of a growth in income not from agriculture but, in this case, from other forms of self-employment. In subsequent years this has fallen back somewhat (to between 141% and 152%). Only in Greece, Italy and, in particular, Portugal were farmer households consistently and substantially below the all-households average.

These results do not suggest that agricultural households are a particularly disadvantaged group in terms of their average disposable incomes, a major finding in the light of the objectives of agricultural policy in the European Union. In investigating whether there is a low-income problem, other factors need to be considered, including the distribution of incomes around the group mean. And it should be recalled that, despite the stabilising influence of income from sources other than farming, the relative position of agricultural households can be subject to quite large short-term variations.

XIV.6.9 Comparison with other socio-economic groups

Table XIV.18 shows that although agricultural households, in some countries, have net disposable income that exceeds that of the average household in general, they quite substantially trail the "other self-employed" group in all countries (except the Netherlands). Moreover, with the exception of Finland and the Netherlands, agricultural households have a lower average disposable income than the "employee" household group in all countries.

The extraordinary level of disposable income among farm households in the Netherlands should be noted. It is more than three times that of the average households and 2.6 times that of all other self-employed households. This is likely to reflect the fact that agricultural and horticultural businesses in the Netherlands are typically large and represents very substantial capital sums. Hence, the income received will be a hybrid of rewards to the farmer's entrepreneurial and physical labour and to the capital and land that he/she owns. Therefore it is not surprising that, where net worths are high, the total income generated by the business is also high. It is not unreasonable to measure such income as it will be at the disposal of the farm household to spend on consumption, to save or invest in the business or in other ways.

Another result to be noted is that of Finland where agricultural households have 50% higher disposable income than the average household and almost at the same level as other self-employed households. Compared with neighbouring countries like Denmark and Sweden, the result in Finland is striking. There may be fundamental differences that help explain the differences between Finland and Denmark and Sweden, including the rather unusual (by international standards) practice in Denmark of

[18] Data for Greece is not included in the table.
[19] Income per household member for Luxembourg is not available.

transferring farms between generations by means of sales using credit facilities set up with this in mind. The exceptionally high interest charges faced by younger farmers has for long been a feature in Denmark, and this may feed though to lower disposable incomes.

However, there are also likely to be small but by accumulation significant differences in definitions. For example, the definition of a household used in Sweden relates only to the core of a couple and dependent children, whereas in Finland it covers all persons resident at the same dwelling, which results in a higher income per household. In countries where single-person households may be significant in determining the national average household income, these differences in the definition of household when applied to the agricultural sector may result in the sorts of situation described. Clearly there is a need to exercise caution when using any statistics and not to go beyond their capacity to inform. This is particularly the case in drawing international comparisons where harmonization is less than complete.

XIV.6.10 Income situation of "marginal" households

Reference has already been made to households where some member of the household has an income from independent activity in agriculture (that is, from farming) but where farming is not the main income source of the household reference person. As mentioned previously, this group is formed by subtracting those agricultural households defined as "narrow" from those agricultural households that are defined as "broad." Among the Member States where information is available these "marginal" agricultural households accounted for more than a half of all the households with some farming income in Denmark and Ireland (72% in 1999 and 59% in 1987, respectively), and between about 40% and 50% in Germany, Greece, the Netherlands, Finland and Sweden. Despite their numerical importance, they accounted for only a relatively small proportion of the aggregate income derived from farming by agricultural households as a whole (see Figure XIV.35). For most countries only between a fifth and a tenth of the entire sector's income from independent activity was generated by "marginal" households. The figure was very small in Germany (8% in 1983) but rather higher under the unique circumstances found in Denmark (26% in 1999). Perhaps of even greater importance are the income characteristics of these "marginal" households and the impacts that they have on average income levels when a "broad" definition of an agricultural household is adopted (see Table XIV.19).

