

Income and Well-Being of Farm Households

Sectorwide measures of net income traditionally formed the basis of household income estimates for farm families. The farm business and the farm operator's household were viewed as highly intertwined, with production and consumption occurring at a central place. Heady et al. (1953) referred to this farm-household interdependence by describing the farm as "a complete economic unit by itself." Even descriptions of family farms embodied the concept of the unit farm (Brewster, 1979).

When introduced, the concept of the intertwined farm-household unit was a valid one as farm families provided most of the inputs used in production and supplied most of the farm's labor and management. There were few, if any, other claimholders involved in the farm business. Early in the 20th century, farmers and their families did little off-farm work because the costs of such participation were prohibitive. Farm families relied on farming as their primary and usually sole source of income.

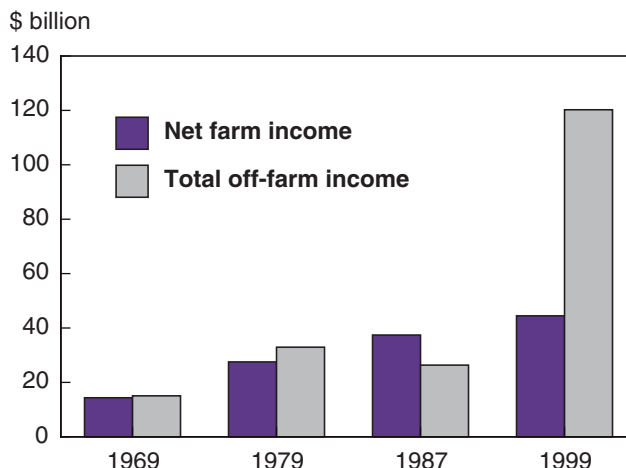
This is no longer the case. Off-farm work by farm operators and their spouses has increased steadily since the mid-1960s. In 1969, total net income earned by farm households from farming and off-farm earned income was roughly comparable at \$15 billion. Off-farm wages and salaries alone totaled \$9 billion. Census data collected for 2000 show about a threefold increase (in nominal terms) in off-farm income from the previous census (1987) and an eightfold increase from 1969 (fig. 1).

With income from the farm business now shared among many parties, and with income from off-farm work, investment, and other sources rising dramatically, income analyses have become dichotomous. Returns from production activities center on the farm. 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, structural changes that have occurred in farming and in household labor and investment decisions can be neglected by sectorwide income estimates that disguise the true distribution of income among farm households. For these reasons, we use the farm household as

Figure 1

Sources of income in the agricultural sector

Share of net farm income has decreased from half in 1964 to less than a third in 1999



Source: USDA, Economic Research Service, 1999 Agricultural Resource Management Study (ARMS) and *Economic Indicators of the Farm Sector*, various issues. Off-farm income from 1964, 1969, 1979, 1987 Census of Agriculture, U.S. Department of Commerce.

the unit of analysis for considering both income and wealth relative to nonfarm households, and for considering the distribution of income and wealth, including the ability of income to meet household consumption needs.

Farm Households Span Stages of the Life Cycle

Households' allocation decisions drive income levels. These choices are affected by the characteristics of the farm, farm operator, spouse, and household. A review of gender, age, and household composition indicates that farm households span all stages of the life cycle and that farm businesses associated with these households are at various states of startup, development, growth, consolidation, and retirement. Beginning farmers have different demands on their time and face different financial choices and constraints than farmers nearing retirement.¹ Slightly more than 6 percent of farmers, based on the Agricultural Resource Management Survey (ARMS, see Appendix A), are younger than 35 and can be considered beginning farmers (app. table 1). Half of farmers are between ages 45 and 65 and as of 2000, 24 percent planned to retire within the next 5 years.

¹For a discussion of the family farm life cycle, see Boehlje and Eidman (1984).

The farm family life cycle drives household size as well. Households with two or fewer persons, which represent 59 percent of farm households, tend to be at either end of the life cycle. Large households occupy the middle of the life cycle and are typically commercial farms or are lifestyle farms where the household has chosen to live in a rural area.