In Denmark, Ireland, the Netherlands and Finland the average incomes per household of the "marginal" households were smaller than those of the agricultural households defined in the IAHS "narrow" way. In the first two countries they appeared to be a relatively low-income group, with incomes below the all-households average; in the Netherlands and Finland they were above it. However, in Germany and Greece the "marginal" households appeared to be a relatively high-income group. They had an average disposable income per household that was not only larger than that of agricultural households defined in the "narrow" way but was also substantially above the all-households average. In Sweden there was little difference between the various agricultural groups on a per household basis but they were all below the national all-households average.

When incomes were expressed per household member and per consumer unit, the income position of the "marginal" households deteriorated relative to the all-households average in Denmark, Greece, the Netherlands, Finland and (household members only) in Ireland (data on this basis are not available for Germany and Sweden). In Finland the somewhat smaller sizes of the "marginal" households improved their incomes per household member and per consumer unit compared with the "narrow" group.

Such diversity among only seven countries points to the need for sets of income results to be available for both "narrow" and "broad" (and "marginal") agricultural household groups in each Member State. Differing social, economic and agricultural structures will likely mean that countries need to be

considered individually and quick generalizations avoided, at least until more comprehensive information is available.

However, a characteristic shared by all the countries from which evidence is available is that only a small proportion of the total income of "marginal" households comes from farming. In Germany only 5% of "marginal" households income came from farming. Comparable figures are the Netherlands 8% (not updated since the special study of 1988), Finland 11%, Ireland 14%, Greece 17% and Denmark 12% (1999). It follows that changes in the income from independent agricultural activity are of relatively little significance to the total income of these households; their overall position is more likely to be affected by changes in the economy in general (as these impact wages, often the major source of income) and policy on social benefits (another major source of income). Policies supporting farming incomes (for example, through instruments which raise the market prices of agricultural commodities) will therefore not likely significantly improve the income situation of these households.

XIV.6.11 Farm households "broad" definition compared to all households

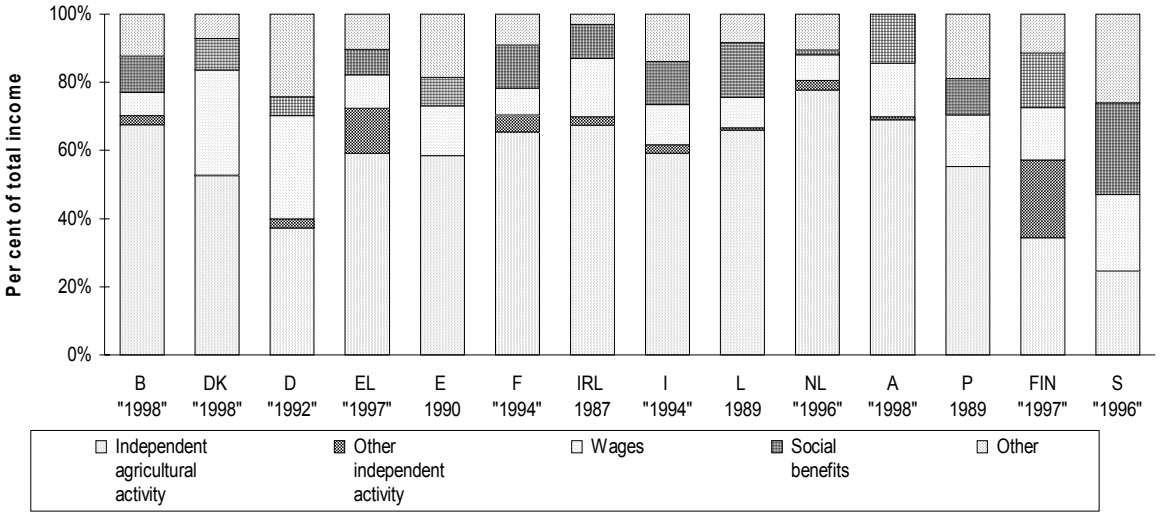
In Figure XIV.36 the average disposable income per farm household, according to the "broad" definition (that is, all those with some non-zero income from farming), and per household member, is compared with the income of the average household and household member. Unfortunately, the year for comparison is not only somewhat outdated but differs among the countries.