Educational attainment and farming experience vary greatly among farm operators and by scale of operation. Only 15 percent of farmers have less than a high school education, which is unchanged from 1978. However, the share with some college has more than doubled since then. Most farm households whose operators have less than a high school education are of retirement age, while those with college degrees or graduate training tend to manage commercial operations or oversee lifestyle farms (see box, p. 9).

Experience, like education, is positively related to farm household income. However, as persons reach retirement, income generated from the use of farming resources becomes less. Like nonfarm households, “retirement” farms begin to depend more on savings and other sources of earnings. In 2000, one in every five farmers had less than 10 years of experience, indicating that they were either relative newcomers to farm communities or that they were just beginning their farming careers. Meanwhile, one-third of farmers reported over 30 years of experience operating a farm (app. table 1).

Near equal numbers of operators reported that spouses did and did not share in farm business decisions. Fifteen percent of farm operators reported no spouse, with the share rising among limited-resource and other small farm operators.

Economic Model of the Farm Household

In addition to family characteristics, the economic well-being of farm households depends on its resources, production and employment levels, and the ability of income to meet consumption, savings, and other household needs (fig. 2). Households allocate time to activities that include the farm, off-farm employment, home production, leisure, and education or other betterment. Likewise, households allocate their savings among farm, household, and nonfarm investments, including sometimes the development of businesses separate from the farm. Mishra and

Morehart (1998, 2000, 2001) have compared the savings and off-farm investment behavior of farm households with the behavior of nonfarm households, and find that farm households have a higher savings rate. They maintain a diverse off-farm investment portfolio, and contribute to various retirement and tax-deferred plans. However, the pattern of savings varies with farm, operator, and household characteristics.

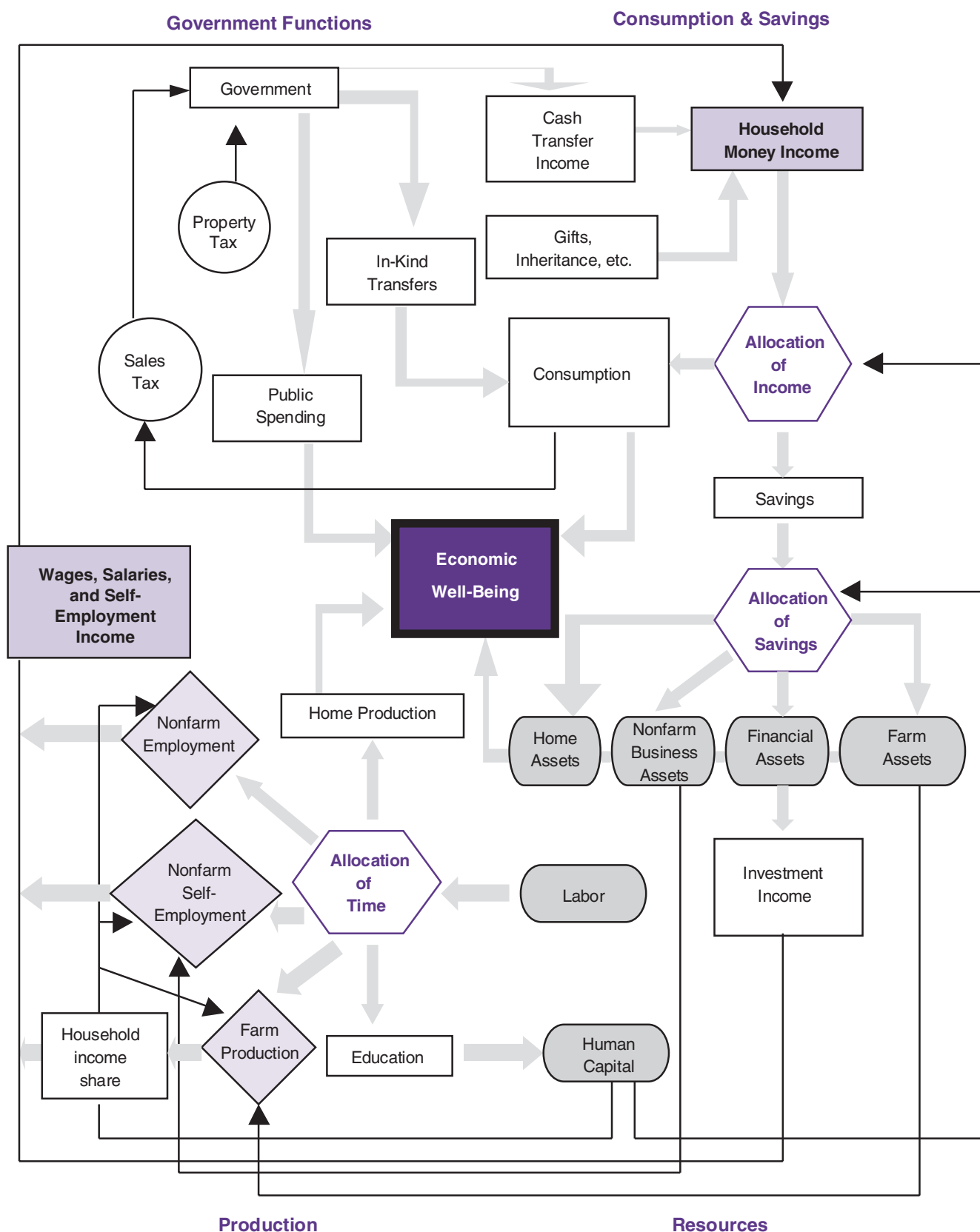
The commitment of resources to farming differs greatly among farm families. For example, income generated by the farm business can be shared among multiple households, as it is by an estimated 231,000 nonoperator households today. Household investment income (from interest, dividends, annuities, private pensions, and rents) and government transfers (such as Social Security, retirement, disability, and unemployment) further supplement farm and off-farm income for both operator and nonoperator households.