In all countries, except Sweden, the net disposable income per farm household was either on the same level (Denmark, 1999) or higher than the average for all households. In Sweden the farm household had an income of about 90% of the average household. Again, it can be seen that agricultural households in the Netherlands and Finland were much better off than the average household.

The picture changes when looking at disposable income per household member. Only in the Netherlands did the average farm household member have a disposable income that was higher than the average member of all households. However, in Greece and Ireland, members of agricultural households had more or less the same income level as members of all households.

Figure XIV.32

Composition of the total income of agricultural households by source, for selected Member States. Per cent.



Source: Income of the agriculture houshold sector, 2001 report. Eurostat.

Notes: (i) In Spain, Portugal and Sweden there is no subdivision of income from independent activity in agriculture and elsewhere.

(ii) Results for the Netherlands are based on the household as the unit of classification (rather than the reference person).

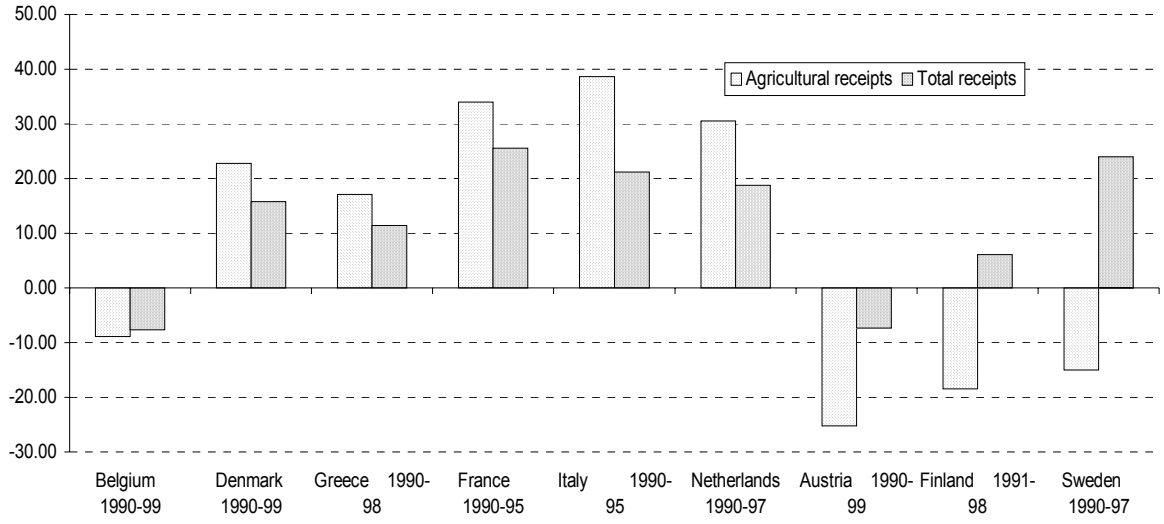
(iii) In France problems of comparability arise because of the way in which social contributions are treated.

(iv) In the UK the current data source does not cover households with holdings arranged as corporate businesses, and there are other statistical problems that should preclude direct comparisons with other Member States.

(v) "Other" includes income from property, imputed value of domestic dwelling, and other miscellaneous current transfers.