More sophisticated measures of household well-being draw not only from the absolute levels of income and wealth available to the household but also from the income-consumption relationship depicted in figure 2. Income allocated to savings can enhance future earnings, but this money can also be used to repay existing debt, to grow or modernize the business, or to invest in other financial alternatives like home improvement or stocks.

Off-Farm Work: Necessity or Career Choice?

Off-farm work by farm operators has traditionally been viewed as an action necessary to save the farm by providing resources either to pay farm bills or to repay debt. Recent evidence suggests otherwise (Fuller, 1991; Bessant 2000). Conventional views of off-farm work focused on the operator to the exclusion of other household members and regarded operators who worked off-farm as being in a transition either into or out of farming. Thus, off-farm employment was considered temporary and its income supplemental. Ahearn and El-Osta (1993) disproved this notion, recasting off-farm employment as a permanent way of life. Whittaker and Ahearn (1991) found young operators were more likely than older operators to work off-farm jobs, while Barlett (1991) pegged the decision about whether to work off-farm upon completion of schooling. Later, individuals made second career decisions associated with adding a farm. Fewer than one in five operators in Barlett’s study worked off-farm simply to pay farm expenses.

Figure 2
Economic model of the farm household
The derivation of farm household well-being.



Source: Adapted from: Thomas, R. William (1977).

Income and lifestyle benefits both emerge from pursuing farm and off-farm work jointly. Dual careerists can generate additional income from the farm, treat the farm as an investment, pursue entrepreneurial opportunities, and enjoy the amenities of rural living (Barlett, 1986). Multiple job holding is also seen as a way to manage land and family resources, and as “a flexible mechanism for adjusting to changes in agriculture, family needs, and shifts in the external environment” (Fuller, 1991, p. 41). Off-farm employment enables farm families to spread income risk and to broaden their social networks (Fuller and Mage, 1976). For example, Mishra and Goodwin (1997) and Mishra (1996) found a positive correlation between off-farm employment and farm income variability. El-Osta and Ahearn (1991) and El-Osta et al. (1995) found the distribution of income among farm households with no off-farm employment to be more concentrated than the distribution of income by farm households with off-farm employment.