Figure XIV.33

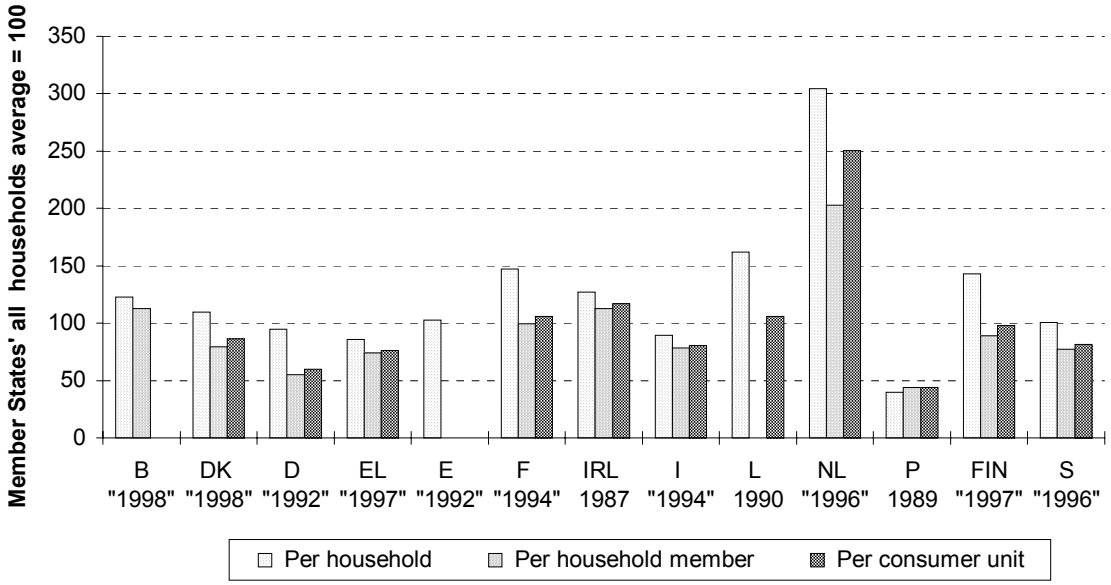
The development of agricultural household incomes in selected Member States (in real terms and %).



Source: Income of the agriculture houshold sector, 2001 report. Eurostat.

Figure XIV.34

Average disposable income of agricultural households relative to the all-household average. Selected Member States

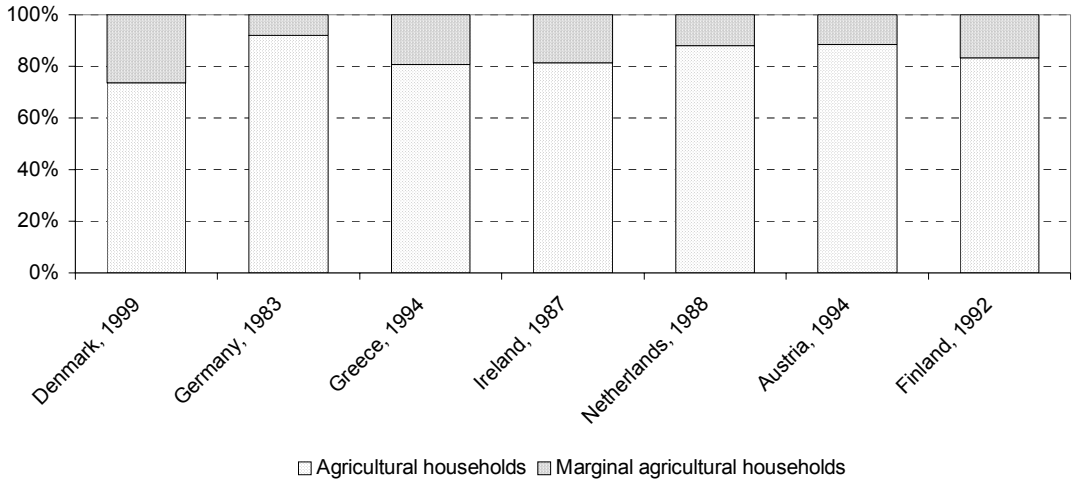


Source: Income of the agriculture houshold sector, 2001 report. Eurostat.

Note: For Luxembourg, in the absence of a comparison being generated within the IAHS statistics, interim figures taken from a survey of living standards have been substituted.

Figure XIV.35

Income generated from agriculture by agricultural households (narrowly defined) and the „marginal" agricultural households, as a share of the total income generated from agricultural



Source: Income of the agriculture houshold sector, 2001 report. Eurostat.