Working Off the Farm Grows With Mechanization and Two-Earner Families

Multiple jobholding has been evident on U.S. farms for over 50 years. Whereas a little more than a fourth of operators worked off-farm in the mid-1940s, nearly four-fifths did by 2000, and mostly full-time (app. table 2). This upswing has been maintained ever since the 1970s.

Historically, married women have tended to specialize in household production and married men have tended

to specialize in market production. As women’s wages have risen, married women have become more likely to work in the paid labor market. Household tasks are now shared between spouses. Combining farm and off-farm work has grown easier as technology and mechanization freed labor from agricultural production and as off-farm compensation became more attractive. Farm specialization (by commodity), particularly in livestock production, has allowed farmers to alter the structure of their farming operation in order to accommodate an off-farm job (Herbst and Hanson, 1971). Dual employment occurs in all sizes of farms and across all regions, but is more or less prevalent based on a State’s or region’s shifting need for various labor (Ahearn, 1986; Findeis, 1985; El-Osta and Ahearn, 1996).

Multiple jobholding has been a subject of research for decades (Hallberg et al., 1992). Today, 71 percent of farm households have either the operator, spouse, or both engaged in off-farm employment. Dual careers are pursued even in households operating very large farms (>\$500,000), where nearly half the farms had spouses working off-farm (app. table 3).

Farmers and spouses who work off-farm hold a variety of jobs. In both absolute and relative terms, more worked for private business than for any other type of employer. But the largest increase in off-farm jobs for farmers has been in self-employment (table 1), defined as work not related to the farm. For spouses, the share working in government and self-employment nearly

Table 1—Types of off-farm employment of operators and spouses

Employment	1979	1987	1999	Change, 1979-99
Operators		<i>Number</i>		<i>Percent</i>
Another farm	34,414	54,924	38,469	11.8
Private business	531,667	349,696	634,797	19.4
Government	172,184	135,324	188,005	9.2
Self-employment	166,040	219,976	261,555	57.5
Other	133,691	145,600	50,058	-62.6
Percent working off the farm	44.3	45.5	55.0	24
Spouses				
Another farm	9,939	17,114	7,077	-28.8
Private business	363,804	267,410	538,463	48.0
Government	142,465	140,012	278,092	95.2
Self-employment	58,142	46,640	113,322	94.9
Other	76,921	97,221	41,081	47.0
Percent working off the farm	27.7	31.3	45.8	65

Source: 1979 and 1987 Census of Agriculture, Special Studies, U.S. Department of Commerce. 1999 Census of Agriculture, Special Studies, U.S. Department of Agriculture.

doubled from 1979 to 1999, while the number of spouses working for private business also increased by nearly half. These jumps in self-employment, government, and private jobholding by operators and spouses are concurrent with the number of farms declining. The 65-percent increase in spouses working off farm in the 1980s and 1990s added more than 325,000 workers in the nonfarm workforce, benefiting both farm households and farm communities.

Savings and Investment Choices

Farm households allocate wealth among competing investments and typically include farm business assets such as land, machinery, and farm equipment, and off-farm financial assets such as stocks, bonds, IRAs, CDs, and mutual funds. Investments selected by farm households affect not only their own financial well-being, but the availability of local venture capital and the competitiveness of financial institutions in rural areas. Farm financial management also has ramifications for liquidity, retirement, solvency, taxation, and profitability for the household.

A number of studies suggest that adding high-risk financial assets with expected higher returns can reduce the overall risk associated with farm investments (Young and Barry, 1987; Irwin et al., 1988; Moss et al., 1987; Crisostomo and Featherstone, 1990; Weldon, 1988). Schnitkey and Lee (1996) contend that stocks and bonds reduced variability in farmland returns more effectively than lower return Treasury bills, and that a risk-efficient portfolio should not have more than 50 percent of its value invested in farmland. Penson (1972) argued that investment in financial assets is an attractive means of diversification for many farmers.