Table XIV.18

Average disposable income of per agriculture household (narrow defintion) and per houshold member realtive to all households (=100)

	Employers and own-account workers			All employees	All others	All except farmers	All households
	Farmers "narrow"	All other	All self-empl.				
	a 1	**a 2**	**a 3**	**b**	**c**	**d=e-a1**	**e=a+b+c**
BELGIUM (1999 p)							
Net disposable income/household	**111.9**					99.9	100.0
Net disposable income/household member	**102.3**					100.0	100.0
DENMARK (1999)							
Net disposable income/household	**104.9**	132.8	128.9	121.5	66.3	100.0	100.0
Net disposable income/household member	**75.8**	104.4	100.1	105.1	88.7	100.2	100.0
GERMANY (1993)							
Net disposable income/household	**78.7**	235.9	214.7	111.1	70.2	100.2	100.0
Net disposable income/household member	**61.7**	250.6	217.7	123.4	89.7	100.8	100.0
GREECE (1998)							
Net disposable income/household	**84.5**	156.2	133.2	90.7	83.1	101.6	100.0
Net disposable income/household member	**73.3**	177.1	152.3	109.3	109.8	103.1	100.0
SPAIN (1990)							
Net disposable income/household	**97.0**	118.6	113.2	124.3	68.8	100.1	100.0
Net disposable income/household member	**84.5**	102.0	97.7	108.8	86.7	100.6	100.0
SPAIN (1990)							
Net adjusted disposable income/household	**103.4**	109.2	107.7	122.2	68.5	99.9	100.0
Net adjusted disposable income/household member	**90.1**	93.8	92.9	107.1	86.3	100.4	100.0
IRELAND (1987)							
Net disposable income/household	**127.3**					97.4	100.0
Net disposable income/household member	**113.3**					98.6	100.0
ITALY (1995)							
Net disposable income/household	**96.7**					100.1	100.0
Net disposable income/household member	**82.9**					100.4	100.0
NETHERLANDS (1997)							
Net disposable income/household	**328.8**	128.6	151.5	112.8	70.6	98.1	100.0
Net disposable income/household member	**220.6**	103.5	119.2	99.1	95.7	98.5	100.0
PORTUGAL (1989)							
Net disposable income/household	**39.6**	147.5	117.3	151.2	28.4	103.0	100.0
Net disposable income/household member	**43.8**	159.7	127.7	171.7	24.0	102.5	100.0
FINLAND (1999)							
Net disposable income/household	**152.4**	163.4	160.4	119.9	63.2	98.9	100.0
Net disposable income/household member	**96.5**	125.1	116.0	103.0	88.0	100.1	100.0
SWEDEN (1997)							
Net disposable income/household	**97.1**	116.1	111.6	125.3	64.3	100.0	100.0
Net disposable income/household member	**76.6**	90.4	87.2	108.0	85.4	100.3	100.0

Source: Income of the agriculture household sector, 2001 report, Eurostat.

Table XIV.19

Number of households and levels of average net disposable income for three groups of agricultural households, in selected Member States

	Denmark (1999)	Germany (1983)	Greece (1994)	Ireland (1987)	Netherlands (1988)	Finland (1992)	Sweden (1992)
Number of agricultutal households (1,000)							
"Broad"	57	613	615	207	136	139	94
"Narrow"	18	353	398	85	87	73	54
"Marginal"	41	260	217	122	49	65	41
Disposable income per household							
All households	100	100	100	100	100	100	100
Agricultural households							
"Broad"	99	**110**	**114**	**105**	**210**	**124**	81
"Narrow"	**105**	**101**	86	**127**	**287**	**131**	79
"Marginal"	96	**123**	**166**	**89**	**108**	**116**	85
Disposable income per houshold member							
All households	100	100	100	100	100	100	100
Agricultural households							
"Broad"	71		**100**	98	**138**	93	
"Narrow"	76		78	**113**	**175**	88	
"Marginal"	70		**147**	87	75	**101**	
Disposable income per consumer unit							
All households	100	100	100	100	100	100	100
Agricultural households							
"Broad"	77		**101**	**101**	**167**	97	
"Narrow"	83		76	**117**	**211**	94	
"Marginal"	76		**149**	89	**85**	102	

Source: Income of the agriculture household sector, 2001 report. Eurostat.

Notes:

A special study was conducted by the CBS, Netherlands, to calculate results according to the broad definition of an agricultural household. The results that were derived have not been updated since 1988 unlike results derived for the narrow definition. Therefore, so that there is consistency in the comparison between broad and narrow results, the narrow results that were available at the same time as the study results for the broad definition have been taken. This means, however, that the narrow results appearing for 1988 are not the most up-to-date figures that Eurostat has received.

The definitions of the three groups of agricultural household are:

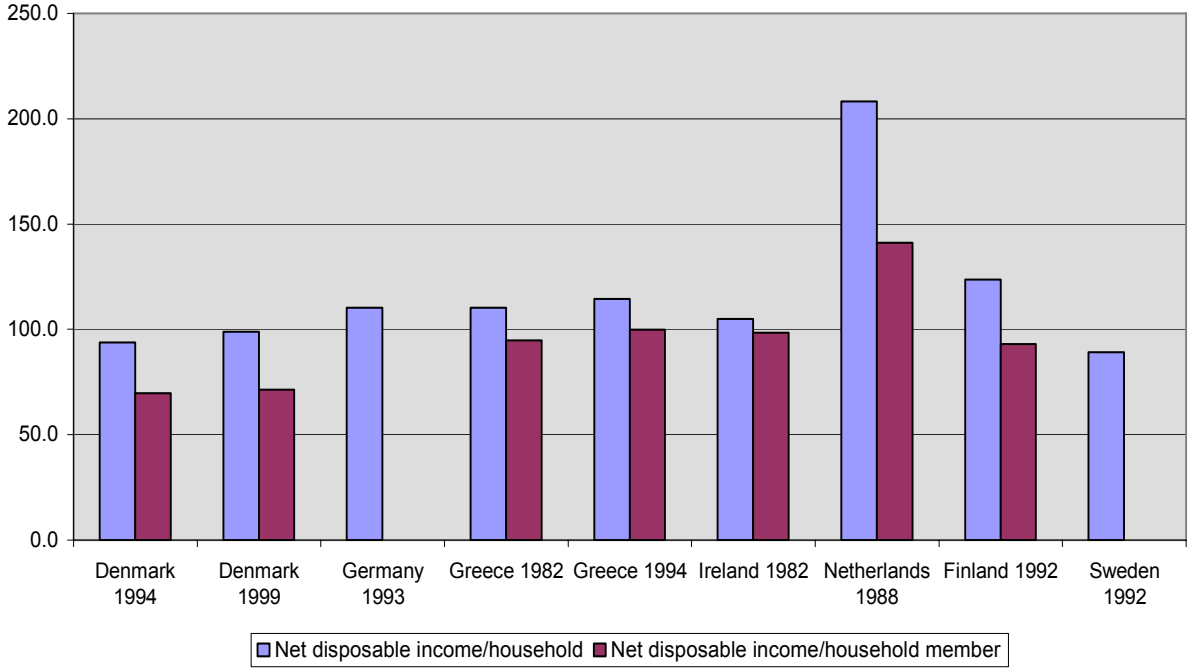
"narrow" - main source of income of the reference person is independent activity in agriculture.

"broad" - where any member of the household has some income from independent activity in agriculture.

"marginal" - households which satisfy the "broad" definition but not the "narrow" definition.

Figure XIV.36

Average disposable income of per agriculture household (wide defintion) and per houshold member realtive to all households (=100)



	Denmark 1994	Denmark 1999	Germany 1993	Greece 1982	Greece 1994	Ireland 1982	Netherlands 1988	Finland 1992	Sweden 1992
Net disposable income/household	93.7	98.8	110.3	110.4	114.3	104.9	208.2	123.7	89.1
Net disposable income/household member	69.7	71.4		94.8	99.8	98.4	141.2	93.2	

Source: Income of the agriculture household sector, 2001 report, Eurostat.