Consistent with these testimonials to diversification, off-farm investment (such as stocks, bonds, CDs, mutual funds) by farm households has increased in recent years. The average farm household possesses both liquid (cash, savings, etc.) and fixed (land, machinery, equipment, etc.) assets on the farm, with fixed assets representing almost 90 percent of the total. The most important asset of the farm business is land, which constitutes more than 70 percent of the total value of farm

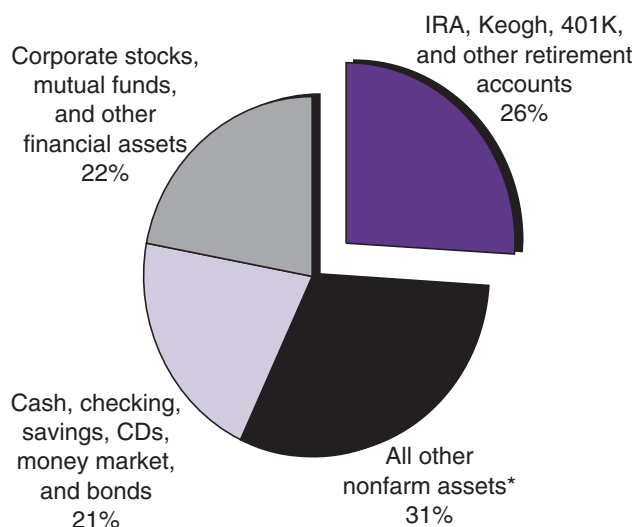
assets.² Other assets include farm machinery (tractor, combine, and other implements), land improvements (e.g., filter strips), buildings, and livestock.

The total assets of an average farm household increased from \$423,659 in 1993 to \$633,525 in 1999 (34 percent in nominal terms). Farm business assets increased 23 percent, from an average of \$354,747 in 1993 to \$435,438 in 1999. Meanwhile, average household non-farm assets almost tripled during the same period (\$67,912 in 1993 to \$198,087 in 1999). Most farm households have a diverse portfolio of nonfarm assets (fig. 3). Residential/lifestyle households, however, hold a slightly different mix of assets than other households (see typology box, p. 9). A large share of their nonfarm assets is in retirement accounts (28 percent), and they hold a smaller share in cash (16 percent).

²For many small farms, with gross sales of \$250,000 or less, the farm dwelling contributes 15 percent or more to the total value of farm assets (Hoppe, 1998).

Figure 3
Nonfarm asset holdings for average farm operator household, 1999

Farm operator households have a balanced portfolio on average



*Includes real estate and businesses not part of the farm, off-farm houses, recreational vehicles, and household share of trucks and cars.

Source: USDA, Economic Research Service, 1999 Agricultural Resource Management Study, version 1, for farm operator household data.

Farm Typology

Small Family Farms (sales less than \$250,000)

- **Limited-resource farms.** Small farms with sales less than \$100,000, farm assets less than \$150,000, and total operator household income less than \$20,000. Operators may report any major occupation, except hired manager.
- **Retirement farms.** Small farms whose operators report they are retired.*
- **Residential/lifestyle farms.** Small farms whose operators report a major occupation other than farming.*
- **Farming-occupation farms.** Small farms whose operators report farming as their major occupation.*
 - *Lower sales farms.* Sales less than \$100,000.
 - *Higher sales farms.* Sales between \$100,000 and \$249,999.

Other Farms

- *Large family farms.* Sales between \$250,000 and \$499,999.
- *Very large family farms.* Sales of \$500,000 or more.
- **Nonfamily farms.** Farms organized as nonfamily corporations or cooperatives, as well as farms operated by hired managers.

* Excludes limited-resource farms whose operators report this occupation.