XIV.7 Australia

In Australia in 2001, households that contained at least one person whose main income comes from agriculture had a mean income of about 90% of those households where no person was employed in agriculture (see Table XIV.20 and Figure XIV.37). However, average incomes vary widely depending on the degree to which income from agriculture contributes to the total income of the agricultural household. If income from agriculture contributes less than one quarter of total income the mean income of the agricultural household is only 87% of that of non-farm households. Where income from agriculture constitutes between one quarter and one half of total income then the total income of the agricultural household jumps to 114% of non-agriculture households. If agriculture income accounts for between one half and three quarters of total income the agricultural household income drops to 97% of non-agricultural households. Where more than three quarters of income comes from agriculture the income falls to 76% of the non-farm income.

Table XIV.20

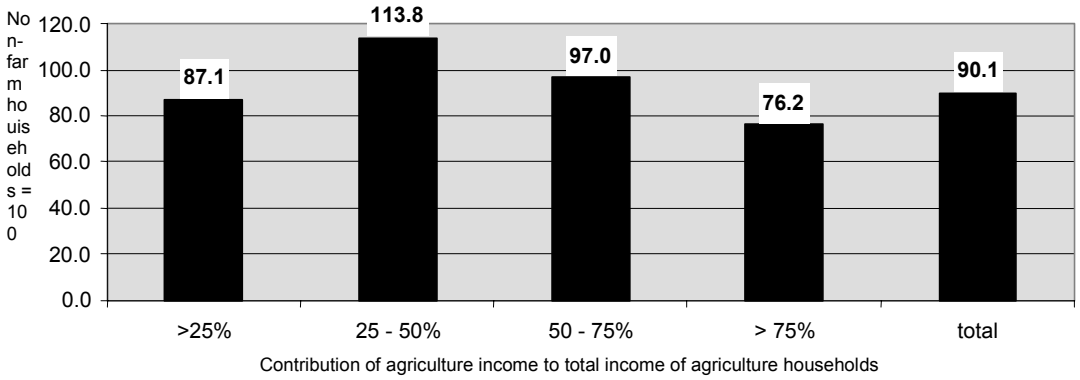
Income of agricultural and other households in Ausralia, by contribution of agricultural income to total income in 2001, $A

	Estimated number of households	Sample count of households	Mean agricultural income (a) ($A per week)	RSE of mean agricultural income (%)	Mean total income ($A per week)	RSE of mean total income (%)	Agric. Income as % of total income
Household contains at least 1 person whose main job is in the agriculture industry, where the contribution of agricultural income to total income is							
Less than 25%	88,704	75	**77**	48.8	**849**	18.9	9.0
25% to less than 50%	40,415	35	**424**	9.7	**1,110**	9.2	38.2
50% to less than 75%	58,635	52	**594**	15.5	**945**	14.5	62.8
75% or more	78,201	77	**673**	13.2	**743**	13.2	90.5
Total	265,955	239	**419**	10.1	**879**	8.0	47.7
Household contains no person employed in the agriculture industry	7,048,965	6,547			**975**	0.9	
Total	7,314,920	6,786	**15**	12.2	**972**	1.0	

Source: Australian Bureau of Statistics, Survey of income and housing costs, 2000-2001.
(a) Income from wages and salaries from main job plus own unincorporated business income where industry of main job is agriculture.

Figure XIV.37

Income of agriculture households compared to non-agriculture housholds (= 100) for different levels of contribution of income from agriculture, 2001



Source: Australian Bureau of Statistics, Survey of income and housing costs, 2000-2001.

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ANNEX

Results from Income of Agricultural Households Statistics, Statistics Denmark

Table 1
Income for agricultural households, all farms

	1998	1999	2000	2001	2002
	1,000 Dkk.				
+ Income from agriculture	184	173	217	240	218
+ Income, other enterprises	33	29	36	39	34
+ Wages and salaries	178	202	207	220	236
+ Property income	44	39	47	59	56
+ Social benefits	54	58	52	54	54
= Total income	**492**	**501**	**560**	**612**	**598**
÷ Interest and rent	195	188	218	244	236
÷ Taxes	90	93	100	110	117
÷ Social contributions	50	53	58	65	69
= Net disposal income	**156**	**168**	**183**	**193**	**176**
	number				
Farms	59,166	57,314	53,904	52,815	49,769

Table 2
Income for agricultural households, full-time farms

	1998	1999	2000	2001	2002
	1,000 Dkk.				
+ Income from agriculture	353	349	422	464	425
+ Income, other enterprises	34	30	46	47	44
+ Wages and salaries	118	139	145	153	158
+ Property income	55	47	56	80	70
+ Social benefits	38	42	38	41	42
= Total income	**599**	**606**	**707**	**785**	**739**
÷ Interest and rent	317	313	365	411	399
÷ Taxes	87	88	100	112	118
÷ Social contributions	56	58	65	75	74
= Net disposal income	**138**	**148**	**177**	**188**	**148**
	number				
Farms	28,292	26,173	25,235	24,839	23,360

Table 3
Income for agricultural households, part-time farms

	1998	1999	2000	2001	2002
	1,000 kr.				
+ Income from agriculture	30	26	37	41	34
+ Income, other enterprises	33	29	28	31	25
+ Wages and salaries	231	255	262	280	306
+ Property income	35	32	40	41	43
+ Social benefits	67	71	65	66	65
= Total income	**395**	**413**	**431**	**459**	**473**
÷ Interest and rent	84	83	90	96	92
÷ Taxes	92	97	101	109	116
÷ Social contributions	45	48	53	56	64
= Net disposal income	**174**	**185**	**189**	**198**	**201**
	number				
Farms	30,874	31,141	28,669	27,976	26,410

Table 4
Income for agricultural households, all farms by age of farmer

	Under 30 years	30-39 years	40-49 years	50-59 years	Over 60 years
	1,000 Dkk.				
+ Income from agriculture	260	265	246	237	129
+ Income, other enterprises	25	27	31	43	35
+ Wages and salaries	208	269	321	278	86
+ Property income	32	25	37	78	78
+ Social benefits	39	45	32	27	114
= Total income	**565**	**629**	**667**	**664**	**442**
÷ Interest and rent	356	314	282	240	114
÷ Taxes	70	97	119	145	106
÷ Social contributions	39	59	74	87	56
= Net disposal income	**100**	**160**	**192**	**191**	**166**
	number				
Farms	1,661	9,069	13,211	13,067	12,761

Table 5
Income for agricultural households, all full-time farms by age of farmer

	Under 30 years	30-39 years	40-49 years	50-59 years	Over 60 years
	1,000 Dkk.				
+ Income from agriculture	405	477	462	435	296
+ Income, other enterprises	38	29	42	39	73
+ Wages and salaries	135	153	201	163	92
+ Property income	54	36	47	85	124
+ Social benefits	37	44	34	23	86
= Total income	**669**	**739**	**787**	**745**	**671**
÷ Interest and rent	526	486	447	365	254
÷ Taxes	61	85	111	134	153
÷ Social contributions	32	56	75	90	77
= Net disposal income	**50**	**112**	**154**	**156**	**188**
	number				
Farms	966	4,719	6,685	6,746	4,244

Table 6
Income for agricultural households, all part-time farms by age of farmer

	Under 30 years	30-39 years	40-49 years	50-59 years	Over 60 years
	1,000 Dkk.				
+ Income from agriculture	57	34	25	26	45
+ Income, other enterprises	8	24	20	47	16
+ Wages and salaries	310	395	443	401	83
+ Property income	3	12	26	71	55
+ Social benefits	43	46	30	32	128
= Total income	**420**	**511**	**544**	**577**	**327**
÷ Interest and rent	119	127	113	106	45
÷ Taxes	83	109	127	158	82
÷ Social contributions	48	62	72	85	45
= Net disposal income	**170**	**212**	**232**	**228**	**155**
	number				
Farms	695	4,350	6,526	6,321	8,517